Distribution: D. Eisenhut, Local PDR, L. Schneider, Gray, R. Bevan, ORB#2 Rdg, J. Wetmore, Extra, L. Engle, T. Barnhart-16, S. Norris, ACRS-10, POConnor, R. Diggs, J. Hegner, OPA, HShaw, Docket File, OELD, NSIC, DCrutchfield, ORB#5 Gray, NRC PDR, I&E-2, ASLAB

Docket Nos. 50-237
50-249
50-254
50-265

APR 28 1982

RECEIVED MAY 7 1982 US NUCLEAR REGULATORY COMMISSION

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. 70 to Provisional Operating License No. DPR-19 for Dresden Nuclear Power Station, Unit 2 and Amendment Nos. 62, 76 and 70 to Facility Operating License Nos. DPR-25, DPR-29 and DPR-30 for Dresden Nuclear Power Station Unit 3 and Quad Cities Nuclear Power Station, Units 1 and 2, respectively. These amendments consist of changes to the Technical Specifications in response to your application dated April 16, 1981, as supplemented by letters dated September 29 and October 21, 1981, and as a result of discussions with Mr. Rausch of your staff.

These changes modify the technical specifications to provide additional surveillance requirements for safety-related hydraulic and mechanical snubbers. They incorporate all the necessary and applicable model NRC technical specifications as requested in our November 20, 1981 letter, and thus completes our review of these items for Dresden Units 2 and 3 and Quad Cities Units 1 and 2.

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

Sincerely,

ORIGINAL SIGNED BY

Joseph D. Hegner, Project Manager
Operating Reactors Branch #2
Division of Licensing

Previous concurrence sheet concurred on by:

DL:ORB#2	DL:ORB#2	DL:ORB#2
SNorris	JHegner	RBevan
3/23/82	3/24/82	3/24/82

Enclosures:
1. Amendment No. 70 to DPR-19
2. Amendment No. 62 to DPR-25
3. Amendment No. 76 to DPR-29
4. Amendment No. 70 to DPR-30
5. Safety Evaluation
6. Notice

DL:ORAB	DL:ORB#5	DL:ORB#5
HShaw	POConnor	DCrutchfield
3/29/82	3/24/82	3/25/82

OFFICE		DL:ORB#2	DL:ORB#3	DL:OR	OELD		
SURNAME	cc w/encls: See next page	DVassallo	LEngle	TMNovak	Goddard		
DATE		3/30/82	3/29/82	3/31/82	4/1/82		

8205130562 820428 PDR ADOCK 05000237 P PDR

Mr. L. DelGeorge
Commonwealth Edison Company

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Atomic Safety and Licensing Board Panel
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-237

DRESDEN STATION UNIT NO. 2

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 70
License No. DPR-19

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

   A. The application for amendment by the Commonwealth Edison Company (the licensee) dated April 16, 1981 as supplemented by letter dated September 29, 1981, 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 3.B of Provisional License No. DPR-19 is hereby amended to read as follows:

   B. Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 70, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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PDR ADOCK 05000237
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3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis M. Crutchfield

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 28, 1982

3.6 LIMITING CONDITION FOR OPERATION

I. Snubbers (Shock Suppressors)

1. During all modes of operation except cold shutdown and refuel, all safety related snubbers listed in Table 3.6.1a and 3.6.1b shall be operable except as noted in Specification 3.6.I.2 through 3.6.I.4.

2. From and after the time a snubber is determined to be inoperable, continued reactor operation is permissible only during the succeeding 72 hours unless the snubber is sooner made operable or replaced.

3. If the requirements of 3.6.I.1 and 3.6.I.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in cold shutdown or refuel condition within 36 hours.

4. If a snubber is determined to be inoperable while the reactor is in the cold shutdown or refuel mode, the snubber shall be made operable or replaced prior to reactor startup.

5. Snubbers may be added to safety related systems without prior license amendment to Tables 3.6.1a and/or 3.6.1b provided that a revision to Tables 3.6.1a and/or 3.6.1b is included with the next license amendment request.

4.6 SURVEILLANCE REQUIREMENT

I. Snubbers (Shock Suppressors)

The following surveillance requirements apply to all safety related snubbers listed in Tables 3.6.1a and 3.6.1b.

1. Visual Inspection

An independent visual inspection shall be performed on the safety related hydraulic and mechanical snubbers contained in Tables 3.6.1a and 3.6.1b in accordance with the below schedule.

a. All hydraulic snubbers whose seal material has been demonstrated by operating experience, lab testing or analysis to be compatible with the operating environment shall be visually inspected. This inspection shall include, but not necessarily be limited to, inspection of the hydraulic fluid reservoir, fluid connections, and linkage connection to the piping and anchor to verify snubber operability.

b. All mechanical snubbers shall be visually inspected. This inspection shall consist of, but not necessarily be limited to, inspection of the snubber and attachments to the piping and anchor for indications of damage or impaired operability.

No. of Snubbers Found Inoperable During Inspection Interval	Next Required Inspection Interval
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3, 4	124 days ± 25%
5, 6, 7	62 days ± 25%
≥8	31 days ± 25%

The required inspection interval shall not be lenthened more than one step at a time.

Snubbers may be categorized in two groups, "accessible" or "inaccessible," based on their accessibility for inspection during reactor operation. These two groups may be inspected independently according to the above schedule.

2. Functional Testing

a. Once each refueling cycle, a representative sample of approximately 10% of the hydraulic snubbers contained in Table 3.6.1a shall be functionally tested for operability, including:

*(i) Activiation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

*(ii) Snubber bleed, or release rate, where required, is within the specified range in compression or tension.

*NOTE: Paragraphs (i) and (ii) shall not become effective until competitive marketable test fixtures are available. Until such time, but in no case to exceed 12/31/83, demonstration of snubber bleed, or release, shall be sufficient.

For each unit and subsequent unit found inoperable, an additional 10% of the hydraulic snubbers shall be tested until no more failures are found or all units have been tested.

b. Once each refueling cycle, a representative sample of approximately 10% of the mechanical snubbers contained in Table 3.6.1b shall be functionally tested for operability. The test shall consist of two parts:

** (i) Verification that the force that initiates free movement of the snubber in either tension or compression is less than the specified maximum breakaway friction force.

** (ii) Verify that the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression.

** NOTE: Paragraph (ii) shall not become effective until competitive marketable test fixtures are available. Until then, but in no case to exceed 12/31/83, the functional test will be limited to only paragraph (i).

3.6 LIMITING CONDITION FOR OPERATION

4.6 SURVEILLANCE REQUIREMENT

For each unit and subsequent unit found inoperable, an additional 10% of the mechanical snubbers shall be so tested until no more failures are found or all units have been tested.

c. In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the resampling.

3. When a snubber is deemed inoperable, a review of all pertinent facts shall be conducted to determine the snubber mode of failure and to decide if an engineering evaluation should be performed on the supported system or components. If said evaluation is deemed necessary, it will determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

4. If any snubber selected for functional testing either fails to lock up or fails to move, i.e., frozen in place, the cause will be evaluated and, if determined to be a generic deficiency, all snubbers of the same design subject to the same defect shall be functionally tested.

5. Snubber service life monitoring shall be followed by existing station record systems, including the central filing system, maintenance files, safety related work packages, and snubber inspection records. The above record retention methods shall be used to prevent the hydraulic snubbers from exceeding a service life of 10 years and the mechanical snubbers from exceeding a service life of 40 years (lifetime of the plant).

