Reactor Facilities Br.

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

MAY 3 1976

Iowa Electric Light and Power Company
ATTN: Mr. Duane Arnold, President
Security Building
P. O. Box 351
Cedar Rapids, Iowa 52405

Docket No. 50-331

Gentlemen:

This refers to the inspection conducted by Mr. C. M. Erb of this office on April 16, 1976, of activities at Duane Arnold Energy Center authorized by License No. DPR-49 and to the discussion of our findings with Mr. K. Harrington of your staff at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

No items of noncompliance with NRC requirements were identified within the scope of this inspection.

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, except as follows. If this report contains information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this letter, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

We will gladly discuss any questions you have concerning this inspection.

Sincerely yours,

D. M. Humnicutt, Chief
Reactor Construction and
Engineering Support Branch

Enclosure:
IE Inspection Report
No. 050-331/76-08

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

bcc w/encl:
PDR
LPDR
NSIC
TIC
Central Files
IE Mail and File Unit

UNITED STATES NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report of Construction Inspection

IE Inspection Report No. 050-331/76-08

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: C

Type of Licensee: BWR GE 538 MWe

Type of Inspection: Routine, Announced

Date of Inspection: April 16, 1976

Principal Inspector: C. M. Erb — 5/4/76 (Date)

Accompanying Inspectors: None

Other Accompanying Personnel: None

Reviewed By: D. M. Hunnicutt, Chief
Reactor Construction and
Engineering Support Branch — 5/4/76 (Date)

## SUMMARY OF FINDINGS

### Inspection Summary

Inspection on April 15 and 16, (76-08): Review of final results of inservice inspection; Penetrant tests of 4" bypass lines, discussion of Bulletin 76-01, cold worked stainless steel, Federal Register Notice of February 12, 1976, regarding certain changes for inservice inspection.

### Enforcement Items

None.

### Licensee Action on Previously Identified Enforcement Items

Not applicable.

A. Systems and Components

Amendment No. 16 to the FSAR, which added Class II items to the inservice program has been approved by NRR.

B. Facility Items

None identified.

C. Managerial Items

None.

D. Noncompliance Identified and Corrected by Licensee

None.

E. Deviations

None.

F. Status of Previously Reported Unresolved Items

Not applicable.

### Management Interview

A. The following persons attended the Management Interview at the conclusion of the inspection:

Iowa Electric Light and Power Company (IEL&P)

K. V. Harrington, Supervising Construction Engineer
D. Gembler, Corporate Quality Assurance

B. Matters discussed and comments, on the part of the licensee were as follows:

1. Recirculation Bypass Piping Welds

The inspector asked if the weldshad been Liquid Penetrant tested in addition to the Ultrasonic test. The licensee stated that these welds had been Penetrant tested, thus fulfilling their commitment from the previous inspection. Neither the PT or UT inspection revealed unacceptable defects.

2. Bolting

The inspector asked if any Class I bolts had been inspected. The licensee stated none of the bolting had been inspected to date.

3. Cold Worked Stainless Steel

The inspector asked if any investigative work had begun on determining, whether any stainless steel equipment, without a full solution anneal had been installed at Duane Arnold. The licensee representative stated that he would begin this activity and contact the NSS supplier if necessary.

4. Inservice Results

The inspector asked if any repairs were necessary as a result of the inservice inspection. The licensee stated that no indications were found that required repair. All the test results for the inservice inspection had been approved and signed off by the authorized inspector, Mr. K. Springer of the Commercial Union Insurance Company. These results were also approved and signed by Mr. K. Harrington, Level III for IEL&P and by Mr. T. Lambert, Level III of Lambert and Company.

## REPORT DETAILS

### Persons Contacted in Addition to Those at Exit Interview

Iowa Electric Light and Power Company

K. Meyer, Nuclear Licensing

### Results of Inspection

1. Personnel, Equipment and Procedures

Lambert and Company performed this inspection with the personnel and certified equipment information reported in a previous inspection, IE Inspection Report No. 050-331/76-03.

The following procedures were qualified and used:

UT-1, Revision 3, Ultrasonic, pipe
UT-1, Revision 4, Ultrasonic, vessel
UT-3, Ultrasonic nozzles - inside radius
UT-6, Revision 0, Ultrasonic, automatic data recorder
PT-1, Revision 1a, Penetrant Test
VT-1, Revision A, Visual Test

Three calibration blocks are used for vessel UT and blocks are available for all pipe sizes.

2. Welds Inspected

The following welds were UT inspected:

| | |
|---|---|
| Class 1 Welds | 57 total |
| Vessel nozzles | 3 |
| Vessel vertical seam | 1 |
| Vessel horizontal seam | 1 |
| HPCI | 2, 10" turbine drive |
| RHR | 4, 18" include 1 dissimilar weld |
| Recirculation Bypass | 18, 4" |
| Feedwater | 3, 10" |
| Recirc loop, suction side | All, 22" |
| Main steam | 1, 20" |

3. Surveillance of Vessel Material

Nil ductility samples are scheduled for removal from the reactor vessel during the third refueling outage, which is scheduled for the spring of 1978.