Iowa Electric Light and Power Company

JOHN F. FRANZ, JR.
VICE PRESIDENT, NUCLEAR

July 23, 1992
NG-92-3184

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Response to NRC Bulletin No. 92-01
Reference: NRC Bulletin No. 92-01 "Failure of Thermo-Lag 330 Fire Barrier System to Maintain Cabling in Wide Cable Trays and Small Conduits Free from Fire Damage," dated June 24, 1992
File: A-101a, P-72a

Dear Dr. Murley:

This letter provides Iowa Electric Light and Power Company's (IELP's) response to the referenced NRC Bulletin. This bulletin outlined concerns with the ability of the Thermo-Lag 330 fire barrier system to adequately protect electrical cabling in certain sizes of cable trays and conduit. Tests conducted by Texas Utilities (TU) Electric were discussed in which the Thermo-Lag 330 system failed to protect cabling in a 3/4- and 1-inch conduit and a 30-inch ladder-back cable tray. In all cases, the Thermo-Lag 330 fire barrier was installed in accordance with TU Electric's installation procedures.

The referenced Bulletin requested three actions be taken by holders of operating licenses for nuclear power reactors. These requests and IELP's responses are discussed below.

Requested Action

1. For those plants that use either 1- or 3-hour pre-formed Thermo-Lag 330 panels and conduit shapes, identify the areas of the plant which have Thermo-Lag 330 fire barrier material installed and determine the plant areas which use this material for protecting either small diameter conduit or wide trays (widths greater than 14 inches) that provide safe shutdown capability.

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IELP Response

The Duane Arnold Energy Center (DAEC) staff has identified the areas of the plant which have Thermo-Lag 330 fire barrier material installed. We have further identified the areas in which this material is used to protect either wide cable trays (width greater than 14 inches) or small diameter conduits that provide safe shutdown capability. Based upon discussions with your staff, the term "small diameter conduit" has been interpreted to be any conduit less than four (4) inches in diameter.

Thermo-Lag 330 material is currently installed on wide cable trays and/or small diameter conduit required for safe shutdown in several areas at the DAEC. The majority of this material (approximately 98%) is located in various areas of the Reactor Building. The remaining portions are located in the Pumphouse. All of the Thermo-Lag 330 material installed on wide cable trays and small conduits at the DAEC has a three-hour rating. A detailed list of these areas is available on site for NRC review.

Requested Action

2. In those plant areas in which Thermo-Lag fire barriers are used to protect wide cable trays, small conduits, or both, the licensee should implement, in accordance with plant procedures, the appropriate compensatory measures, such as fire watches, consistent with those which would be implemented by either the plant technical specifications or the operating license for an inoperable fire barrier.

IELP Response

IELP considers the subject Thermo-Lag fire barriers as potentially degraded. However, the compensatory measures for inoperable fire barriers have been implemented as stated below to satisfy Bulletin 92-01 requested actions.

The DAEC Technical Specifications require the following compensatory measures for inoperable fire barriers on cable raceways:

1) if there are no operable fire detectors in the area, establish a continuous fire watch within one hour, or

2) if there are operable fire detectors in the area, verify operability of the fire detectors and establish an hourly fire watch within one hour.

The DAEC staff has identified two areas which contain Thermo-Lag 330 materials installed on small conduit or large cable trays that do not have fire detectors installed. A continuous fire watch for these areas was established immediately upon identification. In the other affected areas, existing fire detection systems were verified to be operable and hourly fire watches were initiated upon identification.

Requested Action

3. Each licensee, within 30 days of receiving this bulletin, is required to provide a written notification stating whether it has or does not have Thermo-Lag 330 fire barrier systems installed in its facilities. Each licensee who has installed Thermo-Lag 330 fire barriers is required to inform the NRC, in writing, whether it has taken the above actions and is required to describe the measures being taken to ensure or restore fire barrier operability.

IELP Response

By this letter we are notifying the NRC that Thermo-Lag 330 fire barrier systems are installed at the DAEC and that appropriate actions have been taken.

The DAEC staff is currently evaluating our Thermo-Lag 330 fire barrier system installations and basis for the system in order to ensure fire barrier operability. If any inadequacies are identified, appropriate corrective actions will be made to restore fire barrier operability. The DAEC staff review includes:

1) Reviewing traceability of DAEC configurations to tested configurations or accepted departures from the tested configuration,

2) Reviewing installation and inspection records for conformity to designed configurations, and

3) Monitoring current industry testing for new data that should be applied to our Thermo-Lag system and actively participating with NUMARC on a final resolution.

This letter satisfies the requirements of NRC Bulletin 92-01. The DAEC staff will continue to pursue a long-term resolution to this issue as it applies to our facility.

If you have any questions, please contact this office.

This letter is true and accurate to the best of my knowledge and belief.

IOWA ELECTRIC LIGHT AND POWER COMPANY

By John F. Franz, Jr.
John F. Franz, Jr.
Vice President, Nuclear

State of Iowa
(County) of Linn

Signed and sworn to before me on this 23 day of July, 1992, by John F. Franz, Jr.

Mary Michele O'Neal
Notary Public in and for the State of Iowa

MARY MICHELE O'NEAL
MY COMMISSION EXPIRES
6-5-95

June 8, 1995
Commission Expires

JFF/JMD/pjv

cc: M. Davis
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