

AUG 29 1969

Distribution:  
AEC PDR  
Docket  
DRL Reading  
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C. K. Beck, DR  
M. M. Mann, DR  
L. Kornblith, CO (2)  
F. Schroeder, DRL  
S. Levine (14)  
RP/DRL Branch Chiefs  
B. Grimes, DRL  
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D. Thompson, DRL  
W. Minners, DRL  
S. M. Kari, DRL  
ACRS (18)  
S. G. Forbes (2)  
N. M. Newmark (2)

Docket No. 50.331

Mr. Duane Arnold, President  
Iowa Electric Light and  
Power Company  
Security Building  
P. O. Box 351  
Cedar Rapids, Iowa 52406

Dear Mr. Arnold:

Additional information on the organization and training of the staff for the Duane Arnold Energy Center is required before we can complete our review. The enclosed questions were discussed with you and your representatives at a meeting on July 23, 1969.

If clarification or additional discussion of this information is desired, please contact us.

Sincerely,

Peter A. Morris, Director  
Division of Reactor Licensing

Enclosure:  
Request for Additional Information

cc: Mr. Robert Lowenstein  
Lowenstein and Newman  
Suite 340  
1100 Connecticut Avenue, N. W.  
Washington, D. C. 20036

OFFICE ▶	DRL	DRL				
SURNAME ▶	ESchroeder:emh	PAMorris				
DATE ▶	8/28/69	8/29/69				

Request for Additional Information

Iowa Electric Light & Power Company - (Docket No. 50-331)

Duane Arnold Energy Center

**13.0 Conduct of Operations**

- 13.1 Please provide an organization chart which shows the lines of authority between the plant staff and the company management.
- 13.2 Indicate the minimum qualifications you will require for each key technical and supervisory position on the operation, maintenance and technical support staffs, including:
- a. Shift Supervising Engineer
  - b. Maintenance Supervisor
  - c. Supervising Electrical Engineer
  - d. Reactor and Plant Analyst
  - e. Radiochemistry Engineer

**13.3 What training and experience will be required for:**

- a. Radiochemistry Engineer
- b. Auxiliary Engineers

Are the Auxiliary Engineers to be licensed operators?

- 13.4 Clarify your intent in using the term "equivalent authorization" in the last sentence of page 13.3-1.

OFFICE ►

SURNAME ►

DATE ►

Docket No. 50-331

Mr. Duane Arnold, President  
Iowa Electric Light and  
Power Company  
Security Building  
P. O. Box 351  
Cedar Rapids, Iowa 52406

Dear Mr. Arnold:

Additional information on the organization and training of the staff for the Duane Arnold Energy Center is required before we can complete our review. The enclosed questions were discussed with you and your representatives at a meeting on July 23, 1969.

In addition to the information requested, we wish to call your attention to the following two matters which will require further study. Your proposed four-man crew is less than we generally consider necessary to safely operate a plant of this type. Adequate justification must demonstrate that the proposed shift complement can, at all times, cope with all conceivable emergency conditions as well as conduct normal operations. In addition, we consider it desirable that at least one of the two senior levels of operations management, i.e., Chief Engineer and Assistant Engineer, possess a detailed knowledge of design, technology and operation of the facility equivalent to that required for a senior operator license. These items will be considerations in your operating license review, hence we do not require further information at this time.

If clarification or additional discussion of this information is desired, please contact us.

Sincerely,

Peter A. Morris, Director  
Division of Reactor Licensing

Enclosure:  
Request for Additional Information

cc: Mr. Robert Lowenstein  
Lowenstein and Newman (See attached for previous concurrences.  
Suite 340 Retyped 8-12-69 per DSkovholt Comments.)  
1100 Connecticut Avenue, N.W.  
Washington, D. C. 20036

OFFICE ▶	1100 Connecticut Avenue, N.W. Washington, D. C. 20036	DRL/AD:RO x7791	DRL FSchroeder	DRL PAMorris
SURNAME ▶		8/12/69	8/ /69	8/ /69
DATE ▶				

Docket No. 50-331

Mr. Duane Arnold, President  
Iowa Electric Light and  
Power Company  
Security Building  
P. O. Box 351  
Cedar Rapids, Iowa 52406

Dear Mr. Arnold:

Additional information on the organization and training of the staff for the Duane Arnold Energy Center is required before we can complete our review. The enclosed questions were discussed with you and your representatives at a meeting on July 23, 1969.

~~Enclosure~~  
If clarification or additional discussion of this information is desired, please contact us.

