DCD-016

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Docket No. 50-254
50-265

Mr. L. DelGeorge
Director of Nuclear Licensing
Commonwealth Edison Company
P. O. Box 767
Chicago, Illinois 60690

Dear Mr. DelGeorge:

The Commission has issued the enclosed Amendment No. 35 to Facility Operating License No. DPR-29 for the Quad Cities Nuclear Power Station, Unit 1. The amendment consists of changes to the Technical Specifications in response to your submittal of December 20, 1982.

The Amendment revises the Technical Specifications to allow operation with one main steam drain isolation valve inoperable, until the first cold shutdown after the 30-day period following December 21, 1982. Operation has been conditioned by new requirements in the Technical Specifications.

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

"ORIGINAL SIGNED BY:"

Roby B. Bevan, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:
1. Amendment No. 85 to DPR-29
2. Safety Evaluation
3. Notice

cc w/enclosure
See next page

Concur and FRN only

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DATE	1/4/83	1/4/83	1/6/83	1/6/83	1/10/83	1/5/83	

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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 NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 85
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 December 20, 1982 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:

   B. Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 85, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. "Within 90 days after the effective date of this amendment, or such later time as the Commission may specify, the Licensee shall satisfy any applicable requirement of P.L. 97-45 related to pursuing an agreement with the Secretary of Energy for the disposal of high-level radioactive waste and spent nuclear fuel."

4. This license amendment is effective as of December 20, 1982.

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: January 20, 1983

Attachment to License Amendment No. 85

To Facility Operating License DPR-29

Docket No. 50-254

Revise Appendix A Technical Specifications as follows:

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

b) $\leq L_t$, 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 $\leq 0.60\ L_a$ for all penetrations and valves, except the main steam isolation valves, and the M01-220-1 valve (while it is inoperable), subject to Type B and C tests when pressurized to P_a. The M01-220-1 valve will be restored to operability no later than startup after the first Cold Shutdown following a 30 day period after December 21, 1982.

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 L_a or 0.75 L_t, as applicable, restore the overall integrated leakage rate(s) to $\leq$ 0.75 L_a or $\leq$ 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 L_a, 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 L_a.

d. Leakage shall be limited to a leakage rate of less then or equal to 3.75 percent of L_a for any one air lock when pressurized to 10 psig.

b. If any periodic Type A test fails to meet either 0.75 L_a or 0.75 L_t, 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 L_a or 0.75 L_t, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either 0.75 L_a or 0.75 L_t, 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:

1) 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 L_a or 0.25 L_t.

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 P_a, 48 psig, or P_t, 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:

1) 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.

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.

4) While valve MO1-220-1 is inoperable, valves MO1-220-2 MO1-220-3, and MO1-220-4 shall be VERIFIED closed after each closure.

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.

3. Pressure Suppression Chamber-Reactor Building Vacuum Breakers

a. Except as specified in Specification 3.7.A.3.b below, two pressure sup-

3. Pressure Suppression Chamber-Reactor Building Vacuum Breakers

a. The pressure suppression chamber-reactor building vacuum

reopened.

2) The main steamline isolation valves (one at a time) shall be verified for closure time.

d. At least twice per week the main steamline power-operated isolation valves shall be exercised by partial closure and subsequent reopening.

2. When an isolation valve listed in Table 3.7-1 is inoperable, the position of at least one other valve in each line having an inoperable valve shall be recorded daily.

2. In the event any isolation valve specified in Table 3.7-1 becomes inoperable, reactor power operation may continue provided at least one valve in each line having an inoperable valve is in the mode corresponding to the isolated condition. *

3. If Specifications 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the cold shutdown condition within 24 hours.

4. The temperature of the main steamline air pilot valves shall be less than 170° F except as specified in Specifications 3.7.D.5 and 3.7.D.6 below.

5. From and after the date that the temperature of any main steamline air pilot valve is found to be greater than 170° F, reactor operation is permissible only during the succeeding 7 days unless the temperature of such valve is sooner reduced to less than 170° F, provided the main steamline isolation valves are operable.

6. If Specification 3.7.D.5 cannot be met, the main steamline isolation valve shall be considered inoperable and action taken in accordance with Specification 3.7.D.2.

