



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

IOWA ELECTRIC LIGHT AND POWER COMPANY  
CENTRAL IOWA POWER COOPERATIVE  
CORN BELT POWER COOPERATIVE

DOCKET NO. 50-331

DUANE ARNOLD ENERGY CENTER

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 105  
License No. DPR-49

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Iowa Electric Light & Power Company, et al, dated April 12, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-49 is hereby amended to read as follows:


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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 105, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Domenic B. Vassallo, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 24, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 105

FACILITY OPERATING LICENSE NO. DPR-49

DOCKET NO. 50-331

Revise the Appendix "A" Technical Specifications by removing the current pages and inserting the revised pages listed below. The revised areas are identified by vertical lines.

<u>Remove</u>	<u>Insert</u>
iv	iv
vi	vi
1.0-8	1.0-8
3.6-6	3.6-6
3.8-5	3.8-5
6.5-3	6.5-3
6.5-7	6.5-7
6.6-1	6.6-1
6.10-1	6.10-1
6.11-3	6.11-3
6.11-4	6.11-4
6.11-5	6.11-5
6.11-6	6.11-6
6.11-7 (deleted)	
6.11-8 (deleted)	
6.11-9 (deleted)	
6.11-10 (deleted)	
6.11-11 (deleted)	
6.11-14 (deleted)	

	<u>PAGE NO.</u>
5.0 Design Features	5.1-1
5.1 Site	5.1-1
5.2 Reactor	5.2-1
5.3 Reactor Vessel	5.3-1
5.4 Containment	5.4-1
5.5 Spent and New Fuel Storage	5.5-1
6.0 Administrative Controls	6.1-1
6.1 Management - Authority and Responsibility	6.1-1
6.2 Plant Staff Organization	6.2-1
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6.4 Retraining and Replacement Training	6.4-1
6.5 Review and Audit	6.5-1
6.6 Reportable Event	6.6-1
6.7 Action to be Taken if a Safety Limit is Exceeded	6.7-1
6.8 Plant Operating Procedures	6.8-1
6.9 Radiological Procedures	6.9-1
6.10 Records Retention	6.10-1
6.11 Plant Reporting Requirements	6.11-1
6.12 Deleted	
6.13 Environmental Qualification	6.13-1

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4.2-F	Minimum Test Calibration Frequency for Surveillance Instrumentation	3.2-31
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3.6-1	Number of Specimens by Source	3.6-33
4.6-3	Safety Related Snubbers Accessible During Normal Operation	3.6-42
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3.7-1	Containment Penetrations Subject to Type "B" Test Requirements	3.7-20
3.7-2	Containment Isolation Valves Subject to Type "C" Test Requirements	3.7-22
3.7-3	Primary Containment Power Operated Isolation Valves	3.7-25
4.7-1	Summary Table of New Activated Carbon Physical Properties	3.7-50
4.10-1	Summary Table of New Activated Carbon Physical Properties	3.10-7
3.12-1	Deleted	
3.12-2	MCPR Limits	3.12-9a
3.13-1	Fire Detection Instruments	3.13-11
3.13-2	Required Fire Hose Stations	3.13-12
6.2-1	Minimum Shift Crew Personnel and License Requirements	6.2-3
6.9-1	Protection Factors for Respirators	6.9-8
6.11-1	Reporting Summary - Routine Reports	6.11-12
6.11-2	Deleted	

## 26. SURVEILLANCE FREQUENCY

Periodic surveillance tests, checks, calibrations and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus or minus 25%. The operating cycle interval as pertaining to instrument and electrical surveillance shall never exceed 15 months. In cases where the elapsed interval has exceeded 100% of the specified interval, the next surveillance interval shall commence at the end of the original specified interval.

## 27. FIRE SUPPRESSION WATER SYSTEM

A fire suppression water system shall consist of a water source, pumps, and distribution piping with associated sectionalizing control or isolation valves. Such valves include yard hydrant curb valves, the first valve ahead of the water flow alarm device on each sprinkler, hose standpipe or deluge system riser.

## 28. REACTOR TRIP SYSTEM RESPONSE TIME

Reactor trip system response time is the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until deenergization of the scram pilot valve solenoids.

## 29. REPORTABLE EVENT

A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10 CFR Part 50.

LIMITING CONDITION FOR OPERATION

2.
    - a. From and after the date that the safety valve function of one relief valve is made or found to be inoperable, continued reactor operation is permissible only during the succeeding thirty days unless such valve function is sooner made operable.
    - b. From and after the date that the safety valve function of two relief valves is made or found to be inoperable, continued reactor operation is permissible only during the succeeding seven days unless such valve function is sooner made operable.
  3. If Specification 3.6.D.1 is not met, an orderly shutdown shall be initiated and the reactor coolant pressure shall be reduced to atmospheric within 24 hours.
- E. Jet Pumps
1. Whenever the reactor is in the startup or run modes, all jet pumps shall be operable. If it is determined that a jet pump is inoperable, an orderly shutdown shall be initiated and the reactor shall be in a Cold Shutdown Condition within 24 hours.

