

UNITED STATES  
ATOMIC ENERGY COMMISSION  
DIRECTORATE OF REGULATORY OPERATIONS  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

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Files*

TELEPHONE  
(312) 858-2660

A. RO Inspection Report No. 050-331/74-20

Transmittal Date : January 13, 1975

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B. RO Inquiry Report No. \_\_\_\_\_

Transmittal Date : \_\_\_\_\_

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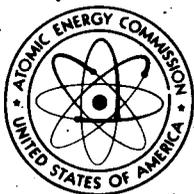
C. Incident Notification From: \_\_\_\_\_

(Licensee & Docket No. (or License No.))

Transmittal Date : \_\_\_\_\_

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JAN 13 1975

Iowa Electric Light and Power Company  
ATTN: Mr. Charles W. Sandford  
Executive Vice President,  
Engineering  
Security Building  
P. O. Box 351  
Cedar Rapids, Iowa 52405

Docket No. 50-331

Gentlemen:

This refers to the inspection conducted by Messrs. Feierabend and Shafer of this office on December 9-11, 1974, of activities at Duane Arnold Energy Center authorized by AEC License No. DPR-49 and to the discussion of our findings with Messrs. Hunt, Hammond and others of your plant 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 inspectors.

During this inspection, it was found that certain of your activities appear to be in violation of AEC requirements. The items and reference to the pertinent requirements are listed under Enforcement Action in the Summary of Findings Section of the enclosed inspection report.

This notice is sent to you pursuant to the provisions of Section 2.201 of the AEC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office within thirty days of your receipt of this notice, a written statement or explanation in reply, including: (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved.

Iowa Electric Light  
and Power Company

JAN 13 1975

- 2 -

In accordance with Section 2.790 of the AEC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this notice, the enclosed inspection report, and your response to this notice will be placed in the AEC'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 notice, 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 Branch

Enclosure:  
RO Inspection Report  
No. 050-331/74-20

bcc: RO Chief, FS&EB  
RO:HQ (4)  
Licensing (4)  
DR Central Files  
RO Files  
PDR  
Local PDR  
NSIC  
TIC  
OGC, Beth, P-506A

U. S. ATOMIC ENERGY COMMISSION  
DIRECTORATE OF REGULATORY OPERATIONS

REGION III

Report of Operations Inspection

RO Inspection Report No. 050-331/74-20

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

Duane Arnold Energy Center  
Palo, Iowa

License No. DPR-49  
Category: B

Type of Licensee: BWR, 358 Mwe

Type of Inspection: Scheduled, Unannounced

Dates of Inspection: December 9-11, 1974

Dates of Previous Inspection: October 30, 1974 - November 1, 1974 (Security)

Principal Inspector: *C. D. Feierabend*  
C. D. Feierabend

1/10/75  
(Date)

Accompanying Inspector: *W. D. Shafer*  
W. D. Shafer

1-10-75  
(Date)

Other Accompanying Personnel: None

Reviewed By: *RC Knop*  
R. C. Knop  
Senior Inspector  
Reactor Operations Branch

1/10/75  
(Date)

## SUMMARY OF FINDINGS

### Enforcement Action

The following violation is considered to be of Category III severity:

Technical Specification 6.8.3 states in part that, "Temporary minor changes to procedures . . . . which do not change the intent of the original procedure may be made with the concurrence of two members of the plant management staff, at least one of whom shall hold a senior operator's license . . . ."

Contrary to the above, surveillance testing of the APRM flow bias trip performed on August 29, 1974, was performed using trip settings specified by a temporary change to the test procedure that had been approved by only one member of the plant management staff. (Paragraph 2.a)

Licensee Action on Previously Identified Enforcement Matters: None

Unusual Occurrences: None

### Other Significant Findings

#### A. Current Findings

The reactor was operating at 98% power performing the 100 hour warranty demonstration run.

#### B. Unresolved Items: None

#### C. Status of Previously Reported Unresolved Items

Reactor Cleanup System Flow Instrumentation (RO:III Inspection Report No. 050-331/74-18).