* During operating cycle 7, until valve MO-220-1 is restored to operability, valves MO1-220-2,3 and 4 will remain closed, except that when the unit is in start-up/hot standby, valves MO1-220-2, 3 and 4 may be opened as needed to drain the steamlines, and as needed subsequent to Group I isolation to clear the isolation.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 85 TO FACILITY LICENSE NO. DPR-29

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

QUAD CITIES NUCLEAR POWER STATION, UNIT 1

DOCKET NO. 50-254

Background

By telephone calls on December 17 and 18, 1982, the Commonwealth Edison Company (licensee) informed NRR that the inboard main steam drain isolation valve MO-220-1 for Quad Cities Unit 1 could not pass the leak test required by Technical Specifications (TS) 3.7.A.2.a.(2). All reasonable attempts to repair the valve had failed.

The Unit was near the end of a long refueling outage in which extensive high radiation exposure work had been performed, so all available experienced welders were at their exposure limits. Replacement of the valve would require that new welders be procured and qualified. Thus, cutting out the old valve and replacing and testing the new would take an estimated five to seven days. Judging by past experience in similar situations, the time required might be considerably more.

The question then was whether to delay startup to qualify new welders and replace the valve, or to seek an appropriate basis for relief, fully consistent with radiologically health and safety considerations, that would allow the Unit to operate for a limited time before replacing the valve.

By letter dated December 20, 1982, the licensee requested a change to their Technical Specifications which would allow startup with the inoperable valve. The details of the original request were clarified by subsequent discussions between the licensee and the NRC Staff.

Evaluation

General Design Criterion 55 in Appendix A of 10 CFR 50 requires that all containment penetrations that are part of the reactor coolant pressure boundary have two containment isolation valves, unless it can be demonstrated that the containment isolation provisions are acceptable on some other defined basis.

The attached drawing shows the two containment isolation valves for the three-inch main steam drain line. These valves are MO-220-1 and MO-220-2 (designated valve numbers 1 and 2). The licensee's basis for plant operation with valve MO-220-1 inoperable is as follows:

1. The outboard main steam drain isolation valve, MOI-220-2, has been demonstrated to have an acceptably small leakage rate. This valve will close upon a Group I isolation if open. It is normally closed during operation.

2. Until MO-220-1 valve is restored to operability, valves MO-220-2, 3 and 4 will be verified closed after each valve closure.

3. Technical Specifications 3.7.D.2 acknowledges that the unit may be safely operated with only one valve in the isolated condition. Valve MOI-220-2 will normally be closed during reactor power operation; it needs to be opened only during unit startup to drain the main steam lines or following a Group I isolation to allow movement of the MSIVs.

4. Downstream of the 1 and 2 valves, the leakage path leads only to the main condenser or to the other main steam lines and the RBEDT. Two other valves, normally closed valves MOI-220-3 and MOI-220-4, prevent flow through these paths. Any leakage through the 2 and 4 valves together or 2 and 3 valves will be very small.

Following our review of the licensee's proposal, and discussions with the licensee, we have determined that Unit 1 may operate with valve MO-220-1 inoperable, subject to the following new TS requirements:

1. Valve MO-220-1 will be restored to operability no later than startup after the first Cold Shutdown following a 30-day period after December 21, 1982.

2. While valve MO-220-1 is inoperable, valves MO-220-2, 3 and 4 will be verified closed after each closure.

3. During operating Cycle 7, until valve MO-220-1 is restored to operability, valves MO-220-2, 3 and 4 will remain closed, except that when the unit is in the Startup/Hot Standby Mode, valve MO-220-2, 3 and 4 may be opened as needed to drain the steam lines, or as needed after a Group I isolation to clear the isolation.

We conclude these measures are adequate for safe plant operation and are therefore, acceptable.