TABLE 3.6.1b (Continued)

SAFETY RELATED MECHANICAL SNUBBERS

SNUBBER NO.	LOCATION	ELEVATION	AZIMUTH	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
37	Drywell Recirc. Line 201A-28"	518'	90°	X	X	
38	Drywell Shutdown Cooling Line 1001A-16"	523'	0°	X	X	
39	Drywell Rx Water Cleanup Line 1201-8"	533'	316°	X	X	
40	Drywell Rx Water Cleanup Line 1201-8"	533'	301°	X	X	
41	Drywell Main Steam Line 3001B-20"	534'	28°	X	X	
42	Drywell Main Steam Line 3001A-20"	536'	14°	X	X	
43	Drywell Main Steam Line 3001D-20"	536'	346°	X	X	
44	Drywell Main Steam Line 3001C-20"	536'	332°	X	X	
45	Drywell Main Steam Line 3001B-20"	545'	105°	X	X	
46	Drywell Main Steam Line 3001B-20"	543'	105°	X	X	
47	Drywell Main Steam Line 3001A-20"	542'	73°	X	X	
48	Drywell Main Steam Line 3001A-20"	543'6"	73°	X	X	
49	Drywell Main Steam Line 3001A-20"	539'	20°	X	X	
50	Drywell Main Steam Line 3001C-20"	543'6"	195°	X	X	
51	Drywell Main Steam Line 3001C-20"	542'	195°	X	X	
52	Drywell Main Steam Line 3001D-20"	543'	343°	X	X	
53	Drywell Main Steam Line 3001D-20"	544'	343°	X	X	

Modifications to this table due to changes in high radiation should be submitted to the NRC as part of the next license amendment request.

H. Recirculation Pump Flow Mismatch

The LPCI loop selection logic has been described in the Dresden Nuclear Power Station Units 2 and 3 FSAR, Amendments 7 and 8. For some limited low probability accidents with the recirculation loop operating with large speed differences, it is possible for the logic to select the wrong loop for injection. For these limited conditions, the core spray itself is adequate to prevent fuel temperatures from exceeding allowable limits. However, to limit the probability even further, a procedural limitation has been placed on the allowable variation in speed between the recirculation pumps.

The licensee's analyses indicate that above 80% power the loop select logic could not be expected to function at a speed differential of 15%. Below 80% power, the loop select logic would not be expected to function at a speed differential of 20%. This specification provides a margin of 5% in pump speed differential before a problem could arise. If the reactor is operating on one pump, the loop select logic trips that pump before making the loop selection.

In addition, during the start-up of Dresden Unit 2, it was found that a flow mismatch between the two sets of jet pumps caused by a difference in recirculation loops could set up a vibration until a mismatch in speed of 27% occurred. The 10% and 15% speed mismatch restrictions provide additional margin before a pump vibration problem will occur.

ECCS performance during reactor operation with one recirculation loop out of service has not been analyzed. Therefore, sustained reactor operation under such conditions is not permitted.

I. Snubbers (Shock Suppressors)

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the snubber protection is required only during low probability events, a period of 72 hours is allowed for repairs or replacements. In case a shutdown is required, the allowance of 36 hours to reach a cold shutdown condition will permit an orderly shutdown consistent with standard operating procedures. Since plant startup should not commence with knowingly defective safety related equipment, Specification 3.6.I.4 prohibits startup with inoperable snubbers.

When a snubber is found inoperable, a review shall be performed to determine the snubber mode of failure. Results of the review shall be used to determine if an engineering evaluation of the safety-related system or component is necessary. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the support component or system.

All safety related hydraulic snubbers are visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate hydraulic fluid level and proper attachment of snubber to piping and structures.

All safety related mechanical snubbers are visually inspected for overall integrity and operability. The inspection will include verification of proper orientation and attachments to the piping and anchor for indications of damage or impaired operability.

The inspection frequency is based upon maintaining a constant level of snubber protection. Thus, the required inspection interval varies inversely with the observed snubber failures. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original require time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

To further increase the assurance of snubber reliability, functional tests will be performed once each refueling cycle. A representative sample of 10% of the safety-related snubbers will be functionally tested. Observed failures on these samples will require testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as different entities for the above surveillance programs.

Hydraulic snubber testing will include stroking of the snubbers to verify piston movement, lock-up, and bleed. Functional testing of the mechanical snubbers will consist of verification that the force that initiates free movement of the snubber in either tension or compression is less than the maximum breakaway friction force. The remaining portion of the functional test consisting of verification that the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression will not be done. This is due to the lack of competitive marketable test fixtures available for station use. Therefore, until such time as test fixtures become available, only part (i) of the test will be performed; part (ii) will not be done.

When the cause of rejection of the snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

Monitoring of snubber service life shall consist of the existing station record systems, including the central filing system, maintenance files, safety-related work packages, and snubber inspection records. The record retention programs employed at the station shall allow station personnel to maintain snubber integrity. The service life for hydraulic snubbers is 10 years. The hydraulic snubbers existing locations do not impose undue safety implications on the piping and components because they are not exposed to excesses in environmental conditions. The service life for mechanical snubbers is 40 years, lifetime of the plant. The mechanical snubbers are installed in areas of harsh environmental conditions because of their dependability over hydraulic snubbers in these areas. All snubber installations have been thoroughly engineered providing the necessary safety requirements. Evaluations of all snubber locations and environmental conditions justify the above conservative snubber service lives.

3.7 LIMITING CONDITION FOR OPERATION

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 Mw(t).

a. Primary containment leakage rates are defined from:

(1) The calculated peak containment internal pressure, P_a, is equal to 48 psig.

(2) The containment vessel reduced test pressure, P_t, is equal to 25 psig.

(3) The maximum allowable leakage rate at a pressure of P_a, L_a, is equal to 1.6 percent by weight of the containment air per 24 hours at 48 psig.

(4) The maximum allowable test leakage rate at a pressure of P_t, L_t, is less than or equal to L_a (L_{tm}/L_{am}). If L_{tm}/L_{am} is greater than 0.7, L_t is (specified as equal to) L_a $(P_t/P_a)^{\frac{1}{2}}$.

(5) The total measured leakage rates at pressures of P_a and P_t are L_{am} and L_{tm}, respectively.

b. When primary containment integrity is required, primary containment leakage rates shall be limited to:

(1) An overall integrated leakage rate for Type A tests of:

(a) L_{am} less than or equal to 75 percent of L_a.

(b) L_{tm} less than or equal to 75 percent of L_t.

4.7 SURVEILLANCE REQUIREMENTS

2. The primary containment integrity shall be demonstrated by conducting Primary Containment Leak Tests and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and references therein.

a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during each 10 year plant in-service inspection interval at either P_a or P_t with the last being done during the 10-year in-service inspection shutdown.

b. If any periodic Type A test fails to meet either 75 percent of L_a or 75 percent of L_t, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission.

c. If two consecutive Type A tests fail to meet either 75 percent of L_a or 75 percent of L_t, a Type A test shall be performed at each shutdown for refueling or approximately every 18 months until two consecutive Type A tests meet the above requirements, at which time the normal test schedule may be resumed.

d. 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 25 percent of L_a or 25 percent of L_t.

(2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.

(2) (a) A combined leakage rate of less than or equal to 60 percent of L_a for all testable penetrations and isolation valves subject to Type B and C tests except for main steam isolation valves.

(b) A leakage rate of less than or equal to 3.75 percent of L_a for any one air lock when pressurized to 10 psig.

(c) 11.5 SCF per hour for any main steam isolation valve at a test pressure of 25 psig.

(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 9 scfm.

e. Type B and C tests shall be conducted at P_a, at intervals no greater than 24 months except for tests involving:

(1) Main steam line isolation valves which shall be tested at a pressure of 25 psig each operating cycle.

(2) 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.

(3) Air locks which shall be tested at 10 psig each operating cycle.

f. Continuous Leak Rate Monitor

(1) When the primary containment is inerted, the containment shall be continuously monitored for gross leakage by review of the inerting system make-up requirements.

(2) 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.

g. The interior surfaces of the drywell shall be visually inspected each operating cycle for evidence of deterioration.

