

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8706260091 DOC. DATE: 87/06/17 NOTARIZED: NO DOCKET #
 FACIL: 50-331 Duane Arnold Energy Center, Iowa Electric Light & Pow 05000331
 AUTH. NAME AUTHOR AFFILIATION
 MCGAUGHY, R. W. Iowa Electric Light & Power Co.
 RECIP. NAME RECIPIENT AFFILIATION
 DAVIS, A. B. Region 3, Office of Director

SUBJECT: Responds to violations noted in Insp Rept 50-331/87-09.
 Corrective actions: three motors removed from EQ list
 following analysis, six requalified for radiation only &
 Amoco grease replaced.

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NOTES:

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Iowa Electric Light and Power Company

June 17, 1987
NG-87-2365

Mr. A. Bert Davis
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

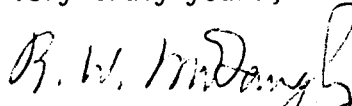
Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Response to Inspection Report 87-009

File: A-102

Dear Mr. Davis:

This letter is provided in response to the subject inspection of activities at the Duane Arnold Energy Center.

Very truly yours,



Richard W. McGaughy
Vice President, Production

RWM/JCT/kmf

Attachments: Response to Inspection Report 87-009

cc: J. Thorsteinson
U. S. NRC Document Control Desk (original)
L. Liu
L. Root
A. Cappucci
NRC Resident Inspector
Commitment Control 870113

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Q PDR

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Iowa Electric Light and Power Company
Response to Inspection Report 87009

NRC Item of Violation (Severity Level IV)

10 CFR 50.49 paragraph (f) requires each item of electrical equipment important to safety to be qualified by testing and/or analysis.

Contrary to the above the inspectors found the following EQ equipment not demonstrated to be qualified by test or analysis.

- a. The AMOCO Rykon EP-1 lubricant used in EQ equipment was determined to be not qualified because the licensee had attempted to qualify the lubricant based on similarity to other tested lubricants which did not have the EP additive.
- b. Eleven Peerless and Reliance motors were determined to be not qualified because the licensee had attempted to qualify the motor Class B insulation based on an unacceptable generic qualification of Class B motors.
- c. Victoreen cable assemblies were determined to be not qualified because of a lack of documentation addressing the effects of cable insulation resistances or leakage currents on the accuracy of the Victoreen system during a LOCA and the adequacy of this accuracy for plant applications.
- d. Lead splices on two fan motors were determined to be unqualified because the EQ files did not address their qualification.

Response to Item of Violation

Item a.

1. Corrective Action Taken and the Results Achieved

Investigation determined AMOCO Rykon EP-1 grease was in use in the drywell in eight motor-operated valves. This grease was replaced by a qualified lubricant (Exxon Nebula EP-0) prior to plant startup.

2. Corrective Actions to be Taken

Iowa Electric will replace all of the AMOCO grease with a qualified grease such as Exxon Nebula EP-0 in EQ applications by the end of the next refueling outage.

3. Date When Full Compliance will be Achieved

Sufficient test data was provided to mitigate any immediate concerns regarding the operability of the affected Limitorque operators. Full compliance will be achieved with the replacement of the AMOCO Rykon EP-1 grease, with a grease documented as fully qualified, by the end of the cycle 9/10 (next) refuel outage.

Item b.

1. Corrective Action Taken and the Results Achieved

The following corrective actions were undertaken: 1) Three of the motors were removed from the EQ list following analysis. 2) Six motors were requalified for radiation only. 3) The remaining two motors were replaced with qualified units, one during the 1985 refueling outage and the other during the 1987 refueling outage.

2. Corrective Actions to be Taken.

Permanent revision of the Limitorque Environmental Qualification Record file to include the justification for removal from the EQ program or declassification to a radiation only environment of the subject will be completed by July 31, 1987.

3. Date When Full Compliance will be Achieved

Full compliance will be achieved by July 31, 1987, with the permanent revision to the Limitorque Environmental Qualification Record file.

Item c.