Environmental Consideration

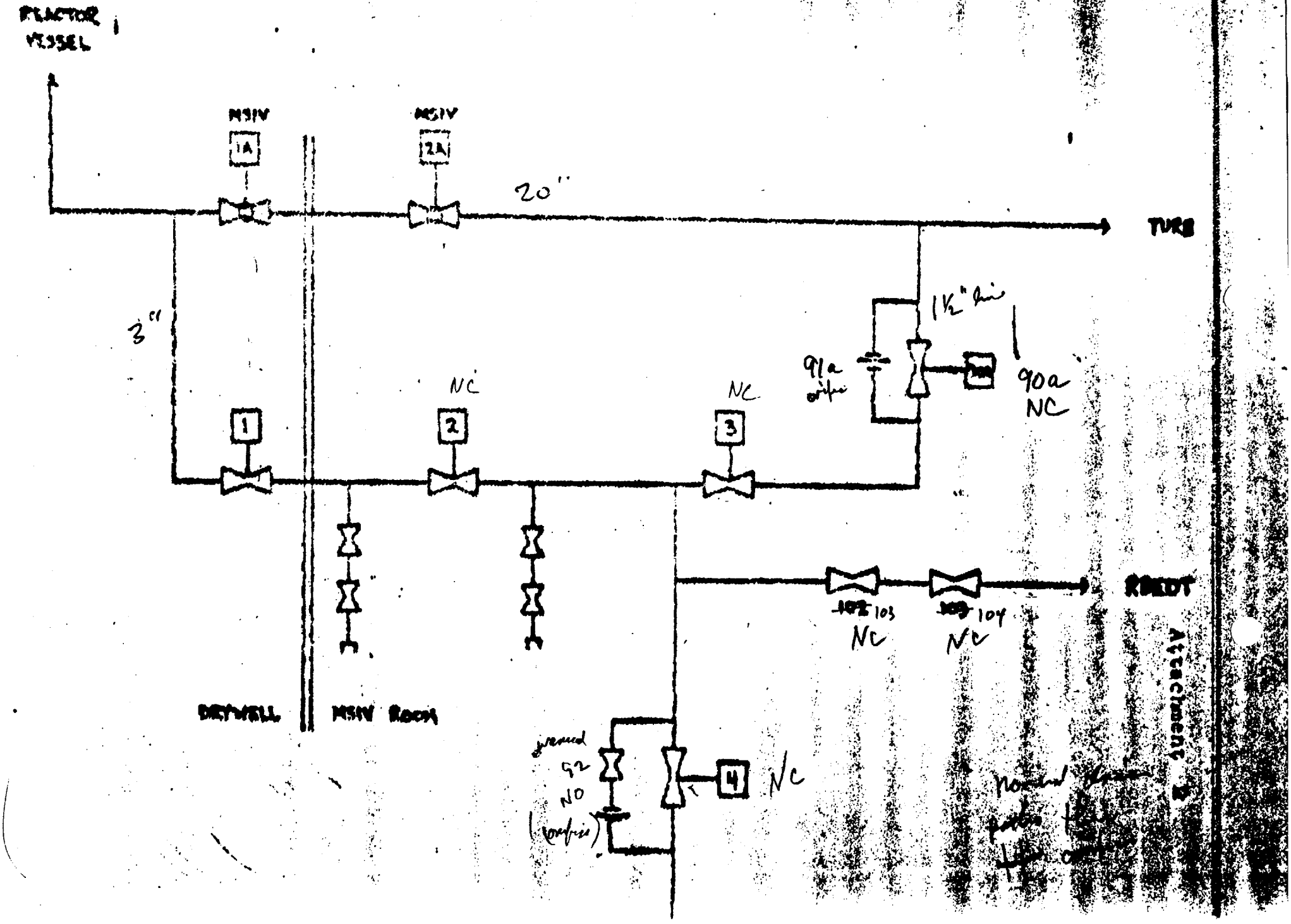
We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: January 20, 1983

Principal Contributor: Roby Bevan and Doug Pickett


REACTOR VESSEL
MSIV 1A
MSIV 2A
20"
TURB
3"
1½" line
91a orifice
90a NC
NC
NC
1
2
3
4
DRYWELL
MSIV Room
103 NC
104 NC
RHR
Attachment 4

UNITF STATES NUCLEAR REGULATORY COMM: ION

DOCKET NO. 50-254

COMMONWEALTH EDISON COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 85 Facility Operating License No. DPR-29, issued to Commonwealth Edison Company, and Iowa Illinois Gas and Electric Company which revised the Technical Specifications for operation of the Quad Cities Nuclear Power Station, Unit 1 located in Rock Island County, Illinois. The amendment became effective December 20, 1982.

The Amendment revises the Technical Specifications to allow operation with one main steam drain isolation valve inoperable, until the first cold shutdown after the 30-day period following December 21, 1982. Operation has been conditioned by new requirements in the Technical Specifications.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of the amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of the amendment will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of the amendment.

For further details with respect to this action, see (1) the application for amendment dated December 20, 1982 (2) the Commissions letter to the licensee dated December 20, 1982 (3) Amendment No. 85 to License No. DPR-29 and (4) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at the Moline Public Library 504-17th Street, Moline, Illinois. A copy of items (2), (3) and (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 20th day of January 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

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