The specified orifices have been installed in the reactor cleanup system piping and the flow transmitters have been recalibrated. (Paragraph 4) This item is considered resolved.

### Management Interview

A management interview was conducted with Messrs. Hunt, Hammond and members of the licensee's staff at the conclusion of the inspection on December 11, 1974.

The inspector stated that during the inspection he had verified

documentation of the reactor water cleanup system flow calibration and implementation of additional surveillance of the scram discharge volume level switches, and that these items were considered to be satisfactory. (Paragraphs 4 and 5)

The inspector stated that the scope of this inspection included surveillance testing and limiting conditions for operation. The inspector stated that no deficiencies were observed in the area of limiting conditions for operation.

However, the inspector stated that there were some apparent difficulties with the system of filing test records, as considerable effort was required to retrieve records of tests that had been performed. The inspector stated that the problem had been recognized and a reorganization had been started. The licensee acknowledged the comments and stated that upgrading the system will continue as fast as practicable while maintaining the testing program current.

The inspector stated that his observations were that a major portion of the surveillance program had been performed by consultant personnel who were scheduled to be released in the near future. The inspector asked what provisions had been made to assure continuity in the program. The licensee stated that one engineer from the technical staff has been assigned the program as his primary function, but that there were no immediate answers to the questions concerning replacement of the staff that had been maintaining the schedules and records. The inspector stated that his concern was that the program not deteriorate during the transfer of functions to the plant staff.

The inspector stated that one apparent deficiency was observed in conjunction with surveillance of the status of the local control panel storage cabinet for shutdown from outside the control room. The inspector stated that although the surveillance was not a Technical Specification requirement, the surveillance records for status of the cabinet were inconsistent and incomplete.

The licensee stated that the procedure to demonstrate shutdown from outside the control room had not yet been approved by committee action, therefore the control panel remains locked. The licensee stated that the associated storage cabinet would be provided with additional supplies before the demonstration is performed and that weekly surveillance of the cabinet will be initiated.

The inspector stated that his review of test results indicated that the licensee did perform independent review of the surveillance test results, however, there was one instance where the recorded data was not consistent with plant operating conditions. This fact was not identified by either of the two reviewers.

The licensee stated that personnel performing the reviews had already been cautioned to compare data with test criteria and that this subject would be included for review by the licensee's internal audit.

The inspector stated that one violation of Technical Specification requirements was identified in conjunction with implementing temporary procedures. (Paragraph 2) The licensee stated that the potential for the violation had been recognized, and that a new form for approval of the temporary procedure should assure that the necessary approvals are documented prior to use of a temporary procedure.

## REPORT DETAILS

### 1. Persons Contacted

#### Iowa Electric Light and Power Company (IELP)

G. Hunt, DAEC Chief, Engineer  
E. Hammond, Assistant Chief Engineer  
R. Surls, Administrative Supervisor  
B. York, Operations Supervisor  
D. Moen, Reactor and Plant Performance Engineer  
J. Weeda, Technical Staff Surveillance Program Coordinator  
M. Kappl, Shift Supervising Engineer  
C. Vondra, Shift Supervising Engineer  
D. Kalavitinos, Shift Supervising Engineer  
C. Mick, Reactor Operator  
J. Gebert, Maintenance Supervisor  
J. Vindquist, Electrical Maintenance Supervisor  
R. Rockhill, Mechanical Maintenance Supervisor  
R. Rinderman, Quality Supervisor  
D. Wilson, Results Engineer  
O. Schellberg, Results Engineer

#### Nuclear Services Corporation

L. Pentecost, Surveillance Program Consultant

### 2. Surveillance Testing

The inspector verified that surveillance tests were covered by properly approved procedures. The inspectors ascertained that procedures included prerequisites and preparations for tests specified, test and calibration of instrumentation specified, acceptance criteria, and operational checks prior to returning equipment to service.

