

Iowa Electric Light and Power Company

May 18, 1983  
NG-83-1807

LARRY D. ROOT  
ASSISTANT VICE PRESIDENT  
NUCLEAR GENERATION

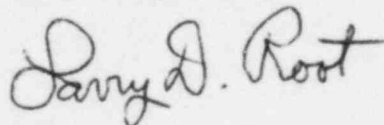
Mr. James G. Keppler  
Regional Administrator  
Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Subject: Response to NRC Inspection Report 83-01  
Duane Arnold Energy Center  
Docket No. 50-331 Op. License No. DPR-49

Dear Mr. Keppler:

This letter is provided in response to Mr. W. D. Shafer's letter concerning an inspection of activities at the Duane Arnold Energy Center conducted on January 3 through February 25, 1983. Attachment 1 provides this subject response in accordance with your request.

Very truly yours,



Larry D. Root  
Assistant Vice President  
Nuclear Generation

LDR/MWA/pf\*

cc: M. Andersen  
L. Liu  
S. Tuthill  
F. Apicella  
NRC Resident Inspector  
File A-102, NRC-4  
Commitment Control #830124

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## NRC Item 1

- 1) Technical Specification 6.8.1 requires, in part, the development of and adherence to check-off lists for refueling operations.

Contrary to the above, Repair Procedure (RP) 62/ie-8, "Vessel Head Insulation Removal," was not sufficiently detailed to include applicable check-off lists to ensure that ventilation duct plugs were installed and RP 62/ie-8 was not adhered to in that those duct plugs were not installed. This resulted in water draining to the torus and corner rooms during flooding of the reactor vessel cavity.

## Response to Item 1

1. Corrective action taken and the results achieved:

The operating crew immediately shut off the Core Spray pump (which was flooding the reactor cavity), and began draining water from the reactor well cavity to radwaste systems. Concurrently, the refueling crew secured the steam separator assembly in the dryer-separator storage pit, to minimize radiation exposures due to the decreasing water level.

The water was about two feet deep in the northeast corner room and because of floor drain cross connections, water backed up in the northwest corner room and the torus area. Contamination levels were greater than 700,000 DPM/100 cm<sup>2</sup> in the torus area, and 0.5 Rad/hr per smear Beta smearable in some areas of the northwest corner room. The spill in the affected areas was pumped through radwaste and processed promptly. After decontamination efforts were concluded, background radiation/contamination was at acceptable levels.

Following draindown, the ventilation duct blank flange was installed, the reactor cavity was flooded again and RP 62/ie-8 was satisfactorily completed. Augmented personnel supervision was used to ensure that blank flanges were removed and installed properly during subsequent evolutions.

This noncompliance was caused by two factors: a lack of specific procedural guidance on ventilation duct blank flange installation and oversight by personnel performing the subject procedural evolution.

Currently, revisions to RP 62/ie-8, "Vessel Head Insulation Removal" and RP 62/ie-7, "Vessel Head Insulation Installation" are in progress. The new revisions of these documents will provide more detailed instruction and QC witness points to ensure the ventilation duct and blank flange in question are specifically identified such that this problem does not recur. The additional detail that will be incorporated in these procedures will avoid future error by oversight as well.

2. Corrective action to be taken to avoid further noncompliance:

See Section 1 for corrective action that is being taken to avoid further noncompliance. The above procedural revisions are in progress.

## 3. Date when full compliance will be achieved:

Full compliance will be achieved when the revisions to Repair Procedures RP 62/ie-7 and RP 62/ie-8 are issued. This action will be accomplished by June 30, 1983. Since these Repair Procedures are only used when the reactor head is removed (refueling outages), these repair procedures will be revised prior to specified activities that require their use.

## NRC Item 2

- 2) 10 CFR 50, Appendix B, Criterion XII states, "Measures shall be established to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits."

Quality Assurance Directive 1312.1, "Control of Measuring and Test Equipment and Installed Plant Instrumentation," Section 5.1, states in part; "Measuring and test equipment shall be identified and controlled to assure that only properly calibrated equipment is used. This equipment shall be calibrated, adjusted and maintained at prescribed intervals or prior to use."

Contrary to the above, hydrometers and thermometers used to measure electrolyte specific gravity and temperature to verify operability of safety related battery systems were not identified and controlled resulting in the use of equipment that was not calibrated, adjusted, or maintained at regular intervals or prior to use.

## Response to Item 2

1. Corrective action taken and the results achieved:

A purchase order to have the hydrometers calibrated has been signed and the hydrometers will be calibrated traceable to the National Bureau of Standards (NBS) standard.

An instrument used to calibrate thermometers is on order and is scheduled to be received in June, 1983. Calibration of these thermometers will be scheduled on a regular basis to avoid further noncompliance.

2. Corrective action to be taken to avoid further noncompliance:

See Section 1 for corrective action that is being taken to avoid further noncompliance. It is anticipated that calibrated hydrometers will be received during the week of May 16, 1983. In addition, calibration procedures will be revised to incorporate periodic thermometer calibration. The VAX Test Equipment Calibration Program tracking system will be used to ensure that hydrometers are sent to be checked regularly.

3. Date when full compliance will be achieved:

Full compliance will be achieved by June 30, 1983, when calibrated hydrometers are received and thermometer calibration has been completed and the procedure changes discussed above have been implemented.