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SUBJECT: Forwards Pages X-3 & X-4 of 840531 response to request for
 addl info re environ qualification program,Pages omitted due
 to reproduction error.

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 TITLE: OR/Licensing Submittal: Equipment Qualification

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Iowa Electric Light and Power Company

June 22, 1984

NG-84-2582

Mr. Harold Denton
Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

Subject: Missing Pages in Response to NRC
Request for Additional Information
on DAEC Environmental Qualification Program
File: A-101a, R-10, BN 79-01B

Dear Mr. Denton:

Our response to the NRC request for additional information on the DAEC Environmental Qualification Program was provided on May 31, 1984 (NG-84-2213). That response included two attachments which were taken from Sections II and X of our September, 1983 environmental qualification report.

Attachment 2 of our response should have included four pages (page X-1 through X-4). Due to an error in reproduction, pages X-3 and X-4 were not transmitted with our response. Please find copies of those two pages attached which should be included with our previous response.

We apologize for any inconvenience which this error may have caused.

Very truly yours,



Richard W. McGaughy
Manager, Nuclear Division

RWM/BWR/pt*
Attachments

cc: B. Reid
L. Liu
S. Tuthill
M. Thadani
NRC Resident Inspector
Commitment Control No: 840103, 840114

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recording, computing equipment can functionally disable the RPS. Signals directly from the RPS sensors are not used as inputs to annunciating or data logging equipment. Relay contact isolation is provided between the primary signal and the information output.

2. If a LOCA initiation signal occurs, nonessential electric loads are deenergized or transferred to the startup transformer (offsite power supply system). Therefore, failure of nonsafety-related electric equipment is prevented from affecting safety-related electric equipment.
3. Coordinated electrical fault protection (in the form of protective relays, circuit breakers, and fuses) is included in the plant design for electrical power distribution circuits. Therefore, harsh environment induced failures producing high current faults in nonsafety-related equipment will be prevented from affecting other electric loads.
4. Although not required (because of the above described plant design criteria) to address the 10 CFR 50.49 Paragraph b(2) nonsafety-related equipment failure concern, an additional level of confidence is provided by procurement specification requirements on cable used in both safety-related and nonsafety-related applications. In general (except for lighting cables), Bechtel-supplied and Iowa Electric-procured electric cable is environmentally qualified (including cable associated with nonsafety-related equipment). Therefore, harsh environment-induced failures in cables associated with nonsafety-related equipment (producing undesirable operation or failure of nonsafety-related equipment) will not occur.

D. RESULTS

The combination of the approach outlined in Section B and the plant design criteria of Section C resulted in the following inclusions and exclusions from environmental qualification requirements.

1. Electrical equipment which have been included in the DAEC environmental qualification program is summarized below.
 - a. Equipment whose active function is essential to the performance of a safety function (during a LOCA or other HELB)

- b. Containment isolation valves and pilot solenoid valves in the case of air-operated control valves (regardless of whether the equipment is normally closed or fails safe)
 - c. Isolation valves which interface between nonsafety and safety systems
 - d. Isolation valve logic components
 - e. Accident monitoring instrumentation
2. Electrical equipment excluded from the DAEC environmental qualification program is described below.
- a. Instrument loops performing an alarm or display function
 - b. Nonessential electric loads tripped or transferred from essential buses by a LOCA initiation signal
 - c. Nonessential electric loads separated by isolation devices
 - d. Nonessential fail-safe devices normally in a fail-safe position where controls are located in a mild environment and no active safety function is required (excluding containment isolation valves, containment isolation pilot valves, and safety system interface isolation valves).
 - e. Other electrical equipment not needed for mitigation of a LOCA or HELB

3. CONCLUSIONS

As described in Section B, the scope of the system review effort (conducted during development of the DAEC response to NRC IE Bulletin 79-01B and subsequent environmental qualification submittals) included both safety-related and nonsafety-related equipment. On a system and instrument loop basis, potential failures affecting performance of system safety functions were investigated. Although nonsafety-related equipment within the scope of Paragraph b(2) of 10 CFR 50.49 has not been uniquely identified in environmental qualification submittals to the NRC, equipment with potential for a failure (in a manner detrimental to safety) have been included in the DAEC environmental qualification program.