SURVEILLANCE REQUIREMENT

2. At least one of the relief valves shall be disassembled and inspected each refueling outage.
  3. With the reactor pressure  $\geq$  100 psig and turbine bypass flow to the main condenser, each relief valve shall be manually opened and verified open by turbine bypass valve position decrease and pressure switches and thermocouple readings downstream of the relief valve to indicate steam flow from the valve once per operating cycle.
- E. Jet Pumps
1. Whenever there is recirculation flow with the reactor in the startup or run modes, jet pump operability shall be checked daily by verifying that the following conditions do not occur simultaneously:
    - a. The two recirculation loops have a flow imbalance of 15% or more when the pumps are operated at the same speed.

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- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Director-Nuclear Generation and to the Chairman of the Safety Committee.
- f. Review of all Reportable Events.
- g. Review of facility operations to detect potential safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Chairman of the Safety Committee.
- i. Review of the Plant Security Plan and implementing procedures.
- j. Review of the Emergency Plan and implementing procedures.

#### 6.5.1.7 Authority

The Operations Committee shall:

- a. Recommend to the Plant Superintendent-Nuclear written approval or disapproval of items considered under Specification 6.5.1.6 (a) through (d) above.

#### 6.5.2.7 Review

The Safety Committee shall review:

- a. The safety evaluations for (1) changes to procedures, and (2) tests or experiments completed under the provision of Section 50.59, 10 CFR, to verify that such actions did not constitute an unreviewed safety question.
- b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- c. Proposed tests or experiments which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- d. Proposed changes in Technical Specifications or licenses.
- e. Violations of applicable statutes, codes, regulations, orders, technical specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
- f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- g. All Reportable Events.
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components.

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS.

- a. Each REPORTABLE EVENT shall be reviewed by the Operations Committee, and a report shall be submitted to the Safety Committee and the Director, Nuclear Generation and
- b. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50.

## 6.10 RECORDS RETENTION

6.10.1 The following records shall be retained for at least 5 years:

1. Records and logs of facility operation covering time interval at each power level.
2. Records and logs of principal maintenance activities, inspections, and repair and replacement of principal items of equipment related to nuclear safety.
3. All Licensee Event Reports.
4. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
5. Records of reactor tests and experiments.
6. Records of changes made to Operating Procedures.
7. Records of radioactive shipments.
8. Records of sealed source leak test and results.
9. Records of annual physical inventory verifying accountability of sources on record.

- c. Monthly Operating Report Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the appropriate Regional Office, to arrive no later than the 15th of each month following the calendar month covered by the report.
  
- d. Table 6.11-1 lists some of the routine reports required by 10 CFR Parts 20, 40, 50 and 70, including those listed in Specification 6.11.1.
  
- e. Annual Safety/Relief Valve Challenge A report documenting safety/relief valve challenges shall be submitted within 60 days of January 1 each year.

6.11.2 Deleted.

6.11.3. UNIQUE REPORTING REQUIREMENTS

Special reports shall be submitted to the Director of Inspection and Enforcement Regional Office within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification.

- a. Reactor vessel base, weld and heat affected zone metal test specimens (Specification 4.6.A.2).
- b. I-131 dose equivalent exceeding 50% of equilibrium value (Specification 4.6.B.1.h).
- c. Inservice inspection (Specification 4.6.G).
- d. Reactor Containment Integrated Leakage Rate Test (Specification 4.7.A.2.f).
- e. deleted
- f. Fire Protection Systems (Specifications 3.13.A.3, 3.13.B.3, 3.13.C.3, and 3.13.D.3).

TABLE 6-11-1

## REPORTING SUMMARY - ROUTINE REPORTS

<u>Requirement</u>	<u>Report</u>	<u>Timing of Submittal</u>
TS	Annual Safety/ Relief Valve Challenge	Within 60 days after January 1.
TS	Annual Exposure	Within 60 days after January 1.
§20.407	Personnel Exposure and Monitoring	Within first quarter of each calendar year.
§20.408	Personnel Exposure on Termination of Employment or Work	Within 30 days after the exposure of the individual has been determined or 90 days after date of termination of employment or work assignment, whichever is earlier.
§40.64(a)	Transfer of Source Material	Promptly upon transfer.
§40.64(a)	Receipt of Source Material	Within 10 days after material is received.
§40.64(b)	Source Material Inventory	Within 30 days after September 30 of each year.

TABLE 6-11-1 (cont)

REPORTING SUMMARY - ROUTINE REPORTS

<u>Requirement</u>	<u>Report</u>	<u>Timing of Submittal</u>
§50.59(b)	Changes, Tests, and Experiments	Within 60 days after January 1.
§70.53	Special Nuclear Material Status	Within 30 days after March 31 and September 30 of each year.
§70.54	Transfer of Special Nuclear Material	Promptly upon transfer
§70.54	Receipt of Special Nuclear Material	Within 10 days after material is received
Appendix G to 10 CFR Part 50	Fracture Toughness	On an individual-case basis at least 3 years prior to the date when the predicted fracture toughness levels will no longer satisfy section V.B. of Appendix G to 10 CFR Part 50.
Appendix H to 10 CFR Part 50	Reactor Vessel Material Surveillance	Completion of tests after each capsule withdrawal.
Appendix J to 10 CFR Part 50	Reactor Containment Building Integrated Leak Rate Test	Approximately 3 months following conduct of test.

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<sup>1</sup>Technical Specifications