

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

COMMONWEALTH EDISON COMPANY AND IOWA ILLINOIS GAS AND ELECTRIC COMPANY

DOCKET NO. 50-254

QUAD CITIES STATION UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 82 License No. DPR-29

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Commonwealth Edison Company (the licensee) dated April 13, 1981, as supplemented December 2, 1981 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 3.B of Facility License No. DPR-29 is hereby amended to read as follows:
 - Technical Specifications В.

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 82, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This 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

Massallo

Attachment: Changes to the Technical Specifications

Date of Issuance: November 2, 1982

Attachment to License Amendment No. 82

To Facility Operating License DPR-29

Docket No. 50-254

Revise Appendix A Technical Specifications as follows:

Remove	10	Insert
3.7/4.7-2 3.7/4.7-3		3.7/4.7-2 3.7/4.7-3
3.7/4.7-4		3.7/4.7-4

power operation limit specified in Item 1 within 24 hours.

- 3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110°F. Power operation shall not be resumed until the pool temperature is reduced below the normal operation limit specified in Item 1.
- 4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 150 psig at normal cool-down rates if the pool temperature reaches 120°F.
- a. Maximum downcomer Submergence 3.54 ft.
- e. Minimum downcomer Submergence 3.21 ft.
- 2. Primary containment integrity shall 2. The containment leakage rates shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing low power physics tests at atmospheric pressure at power levels not to exceed 5 MWt.
 - a. When primary containment integrity is required, primary containment leakage rates shall be limited to:
 - 1) An overall integrated leakage rate of:
 - a) ≤ La, 1.0 percent by weight of the containment air per 24 hours at Pa, 48 psig, or

- be demonstrated at the following test schedule, and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4 (1972).
 - a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 10 month intervals during shufder at either Pa, 48 psig, of the Pt, 25 psig during each lo-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection.

- b) ≤ L_t, 1.0 percent by weight of the containment air per 24 hours at a reduced pressure of P_t, 25 psig.
- 2) A combined leakage rate of ≤0.60 L_a for all penetrations and valves, except for main steam isolation valves, subject to Type B and C tests when pressurized to P_a.
- 3) 11.5 scf per hour for any one main steam isolation valve when tested at 25 psig.
- b. With the measured overall integrated contains nt leakage rate exceeding 0.75 L_a or 0.75 L_t, as applicable, restore the overall integrated leakage rate(s) to ≤ 0.75 L_a or ≤ 0.75 L_t, as applicable.
- c. With the measured combined leakage rate for all penetrations and valves, except for main steam isolation valves, subject to Type B and C tests exceeding 0.60 La, restore the combined leakage rate for all penetrations and valves, except for main steam isolation valves, subject to Type B and C tests to 0.60 La.
- d. Leakage shall be limited to a leakage rate of less then or equal to 3.75 percent of La for any one air lock when pressurized to 10 psig.

- b. If any periodic Type A test fails to meet either 0.75 La or 0.75 Lt, the test schedule for subsequent Type A tests shall be reviewed and approved by the commission. If two consecutive Type A tests fail to meet either 0.75 La or 0.75 L, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either 0.75 L or 0.75 Lt, at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 - Confirms the accuracy of the test by verifying that the difference between the supplemental data and the Type A test data is within 0.25 La or 0.25 Lt.
 - 2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.
 - 3) Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage at Pa, 48 psig, or Pt, 25 psig.
- d. Type B and C tests shall be conducted at P_a, 48 psig, at intervals no greater than 24 months except for tests involving:
 - Air locks, which shall be tested at 10 psig at least once per 18 months, and

3.7/4.7-3

- e. With the measured leakage rate exceeding 11.5 scf per hour for any one main steam isolation valve, restore the leakage rate to ≤ 11.5 scf per hour for any one main steam isolation valve prior to increasing the reactor coolant temperature above 212°F.
- 2) Main steam isolation valves, which shall be leak tested at least once per 18 months at a pressure of 25 psig.
- 3) Bolted double-gasketed seals which shall be tested at a pressure of 48 psig whenever the seal is closed after being opened and each operating cycle.
- e. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurements system.
- f. Continuous Leak Rate Monitor
 - When the primary containment is inerted, the containment shall be continuously monitored for gross leakage by review of the inerting system makeup requirements.
 - This monitoring system may be taken out of service for the purpose of maintenance or testing but shall be returned to service as soon as practical.
- Pressure Suppression Chamber-Reactor Building Vacuum Breakers
 - a. The pressure suppression chamber-reactor building vacuum
- 3. Pressure Suppression Chamber-Reactor Building Vacuum Breakers
 - a. Except as specified in Specification 3.7.A.3.b below, two pressure sup-



