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Docket Nos. 50-254
50-265

OCT 1 1976

Commonwealth Edison Company
ATTN: Mr. R. L. Bolger
Assistant Vice President
Post Office Box 767
Chicago, Illinois 60690

Gentlemen:

In response to your request dated March 11, 1976, the Commission has issued the enclosed Amendment Nos. 32 and 31 to Facility Operating License Nos. DPR-29 and DPR-30 for Unit Nos. 1 and 2 of the Quad Cities Nuclear Power Station, respectively.

These amendments modify the existing Quad Cities snubber Technical Specifications to (1) specify the safety related snubbers which must be inspected, (2) provide for adding snubbers to safety related systems, (3) delete the requirement that the initial snubber inspection be performed within 4 months of the issuance of Amendment No. 14 to License DPR-29 and Amendment No. 10 to License DPR-30 which were issued on June 17, 1975, and (4) delete the requirement to disassemble two snubbers per facility during each refueling outage.

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

Sincerely,

Original signed by
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:

1. Amendment No. 32 to License No. DPR-29
2. Amendment No. 31 to License No. DPR-30
3. Safety Evaluation
4. Notice

#32 for -29
#31 for -30

not see IP: [unclear]

cc w/enclosures: office next page	DOR:ORB #2 RMD:ags 9/24/76	DOR:ORB #2 PO'Connor:ro 9/28/76	OELD PARMAH 9/28/76	DOR:ORB #2 DLZiemann 10/11/76
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October 1, 1976

cc w/enclosures:
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filing dtd. 3/11/76:
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Illinois Department of Public Health
Springfield, Illinois 62706



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 UNIT NO. 1

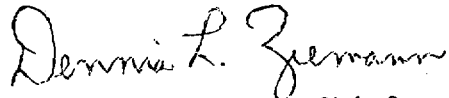
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 32
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 March 11, 1976, 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.
3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 1, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 32

FACILITY OPERATING LICENSE NO. DPR-29

DOCKET NO. 50-254

The following changes relate to the Appendix A portion of the Quad Cities Unit No. 1 Technical Specifications. The changed areas on the revised pages are shown by marginal lines.

Remove Pages

3.6/4.6-5a
3.6/4.6-6
3.6/4.6-7
3.6/4.6-13a
3.6/4.6-14
3.6/4.6-15

Insert Pages

3.6/4.6-5a
3.6/4.6-6
3.6/4.6-7
3.6/4.6-13a
3.6/4.6-14
3.6/4.6-15
3.6/4.6-15a
3.6/4.6-15b

QUAD-CITIES
DPR-29

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

I. Shock Suppressors (Snubbers)

1. During all modes of operation except Cold Shutdown and Refuel, all hydraulic snubbers listed in Table 3.6-1 shall be operable except as noted in 3.6.I.2 through 3.6.I.4 following.

I. Shock Suppressors (Snubbers)

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

1. All hydraulic snubbers whose seal material has been demonstrated by

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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.I.1 and 3.6.I.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 startup.
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.

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 in accordance with the following schedule:

<i>Number of Snubbers Found Inoperable During Inspection or During Inspection Interval</i>	<i>Next Required Inspection Interval</i>
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.

2. All hydraulic snubbers whose seal materials are other than ethylene propylene or other material that has been demonstrated to be compatible with the operating environment shall be visually inspected for operability every 31 days.

3. Once each refueling cycle, a representative sample of 10 hydraulic snubbers or approximately 10% of the hydraulic snubbers, whichever is less, shall be functionally tested for operability including verification of proper piston movement, lock up and bleed. For each unit and subsequent unit found inoperable, an additional 10% or ten hydraulic snubbers shall be so tested until no more failures are found or all units have been tested.

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I. Shock Suppressors (Snubbers)

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 hydraulic snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

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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.

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 the snubber to piping and structures.

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 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.

Experience at operating facilities has shown that the required surveillance program should assure an acceptable level of snubber performance provided that the seal materials are compatible with the operating environment.

Snubbers containing seal material which has not been demonstrated by operating experience, lab tests, or analysis to be compatible with the operating environment should be inspected more frequently (every month) until material compatibility is confirmed or an appropriate changeout is completed.

Examination of defective snubbers at reactor facilities and material tests performed at several laboratories (Reference 1) has shown that millable gum polyurethane deteriorates rapidly under the temperature and moisture conditions present in many snubber locations. Although molded polyurethane exhibits greater resistance to these conditions, it also may be unsuitable for application in the higher temperature environments. Data are not currently available to precisely define an upper temperature limit for the molded polyurethane. Lab tests and in-plant experience indicate that seal materials are available, primarily ethylene propylene compounds, which should give satisfactory performance under the most severe conditions expected in reactor installations.

To further increase the assurance of snubber reliability, functional tests should be performed once each refueling cycle. These tests will include stroking of the snubbers to verify proper piston movement, lock-up and bleed. Ten percent or ten snubbers, whichever is less, represents an adequate sample for such tests. Observed failures on these samples should require testing of additional units. Those snubbers designated in Table 3.6.1 as being in high radiation areas or especially difficult to remove need not be selected for functional tests provided operability was previously verified.

References

1. H. R. Erikson, Bergen Paterson, report to K. R. Goller, NRC, October 7, 1974. Subject: Hydraulic Shock Sway Arrestors.

QUAD-CITIES
DPR-29

TABLE 3.6-1
SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

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
1	Drywell; core spray return line 1-1403-10"	644	X		X	
2	Drywell; core spray return line 1-1403-10"	644	X		X	
3	Drywell; core spray return line 1-1404-10"	642	X		X	
4	Drywell; core spray return line 1-1404-10"	642	X		X	
5	Drywell; RHR return line 1-1012A-16"	603	X		X	
6	Drywell; RHR return line 1-1012A-16"	599	X		X	
7	Drywell; RHR return line 1-1012B-16"	598	X		X	
8	Drywell; RHR return line 1-1012B-16"	603	X		X	
9	Drywell; RHR shutdown cooling supply line 1-1025-20"	601	X		X	
10	Drywell; RHR shutdown cooling supply line 1-1025-20"	601	X		X	
11	Drywell; "A" recirculation pump to shield wall	586 at 135°	X	X	X	
12	Drywell; "B" recirculation pump to shield wall	586 at 315°	X	X	X	
13	Drywell; "A" recirculation pump to support	586 at 146.5°	X	X	X	
14	Drywell; "B" recirculation pump to support	586 at 304°	X	X	X	
15	Drywell; "B" recirculation pump to support	586 at 326.5°	X	X	X	
16	Drywell; recirculation ring header	610 at 90°	X	X	X	

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SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

TABLE 3.6-1 (Cont'd)

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
17	Drywell; recirculation ring header	610 at 270°	X	X	X	
18	Drywell; "A" recirculation pump motor to support	612 at 135°	X		X	
19	Drywell; "B" recirculation pump motor to support	612 at 315°	X		X	
20	Drywell; recirculation ring header to support	612 at 195°	X	X	X	
21	Drywell; "A" recirculation pump to support	588 at 124°	X	X	X	
22	Drywell; "A" recirculation pump motor to shield wall	602 at 122°	X		X	
23	Drywell; "A" recirculation pump motor to shield wall	602 at 148°	X		X	
24	Drywell; "B" recirculation pump motor to shield wall	602 at 302°	X		X	
25	Drywell; "B" recirculation pump motor to shield wall	602 at 328°	X		X	
26	Drywell; main steam isolation valve 1-203-3A	619	X		X	
27	Drywell; main steam isolation valve 1-203-3A	619	X		X	
28	Drywell; main steam isolation valve 1-203-3A	619	X		X	
29	Drywell; main steam isolation valve 1-203-3A	619	X		X	
30	Drywell; northeast end of CRD cluster	605	X	X	X	
31	Drywell; northwest end of CRD cluster	605	X	X	X	
32	Drywell; southeast end of CRD cluster	605	X	X	X	
33	Drywell; southwest end of CRD cluster	605	X	X	X	

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SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

TABLE 3.6-1 (Cont'd)

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
34	Reactor bldg; RHR fuel pool system cross tie return line 1-1070-6"	642				X
35	Reactor bldg; RHR fuel pool system cross tie return line 1-1070-6"	642		X		X
36	Reactor bldg; RHR shut down cooling supply line 1-1025-20"	573		X		X
37	Reactor bldg; RHR shut down cooling supply line 1-1024A-20"	573		X		X
38	Reactor bldg; RHR shut down cooling supply line 1-1024A-20"	573		X		X
39	Reactor bldg; RHR shut down cooling supply line 1-1024A-20"	573		X		X
40	Reactor bldg; RHR shut down cooling supply line 1-1024A-20"	590				X
41	Reactor bldg; RHR pump supply line 1-1015A-24"	562	X			X
42	Reactor bldg; RHR pump supply line 1-1015A-24"	562	X			X



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 UNIT NO. 2

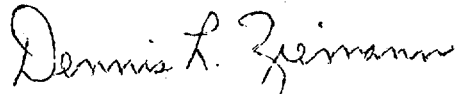
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 31
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 March 11, 1976, 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.
3. This license amendment is effective as of the date of its issuance:

FOR THE NUCLEAR REGULATORY COMMISSION



Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 1, 1976

ATTACHMENT TO LICENSE NO. 31

FACILITY OPERATING LICENSE NO. DPR-30

DOCKET NO. 50-265

The following changes relate to the Appendix A portion of the Quad Cities Unit No. 2 Technical Specifications. The changed areas on the revised pages are shown by marginal lines.

Remove Pages

3.6/4.6-5a
3.6/4.6-6
3.6/4.6-7
3.6/4.6-13a
3.6/4.6-14
3.6/4.6-15

Insert Pages

3.6/4.6-5a
3.6/4.6-6
3.6/4.6-7
3.6/4.6-13a
3.6/4.6-14
3.6/4.6-15
3.6/4.6-15a
3.6/4.6-15b

sooner returned to service.

I. Shock Suppressors (Snubbers)

- I. During all modes of operation except Cold Shutdown and Refuel, all hydraulic snubbers listed in Table 3.6-1 shall be operable except as noted in 3.6.1.2 through 3.6.1.4 following.

I. Hydraulic Snubbers

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

- I. All hydraulic snubbers whose seal material has been demonstrated by

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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.I.1 and 3.6.I.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 startup.
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.

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 in accordance with the following schedule:

<i>Number of Snubbers Found Inoperable During Inspection or During Inspection Interval</i>	<i>Next Required Inspection Interval</i>
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.

2. All hydraulic snubbers whose seal materials are other than ethylene propylene or other material that has been demonstrated to be compatible with the operating environment shall be visually inspected for operability every 31 days.

3. Once each refueling cycle, a representative sample of 10 hydraulic snubbers or approximately 10% of the hydraulic snubbers, whichever is less, shall be functionally tested for operability including verification of proper piston movement, lock up and bleed. For each unit and subsequent unit found inoperable, an additional 10% or ten hydraulic snubbers shall be so tested until no more failures are found or all units have been tested.

QUAD-CITIES
DPR-30

I. Shock Suppressors (Snubbers)

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 hydraulic snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

**QUAD-CITIES
DPR-30**

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.

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 the snubber to piping and structures.

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 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.

Experience at operating facilities has shown that the required surveillance program should assure an acceptable level of snubber performance provided that the seal materials are compatible with the operating environment.

Snubbers containing seal material which has not been demonstrated by operating experience, lab tests, or analysis to be compatible with the operating environment should be inspected more frequently (every month) until material compatibility is confirmed or an appropriate changeout is completed.

Examination of defective snubbers at reactor facilities and material tests performed at several laboratories (Reference 1) has shown that millable gum polyurethane deteriorates rapidly under the temperature and moisture conditions present in many snubber locations. Although molded polyurethane exhibits greater resistance to these conditions, it also may be unsuitable for application in the higher temperature environments. Data are not currently available to precisely define an upper temperature limit for the molded polyurethane. Lab tests and in-plant experience indicate that seal materials are available, primarily ethylene propylene compounds, which should give satisfactory performance under the most severe conditions expected in reactor installations.

To further increase the assurance of snubber reliability, functional tests should be performed once each refueling cycle. These tests will include stroking of the snubbers to verify proper piston movement, lock-up and bleed. Ten percent or ten snubbers, whichever is less, represents an adequate sample for such tests. Observed failures on these samples should require testing of additional units. Those snubbers designated in Table 3.6.1 as being in high radiation areas or especially difficult to remove need not be selected for functional tests provided operability was previously verified.

References

1. H. R. Erikson, Bergen Paterson, report to K. R. Goller, NRC, October 7, 1974, Subject: Hydraulic Shock Sway Arrestors.

**QUAD-CITIES
DPR-30**

**TABLE 3.6-1
SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)**

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
43	Drywell; core spray return line 2-1403-10"	644	X		X	
44	Drywell; core spray return line 2-1403-10"	644	X		X	
45	Drywell; core spray return line 2-1404-10"	642	X		X	
46	Drywell; core spray return line 2-1404-10"	642	X		X	
47	Drywell; RHR return line 2-1012A-16"	603	X		X	
48	Drywell; RHR return line 2-1012A-16"	599	X		X	
49	Drywell; RHR return line 2-1012B-16"	598	X		X	
50	Drywell; RHR return line 2-1012B-16"	603	X		X	
51	Drywell; RHR shutdown cooling supply line 2-1025-20"	601	X		X	
52	Drywell; RHR shutdown cooling supply line 2-1025-20"	601	X		X	
53	Drywell; "A" recirculation pump to shield wall	586 at 135°	X	X	X	
54	Drywell; "B" recirculation pump to shield wall	586 at 315°	X	X	X	
55	Drywell; "A" recirculation pump to support	586 at 146.5°	X	X	X	
56	Drywell; "B" recirculation pump to support	586 at 304°	X	X	X	
57	Drywell; "B" recirculation pump to support	586 at 326.5°	X	X	X	
58	Drywell; recirculation ring header	610 at 90°	X	X	X	

QUAD-CITIES
DPR-30

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

TABLE 3.6-1 (Cont'd)

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
59	Drywell; recirculation ring header	610 at 270°	X	X	X	
60	Drywell; "A" recirculation pump motor to support	612 at 135°	X		X	
61	Drywell; "B" recirculation pump motor to support	612 at 315°	X		X	
62	Drywell; recirculation ring header to support	612 at 195°	X	X	X	
63	Drywell; "A" recirculation pump to support	588 at 124°	X	X	X	
64	Drywell; "A" recirculation pump motor to shield wall	602 at 122°	X		X	
65	Drywell; "A" recirculation pump motor to shield wall	602 at 148°	X		X	
66	Drywell; "B" recirculation pump motor to shield wall	602 at 302°	X		X	
67	Drywell; "B" recirculation pump motor to shield wall	602 at 328°	X		X	
68	Drywell; main steam isolation valve 2-203-3A	619	X		X	
69	Drywell; main steam isolation valve 2-203-3A	619	X		X	
70	Drywell; main steam isolation valve 2-203-3A	619	X		X	
71	Drywell; main steam isolation valve 2-203-3A	619	X		X	
72	Drywell; northeast end of CRD cluster	605	X	X	X	
73	Drywell; northwest end of CRD cluster	605	X	X	X	
74	Drywell; southeast end of CRD cluster	605	X	X	X	
75	Drywell; southwest end of CRD cluster	605	X	X	X	

**QUAD-CITIES
DPR-30**

**TABLE 3.6-1 (Cont'd)
SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)**

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
76	Reactor bldg; RHR pump D supply line 2-1016D-14"	558	X			X
77	Reactor bldg; RHR pump D supply line 2-1016D-14"	558	X			X
78	Reactor bldg; RHR shutdown cooling supply line 2-1025-20"	591				X
79	Reactor bldg; HPCI steam supply line 2-2305-10"	588		X		X
80	Reactor bldg; pressure suppression ventilation line 2-1603-18"	646		X		X
81	Reactor bldg; pressure suppression standby gas ventilation line 2-1607-6"	655				X
82	Reactor bldg; pressure suppression standby gas ventilation line 2-1607-6"	655				X
83	MSIU room; RCIC steam supply line 2-1307-3"	605	X			X
84	MSIU room; RCIC steam supply line 2-1307-3"	605	X			X



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 32 AND 31 TO
FACILITY LICENSE NOS. DPR-29 AND DPR-30

COMMONWEALTH EDISON COMPANY
AND
IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

QUAD CITIES UNIT NOS. 1 AND 2

DOCKET NOS. 50-254 AND 50-265

INTRODUCTION

During the summer of 1973, inspections at two reactor facilities revealed a high incidence of inoperable hydraulic shock suppressors (snubbers) manufactured by Bergen Paterson Pipesupport Corporation. As a result of those findings, the Office of Inspection and Enforcement required each operating reactor licensee to immediately inspect all Bergen Paterson snubbers utilized on safety systems and to reinspect them 45 to 90 days after the initial inspection. Snubbers supplied by other manufacturers were to be inspected on a lower priority basis.

Since a long term solution to eliminate recurring failures was not immediately available, the Division of Reactor Licensing sent a letter dated October 3, 1973, to operating facilities (including Quad Cities) utilizing Bergen Paterson snubbers specifying continuing surveillance requirements and requesting a submittal within one year of proposed Technical Specifications for a snubber surveillance program. On December 11, 1974, Commonwealth Edison proposed Technical Specifications for hydraulic snubbers at Quad Cities Unit Nos. 1 and 2 reactors. On June 17, 1975, those proposed specifications, as modified, were issued as Amendment Nos. 14 and 10 to License Nos. DPR-29 and DPR-30, respectively. Subsequently, we found that certain modifications to these specifications were necessary. These modifications were discussed with Commonwealth Edison's staff and by letter dated March 11, 1976, Commonwealth Edison proposed modifications to the Quad Cities Unit Nos. 1 and 2 Technical Specifications.

DISCUSSION

The proposed modifications would:

1. Modify Table 3.6.1 of the Technical Specifications to list the safety related snubbers to be inspected rather than listing the non-safety related snubbers exempt from inspection.

2. Permit safety related snubbers to be added to the system provided that Table 3.6.1 is subsequently revised to reflect the additional snubbers.
3. Delete the requirement that the initial snubber inspection be performed within 4 months of the issuance of Amendment Nos. 14 and 10 which were issued on June 17, 1975.
4. Delete the requirement to disassemble two snubbers from a relatively severe environment during each refueling outage.

EVALUATION

We have completed our review of the proposed changes to the Quad Cities Unit Nos. 1 and 2 Technical Specifications. The results of our review of each change follows:

The current Quad Cities Unit Nos. 1 and 2 Technical Specifications require that all snubbers, except snubbers not required to protect the primary coolant system or any other safety related system or component, be inspected. The proposed change explicitly lists those snubbers that are required to protect the primary system and other safety related systems. This change improves the clarity and specificity of the specifications and is acceptable.

During the operational life of the facility, it may be desirable to install additional shock suppressors on safety related systems to provide added protection to these systems. The second proposed change would permit installation of new shock suppressors prior to amending Table 3.6.1, which lists the safety related shock suppressors in the plant. The staff has concluded that the licensee should be permitted to install additional shock suppressors on safety related equipment if deemed necessary without prior approval. We further conclude that the addition of any newly installed shock suppressors to Table 3.6.1 at the time of the next license amendment will assure that the shock suppressor will be included in the surveillance program in an acceptably short period of time.

Specification 4.6.I.3 of the Quad Cities Unit Nos. 1 and 2 Technical Specifications, issued on June 17, 1975, requires that an initial inspection be performed within 4 months of the date of issuance of that specification. This one-time requirement has been satisfied and is no longer appropriate to retain in the specifications. We conclude that this specification should be deleted.

The fourth proposed change deletes the requirement to disassemble two hydraulic shock suppressors from a relatively severe environment during each refueling outage. Based upon the operating experience gained since our initial requirement that two hydraulic shock suppressors be disassembled and inspected at each refueling outage, we have concluded that there is reasonable assurance that degradation of snubber performance will be accompanied by visually discernible evidence of an unacceptable level of performance such as hydraulic fluid leakage at the fluid connections or by an abnormally large decrease in the quantity of hydraulic fluid retained in the hydraulic fluid reservoirs between visual inspections. We have also concluded that the previously required internal inspection of hydraulic shock suppressors, while not providing a greater level of assurance of operability than the required visual inspections, was contributing to the subsequent failure of the inspected snubber because of the added handling and wear on the seals and close internal tolerance of the hydraulic shock suppressors. For these reasons, we conclude that deletion of the requirement for internal hydraulic shock suppressor inspection is acceptable.

ENVIRONMENTAL CONSIDERATION

We have determined that the 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 the amendments involve 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 these amendments.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the changes 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 changes 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.

Date: October 1, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-254 AND 50-265

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS AND ELECTRIC COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 32 and 31 to Facility Operating License Nos. DPR- 29 and DPR-30, issued to Commonwealth Edison Company (acting for itself and on behalf of the Iowa-Illinois Gas and Electric Company), which revised Technical Specifications for operation of the Quad Cities Station Unit Nos. 1 and 2 (the facilities) located in Rock Island County, Illinois. The amendments are effective as of their date of issuance.

These amendments modified the existing Quad Cities Unit Nos. 1 and 2 snubber Technical Specifications to (1) specify the safety related snubbers which must be inspected, (2) provide for adding snubbers to safety related systems, (3) delete the requirement that the initial inspection be performed within 4 months of issuance of Amendment No. 14 to License No. DPR-29 and Amendment No. 10 to License No. DPR-30 which were issued on June 17, 1975, and (4) delete the requirement to disassemble two snubbers per facility during each refueling outage.

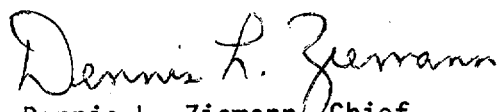
The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments 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 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 March 11, 1976, (2) Amendment Nos. 32 and 31 to License Nos. DPR-29 and DPR-30, and (3) the Commission's concurrently issued 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 60625. 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 Operating Reactors.

Dated at Bethesda, Maryland, this first day of October, 1976.

FOR THE NUCLEAR REGULATORY COMMISSION



Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors