

DISTRIBUTION

AEC PDR

Local PDR

Docket File

RP Reading

BWR-1 File

S. Hanauer

R. S. Boyd

R. DeYoung

D. Skovholt

F. Schroeder

R. Maccary

D. Knuth

R. Tedesco

H. Denton

W. Butler

J. Stolz

R. Clark

R. Ireland

W. Haass

OGC

Regulatory Operations (3)

F. Boland

F. Ashe

C. Miller

R. Campbell

George Lear

S. Kari

M. Maigret

(w/extra cys)

JUL 7 1972

Docket No. 50-331

Iowa Electric Light and Power Company

ATTN: Mr. Duane Arnold

President

Security Building

P. O. Box 351

Cedar Rapids, Iowa 52406

Gentlemen:

In order that we may continue our review of your application for a license to operate the Duane Arnold Energy Center, additional information on those matters set forth in the enclosure is needed. Many of these matters requiring additional information were discussed with your representatives at a technical meeting on June 29, 1972.

In order to maintain our licensing review schedule we will need a completely adequate response by September 15, 1972. Please inform us within 7 days after receipt of this letter of your confirmation of the schedule or the date you will be able to meet. If you cannot meet our specified date or if your reply is not fully responsive to our requests it is highly likely that the overall schedule for completing the licensing review for this project will have to be extended. Since reassignment of the staff's efforts will require completion of the new assignment prior to returning to this project, the extent of extension will most likely be greater than the extent of delay in your response.

The questions in the enclosure have been grouped by sections that correspond to the relevant sections of the DAEC Final Safety Analysis Report. Some of these questions may have been addressed by applicants on other dockets. Your response to these questions may be made either by incorporating the information provided for other nuclear plants by reference, or you may amend your application by submitting revised pages and supplements.

LP
A

Iowa Electric Light & Power Co. -2-

Please contact us if you desire additional discussion or clarification of the material requested.

Sincerely,

Original Signed by
Roger S. Boyd

Roger S. Boyd, Assistant Director
for Boiling Water Reactors
Directorate of Licensing

Enclosure:
Request for Additional Information

cc: Mr. Charles Sandford
Vice President
Iowa Electric Light & Power Co.
General Office
Cedar Rapids, Iowa 52406

Mr. Jack Newman
Lowenstein, Newman, and Reis
1100 Connecticut Avenue, N.W.
Washington, D.C. 20036

OFFICE ▶	L:BWR-1	L:BWR-1	L:AD-BWR			
SURNAME ▶	GElear:lrk	WRButler	RSBoyd			
DATE ▶	7/6/72	7/6/72	7/7/72			

REQUEST FOR ADDITIONAL INFORMATION

IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER

DOCKET NO. 50-331

7.0 CONTROL AND INSTRUMENTATION

- 7.2 Evaluation of the safety related instrumentation, control, and electric systems requires review of important schematic diagrams. The schematic diagrams of the reactor trip system, engineered safety features, emergency power and other safety related systems necessary to demonstrate redundancy, testability, and bypass capability are required. After you have reviewed the diagrams and are able to certify that the design is in accordance with your safety criteria, a list of the diagrams proposed for submittal should be provided for our review and selection. Following our identification of needed diagrams, four copies of each schematic diagram (two copies of proprietary diagrams) should be submitted.

8.0 ELECTRICAL POWER SYSTEMS

- 8.7 Provide a sketch of the station showing the physical independence of the redundant offsite power circuits (to include transmission lines, towers, switchyards, transformers, rights-of-way, etc.) and power circuit routing to remote buildings on the station.
- 8.8 Item 7, "Special Considerations", on Page 8.3-17 of the FSAR did not include all criteria that was provided in this same section of the PSAR. Provide justification for the omission.
- 8.10 Provide a description of the diesel fuel storage and day tanks instrumentation.
- 8.11 Provide a description of the switchyard breaker control system.
- 8.12 Provide a description and identify the redundant a-c counterparts of 250 volt d-c motor operated valves (Page 8.5-5 of the FSAR).
- 8.13 Provide a list of the Class I Electrical Equipment that were supplied by other than General Electric and have been seismically tested. Justification for each item not tested should be included.

- 8.14 Your discussion of Safety Guide 6 did not include the 48 volt d-c system. Provide this information in your response.
- 8.15 The frequency recovery time during sequential loading of the diesel generators does not fall within Safety Guide 9 acceptable limits. Provide justification of your design in this area and include a description of how this design will provide assurance of the required reliability of this system.

APPENDIX M - RESPONSE TO AEC INFORMATION GUIDES

- M3.1 The response to Information Request No. 7 in Section M.3-7 did not clearly identify whether the Bechtel supplied safety related equipment located in the containment were adequately environmentally tested. Using test conditions listed in Table M.3-4 for G.E. supplied equipment, provide test results for the Bechtel equipment, including electrical penetration with their connection boxes.
- M3.2 The response to Information Guide 2 is incomplete:
- a. Item 1, Subsection 2 on Page M.3-11 of the FSAR did not include safety related systems as requested. Provide the requested information.
 - b. Item 8 on Pages M.3-57 through 61 did not answer the question. Provide another response in the detail requested.
- M3.3 The FSAR does not make clear whether the circuitry and equipment which senses condenser vacuum and terminates steam flow to the condenser meets IEEE 279-1971. Identify and justify all areas of non-conformance (Page M.3-3 of the FSAR).
- M3.4 Provide a description of the system included in your design which presents information to the operator whenever the engineered safety feature systems have been degraded during normal routine maintenance testing and repair or during bypassing of equipment or circuitry.
- M3.5 The FSAR did not describe the periodic testing of the emergency service water system, safety related ventilation systems, RCIC system or Reactor Building Isolation and Control systems. Provide a description of these tests.
- M3.6 The response to Information Guide 2, Item 11, on pages M.3-70 through 76 indicates that your design falls below the acceptable designs provided on recently licensed plants. These plants have provided redundant channels, one indicating and one recording in the control room, for monitoring conditions during and after anticipated operational occurrences and accidents. Propose a modified design or show why these features are not required on your particular design.

APPENDIX N - RESPONSE TO RECURRENT QUESTIONS ON OTHER DOCKETS

- N1. The Standby Gas Treatment System description in Section N.7.11 of the FSAR does not state whether the requirements of IEEE 279-1971 are satisfied. Provide a list of those areas which are not in conformance with IEEE 279-1971 and justify each nonconformity.