CENTRAL FILES

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

APR 14 1978

Docket No. 50-331

Iowa Electric Light and Power
Company
ATTN: Mr. Duane Arnold
President
IE Towers
Post Office Box 351
Cedar Rapids, IA 52406

Gentlemen:

This refers to the inspection conducted by Mr. J. E. Menning of this office on March 27-30, 1978, of activities at Duane Arnold Energy Center authorized by NRC Operating License No. DPR-49 and to the discussion of our findings with Mr. D. Mineck and others 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 during the course 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.

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

Sincerely,

Gaston Fiorelli, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure: IE Inspection
Report No. 50-331/78-08

cc w/encl:
Mr. E. L. Hammond, Chief
Engineer
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC

OFFICE	RIII	RIII	RIII	RIII		
SURNAME	Menning/bk	Little	Fiorelli	Kister		
DATE	4/12/78					

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-331/78-08

Docket No. 50-331 License No. DPR-49

Licensee: Iowa Electric Light and Power Company
IE Towers
Post Office Box 351
Cedar Rapids, IA 52406

Facility Name: Duane Arnold Energy Center

Inspection At: Duane Arnold Site, Palo, IA

Inspection Conducted: March 27-30, 1978

Inspector: J. E. Menning 4/13/78

Approved By: W. S. Little, Chief 4/13/78
Nuclear Support Section

Inspection Summary

Inspection on March 27-30, 1978 (Report No. 50-331/78-08)
Areas Inspected: Routine, unannounced inspection of preparation for a refueling outage, prefuel handling activities, fuel handling activities, maintenance during a refueling outage, and preparation for startup following a refueling outage. The inspection involved 30 inspector-hours onsite by one NRC inspector and included inspection effort during offshift hours.
Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

E. Hammond, Chief Engineer
*D. Mineck, Assistant Chief Engineer
J. Gebert, Maintenance Superintendent
*R. Hannen, Reactor and Plant Performance Engineer
D. Kalivitinos, Training Coordinator
R. Rinderman, Quality Supervisor
R. Rockhill, Mechanical Maintenance Supervisor
J. Vinquist, Electrical Maintenance Supervisor
*B. York, Operations Supervisor
G. Bishop, Surveillance Program Coordinator
*J. Davis, Quality Technician
N. Hammer, Shift Supervising Engineer
R. McCracken, Procurement Quality Engineer
R. Mick, Shift Supervising Engineer
D. Teply, Shift Supervising Engineer

The inspector also contacted one health physics technician and two supervisors from a firm which was performing onsite maintenance work for the licensee.

*Denotes those present at the exit interview.

2. Preparation for a Refueling Outage

The inspector verified that approved procedures are available for new fuel receipt and inspection and for fuel transfer and core verification. In addition, the inspector verified that new fuel was received and inspected in accordance with the licensee's procedures. A licensee representative stated that neither fuel sipping operations nor irradiated fuel inspections would be performed during this refueling outage.

The inspector reviewed Fuel and Reactor Component Handling Procedure No. 9, New Fuel Receiving and Inspection; Fuel and Reactor Component Handling Procedure No. 5, Procedure for Moving Fuel Between Reactor Core and Spent Fuel Pool or Within Either the Reactor Core or Spent Fuel Pool; and Operating Instruction No. 81, Fuel Handling System. In addition, the inspector reviewed the completed fuel inspection checklist (part of Fuel and Reactor Component Handling Procedure No. 9) for each of the 88 new fuel assemblies to be inserted into the core.

No items of noncompliance or deviations were identified.

3. Pre-Fuel Handling Activities

The inspector verified that surveillance testing had been completed on Technical Specifications requirements, refueling machine operation, ventilation requirement in fuel storage areas, refueling interlocks, crane testing, refueling deck radiation monitors, and communication systems.

The inspector reviewed test data for surveillance procedures STP 41A004, IRM Trip; STP 41A017, APRM 15% Scram; STP 42C005, SRM Trip; STP 47C001, Secondary Containment Demonstration; STP 49A001, Refueling Interlocks; and STP 49B001, SRM Daily Response Check. In addition, the inspector reviewed the reactor building overhead crane inspection data obtained per Inspection Procedure No. 227, the source check data for the refueling deck area radiation monitors, and the verification of communications between the control room and refueling bridge required by Step 5.3 of Fuel and Reactor Component Handling Procedure No. 5.

No items of noncompliance or deviations were identified.

4. Fuel Handling Activities

The inspector verified by direct observations that core monitoring during refueling operations was in accordance with Technical Specifications, that containment integrity during refueling operations was in accordance with the Technical Specifications, that fuel bundle insertion and removal were in accordance with established procedures, that fuel accountability methods were in accordance with established procedures, that core internals were stored to protect against damage, that housekeeping was proper, that vessel level was in accordance with the Technical Specifications, that the reactor mode switch position was as required by the Technical Specifications, and that control blade checks were being performed in accordance with approved procedures. The inspector also observed that the individual directing fuel handling activities held a senior operating license and was present directly supervising activities, and that a licensed reactor operator was present in the control room and in constant direct communication with a member of the fuel handling crew when work was being performed that could affect the reactivity of the core.

The inspector verified that operations personnel stationed on the refueling bridge had received prior fuel handling training by reviewing selected training certification forms.

No items of noncompliance or deviations were identified.

5. Maintenance During a Refueling Outage

The inspector verified that the maintenance work control procedure contained administrative approvals for removing a system from service and returning it to service, hold points for inspection and signoff by quality assurance personnel, provisions for testing following maintenance, and provisions for assuring that a system is aligned for normal service following maintenance. In addition, the inspector verified the adequacy of the jumper control procedure and the procedure which delineates the method for reporting to licensee management details concerning design or construction related deficiencies identified during maintenance.

The inspector reviewed licensee administrative procedures ACP 1401.4, Control of Plant Work; ACP 1404.6, Jumper and Lifted Lead Control; and ACP 1405.4, Control of Nonconforming Items. The inspector also reviewed licensee maintenance procedures RP52/ie-6, Turbine Driven Lube Oil Pump Repair; GPM - 013, Maintenance of Main Steam Pilot Operated Safety/Relief Valves; and RP55/ie-1, Control Rod Drive Removal and Replacement.

The inspector witnessed control rod drive overhaul activities and verified that the work was being performed in accordance with an approved procedure. The inspector also verified that the participating personnel had received related training in preparation for this overhaul work.

No items of noncompliance or deviations were identified.

6. Preparations for Startup Following a Refueling Outage

The inspector verified that systems that were disturbed or tested during the refueling outage will be returned to an operating status prior to plant startup and that plant startup procedures require adherence to the licenses's Technical Specifications and commitments, as they pertain to startup testing and power operation prerequisites.

The inspector reviewed Section II of the Integrated Plant Operating Instructions. This Section provides instructions for a cold plant startup to 100% power.

No items of noncompliance or deviations were identified.

7. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on March 30, 1978. The inspector summarized the scope and findings of the inspection.