

Iowa Electric Light and Power Company

November 4, 1985
NG-85-4855

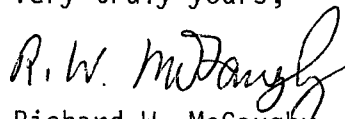
Mr. James G. Keppler
Regional Administrator
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Duane Arnold Energy Center
Docket No. 50-331
Op. License DPR-49
Response to Inspection Report 85-28
File: A-102

Dear Mr. Keppler:

This letter is submitted in response to NRC Inspection Report 85-28, dated October 4, 1985. Attachment 1 to this letter contains our response in accordance with your request.

Very truly yours,



Richard W. McGaughey
Manager, Nuclear Division

RWM/WJM/kmf

Attachment

cc: W. Miller
L. Liu
S. Tuthill
M. Thadani
NRC Resident Inspector

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RESPONSE TO NRC INSPECTION REPORT 85-028

NRC Item 1

10 CFR 50, Appendix J, Section III.D.2.(a) requires in part that, "If opened following a Type A or B test, containment penetrations subject to Type B testing shall be Type B tested prior to returning the reactor to an operating mode requiring containment integrity."

Contrary to the above, containment isolation valve CV-4305 was removed from and reinstalled into the containment boundary using O-ring gaskets. A type B test was not performed on the gasket seals prior to returning to a mode in which containment integrity was required.

This is a Severity Level IV Violation (Supplement 1).

Response to Item 1

Corrective Action Taken:

The subject containment Isolation Valve CV-4305, was removed and repaired during our recent refueling outage. Following re-installation of this valve, a Type C test was conducted by pressurizing between this valve and the containment vacuum breaker which is immediately outboard of CV-4305. Because this Type C test is on the outboard side of CV-4305, the double O-ring gaskets that are on the body of this valve (between the valve and containment penetration flange) were not exposed to the pressurization test. A subsequent type A test, however, was conducted prior to resuming reactor operation which confirmed the integrity of the O-rings in the valve body to flange connection.

Subsequent to reactor startup the NRC identified the failure to perform an individual Type B test as a concern although not with regard to containment integrity adequacy (Insp. Report, Section 2.e). Therefore, a Type B test was performed which verified the prior Type A test demonstration of seal integrity.

Corrective Action To Be Taken:

A major modification to the Duane Arnold Corrective Maintenance work order (CMAR) processing system is in progress. This modification is to include provisions for assignment of post maintenance testing and/or inspection by additional departments to supplement the operability testing defined by the Operations Department. Examples of areas to be reviewed for additional post maintenance testing requirements are Appendix J, Appendix R, ASME and Environmental Qualifications. In addition, the new CMAR process will include identification of the safety functions performed by the safety related equipment requiring maintenance. This identification of function will facilitate the specification of testing and inspection mentioned above and concentrate the attention of all personnel involved with the maintenance process on the area where the need for verification of quality maintenance is the greatest.

The modification to the CMAR work process will be written by December 1, 1985 and implemented by January 1, 1986.

The identification of safety function will be incorporated into the equipment data base being developed as part of Iowa Electric's computerized history and maintenance planning system whose schedule is included in the Iowa Electric's Integrated Plan Schedule which have been submitted to the Commission.

Date When Full Compliance Will Be Achieved:

DAEC is in full compliance with regard to this item. The programmatic corrective actions identified above will substantially assist in avoiding future non-compliance.

NRC Item 2

10 CFR 50, Appendix B, Criterion II states in part that, "The Quality Assurance Program shall provide control over activities affecting the quality of the identified structures, systems, and components, to an extent consistent with their importance to safety. Activities affecting quality shall be accomplished under suitably controlled conditions."

10 CFR 50, Appendix B, Criterion XVII states in part that, "Sufficient records shall be maintained to furnish evidence of activities affecting quality."

Contrary to the above, a plug was removed from the body of safety-related containment isolation valve CV-4305 with no quality controls applied, and no records the activity being maintained.

This is a Severity Level IV Violation (Supplement 1).

Response to Item 2

Corrective Action Taken:

Our review of this event, as well as the NRC's was unable to determine when the plug was removed although we believe that it occurred during disassembly of this valve during the refuel outage. The absence of the plug was identified by our containment Type A test and restored prior to returning to power operation. In addition, our startup valve lineup check by operators included a specific check for installed plugs on this valve and its sister valve. Further, the repair procedure for these valves has been modified to ensure valve repair activities include verification of plugs in place.

Corrective Action To Be Taken:

A change to the Duane Arnold maintenance procedure writer's guide will be implemented. This change will update the maintenance procedure writer's guide to structure the generation and revision of the various types of maintenance procedures. The writer's guide will contain guidance on what level of specificity is required, guidance on appropriate locations for quality checks, and acceptable format (Reference NRC Inspection Report items 2.a.(1), (4), (5)). The experience we have gained in the development and use of an operations procedures writer's guide will be used here. The maintenance procedures writer's guide will be updated and in use by February 1, 1986.

Maintenance engineering personnel will be trained in the fundamental elements of the writer's guide to ensure procedural adequacy. Existing procedures will be revised or supplemented as necessary to conform to the fundamental elements of the writer's guide prior to procedure use after February 1, 1986. Maintenance engineers will also receive training on specifying and including more specific checks in the work process by both maintenance and quality control personnel. The above training will be completed by February 1, 1986.

Date When Full Compliance Will Be Achieved:

DAEC is in full compliance with regard to this item. The programmatic corrective actions outlined above will avoid future non-compliance.

NRC Item 3

10 CFR 50, Appendix B, Criterion V states in part that, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings".

Technical Specifications 6.8.1 requires that written procedures be prepared, reviewed, and adhered to for those items recommended in Regulatory Guide 1.33 Appendix A including system testing and restoration.

Contrary to the above, the return to normal valve lineup portion of the licensee's Residual Heat Removal System hydrostatic test procedure was technically inadequate in that it failed to specify reinstallation of certain gaging relief valve port plugs which form part of the primary containment boundary resulting in a primary containment boundary violation. Additionally, certain portions of the valve lineup procedure were not complied with in that independent verification requirements were not satisfied.

This is a Severity Level IV Violation (Supplement 1).

Corrective Action Taken:

The absent plugs discovered during the licensee's Integrated Leak Test were replaced. The hydrostatic test procedure that required valve gaging was revised to specifically require installation and verification of plug installation. Further, the plugs were independently verified to be installed properly by operations personnel prior to reactor start-up. This procedure is in compliance with Technical Specification 6.8.1 which requires that specified procedures involving nuclear safety be prepared, approved and adhered to as specified.

The lack of independent verification that occurred during system restoration following the hydrostatic test was viewed as an isolated incident and not common or acceptable practice by our personnel. In this instance, the individual (contract) who initialed both the valve lineup and the verification step violated two administrative requirements. First, the requirement that these activities be accomplished by operations department personnel, and second, that the activities be performed by independent individuals. This individual is no longer employed at Iowa Electric.

Corrective Action To Be Taken:

See Response to Items 1 and 2. In addition, methods to minimize contractor dependency and to integrate contractor and Iowa Electric work force activities are actively being reviewed at this time. This review will consider the concerns expressed in the Inspection Report, Section 2(b) and open item 85-028-04. The planning process needs to proceed further on this item for Iowa Electric to provide an accurate and reliable implementation date.

Date When Full Compliance Will Be Achieved:

DAEC is in full compliance as of this response.

11-11-57



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