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

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

DRESDEN STATION UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 62
License No. DPR-25

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

   A. The application for amendment by the Commonwealth Edison Company (the licensee) dated April 16, 1981 as supplemented by letter dated September 29, 1981, 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 3.B of Facility Operating License No. DPR-25 is hereby amended to read as follows:

   B. Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 62 , 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 its 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: April 28, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 62

FACILITY OPERATING LICENSE NO. DPR-25

DOCKET NO. 50-249

Revise the Appendix "A" Technical Specifications as follows:

Remove	Replace
91b	91b
91c	91c
--	91c-1
91d	91d-1
--	91d-2
91e	91e-1
--	91e-2
99a	99a
99b	99b

3.6 LIMITING CONDITION FOR OPERATION

I. Snubbers (Shock Suppressors)

1. During all modes of operation except cold shutdown and refuel, all safety related snubbers listed in Table 3.6.1a and 3.6.1b shall be operable except as noted in Specification 3.6.I.2 through 3.6.I.4.

2. From and after the time a snubber is determined to be inoperable, continued reactor operation is permissible only during the succeeding 72 hours unless the snubber is sooner made operable or replaced.

3. If the requirements of 3.6.I.1 and 3.6.I.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in cold shutdown or refuel condition within 36 hours.

4. If a snubber is determined to be inoperable while the reactor is in the cold shutdown or refuel mode, the snubber shall be made operable or replaced prior to reactor startup.

5. Snubbers may be added to safety related systems without prior license amendment to Tables 3.6.1a and/or 3.6.1b provided that a revision to Tables 3.6.1a and/or 3.6.1b is included with the next license amendment request.

4.6 SURVEILLANCE REQUIREMENT

I. Snubbers (Shock Suppressors)

The following surveillance requirements apply to all safety related snubbers listed in Tables 3.6.1a and 3.6.1b.

1. Visual Inspection

An independent visual inspection shall be performed on the safety related hydraulic and mechanical snubbers contained in Tables 3.6.1a and 3.6.1b in accordance with the below schedule

a. All hydraulic snubbers whose seal material has been demonstrated by operating experience, lab testing or analysis to be compatible with the operating environment shall be visually inspected. This inspection shall include, but not necessarily be limited to, inspection of the hydraulic fluid reservoir, fluid connections, and linkage connection to the piping and anchor to verify snubber operability.

b. All mechanical snubbers shall be visually inspected. This inspection shall consist of, but not necessarily be limited to, inspection of the snubber and attachments to the piping and anchor for indications of damage or impaired operability.

No. of Snubbers Found Inoperable During Inspection Interval	Next Required Inspection Interval
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3, 4	124 days ± 25%
5, 6, 7	62 days ± 25%
≥8	31 days ± 25%

The required inspection interval shall not be lenthened more than one step at a time.

Snubbers may be categorized in two groups, "accessible" or "inaccessible," based on their accessibility for inspection during reactor operation. These two groups may be inspected independently according to the above schedule.

2. Functional Testing

a. Once each refueling cycle, a representative sample of approximately 10% of the hydraulic snubbers contained in Table 3.6.1a shall be functionally tested for operability, including:

*(i) Activiation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

*(ii) Snubber bleed, or release rate, where required, is within the specified range in compression or tension.

*NOTE: Paragraphs (i) and (ii) shall not become effective until competitive marketable test fixtures are available. Until such time, but in no case to exceed 12/31/83, demonstration of snubber bleed, or release, shall be sufficient.

For each unit and subsequent unit found inoperable, an additional 10% of the hydraulic snubbers shall be tested until no more failures are found or all units have been tested.

b. Once each refueling cycle, a representative sample of approximately 10% of the mechanical snubbers contained in Table 3.6.1b shall be functionally tested for operability. The test shall consist of two parts:

** (i) Verification that the force that initiates free movement of the snubber in either tension or compression is less than the specified maximum breakaway friction force.

** (ii) Verify that the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression.

** NOTE: Paragraph (ii) shall not become effective until competitive marketable test fixtures are available. Until then, but in no case to exceed 12/31/83, the functional test will be limited to only paragraph (i).

3.6 LIMITING CONDITION FOR OPERATION	4.6 SURVEILLANCE REQUIREMENT

For each unit and subsequent unit found inoperable, an additional 10% of the mechanical snubbers shall be so tested until no more failures are found or all units have been tested.

c. In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the resampling.

3. When a snubber is deemed inoperable, a review of all pertinent facts shall be conducted to determine the snubber mode of failure and to decide if an engineering evaluation should be performed on the supported system or components. If said evaluation is deemed necessary, it will determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

4. If any snubber selected for functional testing either fails to lock up or fails to move, i.e., frozen in place, the cause will be evaluated and, if determined to be a generic deficiency, all snubbers of the same design subject to the same defect shall be functionally tested.

5. Snubber service life monitoring shall be followed by existing station record systems, including the central filing system, maintenance files, safety related work packages, and snubber inspection records. The above record retention methods shall be used to prevent the hydraulic snubbers from exceeding a service life of 10 years and the mechanical snubbers from exceeding a service life of 40 years (lifetime of the plant).

TABLE 3.6.1a

SAFETY RELATED HYDRAULIC SNUBBERS

SNUBBER NO.	LOCATION	ELEVATION	AZIMUTH	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
2	Torus Ring Header 1501-24"	483'	83°			X
3	Torus Ring Header 1501-24"	483'	74°			X
4	Torus Ring Header 1501-24"	483'	38°			X
5	Torus Ring Header 1501-24"	483'	29°			X
7	Torus Ring Header 1501-24"	483'	331°			X
8	Torus Ring Header 1501-24"	483'	322°			X
9	Torus Ring Header 1501-24"	483'	286°			X
10	Torus Ring Header 1501-24"	483'	277°			X
12	Torus Ring Header 1501-24"	483'	218°			X
13	Torus Ring Header 1501-24"	483'	209°			X
15	Torus Ring Header 1501-24"	483'	151°			X
16	Torus Ring Header 1501-24"	483'	142°			X

*Modifications to this table due to changes in high radiation should be submitted to the NRC as part of the next license amendment request.

Amendment No. 62

TABLE 3.6.1a (Continued)

SAFETY RELATED HYDRAULIC SNUBBERS

SNUBBER NO.	LOCATION	ELEVATION	AZIMUTH	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
	Isolation Condenser Pipeway Room:					
1	Isolation Condenser Line 1303-12"	558'	180°	X		X
2	Isolation Condenser Line 1303-12"	568'	180°	X		X
3	Isolation Condenser Line 1302-14"	580'	195°	X		X

*Modifications to this table due to changes in high radiation should be submitted to the NRC as part of the next license amendment request.

TABLE 3.6.1b

SAFETY RELATED MECHANICAL SNUBBERS

SNUBBER NO.	LOCATION	ELEVATION	AZIMUTH	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
1	Drywell Recirc. Motor 3B-202	524'	328°	X	X	
2	Drywell Recirc. Motor 3B-202	524'	302°	X	X	
3	Drywell Recirc. Motor 3B-202	524'	315°	X	X	
4	Drywell Recirc. Motor 3A-202	524'	148°	X	X	
5	Drywell Recirc. Motor 3A-202	524'	122°	X	X	
6	Drywell Recirc. Motor 3A-202	524'	135°	X	X	
7	Drywell Recirc. Pump 3B-202	512'	326°	X	X	
8	Drywell Recirc. Pump 3B-202	512'	304°	X	X	
9	Drywell Recirc. Pump 3B-202	507'	315°	X	X	
10	Drywell Recirc. Pump 3A-202	512'	124°	X	X	
11	Drywell Recirc. Pump 3A-202	512'	146°	X	X	
12	Drywell Recirc. Pump 3A-202	507'	135°	X	X	
13	Removed					
14	Removed					
15	Drywell LPCI Line 1506-16"	513'	256°	X	X	
16	Drywell LPCI Line 1519-16"	513'	95°	X	X	
17	Removed					
18						
19						
20						
21	Drywell Recirc. Header 201A-22"	533'6"	22°	X	X	
22	Drywell HPCI Line 2305-10"	550'	121°	X	X	

*Modifications to this table due to changes in high radiation should be submitted to the NRC as part of the next license amendment request.

