

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

DEC 23 1975

Iowa Electric Light and Power Company Docket No. 50-331
ATTN: Mr. Duane Arnold
President
Security Building
P. O. Box 351
Cedar Rapids, Iowa 52405

Gentlemen:

This refers to the inspection conducted by Mr. T. L. Harpster of this office on December 3-5, 1975, of activities at the Duane Arnold Energy Center authorized by NRC Operating License No. DPR-49 and to the discussion of our findings with Mr. G. Hunt and other members of your staff at the conclusion of the inspection.

A copy of our report of this inspection is enclosed and identifies the areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, interviews with plant personnel, and observations by the inspector.

No items of noncompliance with NRC requirements were identified within the scope of this inspection, however, we would like to stress your commitment with regard to the following items:

1. Prior to January 1, 1976, specifications regarding electrical cable penetrations will be reviewed and revised;
2. Prior to February 1, 1976, a revised welding and cutting permit will be incorporated into the work control procedures; and
3. Prior to March 1, 1976, all electrical cable penetrations will be reviewed against the revised criteria in 1. above, and a design change request package will be initiated to implement the required corrective action.

Iowa Electric Light
and Power Company

- 2 -

DEC 23 1975

In addition, in your reply to this inspection report, please address the date on which full implementation of the DAEC Fire Plan will take place.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you or your contractors believe to be proprietary, it is necessary that you make a written application to this office, within twenty days of your receipt of this letter, to withhold such information from public disclosure. Any such application must include a full statement of the reasons for which it is claimed that the information is proprietary, and should be prepared so the proprietary information identified in the application is contained in a separate part of the document. Unless we receive an application to withhold information or are otherwise contacted within the specified time period, the written material identified in this paragraph will be placed in the Public Document Room.

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely yours,

Gaston Fiorelli, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:
IE Inspection Report
No. 050-331/75-20

cc w/encl:
G. G. Hunt, Chief
Engineer

bcc w/encl:
PDR
Local PDR
NSIE
TIC

UNITED STATES NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report of Operations Inspection

IE Inspection Report No. 050-331/75-20

Licensee: Iowa Electric Light and Power Company
P. O. Box 351
Cedar Rapids, Iowa 52405

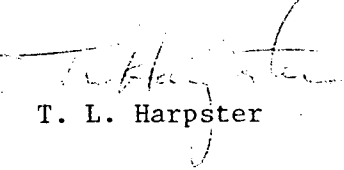
Duane Arnold Energy Center
Palo, Iowa

License No. DPR-49
Category: C

Type of Licensee: BWR GE 538 MWe

Type of Inspection: Routine, Announced

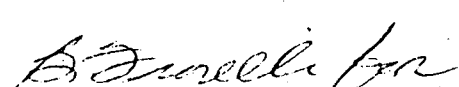
Dates of Inspection: December 3 - 5, 1975

Principal Inspector:  T. L. Harpster

12/2/75
(Date)

Accompanying Inspectors: None

Other Accompanying Personnel: None

Reviewed By:  W. S. Little, Section Leader
Nuclear Support

12/2/75
(Date)

SUMMARY OF FINDINGS

Inspection Summary

Inspection on December 3-5, (75-20): Review of activities emphasized as a result of the Browns Ferry Power Station Cable Fire.

Enforcement Items

None.

Licensee Action on Previously Identified Enforcement Items

Not inspected.

Other Significant Items

A. Systems and Components

None.

B. Facility Items (Plans and Procedures)

1. The licensee had completed a 100% inspection of electrical cable penetrations. As a result of this inspection, an engineering review will be conducted to determine specific criteria for penetrations required to be sealed and the appropriate criteria for their construction.
2. Certain activities relating to the licensee's Quality Assurance Program have not been implemented in accordance with FSAR commitments. This is considered to be an unresolved item pending further investigation.

C. Managerial Items

None.

D. Noncompliance Identified and Corrected by Licensee

None.

E. Deviations

None.

F. Status of Previously Reported Unresolved Items

None.

Management Interview

The following subjects were discussed at the conclusion of the inspection on December 5, 1975, with Messrs. Hunt (Chief Engineer), Hammond (Assistant Chief Engineer), and other members of the DAEC staff:

- A. The inspector discussed his findings with respect to the work control procedures, and emphasized the NRC's position on critical elements of these procedures which have been emphasized as a result of the Browns Ferry Power Station Cable Fire.

The licensee stated that the use of a welding and cutting permit is required by their fire insurance agency, however, these permits are destroyed after each job and no record is maintained of the activity. The licensee stated that they would modify and expand this permit to incorporate pertinent criteria with respect to ignition source control, firewatches, fire prevention/suppression equipment, work in vital areas, etc., and incorporate this permit into the work control procedures prior to February 1, 1976. (Report Details, Paragraph 2.a)

- B. The results of the licensee's electrical cable penetration inspection were discussed. The licensee stated that prior to January 1, 1976, they will have in progress a package to update specifications regarding firestops in electrical penetrations. An engineering review would be conducted to determine: (1) specific types of penetrations required to be sealed; and (2) details of the correct/conforming seal for these types. The licensee further stated that all electrical cable penetrations would be reviewed against the above criteria, and as a result of this review, a design change request package would be implemented by March 1, 1976. (Report Details, Paragraph 3)