Sincerely,

Peter A. Morris, Director  
Division of Reactor Licensing

Enclosure:  
Request for Additional Information

cc: Mr. Robert Lowenstein  
Lowenstein and Newman  
Suite 340  
1100 Connecticut Avenue, N.W.  
Washington, D. C. 20036

(Retyped 8-6-69 per FSchroeder comments.)

(See attached for previous concurrences)

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OFFICE ▶	DRL	DRL				
SURNAME ▶	FSchroeder:emh	PAMorris				
DATE ▶	8/6/69	8/ /69				

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 N. M. Newmark (2)  
 SGForbes (2)  
 ACRS  
 W. Minners, DRL  
 S. M. Kari, DRL

Docket No. 50-331

Mr. Duane Arnold, President  
 Iowa Electric Light and  
 Power Company  
 Security Building  
 P. O. Box 351  
 Cedar Rapids, Iowa 52406

Dear Mr. Arnold:

Additional information on the organization and training of the staff for the Duane Arnold Energy Center is required before we can complete our review. The enclosed questions, which were discussed with you and your representatives at a meeting on July 23, 1969, detail the areas of concern.

If clarification or additional discussion of this information is desired, please contact us.

Sincerely,

Peter A. Morris, Director  
 Division of Reactor Licensing

Enclosure:  
 Request for Additional Information

cc: Mr. Robert Lowenstein  
 Lowenstein and Newman  
 Suite 340  
 1100 Connecticut Avenue, N.W.  
 Washington, D. C. 20036

OFFICE	DRL/RPB-5	DRL/RPB-5	DRL/AD:RO	DRL/AD:RP	DRL	DRL
SURNAME	WMinners:EMH x7791	DFKnuth	DJStorholt	RSBoyd	FSchroeder	PAMORRIS
DATE	8/1/69	8/ /69	8/5/69	8/5/69	8/ /69	8/ /69

Request for Additional Information

Iowa Electric Light & Power Company -(Docket No. 50-331)

Duane Arnold Energy Center

*Should not be handled in question list.*  
13.0 Conduct of Operations

13.1 Provide reasonable assurance that the proposed crew can not only conduct normal operations but can also cope with emergency conditions.

13.2 We note that it is not proposed that the Chief Engineer or the Assistant Engineer hold either operator's or senior operator's licenses. What alternate provisions are being made to demonstrate the detailed plant familiarity reflected by possession of these licenses?

*Please*  
13.3 Provide an organization chart which shows the lines of authority between the plant staff and the company management.

*Indicate*  
13.4 Provide the minimum qualifications *you will require* for each key technical and supervisory position on the operation, maintenance and technical support staffs, including:

- a. Shift Supervising Engineer
- b. Maintenance Supervisor
- c. Supervising Electrical Engineer
- d. Reactor and Plant Analyst
- e. Radiochemistry Engineer

*What*  
13.5 ~~Discuss the~~ training and experience *of: will be required for:*

- a. Radiochemistry Engineer
- b. Auxiliary Engineers

Are the Auxiliary Engineers to be licensed operators?

13.6 Clarify your intent in using the term "equivalent authorization" in the last sentence of page 13.3-1.

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Request for Additional Information

Iowa Electric Light & Power Company -(Docket No. 50-331)

Duane Arnold Energy Center

13.0 Conduct of Operations

13.1 ~~The proposal to operate the plant with a four-man shift does not meet our current requirements of six men to a shift. Provide reasonable assurance that the crew can not only conduct normal operations but can also cope with emergency conditions.~~

*Proposed*  
*Not a requirement*  
13.2 ~~Justify not requiring the Chief Engineer and Assistant Engineer to hold either operator's or a senior operator's licenses. What alternate provisions are to be made to demonstrate the detailed plant familiarity reflected by possession of these licenses?~~  
13.3 Provide an organization chart which shows the lines of authority between the plant staff and the company management.

13.4 Provide the minimum qualifications for each ~~position from Chief Engineer to Operator~~ *key technical and supervisory* on the operation, maintenance and technical support staffs, *including* *specifically*

13.5 ~~Are the Auxiliary Engineers to be licensed operators? What training will they undergo? Specifically, Discuss the training and experience of:~~  
*auxiliary Engineers*  
a) the Radiochemistry Engineer.  
b) Auxiliary Engineers. *Are these ~~auxiliary~~ to be licensed operators?*  
13.6 Clarify your intent in using the term "equivalent authorization" in the last sentence of page 13.3-1.

- a) Shift Supervising Engineer
- b) Maintenance Supervisor
- c) Supervising Electrical Engineer
- d) Reactor and Plant Analyst
- e) Radiochemistry Engineer

OFFICE ►

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