

#### 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. 156 License No. DPR-49

1. The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Iowa Electric Light and Power Company, et al., dated August 29, 1988 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.
- 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:

### (2) Technical->pecifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 156, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

 The license amendment is effective as of the date of issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Timothy 1. Colburn for

John N. Hannon, Director Project Directorate III-3 Division of Reactor Projects - III, IV, V and Special Projects Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: December 7, 1988

## ATTACHMENT TO LICENSE AMENDMENT NO. 156\_

### FACILITY OPERATING LICENSE NO. DPR-49

## DOCKET NO. 50-331

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

### Pages

3	2		1	4	a	
3	2		1	5		
3	2	-	2	5		
3	2	-	4	5	a	

### TABLE 3.2-B (Continued)

### INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Minimum No. of Operable Instrument Channeis Per Trip System (1)	Trip Function	Trip Level Setting	Number of Instrument Channels Provided by Design	Remarks
2	125 VDC System Undervoltage Relay	≥105 VDC ± 5% (6)	2	2 relays, 1 per bus
1	250 VDC System Undervoltage Relay	≥210 VDC <u>+</u> 5% (6)	1	1 relay, 1 per bus
4	+ 24 VDC System Undervoltage Relay	>21 VDC + 5% (6)	4	4 relays, 2 per bus
1	120 VAC Uninterruptible AC Undervoltage Relay	≥110 VAC <u>+</u> 5% (6)	1	l relay, 1 per bus
2	120 VAC Instrument AC Undervoltage Relay	≥110 VAC <u>+</u> 5% (6)	2	2 relays, 1 per bus

3.2-14a

### NOTES FOR TABLE 3.2-B

1. Whenever any CSCS subsystem is required by Subsection 3.5 to be operable, there shall be two operable trip systems. If the first column cunnot be met for one of the trip systems, that trip system shall be placed in the tripped condition or the reactor shall be placed in the Cold Shutdown Condition within 24 hours.

2. Close isolation valves in RCIC subsystem.

3. Close isolation valves in HPCI subsystem.

4. Zero referenced to top of active fuel.\*

5. HPCI has only one trip system for these sensors.

 There is no trip function associated with these relays. The relays provide signals to annunciators only.

7. Four undervoltage relays with integral timers per 4KV bus. The relay output contacts are connected to form a one-out-of-two-twice coincident logic matrix. With one relay inoperable, operation may proceed provided that the inoperable relay is placed in the tripped condition within one hour.

\*Top of active fuel zone is defined to be 344.5 inches above vessel zero (see Bases 3.2).

3.2-15 Amendment No. 59,86,156

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#### DAEC-1

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## TABLE 4.2-B

# MINIMUM TEST AND CALIBRATION FREQUENCY FOR CSCS

	Listrument Channel	Instrument Functional Test(9)	Calibration Frequency (9)	Instrument Check
	1) Reactor Water Level	(1)	Once/3 months	Once/day
	2) Drywell Pressure	(1)	Once/3 months	None
	3) Reactor Pressure	(1)	Once/3 months	None
3.2-26	4) Auto Sequencing Timers	N/A	Annual	None
	5) ADS - LPCI or CS Pump Discharge Pressure Interlock	(1)	Once/3 months	None
	6) Trip System Bus Power Monitors	(1)	Not Applicable	None
	<ol> <li>Recirculation System d/p</li> </ol>	(1)	Once/3 months	Once/day
	<ol> <li>Core Spray Sparger d/p</li> </ol>	(1)	Once/3 months	Once/day
	9) SLeam Line High Flow (HPCI & RCIC)	(1)	Once/3 months	None
	10) Steam Line High Temp. (HPCI & RCIC)	(1)	Annual	Once/day
Amendment No. 58,102,1	11) HPCI and RCIC Steam Line Low Pressure	(1)	Once/3 months	None
	12) HPCI Suction Source Levels	(1)	Once/3 months	None
	13) a. 4KV Emergency Power System Voltage Relays	Annual	Annual	None
	<ul> <li>b. 4KV Emergency Power System Voltage Relays (Degraded Voltage)</li> </ul>	Once/month	Annual	None
	<ol> <li>Instrument AC, Uninterruptible AC and battery bus undercoltage relays</li> </ol>	(1)	Annual	None
42.	15) Low-Low Set Function	(1)	Once/6 months	Once/day

stop valves or fast closure of the turbine control valves with reactor power greater than 30% and a simultaneous failure of the turbine bypass valves to open. The operating limit MCPR of section 3.12.C is calculated assuming an operable EOC-RPT system. If the requirements of Table 3.2-G are not met, then the reactor power level is reduced to a level (85% of raf d) which will ensure that the full-power MCPR limits of section 3.12.C will not be violated if such a transient were to occur.

T function settings are included for Instrument AC and Uninterruptible AC ar battery busses for surveillance of undervoltage relays. The undervoltage relays are required to sense a reduction in the power source voltage so that the subject instruments can be transferred to an alternate power source.

Surveillance tests other than a monthly functional check of the bus power monitors for the RHR, Core Spray, ADS, HPCI and RCIC trip systems are not required since they serve as annunciators for complete loss of power and do not monitor reduction of voltage. The subject functional check consists of opening the appropriate circuit breakers or removing the appropriate fuses and observing the loss of power annunciator activation.

The accident monitoring instrumentation listed in Table 3.2-H were specifically added to comply with the requirements of NUREG-0737 and Generic Letter 83-36. The instrumentation listed is resigned to provide plant status for accidents that exceed the design basis accidents discussed in Chapter 15 of the DAEC UFSAR.

Footnote 9 of Table 3.2-H deviates from the guidance of Generic Letter 83-36 as continued operation for 30 days (instead of 7 days as recommended in the generic letter) is allowed with one of two torus water level monitor (TWLM) channels inoperable. Continued operation is justified by the following considerations:

 Redundancy is available in that at least one channel of the containment water level monitor (CWLM, instrumentation must be available. Since the CWLM envelopes the span measured by the TWLM, the torus water level can be monitored by the CWLM system.

3.2-45a

Amendment No. 124, 151, 156

#### DAEC-1