- C. The inspector discussed the DAEC Fire Plan and the commitments made in the Fire Plan. The licensee stated that the Fire Plan was still considered a draft procedure, although some work had been started to implement the procedure requirements. The inspector stressed the importance of implementing the Fire Plan and asked for a commitment concerning the date of full implementation. (Report Details, Paragraph 2.c)
- D. The inspector stated that certain activities with regard to the licensee's Quality Assurance Program have not been implemented in accordance with FSAR commitments, and that this would be considered an unresolved item pending further investigation. The licensee acknowledged these comments. (Report Details, Paragraph 4)

REPORT DETAILS

1. Personnel Contacted

G. Hunt, Chief Engineer
E. Hammond, Assistant Chief Engineer
G. Cook, Corporate Quality Assurance Manager
J. Gebert, Maintenance Superintendent
R. Rinderman, Station Quality Supervisor
J. Cimburek, Electrical Design Engineer
T. Gucciardo, Electrical Engineer
D. Gembler, Supervising Quality Assurance Engineer
D. Hammond, Quality Assurance Engineer
G. Phillips, Administrative Supervisor

2. Fire Prevention/Protection

The purpose of this inspection was to ascertain through the inspectors review of procedures, records, and discussions with the licensee, whether special emphasis and work controls over construction, modification, and maintenance activities emphasized following the Browns Ferry Power Station Cable Fire, have been implemented and continue to be emphasized at the Duane Arnold Energy Center.

a. Work Control Procedures

The inspector reviewed the following procedures:

- (1) "Control of Plant Work"
ACP 1401.4, Revision 2, October 22, 1975.
- (2) "Design Change Program"
ACP 1409.1, Revision 2, September 17, 1975.
- (3) "Design Control"
ACP 1202.1, Revision 3, August 20, 1975.
- (4) "Design Document Change Control"
ACP 1202.2, Revision 0, January 20, 1975.

Although no noncompliance was noted during review of these procedures, the following comments resulted from the review:

- (1) The procedure does not require authorization for activities involving welding, open flame, or other ignition sources; nor does the procedure take cognizance of nearby flammable material, cable trays, or critical process equipment.

- (2) The procedure does not require a firewatch, if an activity involving an ignition source is to be performed in the proximity of flammable material, cable trays, or vital process equipment.
- (3) The procedure contains no provisions to ensure adequate fire prevention and suppression equipment, installed or portable, is available in areas where work is being performed and the occurrence of fire has high safety significance.
- (4) The procedure does not define criteria under which work in vital areas will be permitted.

b. Quality Assurance Surveillance

- (1) The inspector reviewed the following procedures and directives:
 - (a) "Internal Quality Audits"
ACP 1405.1, Revision 0, March 4, 1975.
 - (b) "Quality Assurance Directives"
Directive 1301.1, Revision 0, November 1, 1973.
 - (c) "Plant Test Control"
Directive 1311.2, Revision 0, November 1, 1973.
 - (d) "Internal Audits"
Directive 1318.1, Revision 0, October 1, 1973.

The inspector verified that the above procedures require periodic audit of work authorizations for construction, modification, and maintenance activities to ensure that operating personnel are controlling and authorizing all such activities.

- (2) The inspector determined through review of records, procedures, and discussions with the licensee that Quality Assurance surveillance is not performed with respect to ignition source control and firewatch adequacy.
- (3) The inspector determined through discussions with the licensee that Quality Assurance verifications were not performed to confirm that seal material was not flammable for cable penetration seals which have been installed, replaced or modified.

c. Emergency Procedures

The inspector reviewed a draft of the Station Fire Plan. The inspector noted that although the licensee stated during a previous inspection (IE Inspection Report No. 050-331/75-12) that the Fire Plan had been implemented in response to IE Bulletin No. 75-04A, the Fire Plan was still in draft form. The following comments resulted from the review of the Fire Plan and subsequent discussions with the licensee:

- (1) Fire fighting procedures have not been prepared for specific vital areas such as the control room and the cable spreading room.
- (2) The Station Fire Plan requires that training be held monthly, at a minimum. One training session was held in April, 1975, but none of the scheduled training sessions have been held subsequent to that time.
- (3) Similarly, monthly drills have not been initiated as required in the Fire Plan.
- (4) The licensee is in the process of developing an equipment inspection and testing program.
- (5) The licensee's insurance representative have reviewed both the draft Station Fire Plan and the Equipment Inspection and Testing Procedures.

d. Facility Inspection

The inspector reviewed the results of inspection on February 19, 1975 and August 18-22, 1975, conducted by the licensee's insurance agencies. No items of concern were noted with regard to NRC requirements. The licensee stated that an additional inspection had been conducted subsequent to these inspections, but the official inspection report had not been received yet.

The licensee stated that an extension until January 1, 1976, had been granted to submit their response to the IE Bulletin No. 75-04B.

3. Cable Penetration Audit

The inspector discussed the results of the 100% inspection of electrical cable penetrations with the licensee. (IE Inspection Report No. 050-331/75-12). The licensee stated that the inspection results did not distinguish between: (1) penetrations which do not require firestops, but are not sealed in accordance with DAEC specifications; and (2) penetrations which require firestops, but are not sealed in accordance with DAEC specifications. The licensee stated, that as a result of the inspection, an engineering review would be conducted to determine the specific types of penetrations required to be sealed, and that specific criteria would be developed for the appropriate seal construction. The licensee further stated that each electrical penetration would be reviewed against these criteria, and that a design change request package would be initiated for those penetrations which were determined to be deficient as a result of this review.

4. Quality Assurance Program

As a result of a review of internal correspondence regarding the licensee's Quality Assurance Program, the inspector determined that work verification activities required by the licensee's FSAR commitments were not being conducted. This matter is considered to be unresolved item pending further investigation.