1. Corrective Action Taken and the Results Achieved

Engineering analysis was provided by Iowa Electric to confirm that the Victoreen monitor had operated within the required accuracy during the testing period, and that the system would perform within the required accuracy with cables longer than the tested length.

2. Corrective Actions to be Taken

The aforementioned analyses will be incorporated into the Environmental Qualification Record File for the Victoreen Monitor by July 31, 1987.

3. Date When Full Compliance will be Achieved

Full compliance will be achieved by July 31, 1987, with incorporation of the engineering analysis into the Victoreen Monitor Environmental Qualification Record file.

Item d.

1. Corrective Action Taken and the Results Achieved

The tape was demonstrated to be qualified by analysis. The splices were retaped using a tape and splice procedure for which a qualification file existed. Both items were completed prior to the end of the Inspection.

2. Corrective Actions to be Taken

The qualification by analysis for the retaped splices will be included within the motor qualification file for the vendor by July 31, 1987.

3. Date When Full Compliance will be Achieved

Full compliance will be achieved by July 31, 1987, with incorporation of the analysis into the Westinghouse fan motor Environmental Qualification Record file.

NRC Item of Violation (Severity Level IV)

10 CFR 50.49 Paragraph (j) requires a record of the qualification of EQ equipment to be maintained in an auditable form to permit verification that the equipment is qualified for its application and meets its performance requirements during an accident.

Contrary to the above the inspectors found the following deficiencies in the licensee's EQ files.

- a. Cable files did not address performance acceptance criteria, in that measured values for insulation resistance or leakage current were not addressed.
- b. Various System Component and Evaluation Worksheets (SCEW) did not properly address the qualification of EQ equipment for submergence, accuracy, and required environmental parameters for qualification.
- c. The basis for the similarity of qualified Amerace terminal blocks to tested terminal blocks was not part of the EQ file.
- d. The LOCA test report for the qualification of the Kerite 5KV cable was not part of the EQ file.

Response to Item of Violation

Item a.

1. Corrective Action Taken and the Results Achieved

Both summary statements and references from applicable Environmental Qualification Record files were provided to the NRC inspectors during this inspection. These items demonstrated that insulation resistance and leakage current values measured during LOCA testing were acceptable.

2. Corrective Actions to be Taken

Specific evaluations of measured insulation resistance/leakage current will be incorporated into applicable Environmental Qualification Record Files by July 31, 1987.

3. Date When Full Compliance will be Achieved

Full compliance will be achieved upon incorporation into the applicable Environmental Qualification Record Files of the aforementioned evaluations by July 31, 1987.

Item b.

1. Corrective Action Taken and the Results Achieved

EQ equipment SCEW sheets that were found not to address submergence, accuracy and some required EQ parameters have been revised to address such parameters. Where an "N/A" notation is appropriate within a parameter field, a note has been added to the SCEW sheet providing the reason. The information added to the SCEW sheets was acquired from within existing EQ record files.

2. Corrective Actions to be Taken

All necessary corrective actions have been completed.

3. Date when Full Compliance will be Achieved

Full compliance was achieved with the completion of the revision of the incomplete SCEW sheets identified on May 29, 1987.

Item c.

1. Corrective Action Taken and the Results Achieved

Further Iowa Electric engineering analysis was provided to confirm the basis for similarity of the qualified Amerace terminal blocks to the blocks for which test results were provided.

2. Corrective Actions to be Taken

The aforementioned engineering analysis will be incorporated into the Environmental Qualification Record file for the Amerace terminal blocks by July 31, 1987.

3. Date When Full Compliance will be Achieved

Full compliance will be achieved upon incorporation of the similarity engineering analysis into the Amerace terminal block Environmental Qualification Record file by July 31, 1987.

Item d.

1. Corrective Action Taken and the Results Achieved

A report which included the LOCA test report was provided to the Inspectors to establish the qualification of the Kerite 5KV Power Cable.

2. Corrective Actions to be Taken

The aforementioned report will be incorporated into the Environmental Qualification Record file for the Kerite cable by July 31, 1987.

3. Date when Full Compliance will be Achieved

Full compliance will be achieved with incorporation of the LOCA test report within the Kerite Environmental Qualification Record file by July 31, 1987.