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 ROOT, L.D.      Iowa Electric Light & Power Co.  
 RECIP. NAME      RECIPIENT AFFILIATION  
 DENTON, H.R.      Office of Nuclear Reactor Regulation, Director

SUBJECT: Forwards "Duane Arnold Energy Ctr Semiannual Rept on Environ  
 Qualification Program for Safety-Related Electrical  
 Equipment," in response to 821220 SER. Action consistent w/  
 NRC replacement parts policy described in Generic Ltr 83-09.

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 TITLE: OR/Licensing Submittal: Equipment Qualification

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*All Extras to NRR ORB#2B*

Iowa Electric Light and Power Company

February 11, 1983

NG-83-0544

LARRY D. ROOT  
ASSISTANT VICE PRESIDENT  
NUCLEAR GENERATION

Mr. Harold Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Duane Arnold Energy Center  
Docket No: 50-331  
Op. License No: DPR-49  
Qualification of Safety-Related Electrical  
Equipment

Dear Mr. Denton:

This letter and attachment comprise Iowa Electric Light and Power Company's response to the safety evaluation report (SER) dated December 20, 1982. This submittal also comprises Iowa Electric's third semi-annual report on the status of environmental qualification of safety-related electrical equipment at the Duane Arnold Energy Center (DAEC). The attached report provides an update (Section II) of efforts to resolve environmental qualification action items, results (Section IV) of efforts to finalize the list of DAEC safety display instruments (requiring environmental qualification), and information (Section VI and VII) to support a combined 30 and 90 day response to the December 20 SER.

Our intended resolution of action items 19 and 23 will require, in several cases, replacement of an unqualified valve operator motor brake with a model qualified to the DOR Guidelines. Rationale for this action (including nonavailability of a model qualified to NUREG-0588, Category I) is provided in Section II of the attached report. This course of action is believed to be consistent with the NRC's replacement parts policy as described in Generic Letter 82-09 dated April 20, 1982.

Sections VI and VII of the attached report provide the information requested for equipment items classified as Category I.b (qualification pending modification) and Category II.a (qualification not established), respectively. No DAEC equipment items were classified as Category II.b (not qualified).

Each of the 24 equipment items of Category I.b was previously identified as an environmental qualification action item in previous submittals. Therefore, justification for continued operation (JCO) and

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schedule for resolution are reaffirmed or the recent completion of the resolution effort is otherwise described (in both cases a cross-reference from Section VI to Section II is made).

An evaluation of technical evaluation report (TER) comments on the 56 equipment items of Category II.a, in conjunction with safety display instrument (SDI) finalization efforts, resulted in 9 new environmental qualification (SDI-related) action items (31 through 39). These new action items are described in Section II along with method of intended resolution/schedule and JCO. Up until the present time, ongoing regulatory and BWR owners group activities (see Section IV) precluded an attempt at finalizing environmental qualification intentions with respect to SDI.

Note in many Category II.a cases, comments exist in the TER that documents were not made available for review by Franklin Research Center (FRC). In each of these cases, the documents were not previously requested. In response to two previous NRC requests, copies of over 50 documents were submitted to FRC. The DAEC environmental qualification central files are extensive and presently consist of over 500 records including test reports, analyses, aging evaluations, vendor/manufacturer correspondence, and calculations. To submit a copy of every environmental qualification record would seem excessive. Instead, an attempt was made in Section VII to provide detailed technical responses (including supportive document titles and summaries) to each TER identified concern. If additional documents are still required for review, we would invite the NRC and FRC to inspect the DAEC environmental qualification files in lieu of additional submittals.

Iowa Electric maintains an aggressive environmental qualification program as evidenced by detailed design change and procurement procedures to address environmental qualification; documented environmental qualification training sessions; a rigorous aging effects review program for harsh environment equipment; plant computer replacement and associated software support activities to further enhance maintenance planning, degradation detection through surveillance trending, and documentation/data retrieval capabilities; safety display instrumentation finalization efforts; and two semiannual environmental qualification program update submittals to the NRC over the past year. The results of the aging effects review program (which included a rigorous evaluation of subcomponent materials resulting in conservative but practical subcomponent replacement intervals and surveillance requirements) were submitted in July 1982 with the second semiannual update report. This submittal represented a responsive and reasonable approach to the aging concern. The attached report by finalizing environmental qualification intentions with respect to SDI, is also intended to be responsive to SDI/RG 1.97 Revision 2 aspects of current emergency response facility requirements.

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At present, it is anticipated that one final semiannual report will be submitted. This report will provide the final intended resolution status for the Section II action plan items and safety display instruments and equipment qualification summary sheets where appropriate.

If we can be of further assistance, please advise.

Very truly yours,



Larry D. Root  
Assistant Vice President  
Nuclear Generation

LDR/BWR/dmh\*  
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