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

COMMONWEALTH EDISON COMPANY AND IOWA ILLINOIS GAS AND ELECTRIC COMPANY

DOCKET NO. 50-265

QUAD CITIES STATION UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 76 License No. DPR-30

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Commonwealth Edison Company (the licensee) dated April 13, 1981, as supplemented December 2, 1981 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 3.B of Facility License No. DPR-30 is hereby amended to read as follows:
 - B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 76, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This 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

Masselle

Attachment: Changes to the Technical Specifications

Date of Issuance: November 2, 1982

Attachment to License Amendment No. 76

To Facility Operating License DPR-30

Docket No. 50-265

Revise Appendix A Technical Specifications as follows:

Remove	Insert
3.7/4.7-2 3.7/4.7-3 3.7/4.7-4	 3.7/4.7-2 3.7/4.7-3 3.7/4.7-4

power operation limit specified in Item 1 within 24 hours.

- 3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110°F. Power operation shall not be resumed until the pool temperature is reduced below the normal operation limit specified in Item 1.
- 4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 150 psig at normal cool-down rates if the pool temperature reaches 120°F.
- d. Maximum downcomer Submergence 3.54 ft.
- e. Minimum downcomer Submergence 3.21 ft.
- 2. Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing low power physics tests at atmospheric pressure at power levels not to exceed 5 MWt.
 - a. When primary containment integrity is required, primary containment leakage rates shall be limited to:
 - An overall integrated leakage rate of:
 - a) ≤ La, 1.0 percent by weight of the containment air per 24 hours at Pa, 48 psig, or

- 2. The containment leakage rates shall be demonstrated at the following test schedule, and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4 (1972).
 - a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at either Pa, 48 psig, or at Pt, 25 psig during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection.

- b) ≤ L_t, 1.0 percent by weight of the containment air per 24 hours at a reduced pressure of P_t, 25 psig.
- 2) A combined leakage rate of ≤ 0.60 La for all penetrations and valves, except for main steam isolation valves, subject to Type B and C tests when pressurized to Pa.
- 3) 11.5 scf per hour for any one main steam isolation valve when tested at 25 psig.
- b. With the measured overall integrated containment leakage rate exceeding 0.75 La or 0.75 Lt, as applicable, restore the overall integrated leakage rate(s) to ≤ 0.75 La or ≤ 0.75 Lt, as applicable.
- c. With the measured combined leakage rate for all penetrations and valves, except for main steam isolation valves, subject to Type B and C tests exceeding 0.60 La, restore the combined leakage rate for all penetrations and valves, except for main steam isolation valves, subject to Type B and C tests to 0.60 La.
- d. Leakage shall be limited to a leakage rate of less then or equal to 3.75 percent of La for any one air lock when pressurized to 10 psig.

- b. If any periodic Type A test fails to meet either 0.75 La or 0.75 Lt, the test schedule for subsequent Type A tests shall be reviewed and approved by the commission. If two consecutive Type A tests fail to meet either 0.75 La or 0.75 L, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either 0.75 L or 0.75 L, at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 - Confirms the accuracy of the test by verifying that the difference between the supplemental data and the Type A test data is within 0.25 La or 0.25 Lt.
 - 2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.
 - 3) Requires the quantity of gas injected into the containment of bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage at Pa, 48 psig, or Pt, 25 psig.
- d. Type B and C tests shall be conducted at P_a, 48 psig, at intervals no greater than 24 months except for tests involving:
 - Air locks, which shall be tested at 10 psig at least once per 18 months, and -

- e. With the measured leakage rate exceeding 11.5 scf per hour for any one main steam isolation valve, restore the leakage rate to ≤ 11.5 scf per hour for any one main steam isolation valve prior to increasing the reactor coolant temperature above 212°F.
- Main steam isolation valves, which shall be leak tested at least once per 18 months at a pressure of 25 psig.
- 3) Bolted.double-gasketed seals which shall be tested at a pressure of 48 psig whenever the seal is closed after being opened and each operating cycle.
- e. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurements system.
- f. Continuous Leak Rate Monitor
 - When the primary containment is inerted, the containment shall be continuously monitored for gross leakage by review of the inerting system makeup requirements.
 - This monitoring system may be taken out of service for the purpose of maintenance or testing but shall be returned to service as soon as practical.
- Pressure Suppression Chamber-Reactor Building Vacuum Breakers
 - The pressure suppression chamber-reactor building vacuum
- 3. Pressure Suppression Chamber-Reactor Building Vacuum Breakers
 - a. Except as specified in Specification 3.7.A.3.b below, two pressure sup-