The inspectors verified that the test results were in conformance with Technical Specification and procedure requirements and that the test results were reviewed in accordance with the licensee's procedures.

Review of test results did not identify any violations of limiting conditions for operations, however, the inspector identified one violation of a Technical Specification requirement for concurrence of two members of plant management staff for a temporary minor change to a surveillance test procedure. (Paragraph 2.a)

The inspectors selected the following tests for review of the test procedures and the test results. Samples selected were from the operating period of June through November, 1974.

Turbine Stop Valve Closure

Turbine Control Valve EHC Oil Pressure Trip

Emergency Service Water System

River Water Supply System

Standby Liquid Control System

Core Spray and LPCI System

Diesel Generators

Batteries

Control Rod Exercise

Average Power Range Monitors (APRM) Inoperative Trip

APRM Flow Bias Trip

All of the tests examined were performed in accordance with the licensees surveillance program and Technical Specification requirements except as follows.

a. Temporary Changes

Records for completion of the APRM Flow Bias tests performed on August 29, 1974, included trip values changed from the approved procedure. Review of the records and discussion with cognizant personnel verified that a document change form had been initiated to make the changes, specifying the values recorded, however, the change had not been completed in accordance with the Technical Specification 6.8.3, which requires the concurrence of two members of plant management. Only one signature appeared in the changed form, and it was not one who held a senior operator license.

Review of the test record files showed that there were inconsistencies in the filing of temporary changes, which appeared to cause some problems in verifying that temporary changes scheduled for incorporation into permanent revisions were included. In one instance, a temporary procedure that was approved and used for two tests was reversed during review and

approval for incorporation into the next procedure revision, however, there was no means for determining that this information was relayed to the personnel who had initiated the change. The licensee indicated that the method of implementing, documenting and filing the temporary changes is under review, and that the deficiencies identified would be included for resolution.

b. Review of Test Results

Test records documented independent review of test results by two members of the plant staff. The test record for control rod exercise tested performed on September 30, 1974, coded all of the control rods as being in the fully inserted position. Review of the test data and logs and discussion with plant personnel verified that the reactor had been in normal operation on that date with control rods withdrawn. The inspectors discussed the apparent deficiency in recording the data and in subsequent reviews with the cognizant personnel and during the Management Interview.

c. Test Records

The licensee was in the process of reorganizing the filing system for surveillance test records. This made review of the test data more time consuming, however, the licensee was able to locate selected test results for review by the inspectors. There were some inconsistencies in filing the temporary procedures, in that some were included in the next permanent revision, without copies or reference in the test record.

The test results file did not include the test authorization cover sheet, which included the processing information such as authorization by the shift supervising engineer, information concerning date scheduled versus date performed, etc. The licensee indicated that these areas would be addressed in the reorganization of the filing systems now in progress.

3. Safety Limits (SL) Limiting Safety Systems Settings (LSSS) and Limiting Conditions for Operation (LCO)

The inspectors verified conformance with Technical Specifications, SL, LSSS and LCO for the systems selected for surveillance test review where applicable (Paragraph 2 above). In addition to those systems, the inspectors verified conformance with LCO for thermal and pressurization limits and for jet pump flow mismatch. This

included review of operation records, observation of instrumentation annunciators, out of service controls, recorder charts and discussion with plant operators and supervisors.

No deficiencies in these areas were identified.

4. Reactor Water Cleanup System Flow Instrument Calibration

The inspector reviewed documentation that verified installation of the specified orifices in the reactor water cleanup system and calibration of the flow transmitters performed on November 15, 1974. No deficiencies were noted.

This resolves the questions raised concerning this system in a previous inspection report.<sup>1/</sup>

5. Scram Discharge Volume Level Switches

The inspector verified that the licensee had implemented a procedure for verifying operability of the subject level switches following reactor trip. The procedure requires draining of the discharge volume and functional test of the level switch after draining. Replacement switches were scheduled for delivery in late December, 1974.

<sup>1/</sup> RO:III Inspection Report No. 050-331/74-18.