TABLE 3.6.1b (Continued)

SAFETY RELATED MECHANICAL SNUBBERS

SNUBBER NO.	LOCATION	ELEVATION	AZIMUTH	SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN	SNUBBERS INACCESSIBLE DURING NORMAL OPERATION	SNUBBERS ACCESSIBLE DURING NORMAL OPERATION
23	Drywell Cleanup Line 1201-8"	537'6"	84°	X	X	
24	Removed					
25	Drywell Cleanup Line 1201-8"	537'6"	78°	X	X	
26	Removed					
27	Drywell Cleanup Line 1201-8"	538'6"	60°	X	X	
28	Removed					
29	Drywell Core Spray Line 1404-10"	573'	231°	X	X	
30	Drywell Core Spray Line 1403-10"	563'	336°	X	X	
31	Drywell HPCI Line 2305-10"	563'	140°	X	X	
32	Drywell Target Rock Valve 203-3A	542'6"	14°	X	X	
33	Drywell Target Rock Valve 203-3A	542'2"	31°	X	X	
34	Drywell Target Rock Valve 203-3A	540'	19°	X	X	
35	Drywell Target Rock Valve 203-3A	540'6"	34°	X	X	

*Modifications to this table due to changes in high radiation should be submitted to the NRC as part of the next license amendment request.

Amendment No. 62

H. Recirculation Pump Flow Mismatch

The LPCI loop selection logic has been described in the Dresden Nuclear Power Station Units 2 and 3 FSAR, Amendments 7 and 8. For some limited low probability accidents with the recirculation loop operating with large speed differences, it is possible for the logic to select the wrong loop for injection. For these limited conditions, the core spray itself is adequate to prevent fuel temperatures from exceeding allowable limits. However, to limit the probability even further, a procedural limitation has been placed on the allowable variation in speed between the recirculation pumps.

The licensee's analyses indicate that above 80% power the loop select logic could not be expected to function at a speed differential of 15%. Below 80% power, the loop select logic would not be expected to function at a speed differential of 20%. This specification provides a margin of 5% in pump speed differential before a problem could arise. If the reactor is operating on one pump, the loop select logic trips that pump before making the loop selection.

In addition, during the start-up of Dresden Unit 2, it was found that a flow mismatch between the two sets of jet pumps caused by a difference in recirculation loops could set up a vibration until a mismatch in speed of 27% occurred. The 10% and 15% speed mismatch restrictions provide additional margin before a pump vibration problem will occur.

ECCS performance during reactor operation with one recirculation loop out of service has not been analyzed. Therefore, sustained reactor operation under such conditions is not permitted.

I. Snubbers (Shock Suppressors)

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Because the snubber protection is required only during low probability events, a period of 72 hours is allowed for repairs or replacements. In case a shutdown is required, the allowance of 36 hours to reach a cold shutdown condition will permit an orderly shutdown consistent with standard operating procedures. Since plant startup should not commence with knowingly defective safety related equipment, Specification 3.6.I.4 prohibits startup with inoperable snubbers.

When a snubber is found inoperable, a review shall be performed to determine the snubber mode of failure. Results of the review shall be used to determine if an engineering evaluation of the safety-related system or component is necessary. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the support component or system.

All safety related hydraulic snubbers are visually inspected for overall integrity and operability. The inspection will include verification of proper orientation, adequate hydraulic fluid level and proper attachment of snubber to piping and structures.

All safety related mechanical snubbers are visually inspected for overall integrity and operability. The inspection will include verification of proper orientation and attachments to the piping and anchor for indications of damage or impaired operability.

The inspection frequency is based upon maintaining a constant level of snubber protection. Thus, the required inspection interval varies inversely with the observed snubber failures. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original require time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

To further increase the assurance of snubber reliability, functional tests will be performed once each refueling cycle. A representative sample of 10% of the safety-related snubbers will be functionally tested. Observed failures on these samples will require testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as different entities for the above surveillance programs.

Hydraulic snubber testing will include stroking of the snubbers to verify piston movement, lock-up, and bleed. Functional testing of the mechanical snubbers will consist of verification that the force that initiates free movement of the snubber in either tension or compression is less than the maximum breakaway friction force. The remaining portion of the functional test consisting of verification that the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression will not be done. This is due to the lack of competitive marketable test fixtures available for station use. Therefore, until such time as test fixtures become available, only part (i) of the test will be performed; part (ii) will not be done.

When the cause of rejection of the snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

Monitoring of snubber service life shall consist of the existing station record systems, including the central filing system, maintenance files, safety-related work packages, and snubber inspection records. The record retention programs employed at the station shall allow station personnel to maintain snubber integrity. The service life for hydraulic snubbers is 10 years. The hydraulic snubbers existing locations do not impose undue safety implications on the piping and components because they are not exposed to excesses in environmental conditions. The service life for mechanical snubbers is 40 years, lifetime of the plant. The mechanical snubbers are installed in areas of harsh environmental conditions because of their dependability over hydraulic snubbers in these areas. All snubber installations have been thoroughly engineered providing the necessary safety requirements. Evaluations of all snubber locations and environmental conditions justify the above conservative snubber service lives.

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. 76
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 16, 1981 as supplemented by letters dated September 29 and October 21, 1981, 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 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.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 its 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: April 28, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 76

FACILITY OPERATING LICENSE NO. DPR-29

DOCKET NO. 50-254

Revise the Appendix "A" Technical Specifications as follows:

Remove	Replace
3.6/4.6-5a	3.6/4.6-5a
3.6/4.6-6	3.6/4.6-6
3.6/4.6-7	3.6/4.6-7
3.6/4.6-13a	--
3.6/4.6-14	3.6/4.6-14
--	3.6/4.6-14a
3.6/4.6-15	3.6/4.6-15
3.6/4.6-15a	3.6/4.6-15a
3.6/4.6-15b	3.6/4.6-15b
--	3.6/4.6-15c
--	3.6/4.6-15d
--	3.6/4.6-15e
--	3.6/4.6-15f
3.6/4.6-15c	3.6/4.6-15g

within 24 hours unless the loop is sooner returned to service.

I. Shock Suppressors (Snubbers)

1. During all modes of operation except Shutdown and Refuel, all snubbers listed in Table 3.6-1 shall be operable except as noted in 3.6.1.2 following.

2. From and after the time that a snubber is determined to be inoperable, continued reactor operation is permissible during the succeeding 72 hours only if the snubber is sooner made operable.

3. If the requirements of 3.6.1.1 and 3.6.1.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown condition within 36 hours.

4. If a snubber is determined to be inoperable while the reactor is in the Shutdown or Refuel mode, the snubber shall be made operable prior to reactor start-up.

5. Snubbers may be added to safety-related systems without prior license Amendment to Table 3.6-1 provided that a revision to Table 3.6-1 is included with the next license amendment request.

I. Shock Suppressors (Snubbers)

The following surveillance requirements apply to all snubbers listed in Table 3.6-1.

1. Visual inspections shall be performed in accordance with the following schedule utilizing the acceptance criteria given by Specification 4.6.1.2.

Number of Snubbers Found Inoperable During Inspection or During Inspection Interval	Next Required Inspection Interval
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3,4	124 days ± 25%
5,6,7	62 days ± 25%
≥ 8	31 days ± 25%

The required inspection interval shall not be lengthened more than one step at a time.

Snubbers may be categorized in two groups, 'accessible' or 'inaccessible' based on their accessibility for inspection during reactor operation. These two groups may be inspected independently according to the above schedule.

Snubber service life monitoring shall be followed by the snubber surveillance inspection records and maintenance history records. The above record retention method shall be used to prevent the snubbers from exceeding a service life.

2. Visual Inspections shall verify:

   a. There are no visible indications of damage or impaired operability, and

   b. Attachments to the foundation or supporting structure are secure.

   c. For hydraulic snubbers, the hydraulic fluid reservoir and fluid connections shall be inspected for operability.

3. Once each refueling cycle a representative sample of 10% of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test criteria, an additional 10% of that type of snubber shall be functionally tested.

4. The hydraulic snubber shall be functionally tested for operability, including verification of proper piston movement, lockup, and bleed. When competitive marketable test fixtures are available, but no later than 12/31/83, the functional test shall include demonstrating snubber bleed, or release, rate is within the specified range in compression or tension.

5. The mechanical snubber functional tests shall verify:
   a. That the breakaway force that initiates free movement of the snubber rod

in either tension or compression is less than the specified maximum force.

b. That the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression. This test cannot be performed until competitive marketable test fixtures are manufactured and on site. Until such test fixtures are available, but no later than 12/31/83, the functional test for mechanical snubbers will be limited to 4.6.1.5.a.

6. When a snubber is deemed inoperable, a review shall be conducted to determine the mode of failure and to decide if an engineering evaluation should be performed. If the engineering evaluation is deemed necessary, it will determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

7. If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if determined to be generically deficient all snubbers of the same design, subject to the same defect shall be functionally tested.

8. In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the resampling

I. SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

Snubber service life monitoring will be followed by the existing snubber surveillance inspection records and maintenance history records. The above record retention method should be used to prevent the hydraulic snubber from exceeding a service life of 10 years and the mechanical snubbers from exceeding a service life of 40 years.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at refueling cycle intervals. Hydraulic snubber functional testing will include stroking of the snubbers to verify piston movement, lockup and bleed. Functional testing of the mechanical snubber will consist of verification that the force that initiates free movement of the snubber in either tension or compression is less than the maximum breakaway friction force. The remaining portions of the functional test consisting of verification that the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression will not be done. This is due to the lack of competitive marketable test equipment available for Station use.

When a snubber is found inoperable, a review shall be performed to determine the snubber mode of failure. Results of the review shall be used to determine if an engineering evaluation of the safety-related system or component is necessary. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the support component or system.

Observed failures of these sample snubbers shall require functional testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	1-1	Drywell; core spray return line 1-1403-10"	644	X		X	
M	1-2	Drywell; core spray return line 1-1403-10"	644	X		X	
M	1-3	Drywell; core spray return line 1-1404-10"	642	X		X	
M	1-4	Drywell; core spray return line 1-1404-10"	642	X		X	
M	1-5	Drywell; RHR return line 1-1012A-16"	603	X		X	
M	1-6	Drywell; RHR return line 1-1012A-16"	599	X		X	
M	1-7	Drywell; RHR return line 1-1012B-16"	598	X		X	
M	1-8	Drywell; RHR return line 1-1012B-16"	603	X		X	
M	1-9	Drywell; RHR shutdown cooling supply line 1-1025-20"	601	X		X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	1-10	Drywell; RHR shutdown cooling supply line 1-1025-20"	601	X		X	
M	1-11	Drywell; "A" recirculation pump to shield wall	586 at 135°	X	X	X	
M	1-12	Drywell; "B" recirculation pump to shield wall	586 at 315°	X	X	X	
M	1-13	Drywell; "A" recirculation pump to support	586 at 146.5°	X	X	X	
M	1-14	Drywell; "B" recirculation pump to support	586 at 304°	X	X	X	
M	1-15	Drywell; "B" recirculation pump to support	586 at 326.5°	X	X	X	
M	1-16	Drywell; recirculation ring header	610 at 90°	X	X	X	
M	1-17	Drywell; recirculation ring header	610 at 270°	X	X	X	
M	1-18	Drywell; "A" recirculation pump motor to support	612 at 135°	X	X	X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	1-19	Drywell; "B" recirculation pump motor to support	612 at 315°	X	X	X	
M	1-20	Drywell; recirculation ring header to support	612 at 195°	X	X	X	
M	1-21	Drywell; "A" recirculation pump to support	588 at 124°	X	X	X	
M	1-22	Drywell; "A" recirculation pump motor to shield wall	602 at 122°	X		X	
M	1-23	Drywell; "A" recirculation pump motor to shield wall	602 at 148°	X		X	
M	1-24	Drywell; "B" recirculation pump motor to shield wall	602 at 302°	X		X	
M	1-25	Drywell; "B" recirculation pump motor to shield wall	602 at 328°	X		X	
M	1-26	Drywell; main stream relief valve 1-203-3A	619	X	X	X	
M	1-27	Drywell; main stream relief valve 1-203-3A	619	X	X	X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	1-28	Drywell; main stream relief valve 1-203-3A	619	X		X	
M	1-29	Drywell; main stream relief valve 1-203-3A	619	X	X	X	
M	1-30	Drywell; northeast end of CRD cluster	605	X		X	
M	1-31	Drywell; northwest end of CRD cluster	605	X		X	
M	1-32	Drywell; southeast end of CRD cluster	605	X		X	
M	1-33	Drywell; southwest end of CRD cluster	605	X		X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
H	1-36	Reactor bldg; RHR shutdown cooling supply line 1-1025-20"	590				X
H	1-37	Reactor bldg; RHR shutdown cooling supply line 1-1024A-20"	573		X		X
H	1-38	Reactor bldg; RHR shutdown cooling supply line 1-1024A-20"	573		X		X
H	1-39	Reactor bldg; RHR shutdown cooling supply line 1-1024A-20"	573		X		X
H	1-40	Reactor bldg; RHR shutdown cooling supply line 1-1024A-20"	573		X		X
H	1-41	Reactor bldg; RHR pump supply line 1-1015A-24"	562	X			X
H	1-42	Reactor bldg; RHR pump supply line 1-1015-24"	562	X			X
M	1-43	Drywell; Recirc line 1-201-22"	610	X	X	X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	1-44	Drywell; Recirc line 1-201C-12"	614	X	X	X	
M	1-45	Drywell; Recirc line 1-201M-12"	614	X	X	X	
M	1-46	Drywell; Recirc line 1-201B-28"	613	X	X	X	
M	1-47	Drywell; Recirc line 1-201C-12"	613	X	X	X	
M	1-48	Drywell; Recirc line 1-202A-28"	594	X.	X	X	
M	1-49	Drywell; RHRS line 1-1011-4"	627	X	X	X	
M	1-50	MSIV Rm; Main Steam line 1-3001A-24"	615	X	X		X
M	1-51	MSIV Rm; Main Steam line 1-3001A-24"	615	X	X		X

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	1-52	MSIV Rm; Main Steam line 1-3001B-24"	615	X	X		X
M	1-53	MSIV Rm; Main Steam line 1-3001B-24"	615	X	X		X
M	1-54	MSIV Rm; Main Steam line 1-3001C-24"	615	X	X		X
M	1-55	MSIV Rm; Main Steam line 1-3001C-24"	615	X	X		X
M	1-56	MSIV Rm; Main Steam line 1-3001D-24"	615	X	X		X
M	1-57	MSIV Rm; Main Steam line 1-3001D-24"	615	X	X		X

*M = Mechanical Snubber
H = Hydraulic Snubber

Minimum Temperature Requirements per Appendix G of 10 CFR 50

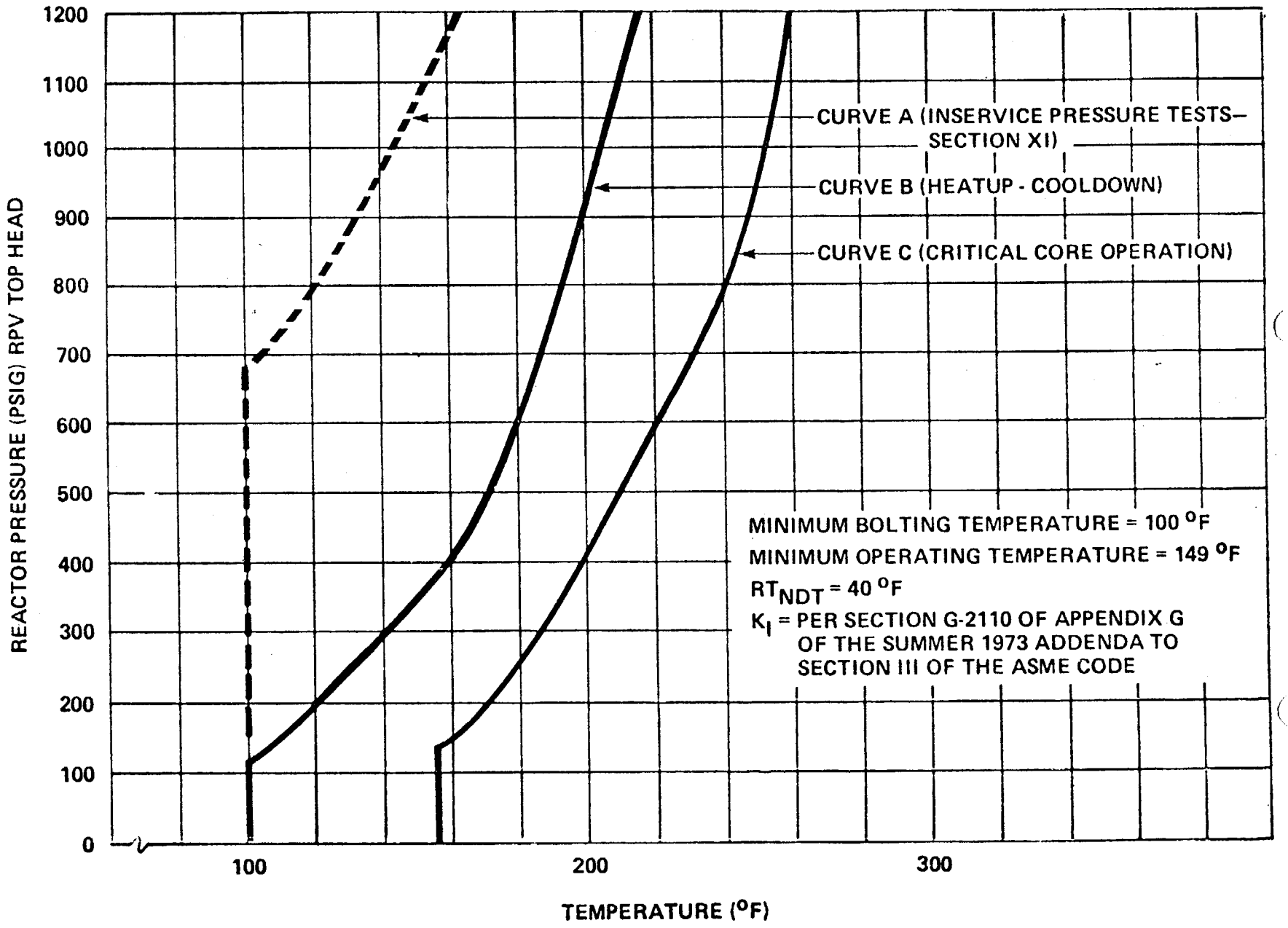

Fig. 3.6.1

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.70
License No. DPR-30

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

   A. The application for amendment by the Commonwealth Edison Company (the licensee) dated April 16, 1981 as supplemented by letter dated September 29, 1981 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 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. 70, 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 its 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: April 28, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 70

FACILITY OPERATING LICENSE NO. DPR-30

DOCKET NO. 50-265

Revise the Appendix "A" Technical Specifications as follows:

Remove	Replace
3.6/4.6-5a	3.6/4.6-5a
3.6/4.6-6	3.6/4.6-6
3.6/4.6-7	3.6/4.6-7
3.6/4.6-13a	--
3.6/4.6-14	3.6/4.6-14
--	3.6/4.6-14a
3.6/4.6-15	3.6/4.6-15
3.6/4.6-15a	3.6/4.6-15a
3.6/4.6-15b	3.6/4.6-15b
--	3.6/4.6-15c
--	3.6/4.6-15d
3.6/4.6-15c	3.6/4.6-15e

sooner returned to service.

I. Shock Suppressors (Snubbers)

1. During all modes of operation except Shutdown and Refuel, all snubbers listed in Table 3.6-1 shall be operable except as noted in 3.6.1.2 following.

2. From and after the time that a snubber is determined to be inoperable, continued reactor operation is permissible during the succeeding 72 hours only if the snubber is sooner made operable.

3. If the requirements of 3.6.1.1 and 3.6.1.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown condition within 36 hours.

4. If a snubber is determined to be inoperable while the reactor is in the Shutdown or Refuel mode, the snubber shall be made operable prior to reactor start-up.

5. Snubbers may be added to safety-related systems without prior license Amendment to Table 3.6-1 provided that a revision to Table 3.6-1 is included with the next license amendment request.

I. Shock Suppressors (Snubbers)

The following surveillance requirements apply to all snubbers listed in Table 3.6-1.

1. Visual inspections shall be performed in accordance with the following schedule utilizing the acceptance criteria given by Specification 4.6.1.2.

Number of Snubbers Found Inoperable During Inspection or During Inspection Interval	Next Required Inspection Interval
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3,4	124 days ± 25%
5,6,7	62 days ± 25%
≥8	31 days ± 25%

The required inspection interval shall not be lengthened more than one step at a time.

Snubbers may be categorized in two groups, 'accessible' or 'inaccessible' based on their accessibility for inspection during reactor operation. These two groups may be inspected independently according to the above schedule.

Snubber service life monitoring shall be followed by the snubber surveillance inspection records and maintenance history records. The above record retention method shall be used to prevent the snubbers from exceeding a service life.

2. Visual Inspections shall verify:

   a. There are no visible indications of damage or impaired operability, and

   b. Attachments to the foundation or supporting structure are secure.

   c. For hydraulic snubbers, the hydraulic fluid reservoir and fluid connections shall be inspected for operability.

3. Once each refueling cycle a representative sample of 10% of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test criteria, an additional 10% of that type of snubber shall be functionally tested.

4. The hydraulic snubber shall be functionally tested for operability, including verification of proper piston movement, lockup, and bleed.

5. The mechanical snubber functional tests shall verify:

   a. That the breakaway force that initiates free movement of the snubber rod

Snubber service life monitoring shall be followed by the snubber surveillance inspection records and maintenance history records. The above record retention method shall be used to prevent the snubbers from exceeding a service life.

2. Visual Inspections shall verify:

   a. There are no visible indications of damage or impaired operability, and

   b. Attachments to the foundation or supporting structure are secure.

   c. For hydraulic snubbers, the hydraulic fluid reservoir and fluid connections shall be inspected for operability.

3. Once each refueling cycle a representative sample of 10% of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test criteria, an additional 10% of that type of snubber shall be functionally tested.

4. The hydraulic snubber shall be functionally tested for operability, including verification of proper piston movement, lockup, and bleed. When competitive marketable test fixtures are available, but no later than 12/31/83, the functional test shall include demonstrating snubber bleed, or release, rate is within the specified range in compression or tension.

5. The mechanical snubber functional tests shall verify:
   a. That the breakaway force that initiates free movement of the snubber rod

in either tension or compression is less than the specified maximum force.

b. That the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression. This test cannot be performed until competitive marketable test fixtures are manufactured and on site. Until such test fixtures are available, but no later than 12/31/83, the functional test for mechanical snubbers will be limited to 4.6.1.5.a.

6. When a snubber is deemed inoperable, a review shall be conducted to determine the mode of failure and to decide if an engineering evaluation should be performed. If the engineering evaluation is deemed necessary, it will determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

7. If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if determined to be generically deficient all snubbers of the same design, subject to the same defect shall be functionally tested.

8. In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the resampling

I. SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

Snubber service life monitoring will be followed by the existing snubber surveillance inspection records and maintenance history records. The above record retention method should be used to prevent the hydraulic snubber from exceeding a service life of 10 years and the mechanical snubbers from exceeding a service life of 40 years.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at refueling cycle intervals. Hydraulic snubber functional testing will include stroking of the snubbers to verify piston movement, lockup and bleed. Functional testing of the mechanical snubber will consist of verification that the force that initiates free movement of the snubber in either tension or compression is less than the maximum breakaway friction force. The remaining portions of the functional test consisting of verification that the activation (restraining action) is achieved within the specified range of acceleration in both tension and compression will not be done. This is due to the lack of competitive marketable test equipment available for Station use.

When a snubber is found inoperable, a review shall be performed to determine the snubber mode of failure. Results of the review shall be used to determine if an engineering evaluation of the safety-related system or component is necessary. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the support component or system.

Observed failures of these sample snubbers shall require functional testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-1	Drywell; core spray return line 2-1403-10"	644	X		X	
M	2-2	Drywell; core spray return line 2-1403-10"	644	X		X	
M	2-3	Drywell; core spray return line 2-1404-10"	642	X		X	
M	2-4	Drywell; core spray return line 2-1404-10"	642	X		X	
M	2-5	Drywell; RHR return line 2-1012A-16"	603	X		X	
M	2-6	Drywell; RHR return line 2-1012A-16"	599	X		X	
M	2-7	Drywell; RHR return line 2-1012B-16"	598	X		X	
M	2-8	Drywell; RHR return line 2-1012B-16"	603	X		X	
M	2-9	Drywell; RHR shutdown cooling supply line 2-1025-20"	601	X		X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-10	Drywell; RHR shutdown cooling supply line 2-1025-20"	601	X		X	
M	2-11	Drywell; "A" recirculation pump to shield wall	586 at 135°	X	X	X	
M	2-12	Drywell; "B" recirculation pump to shield wall	586 at 315°	X	X	X	
M	2-13	Drywell; "A" recirculation pump to support	586 at 146.5°	X	X	X	
M	2-14	Drywell; "B" recirculation pump to support	586 at 326.5°	X	X	X	
M	2-15	Drywell; "B" recirculation pump to support	586 at 304	X	X	X	
M	2-16	Drywell; recirculation ring header	610 at 90°	X	X	X	
M	2-17	Drywell; recirculation ring header	610 at 270°	X	X	X	
M	2-18	Drywell; "A" recirculation pump motor to support	612 at 135°	X	X	X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-19	Drywell; "B" recirculation pump motor to support	612 at 315°	X	X	X	
M	2-20	Drywell; recirculation ring header to support	612 at 195°	X	X	X	
M	2-21	Drywell; "A" recirculation pump to support	588 at 124°	X	X	X	
M	2-22	Drywell; "A" recirculation pump motor to shield wall	602 at 122°	X		X	
M	2-23	Drywell; "A" recirculation pump motor to shield wall	602 at 148°	X		X	
M	2-24	Drywell; "B" recirculation pump motor to shield wall	602 at 302°	X		X	
M	2-25	Drywell; "B" recirculation pump motor to shield wall	602 at 328°	X		X	
M	2-26	Drywell; main stream relief valve 2-203-3A	619	X	X	X	
M	2-27	Drywell; main stream relief valve 2-203-3A	619	X	X	X	

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
M	2-28	Drywell; main stream relief valve 2-203-3A	619	X	X	X	
M	2-29	Drywell; main stream relief valve 2-203-3A	619	X	X	X	
M	2-30	Drywell; northeast end of CRD cluster	605	X		X	
M	2-31	Drywell; northwest end of CRD cluster	605	X		X	
M	2-32	Drywell; southeast end of CRD cluster	605	X		X	
M	2-33	Drywell; southwest end of CRD cluster	605	X		X	
H	2-34	Reactor bldg; RHR Pump D supply line 2-1016D-14"	558	X			X
H	2-35	Reactor bldg; RHR Pump D supply line 2-1016D-14"	558	X			X
H	2-36	Reactor bldg; RHR shutdown cooling supply line 2-1025-20"	591		X		X

*M = Mechanical Snubber
H = Hydraulic Snubber

Table 3.6-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Type*	Snubber Number	Location	Elevation (feet)	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
H	2-37	Reactor bldg; HPCI steam supply line 2-2305-10"	588		X		X
H	2-38	Reactor bldg; Pressure Suppression vent line 2-1603-18"	646				X
H	2-39	Reactor bldg; SBGTS vent line 2-1607-6"	655				X
H	2-40	Reactor bldg; SBGTS vent line 2-1607-6"	655				X
H	2-41	MSIV Rm; RCIC steam line 2-1307-3"	605	X			X
H	2-42	MSIV Rm; RCIC steam line 2-1307-3"	605	X			X

*M = Mechanical Snubber
H = Hydraulic Snubber

Minimum Temperature Requirements per Appendix G of 10 CFR 50

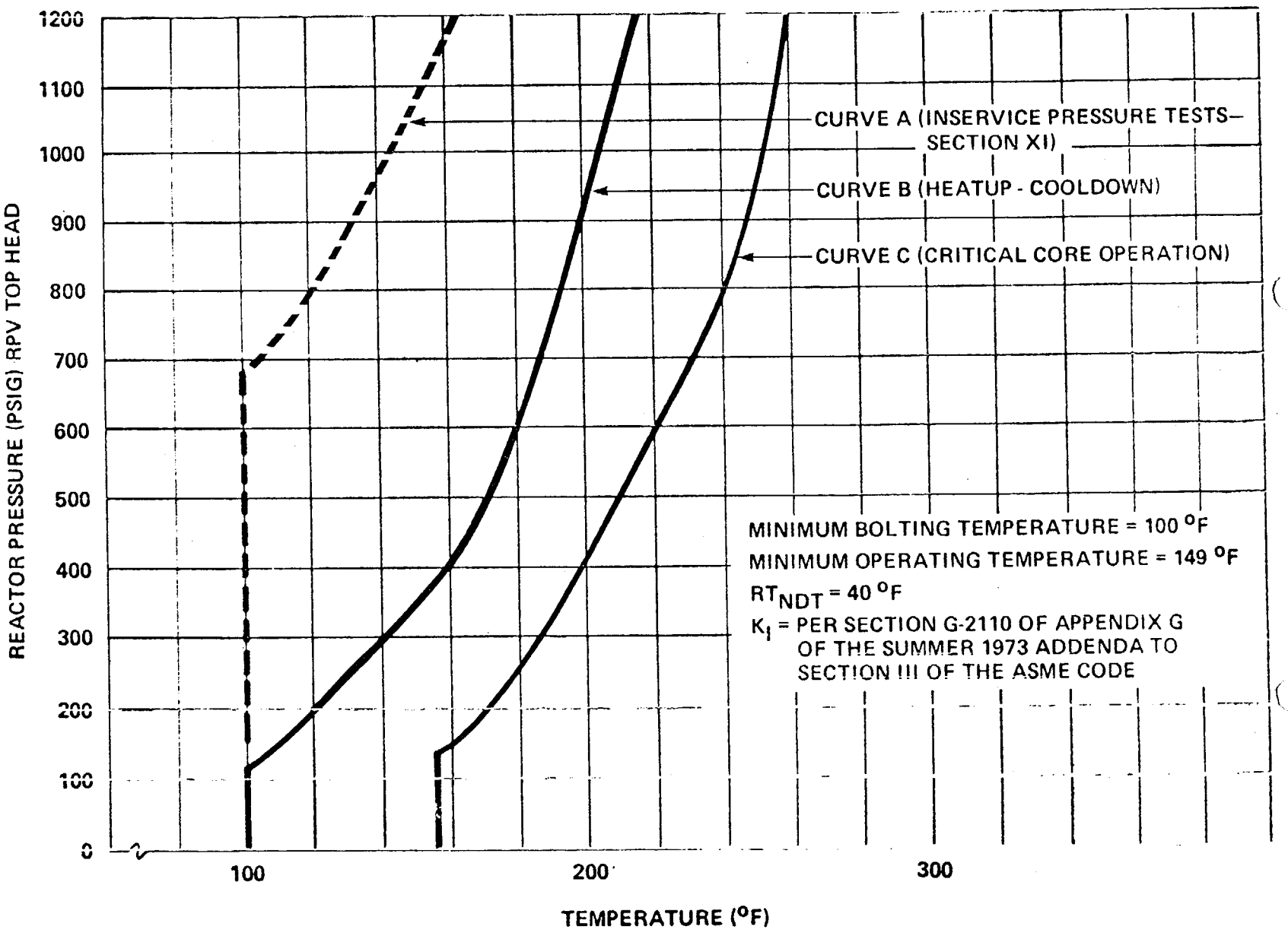

Fig. 3.6.1

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 70 TO PROVISIONAL OPERATING LICENSE NO. DPR-19

AMENDMENT NO. 62 TO FACILITY OPERATING LICENSE NO. DPR-25,

AMENDMENT NO. 76 TO FACILITY OPERATING LICENSE NO. DPR-29,

AND

AMENDMENT NO.70 TO FACILITY OPERATING LICENSE NO. DPR-30

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

DRESDEN STATION UNIT NOS. 2 AND 3

QUAD CITIES STATION UNIT NOS. 1 AND 2

DOCKET NOS. 50-237, 50-249, 50-254, 50-265

MULTI-PLANT ITEMS B-17 AND B-22

INSERVICE SURVEILLANCE OF SAFETY-RELATED SNUBBERS

I. INTRODUCTION

Author: H. Shaw

To reflect accumulated experience obtained from operating plants in the past several years, NRC issued Revision 1 of the Standard Technical Specifications on the surveillance requirements for safety-related snubbers. On November 20, 1980, this document was transmitted to operating plants excluding those under SEP along with a request for submittal of appropriate license amendments to incorporate the requirements of this revision within 120 days. The same request was extended to SEP plants on March 23, 1981.

II. DESCRIPTION AND DISCUSSION

Numerous discoveries of inoperative snubbers in the period of 1973 to 1975 resulted in their surveillance requirements in the Technical Specifications for operating reactor plants. However, several deficiencies were identified after the original requirements were in force for several years. These deficiencies are:

1. Mechanical snubbers were not included in these requirements.

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2. The rated capacity of snubbers was used as a limit to the inservice test requirement.

3. NRC approval was necessary for the acceptance of seal materials.

4. Inservice test requirements were not clearly defined.

5. In-place inservice testing was not permitted.

Since mechanical snubbers were not subject to any surveillance requirements, some licensees and permit holders believed that mechanical snubbers were preferred by NRC. Many plants used mechanical snubbers as original equipment and many others requested to replace their hydraulic snubbers with mechanical ones to simplify or avoid an inservice surveillance program. This is directly contradictory to NRC's intention, where for an unsurveyed mechanical snubber, the most likely failure is permanent lock-up. This failure mode can be harmful to the system during normal plant operations.

During the period of 1973-1975, when the first hydraulic snubber surveillance requirements in the Technical Specifications were drafted, a compromise was made to limit the testing of snubbers to those with rated capacity of not more than 50,000 lbs. This is because of the available capacity of the test equipment and the requirement to test some parameters at the snubber rated load. Since then, greater equipment capacity and better understanding of parametric correlation both developed. To maintain this arbitrary 50,000 lb. limit could mean an unnecessary compromise in plant safety.

The original hydraulic snubber problem started from leaking seals. Most seal materials of the 1973 vintage could not withstand the temperature and irradiation environments. Ethylene propylene was the first material that could offer a reasonable service life for those seals. In order to discourage the use of unproven material for those seals, the words "NRC approved material" were used in the Technical Specifications. Staff members were asked to approve different seal materials on many occasions. Consequently, since the basis for the approval was not defined, the development of better seal materials by the industry was actually discouraged.

The not-well-defined acceptance criteria in the earlier version of the testing requirements resulted in non-uniform interpretations and implementation. Acceptance criteria were set individually at widely different ranges. Since the rationale of adopting specific acceptance

criteria was not clear, I&E inspectors found it impossible to make any necessary corrections. In some cases, snubbers were tested without reference to acceptance criteria.

Testing of snubbers was usually accomplished by removing snubbers from their installed positions, mounting them on a testing rig, conducting the test, removing them from rig, and reinstalling them to the working position. Many snubbers were damaged in the removing and reinstallation process. This defeated the purpose for conducting tests. Since methods and equipment have been developed to conduct in-place tests on snubbers, taking advantage of these developments could result in minimizing the damage to snubbers caused by removal and reinstallation plus time and cost savings to the plants.

From these short-comings it was concluded that the snubber surveillance requirements of the Technical Specifications should be revised.

The revised surveillance requirements correct these deficiencies in the following manner:

1. Mechanical snubbers are now included in the surveillance program.

2. No arbitrary snubber capacity is used as a limit to the inservice test requirements.

3. Seal material no longer requires NRC approval. A monitoring program shall be implemented to assure that snubbers are functioning within their service life.

4. Clearly defined inservice test requirements for snubbers shall be implemented.

5. In-place inservice testing shall be permitted.

III. EVALUATION

The current Revision 3 (and the preceeding Revision 2) of the Standard Technical Specifications contain no substantive changes to the applicable sections of STS Revision 1 previously provided to licensees as guidance. The proposed license amendments submitted by Commonwealth Edison Company by letter dated April 16, 1981, as supplemented by letters dated September 29 and October 21, 1981, for Dresden Units 2 and 3 and Quad Cities Units 1 and 2, have incorporated the necessary requirements in Revision 3 of the Standard Technical Specifications for the surveillance of safety-related snubbers and are therefore, acceptable.

IV. ENVIRONMENTAL CONSIDERATION

We have determined that these amendments do 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 these amendments involve an

action which is insignificant from the standpoint of environmental impact, and pursuant to 10 CFR Section 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 these amendments.

V. CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: April 28, 1982

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-237, 50-249, 50-254 AND 50-265

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 70 to Provisional Operating License No. DPR-19, and Amendment No. 62 to Facility Operating License No. DPR-25, issued to Commonwealth Edison Company, which revised the Technical Specifications for operation of the Dresden Nuclear Power Station, Unit Nos. 2 and 3, located in Grundy County, Illinois. The Commission has also issued Amendment No. 76 to Facility Operating License No. DPR-29, and Amendment No. 70 to Facility Operating License No. DPR-30, 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 Nos. 1 and 2, located in Rock Island County, Illinois. The amendments are effective as of the date of issuance.

The amendments authorize changes to the Technical Specifications to provide additional surveillance requirements for safety-related hydraulic and mechanical snubbers.

The application for the amendments 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 amendments. Prior public notice of these amendments

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was not required since the amendments do not involve a significant hazards consideration.

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

For further details with respect to this action, see (1) the application for amendments dated April 16, 1981 as supplemented by letters dated September 29 and October 21, 1981, (2) Amendment No. 70 to License No. DPR-19, Amendment No. 62 to License No. DPR-25, Amendment No. 76 to License No. DPR-29, and Amendment No. 70 to License No. DPR-30, and (3) 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, NW., Washington, D.C., and at the Morris Public Library, 604 Liberty Street, Morris, Illinois, for Dresden 2 and 3 and at the Moline Public Library, 504 - 17th Street, Moline, Illinois, for Quad Cities 1 and 2. A copy of items (2) and (3) 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 28th day of April 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

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