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Philadelphia Electric Company
ATTN: Mr. Edward G. Bauer, Jr., Esquire
Vice President and General Counsel
2301 Market Street
Philadelphia, Pennsylvania 19101

Gentlemen:

The Commission has issued the enclosed Amendments Nos. 33 and 32 to Facility Operating Licenses Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Units Nos. 2 and 3. These amendments consist of changes to the Technical Specifications and are in response to your request dated August 21, 1975 as modified by letter dated November 9, 1976.

These amendments will revise the shock suppressor surveillance and operability requirements to conform with the current NRC standard Technical Specifications.

Certain modifications to the wording of changes in Technical Specifications proposed in your letter dated November 9, 1976, were necessary in order to conform to the standard form. These changes have been discussed with and are agreeable to your staff.

Copies of the Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosures:
1. Amendments Nos. 33 and 32
2. Safety Evaluation
3. Federal Register Notice

| | | | | | | |
|---|---|---|---|---|---|---|
| OFFICE | | BRB#2 | ORB#3 | ORB#3 | OELD | ORB#3 |
| SURNAME | See next page | RSnaider | CParrish | TVerdery:acr | KARMAN | GLear |
| DATE | | 2/ /77 | 2/ 18 /77 | 2/ 18 /77 | 2/25 /77 | 2/28 /77 |

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1974-526-166

cc:

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Martin Memorial Library
159 E. Market Street
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 33
License No. DPR-44

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

   A. The application for amendment by Philadelphia Electric Company, Public Service Electric and Gas Company, Delmarva Power and Light Company, and Atlantic City Electric Company, (the licensees) dated August 21, 1975, as modified by letter dated November 9, 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; and

   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.

   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 2.C(2) of Facility Operating License No. DPR-44 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 33, 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

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 28, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 33

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace pages 234a, 235a and 236a with the attached revised pages. Add pages 234b through 234n and 236b.

LIMITING CONDITIONS FOR OPERATIONS

3.11.D Shock Suppressors (Snubbers) on Safety Related Systems

3.11.D.1 During all modes of operation, except Cold Shutdowns and Refuel, snubbers listed in Table 3.11.D.1 shall be operable except as noted in 3.11.D.2 through 3.11.D.4 below.

3.11.D.2 From and after the time that a snubber is determined to be inoperable, continued reactor operation is permissable only during the succeeding 72 hours unless the snubber is sooner made operable or replaced. During this period a determined effort shall be made to repair or replace the snubber as soon as possible.

3.11.D.3 If the requirements of 3.11.D.1 and 3.11.D.2 cannot be met, an orderly shutdown shall be initiated which would bring the reactor to the cold shutdown condition within 36 hours unless the snubber is made operable during this period.

3.11.D.4 If a snubber (as defined in 4.11.D.1) 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.

3.11.D.5 Snubbers may be added to safety related systems without prior License Amendment to Table 3.11.D.1 provided that a revision to Table 3.11.D.1 is included with the next License Amendment request.

SURVEILLANCE REQUIREMENTS

4.11.D Shock Suppressors (Snubbers) on Safety Related Systems

The following surveillance requirements apply to hydraulic snubbers described in 3.11.D.1.

4.11.D.1 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. The inspection shall include, but not necessarily be limited to, inspection of the hydraulic fluid reservoir, fluid connections, and linkage connections to the piping and anchor to verify snubber operability in accordance with the following schedule:

| Number of Snubbers Found Inoperable During Inspection or During Inspection Interval | Next Required Inspection Interval |
|---|---|
| 0 | 18 Months ± 5 Months |
| 1 | 12 Months ± 3 Months |
| 2 | 6 Months ± 2 Months |
| 3, 4 | 4 Months ± 1 Month |
| 5, 6, 7 | 2 Months ± 2 Weeks |
| ≥ 8 | 1 Month ± 1 Week |

| LIMITING CONDITIONS FOR OPERATIONS (cont'd) | SURVEILLANCE REQUIREMENTS (cont'd) |
|---|---|
| | 4.11.D.1 The required inspection interval shall not be lengthened more than one step at a time.<br><br>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. |
| | 4.11.D.2 All hydraulic snubbers whose seal materials are other than ethylene propylene, and have not been demonstrated to be compatible with the operating environment, shall be visually inspected at least every 31 days. |
| | 4.11.D.3 The initial inspection shall be performed within 6 months of date of issuance of these specifications. For the purpose of entering the schedule in Specification 4.11.D, it shall be assumed that the facility had been on a 6 month inspection interval. |
| | 4.11.D.4 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. |

| LIMITING CONDITIONS FOR OPERATIONS (cont'd) | SURVEILLANCE REQUIREMENTS (cont'd) |
|---|---|
| | 4.11.D.4 (cont'd)<br>b. Those hydraulic snubbers which are especially difficult to remove (as indicated in Table 3.11.D.1) or are in high radiation areas during shutdown (areas where an individual might receive a dose of 100 millirem or greater in one hour) need not be selected for functional testing provided operability was previously verified.<br><br>c. Snubbers of rated capacity greater than 50,000 pounds need not be functionally tested. |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH(1) RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 | | | |
| 1-GG-S-1 | M.S.R.V. | 135 | See 4.11.D.4.b. | X | Drywell | |
| 1-GG-S-2 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-3 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-4 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-5 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-6 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-7 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-8 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-9 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-10 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-11 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-12 | M.S.R.V. | 135 | " | | Drywell | |
| 1-GG-S-13 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-14 | M.S.R.V. | 135 | " | | Drywell | |
| 1-GG-S-15 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-16 | M.S.R.V. | 135 | " | | Drywell | |
| 1-GG-S-17 | M.S.R.V. | 135 | " | | Drywell | |

PBAPS
TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| 1-GG-S-18 | M.S.R.V. | 135 | See 4.11.D.4.b. | | Drywell | |
| 1-GG-S-19 | M.S.R.V. | 135 | " | | Drywell | |
| 1-GG-S-20 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-21 | M.S.R.V. | 135 | " | X | Drywell | |
| 1-GG-S-22 | M.S.R.V. | 135 | " | | Drywell | |
| 1-GG-S-23 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-24 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-25 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-26 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-27 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-28 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-29 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-30 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-31 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-32 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-33 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-34 | M.S.R.V. | 155 | " | X | Drywell | |

PBAPS
TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| 1-GG-S-35 | M.S.R.V. | 155 | See 4.11.D.4.b. | X | Drywell | |
| 1-GG-S-36 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-63 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-64 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-65 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-66 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-67 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-68 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-69 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-70 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-71 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-72 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-73 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-74 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-75 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-76 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-77 | M.S.R.V. | 155 | " | X | Drywell | |

PBAPS
TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH[1] RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| 1-GG-S-78 | M.S.R.V. | 155 | See 4.11.D.4.b. | X | Drywell | |
| 1-GG-S-79 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-80 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-81 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-82 | M.S.R.V. | 155 | " | X | Drywell | |
| 1-GG-S-83 | M.S.R.V. | 155 | " | X | Drywell | |
| SS-A-1 | Main Steam | 155 | " | X | Drywell | |
| SS-A-3 | Main Steam | 155 | " | X | Drywell | |
| SS-B-1 | Main Steam | 155 | " | X | Drywell | |
| SS-B-3 | Main Steam | 155 | " | X | Drywell | |
| SS-B-4 | Main Steam | 155 | " | X | Drywell | |
| SS-B-5 | Main Steam | 155 | " | X | Drywell | |
| SS-B-6 | Main Steam | 155 | " | X | Drywell | |
| SS-C-1 | Main Steam | 155 | " | X | Drywell | |
| SS-C-3 | Main Steam | 155 | " | X | Drywell | |
| SS-C-4 | Main Steam | 155 | " | X | Drywell | |

PBAPS

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| SS-C-5 | Main Steam | 155 | See 4.11.D.4.b | X | Drywell | |
| SS-C-6 | Main Steam | 155 | " | X | Drywell | |
| SS-D-1 | Main Steam | 155 | " | X | Drywell | |
| SS-D-3 | Main Steam | 155 | " | X | Drywell | |
| SS-1-A | RECIRC | 120 | " | X | Drywell | |
| SS-1-B | RECIRC | 120 | " | X | Drywell | |
| SS-2-A | RECIRC | 130 | " | X | Drywell | |
| SS-2-B | RECIRC | 130 | " | X | Drywell | |
| SS-3-A | RECIRC | 140 | " | X | Drywell | |
| SS-3-B | RECIRC | 140 | " | X | Drywell | |
| SS-3-C | RECIRC | 140 | " | X | Drywell | |
| SS-3-D | RECIRC | 140 | " | X | Drywell | |
| SS-5-A | RECIRC | 150 | " | X | Drywell | |
| SS-5-B | RECIRC | 150 | " | X | Drywell | |
| SS-5-C | RECIRC | 150 | " | X | Drywell | |
| SS-5-D | RECIRC | 150 | " | X | Drywell | |
| SS-6-A | RECIRC | 130 | " | X | Drywell | |
| SS-6-B | RECIRC | 130 | " | X | Drywell | |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| 3-HC-S-1 | Control Rod Drive Return | 185 | See 4.11.D.4.b. | X | Drywell | |
| 3-HC-S-2 | Control Rod Drive Return | 185 | " " | X | Drywell | |
| H-3LS-142-1 | Control Rod Drive Supply Bundles | 145 | " | | Drywell | |
| H-3LS-142-2 | Control Rod Drive Supply Bundles | 145 | " | | Drywell | |
| H-3LS-142-3 | Control Rod Drive Supply Bundles | 145 | " | | Drywell | |
| H-3LS-142-4 | Control Rod Drive Supply Bundles | 145 | " | | Drywell | |
| H-3LS-142-5 | Control Rod Drive Supply Bundles | 145 | " | | Drywell | |
| H-3LS-142-6 | Control Rod Drive Supply Bundles | 145 | " | | Drywell | |
| H-3LS-142-7 | Control Rod Drive Supply Bundles | 145 | " | | Drywell | |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH[1] RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| H-3LS-142-8 | Control Rod Drive Supply Bundles | 145 | See 4.11.D.4.b | | Drywell | |
| 6-DDNL-S-5 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-6 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-7 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-8 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-9 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-10 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-11 | FEEDWATER | 155 | " | X | Drywell | |
| 6-DDNL-S-12 | FEEDWATER | 155 | " | X | Drywell | |
| 6-DDNL-S-13 | FEEDWATER | 155 | " | X | Drywell | |
| 6-DDNL-S-14 | FEEDWATER | 155 | " | X | Drywell | |
| 10-HB-S-1 | RHR | 93 | " | | | TORUS ROOM |
| 10-GB-S-2 | RHR | 93 | " | | | TORUS ROOM |
| 10-HB-S-7 | RHR | 124 | " | | | 1B RHR ROOM |
| 10-HB-S-8 | RHR | 93 | " | | | TORUS ROOM |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH[1] RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| 10-GB-S-12 | RHR | 98 | See 4.11.D.4.b | | | 'C' RHR ROOM |
| 10-GB-S-43 | RHR | 130 | " | X | | TORUS ROOM |
| 10-GB-S-43 | RHR | 130 | " | X | | TORUS ROOM |
| 10-GB-S-44 | RHR | 128 | " | X | | TORUS ROOM |
| 10-GB-S-48 | RHR | 124 | " | | | 'B' RHR ROOM |
| 10-GB-S-49 | RHR | 124 | " | | | 'B' RHR ROOM |
| 10-GB-S-50 | RHR | 98 | " | | | 'B' RHR ROOM |
| 10-GB-S-51 | RHR | 98 | " | | | 'C' RHR ROOM |
| 10-GB-S-52 | RHR | 124 | " | | | 'C' RHR ROOM |
| 10-GB-S-53 | RHR | 124 | " | | | 'C' RHR ROOM |
| 10-GB-S-54 | RHR | 130 | " | X | | TORUS ROOM |
| 10-GB-S-55 | RHR | 130 | " | X | | TORUS ROOM |
| 10-GB-S-58 | RHR | 98 | " | | | 'B' RHR ROOM |
| 10-DCN-S-73 | RHR | 180 | " | X | Drywell | |
| 10-DCN-S-74 | RHR | 180 | " | X | Drywell | |
| 12-DCN-S-2 | RWCU | 173.5 | " | X | | RWCU ISOLATION VALVE ROOM, 165' |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH[1] RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Con'tD) | | | |
| 12-DCN-S-5 | RWCU | 165 | See 4.11.D.4.b | X | Drywell | |
| 12-DCN-S-7 | RWCU | 165 | " | X | Drywell | |
| 14-DCN-S-23 | Core Spray | 168 | " | X | Drywell | |
| 14-DCN-S-24 | Core Spray | 168 | " | X | Drywell | |
| 14-DCN-S-26 | Core Spray | 168 | " | X | Drywell | |
| 14-DCN-S-27 | Core Spray | 168 | " | X | Drywell | |
| 13-HC-S-1 | RCIC | 107 | " | X | | RCIC ROOM |
| 13-DDN-S-13 | RCIC | 96 | " | | | RCIC ROOM |
| 13-HB-S-14 | RCIC | 102 | " | X | | RCIC ROOM |
| 13-DBN-S-15 | RCIC | 107 | " | X | | RCIC ROOM |
| 13-DBN-S-16 | RCIC | 140 | " | X | | TORUS ROOM |
| 23-DBN-S-1 | HPCI | 112 | " | X | | HPCI ROOM |
| 23-DBN-S-2 | HPCI | 112 | " | X | | HPCI ROOM |
| 23-DBN-S-3 | HPCI | 97 | " | | | HPCI ROOM |
| 23-DBN-S-4 | HPCI | 97 | " | | | HPCI ROOM |
| 23-DDN-S-9 | HPCI | 105 | " | X | | HPCI ROOM |
| 23-HB-S-16 | HPCI | 103 | " | | | HPCI ROOM |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH (1) RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 2 (Cont'd) | | | |
| 23-HB-S-19 | HPCI | 103 | See 4.11.D.4.b | X | | HPCI ROOM |
| 23-DBN-S-22 | HPCI | 155 | " | X | Drywell | |
| 23-DBN-S-23 | HPCI | 155 | " | X | Drywell | |
| 23-DDN-S-25 | HPCI | 105 | " | X | | HPCI ROOM |
| 23-DBN-S-27 | HPCI | 112 | " | X | | HPCI ROOM |
| 23-DBN-S-28 | HPCI | 117 | " | X | | TORUS ROOM |
| 23-DBN-S-29 | HPCI | 117 | " | X | | TORUS ROOM |
| 23-HB-S-30 | HPCI | 93' | " | | | HPCI ROOM |
| 23-HB-S-36 | HPCI | 103 | " | | | HPCI ROOM |
| 23-HB-S-37 | HPCI | 103 | " | | | HPCI ROO |
| 23-HB-S-38 | HPCI | 126 | " | X | | TORUS ROOM |

Notes for Table 3.11.D.1

(1) Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

3.11 BASES

Alternate Heat Sink

The alternate heat sink is provided as an alternate source of cooling water to the plants in the unlikely event of loss of the normal heat sink (Conowingo Pond) or the maximum credible flood. For the condition of loss of the normal heat sink, the contained volume of water (approximately 3.7 million gallons, which corresponds to a gauge reading of 17') provides a minimum of seven days cooling water to both plants for decay heat removal. The operability requirements for the alternate heat sink are specified in Specification 3.9.

C Emergency Shutdown Control Panels

The Emergency Shutdown Control Panels are provided to assure the capability of taking the plants to the hot shutdown condition external to the control room for the unlikely condition that the control room becomes uninhabitable.

D Shock Suppressors (Snubbers) on Safety Related Systems.

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 seismic or other event initiating dynamic loads. It is therefore required that all hydraulic snubbers necessary 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. A determined effort will be made to repair the snubber as soon as possible. This allowable repair period is consistent with the allowable repair times of other safety related components such as RHR pumps, HPCI subsystems, ADS valves and diesel generators.

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.

4.11 BASES

B. Alternate Heat Sink Facility

No surveillance requirement other than a monthly level check is expressed for the alternate heat sink since the associated equipment surveillance testing is conducted as required by Specification 3.9.

C. Emergency Shutdown-Control Panels

Once per week verification of the panels being properly secured is considered adequate. The associated equipment is proven operable during surveillance testing of that equipment. An operability verification by electrical test at each refueling outage is adequate to assure that the panels are available and can perform their design function.

D. Shock Suppressors (Snubbers) on Safety Related Systems

All safety related hydraulic snubbers are visually inspected to verify 1) proper orientation, 2) adequate hydraulic fluid level, and 3) proper attachment of snubber to piping and structures. Snubbers are categorized into two groups, "accessible" or "inaccessible", based on their accessibility for inspection during reactor operation and drywell inertment. 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 will only be used to shorten the required interval and not to lengthen it.

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 than might be required by 4.11.D.1 so that material compatibility can be confirmed or an appropriate change out can be completed. The inspection interval for snubbers whose seal material compatibility has not been established is set at 31 days in order to provide an increased inspection frequency.

To further increase the assurance of snubber reliability, functional tests will be performed once each refueling cycle. These tests will include stroking of the snubbers to verify that they lock up, that they bleed pressure, and that they have free piston movement. Ten snubbers represents an adequate sample for such tests. In multiple unit facilities where snubbers of the same type are utilized, inspection of 10 snubbers on each of the units adequately meets the intent. Consistent with maintaining personnel exposure as low as practicable, snubbers in high radiation areas or those especially difficult to remove need not be selected for functional tests provided operability was previously verified by actual test or satisfactory in-service operation.

High radiation area (as defined in CFR 10 Part 20.202) means any area, accessible to personnel, in which there exists radiation at such levels that a major portion of the body could receive, in any one hour, a dose in excess of 100 millirem. Snubbers considered especially difficult to remove (as indicated in Table 3.11.D.1) are those which because of size, weight, or geometry of installation require the use of unusual rigging equipment or arrangements for their removal, or require more than three hours of effort in their removal.

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

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 32
License No. DPR-56

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

   A. The application for amendment by Philadelphia Electric Company, Public Service Electric and Gas Company, Delmarva Power and Light Company, and Atlantic City Electric Company, (the licensees) dated August 21, 1975, as modified by letter dated November 9, 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; and

   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.

   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 2.C(2) of Facility Operating License No. DPR-56 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 32, 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

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 28, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 32

TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace pages 234a, 235a, and 236a with the attached revised pages. Add pages 234b through 234m and page 236b.

LIMITING CONDITIONS FOR OPERATIONS

3.11.D Shock Suppressors (Snubbers) on Safety Related Systems

3.11.D.1 During all modes of operation, except Cold Shutdowns and Refuel, snubbers listed in Table 3.11.D.1 shall be operable except as noted in 3.11.D.2 through 3.11.D.4 below.

3.11.D.2 From and after the time that a snubber is determined to be inoperable, continued reactor operation is permissable only during the succeeding 72 hours unless the snubber is sooner made operable or replaced. During this period a determined effort shall be made to repair or replace the snubber as soon as possible.

3.11.D.3 If the requirements of 3.11.D.1 and 3.11.D.2 cannot be met, an orderly shutdown shall be initiated which would bring the reactor to the cold shutdown condition within 36 hours unless the snubber is made operable during this period.

3.11.D.4 If a snubber (as defined in 4.11.D.1) 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.

3.11.D.5 Snubbers may be added to safety related systems without prior License Amendment to Table 3.11.D.1 provided that a revision to Table 3.11.D.1 is included with the next License Amendment request.

SURVEILLANCE REQUIREMENTS

4.11.D Shock Suppressors (Snubbers) on Safety Related Systems

The following surveillance requirements apply to hydraulic snubbers described in 3.11.D.1.

4.11.D.1 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. The inspection shall include, but not necessarily be limited to, inspection of the hydraulic fluid reservoir, fluid connections, and linkage connections to the piping and anchor to verify snubber operability in accordance with the following schedule:

| Number of Snubbers Found Inoperable During Inspection or During Inspection Interval | Next Required Inspection Interval |
|---|---|
| 0 | 18 Months ± 5 Months |
| 1 | 12 Months ± 3 Months |
| 2 | 6 Months ± 2 Months |
| 3, 4 | 4 Months ± 1 Month |
| 5, 6, 7 | 2 Months ± 2 Weeks |
| ≥ 8 | 1 Month ± 1 Week |

| LIMITING CONDITIONS FOR OPERATIONS (cont'd) | SURVEILLANCE REQUIREMENTS (cont'd) |
|---|---|
| | 4.11.D.1 The required inspection interval shall not be lengthened more than one step at a time.<br><br>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. |
| | 4.11.D.2 All hydraulic snubbers whose seal materials are other than ethylene propylene, and have not been demonstrated to be compatible with the operating environment, shall be visually inspected at least every 31 days. |
| | 4.11.D.3 The initial inspection shall be performed within 6 months of date of issuance of these specifications. For the purpose of entering the schedule in Specification 4.11.D, it shall be assumed that the facility had been on a 6 month inspection interval. |
| | 4.11.D.4 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. |

| LIMITING CONDITIONS FOR OPERATIONS (cont'd) | SURVEILLANCE REQUIREMENTS (cont'd) |
|---|---|
| | 4.11.D.4 (cont'd)<br>b. Those hydraulic snubbers which are especially difficult to remove (as indicated in Table 3.11.D.1) or are in high radiation areas during shutdown (areas where an individual might receive a dose of 100 millirem or greater in one hour) need not be selected for functional testing provided operability was previously verified.<br><br>c. Snubbers of rated capacity greater than 50,000 pounds need not be functionally tested. |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN[1] | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 | | | |
| 1-GG-S-1 | MSRV | 135 | See 4.11.D.4.b. | X | Drywell | |
| 1-GG-S-2 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-3 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-4 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-5 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-6 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-7 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-8 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-9 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-10 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-11 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-12 | MSRV | 135 | " | | Drywell | |
| 1-GG-S-13 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-14 | MSRV | 135 | " | | Drywell | |
| 1-GG-S-15 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-16 | MSRV | 135 | " | | Drywell | |
| 1-GG-S-17 | MSRV | 135 | " | | Drywell | |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (Cont'd) | | | |
| 1-GG-S-18 | MSRV | 135 | See 4.11.D.4.b | | Drywell | |
| 1-GG-S-19 | MSRV | 135 | " | | Drywell | |
| 1-GG-S-20 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-21 | MSRV | 135 | " | X | Drywell | |
| 1-GG-S-22 | MSRV | 135 | " | | Drywell | |
| 1-GG-S-23 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-24 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-25 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-26 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-27 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-28 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-29 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-30 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-31 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-32 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-33 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-34 | MSRV | 155 | " | X | Drywell | |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (Cont'd) | | | |
| 1-GG-S-35 | MSRV | 155 | See 4.11.D.4.b | X | Drywell | |
| 1-GG-S-36 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-49 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-50 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-51 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-52 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-53 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-54 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-55 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-56 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-57 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-58 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-59 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-60 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-61 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-62 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-63 | MSRV | 155 | " | X | Drywell | |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH[1] RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (Cont'd) | | | |
| 1-GG-S-64 | MSRV | 155 | See 4.11.D.4.b | X | Drywell | |
| 1-GG-S-65 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-66 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-67 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-68 | MSRV | 155 | " | X | Drywell | |
| 1-GG-S-69 | MSRV | 155 | " | X | Drywell | |
| SS-A1 | Main Steam | 150 | " | X | Drywell | |
| SS-A3 | Main Steam | 150 | " | X | Drywell | |
| SS-B1 | Main Steam | 150 | " | X | Drywell | |
| SS-B3 | Main Steam | 150 | " | X | Drywell | |
| SS-B4 | Main Steam | 150 | " | X | Drywell | |
| SS-B5 | Main Steam | 150 | " | X | Drywell | |
| SS-B6 | Main Steam | 150 | " | X | Drywell | |
| SS-C1 | Main Steam | 150 | " | X | Drywell | |
| SS-C3 | Main Steam | 150 | " | X | Drywell | |
| SS-C4 | Main Steam | 150 | " | X | Drywell | |
| SS-C5 | Main Steam | 150 | " | X | Drywell | |

PBAPS

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH (1) RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (Cont'd) | | | |
| SS-C6 | Main Steam | 150 | See 4.11.D.4.b | X | Drywell | |
| SS-D1 | Main Steam | 150 | " | X | Drywell | |
| SS-D3 | Main Steam | 150 | " | X | Drywell | |
| SS-1-A | RECIRC | 120 | " | X | Drywell | |
| SS-1-B | RECIRC | 120 | " | X | Drywell | |
| SS-2-A | RECIRC | 130 | " | X | Drywell | |
| SS-2-B | RECIRC | 130 | " | X | Drywell | |
| SS-3-A | RECIRC | 140 | " | X | Drywell | |
| SS-3-B | RECIRC | 140 | " | X | Drywell | |
| SS-3-C | RECIRC | 140 | " | X | Drywell | |
| SS-3-D | RECIRC | 140 | " | X | Drywell | |
| SS-5-A | RECIRC | 150 | " | X | Drywell | |
| SS-5-B | RECIRC | 150 | " | X | Drywell | |
| SS-5-C | RECIRC | 150 | " | X | Drywell | |
| SS-5-D | RECIRC | 150 | " | X | Drywell | |
| SS-6-A | RECIRC | 130 | " | X | Drywell | |
| SS-6-B | RECIRC | 130 | " | X | Drywell | |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (Cont'd) | | | |
| 3HC-S-1 | CRD RETURN | 185 | See 4.11. D.4.b. | X | Drywell | |
| 3HC-S-2 | CRD RETURN | 185 | " | X | Drywell | |
| H-3LS-142-1 | CRD SUPPLY BUNDLES | 145 | " | | Drywell | |
| H-3LS-142-2 | CRD SUPPLY BUNDLES | 145 | " | | Drywell | |
| H-3LS-142-3 | CRD SUPPLY bundles | 145 | " | | Drywell | |
| H-3LS-142-4 | CRD SUPPLY BUNDLES | 145 | " | | Drywell | |
| H-3LS-142-5 | CRD SUPPLY BUDNLES | 145 | " | | Drywell | |
| H-3LS-142-6 | CRD SUPPLY BUNDLES | 145 | " | | Drywell | |
| H-3LS-142-7 | CRD SUPPLY BUNDLES | 145 | " | | Drywell | |
| H-3LS-142-8 | CRD SUPPLY BUNDLES | 145 | " | | Drywell | |
| 6-DDNL-S-5 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-6 | FEEDWATER | 168 | " | X | Drywell | |

TABLE 3.11.D.1

Safety Related Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH[1] RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (cont'd) | | | |
| 6-DDNL-S-7 | FEEDWATER | 168 | See 4.11.D.4.b | X | Drywell | |
| 6-DDNL-S-8 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-9 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-10 | FEEDWATER | 168 | " | X | Drywell | |
| 6-DDNL-S-11 | FEEDWATER | 155 | " | X | Drywell | |
| 6-DDNL-S-12 | FEEDWATER | 155 | " | X | Drywell | |
| 6-DDNL-S-13 | FEEDWATER | 155 | " | X | Drywell | |
| 6-DDNL-S-14 | FEEDWATER | 155 | " | X | Drywell | |
| 10-HB-S-1 | RHR | 93 | " | | | TORUS ROOM |
| 10-GB-S-2 | RHR | 93 | " | | | TORUS ROOM |
| 10-HB-S-7 | RHR | 124 | " | | | 'B' RHR RO |
| 10-HB-S-8 | RHR | 93 | " | | | TORUS ROOM |
| 10-HB-S-12 | RHR | 98 | " | | | 'C' RHR RM |
| 10-GB-S-43 | RHR | 130 | " | X | | TORUS ROOM |
| 10-GB-S-43 | RHR | 130 | " | X | | " |
| 10-GB-S-44 | RHR | 128 | " | X | | " |

TABLE 3.11.D.1

Safety Releated Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH[1] RADIATION AREA DURING SHUTDOWN | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (cont'd) | | | |
| 10-GB-S-48 | RHR | 124 | See 4.11.D.4.b | | | 'B'RHR RM. |
| 10-GB-S-49 | RHR | 124 | " | | | " |
| 10-GB-S-50 | RHR | 98 | " | | | " |
| 10-GB-S-51 | RHR | 98 | " | | | 'C' RHR RM. |
| 10-GB-S-52 | RHR | 124 | " | | | " |
| 10-GB-S-53 | RHR | 124 | " | | | " |
| 10-GB-S-54 | RHR | 130 | " | X | | TORUS RM. |
| 10-GB-S-55 | RHR | 130 | " | X | | " |
| 10-GB-S-58 | RHR | 98 | " | | | 'B' RHR RM. |
| 10-DCN-S-73 | RHR | 180 | " | X | Drywell | |
| 10-DCN-S-74 | RHR | 180 | " | X | Drywell | |
| 12-DCN-S-2 | RWCU | 173.5 | " | X | | RWCU ISOLATION VALVE RM. 165 |
| 12-DCN-S-5 | RWCU | 165 | " | X | Drywell | |
| 12-DCN-S-7 | RWCU | 165 | " | X | Drywell | |
| 14-DCN-S-23 | CORE SPRAY | 168 | " | X | Drywell | |
| 14-DCN-S-24 | CORE SPRAY | 168 | " | X | Drywell | |
| 14-DCN-S-26 | CORE SPRAY | 168 | " | X | Drywell | |

TABLE 3.11.D.1

Safety Releated Shock Suppressors (Snubbers)

| SNUBBER NUMBER | LOCATION | ELEVATION | SNUBBER IN HIGH RADIATION AREA DURING SHUTDOWN (1) | SNUBBERS ESPECIALLY DIFFICULT TO REMOVE | SNUBBERS INACCESSIBLE DURING NORMAL OPERATION | SNUBBERS ACCESSIBLE DURING NORMAL OPERATION |
|---|---|---|---|---|---|---|
| | | | Unit 3 (cont'd) | | | |
| 14-DCN-S-27 | CORE SPRAY | 168 | See 4.11.D.4.b | X | Drywell | |
| 13-HB-S-23 | RCIC | 103 | " | X | | RCIC ROOM |
| 23-DBN-S-1 | HPCI | 121 | " | X | | TORUS ROOM |
| 23-HB-S-1A | HPCI | 103 | " | X | | HPCI ROOM |
| 23-DDN-S-2A | HPCI | 103 | " | | | " |
| 23-DDN-S-3 | HPCI | 97 | " | | | " |
| 23-HB-S-3A | HPCI | 100 | " | X | | " |
| 23-DBN-S-6-1 | HPCI | 121 | " | X | | TORUS ROOM |
| 23-DBN-S-6-2 | HPCI | 121 | " | X | | " |
| 23-DBN-S-22 | HPCI | 155 | " | X | Drywell | |
| 23-DBN-S-23 | HPCI | 155 | " | X | Drywell | |
| 23-DDN-S-29 | HPCI | 117 | " | | | HPCI ROOM |
| 23-DDN-S-33 | HPCI | 93 | " | | | " |
| 23-DDN-S-2 | HPCI | 112 | " | X | | " |

Notes for Table 3.11.D.1

(1) Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

3.11 BASES

Alternate Heat Sink

The alternate heat sink is provided as an alternate source of cooling water to the plants in the unlikely event of loss of the normal heat sink (Conowingo Pond) or the maximum credible flood. For the condition of loss of the normal heat sink, the contained volume of water (approximately 3.7 million gallons, which corresponds to a gauge reading of 17') provides a minimum of seven days cooling water to both plants for decay heat removal. The operability requirements for the alternate heat sink are specified in Specification 3.9.

C Emergency Shutdown Control Panels

The Emergency Shutdown Control Panels are provided to assure the capability of taking the plants to the hot shutdown condition external to the control room for the unlikely condition that the control room becomes uninhabitable.

D Shock Suppressors (Snubbers) on Safety Related Systems.

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 seismic or other event initiating dynamic loads. It is therefore required that all hydraulic snubbers necessary 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. A determined effort will be made to repair the snubber as soon as possible. This allowable repair period is consistent with the allowable repair times of other safety related components such as RHR pumps, HPCI subsystems, ADS valves and diesel generators.

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.

4.11 BASES

B. Alternate Heat Sink Facility

No surveillance requirement other than a monthly level check is expressed for the alternate heat sink since the associated equipment surveillance testing is conducted as required by Specification 3.9.

C. Emergency Shutdown-Control Panels

Once per week verification of the panels being properly secured is considered adequate. The associated equipment is proven operable during surveillance testing of that equipment. An operability verification by electrical test at each refueling outage is adequate to assure that the panels are available and can perform their design function.

D. Shock Suppressors (Snubbers) on Safety Related Systems

All safety related hydraulic snubbers are visually inspected to verify 1) proper orientation, 2) adequate hydraulic fluid level, and 3) proper attachment of snubber to piping and structures. Snubbers are categorized into two groups, "accessible" or "inaccessible", based on their accessibility for inspection during reactor operation and drywell inertment. 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 will only be used to shorten the required interval and not to lengthen it.

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 than might be required by 4.11.D.1 so that material compatibility can be confirmed or an appropriate change out can be completed. The inspection interval for snubbers whose seal material compatibility has not been established is set at 31 days in order to provide an increased inspection frequency.

To further increase the assurance of snubber reliability, functional tests will be performed once each refueling cycle. These tests will include stroking of the snubbers to verify that they lock up, that they bleed pressure, and that they have free piston movement. Ten snubbers represents an adequate sample for such tests. In multiple unit facilities where snubbers of the same type are utilized, inspection of 10 snubbers on each of the units adequately meets the intent. Consistent with maintaining personnel exposure as low as practicable, snubbers in high radiation areas or those especially difficult to remove need not be selected for functional tests provided operability was previously verified by actual test or satisfactory in-service operation.

High radiation area (as defined in CFR 10 Part 20.202) means any area, accessible to personnel, in which there exists radiation at such levels that a major portion of the body could receive, in any one hour, a dose in excess of 100 millirem. Snubbers considered especially difficult to remove (as indicated in Table 3.11.D.1) are those which because of size, weight, or geometry of installation require the use of unusual rigging equipment or arrangements for their removal, or require more than three hours of effort in their removal.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 33 TO FACILITY LICENSE NO. DPR-44 AND

AMENDMENT NO. 32 TO FACILITY LICENSE NO. DPR-56

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION

UNITS NOS. 2 AND 3

DOCKETS NOS. 50-277 AND 50-278

## Introduction

By letter dated July 8, 1975, the NRC transmitted model technical specifications relating to hydraulic shock suppressors (snubbers) to Philadelphia Electric Company (PECO). In that letter we requested PECO to submit an application to amend the operating licenses for Peach Bottom Atomic Power Station Units Nos. 2 and 3 incorporating the snubber model technical specifications.

By letter dated August 21, 1975, PECO complied with this request and indicated that the model technical specifications were generally acceptable with certain exceptions. As a result of comments from PECO and other licensees, the NRC revised the snubber model technical specifications to provide some relaxation and clarification of requirements. These revised model technical specifications were sent to PECO by letter dated December 24, 1975.

Subsequently, by letter dated November 9, 1976, PECO amended their August 21, 1975 application to incorporate the revised model technical specifications. Certain modifications to the Technical Specifications proposed in the November 9, 1976 application for license amendment were necessary. These necessary changes were discussed with and are agreeable to PECO representatives.

## Evaluation

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient while allowing normal thermal movement during startup and shutdown.

The consequence of an inoperable snubber is an increase in the probability of structural damage to piping resulting from a seismic or other postulated event which initiates dynamic loads. It is, therefore, necessary that snubbers installed to protect safety system piping be operable during reactor operation and be inspected at appropriate intervals to assure their operability.

Examination of defective snubbers at reactor facilities has shown that the high incidence of failures observed in the summer of 1973 was caused by severe degradation of seal materials and subsequent leakage of the hydraulic fluid. The basic seal materials used in Bergen Paterson snubbers were two types of polyurethane; a millable gum polyester type containing plasticizers and an unadulterated molded type. Material tests performed at several laboratories (Reference 1) established that the millable gum polyurethane deteriorated rapidly under the temperature and moisture conditions present in many snubber locations. Although the molded polyurethane exhibited 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. The investigation indicated that seal materials are available, primarily ethylene propylene compounds, which should give satisfactory performance under the most severe conditions expected in reactor installations.

An extensive seal replacement program has been carried out at many reactor facilities. Experience with ethylene propylene seals has been very good with no serious degradation reported thus far. Although the seal replacement program has significantly reduced the incidence of snubber failures, some failures continue to occur. These failures have generally been attributed to faulty snubber assembly and installation, loose fittings and connections and excessive pipe vibrations. The failures have been observed in both PWRs and BWRs and have not been limited to units manufactured by Bergen Paterson. Because of the continued incidence of snubber failures, we have concluded that snubber operability and surveillance requirements should be incorporated into the Technical Specifications. We have further concluded that these requirements should be applied to all safety related snubbers, regardless of manufacturer, in all light water cooled reactor facilities.

(1) Report H. R. Erickson, Bergen Paterson to K. R. Goller, NRC, October 7, 1974, Subject: Hydraulic Shock Sway Arrestors

We have developed the attached Technical Specifications and Bases to provide additional assurance of satisfactory snubber performance and reliability. The specifications require that snubbers be operable during reactor operation and prior to startup. Beacuse snubber protection is required only during low probability events, a period of 72 hours is allowed for repair or replacement of defective units before the reactor must be shut down. The licensee will be expected to commence repair or replacement of a failed snubber expeditiously. However, the allowance of 72 hours is consistent with that provided for other safety-related equipment and provides for remedial action to be taken in accordance with 10 CFR 50.36(c)(2). Failure of a pipe, piping system, or major component would not necessarily result from the failure of a single snubber to operate as designed, and even a snubber devoid of hydraulic fluid would provide support for the pipe or component and reduce pipe motion. The likelihood of a seismic event or other initiating event occurring during the time allowed for repair or replacement is very small. Considering the large size and difficult access of some snubber units, repair or replacement in a shorter time period is not practical. Therefore, the 72 hours period provides a reasonable and realistic period for remedial action to be taken.

An inspection program is specified to provide additional assurance that the snubbers remain operable. 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 longest inspection interval allowed in the Technical Specifications after a record of no snubber failures has been established is nominally 18 months. Experience at operating facilities has shown that the required surveillance program should provide 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 to be compatible with the operating environment are required to be inspected every 31 days until the compatibility is established or an appropriate seal change is completed.

To further increase the level of snubber reliability, the Technical Specifications require functional tests once each refueling cycle. The tests will verify proper piston movement, lock up and bleed.

We have concluded that the proposed additions to the Technical Specifications, as modified, increase the probability of successful snubber performance and increase reactor safety. We therefore find them acceptable.

Environmental Consideration

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

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: April 28, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-277 AND 50-278

PHILADELPHIA ELECTRIC COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 33 and 32 to Facility Operating Licenses Nos. DPR-44 and DPR-56, respectively, issued to Philadelphia Electric Company, Public Service Electric and Gas Company, Delmarva Power and Light Company, and Atlantic City Electric Company, which revised Technical Specifications for operation of the Peach Bottom Atomic Power Station, Units Nos. 2 and 3, located in Peach Bottom, York County, Pennsylvania. The amendments are effective as of the date of issuance.

The amendments will revise the shock suppressor surveillance and operability requirements to conform with the current NRC standard Technical Specifications.

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 statement, negative declaration or 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 August 21, 1975 as modified by letter dated November 9, 1976, (2) Amendments Nos. 33 and 32 to Licenses Nos. DPR-44 and DPR-56, 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, N. W., Washington, D. C. and at the Martin Memorial Library, 159 E. Market Street, York, Pennsylvania 17401.

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 28 day of April 1977.

FOR THE NUCLEAR REGULATORY COMMISSION

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors