Public Service Electric and Gas Company

Corbin A. McNeill, Jr. Vice President -Nuclear Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609 339-4800

June 13, 1986

NFU 86-175

Director of Nuclear Reactor Regulation U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Attention: Mr. Steven A. Varga, Chief Operating Reactors Branch No. 1 Division of Licensing

Gentlemen:

CYCLE 7 RELOAD REDESIGN FACILITY OPERATING LICENSE DPR70 UNIT NO. 1 SALEM GENERATING STATION DOCKET NO. 50-272

Salem Unit No. 1 completed its sixth cycle of operation on March 21, 1986. During the reload, damage of a grid strap on each of two fuel assemblies was observed when the assemblies were removed from the core. The ID's of these assemblies are H60 and H63. They fell in symmetric positions in the cycle 7 design. Two partially burned bundles (ID's are F23 and F49) from the spent fuel pool replaced the two damaged bundles. One assembly was moved to improve core symmetry. These changes are included in the Salem Unit 1 Cycle 7 Core Loading Pattern Figure 1. No other changes were made to the design.

PSE&G and Westinghouse made an evaluation of the loading pattern change for Cycle 7. PSE&G concurs with the Westinghouse conclusion that the new reload design does not change the design/ safety evaluations or conclusions of the original RSE.

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Mr. Steven A. Varga

Therefore, as previously stated in Reference 1, there are no unreviewed safety questions as defined by 10CFR50.59 associated with the redesign for Cycle 7, and that an application for amendment to the Salem 1 operating license is still not required.

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Sincerely,

Canor

Attachments

Reference:

- NFU 86-070, Letter from C. A. McNeill to Steven A. Varga; Cycle 7 Reload Analysis, February 10, 1986.
- NFUVTD-WW86005-01, Reload Safety Evaluation Salem Unit 1 Cycle 7 Revision 1; Westinghouse; April, 1986.
- C Mr. Donald C. Fischer Licensing Project Manager

1.

Tom Kenny Senior Resident Inspector

| <u>FIGURE 1</u> |         |        |                 |  |  |  |  |  |  |  |
|-----------------|---------|--------|-----------------|--|--|--|--|--|--|--|
| SALEM UNIT      | 1_CYCLE | 7 CORE | LOADING PATTERN |  |  |  |  |  |  |  |

|                                      |   | •                                  |  | 1,40<br>F35                         | 10<br>3.80<br>808<br>306           | 3 <sup>5</sup> 40<br>19<br>F49     | 10<br>3.80<br>19<br>134    | 3 <sup>9</sup> 39<br>79<br>179<br>179 | 10<br>1.80<br>BP08<br>J40   | 3,40<br>1 <b>9</b><br>533         |                                    |                                     |                            |   |
|--------------------------------------|---|------------------------------------|--|-------------------------------------|------------------------------------|------------------------------------|----------------------------|---------------------------------------|-----------------------------|-----------------------------------|------------------------------------|-------------------------------------|----------------------------|---|
|                                      |   | 3,40<br>TP<br>F03                  | 3,79<br>10<br>171  | 10.<br>3.80<br>8 <b>P</b> 12<br>J59 | 3.79<br>R001<br>H55                | 10.<br>J.80<br>3P20<br>J61         | 3.39<br>RD06<br>H17        | 10.<br>3.80<br>8P20<br>303            | 3.79<br>2001<br>H62         | 10.<br>3.80<br>8912<br>.78        | 9<br>3,79<br>10<br>H67             | 3.40<br>T <b>P</b><br>F07           |                            |   |
|                                      | 3.40<br>TP<br>F18                           | 3.39<br>2002<br>655                | 10.<br>3.80<br>8.14  | 7<br>RÓO4<br>H78                    | 10.<br>3.80<br>8P24<br>J52         | 3.39<br>R007<br>H20                | 3,39<br>TP<br>H07          | 3.39<br>R007<br>H34                   | 10<br>3.80<br>9P24<br>J54   | 9<br>3,79<br>904<br>H58           | 10.<br>3.80<br>8916<br>125         | 3.39<br>R002<br>556                 | 3,40<br>79<br>F05          |   |
|                                      | 3,79<br>TP<br>- H76                         | 10.<br>3.80<br>8916<br>J50         | 3,39<br>R008<br>H03  | 10.<br>3.80<br>8P24<br>533          | J, 39<br>H18                       | 10.<br>3.30<br>9224<br>336         | 3.40<br>R003<br>F50        | 10<br>3,80<br>8P24<br>J01             | 3,39<br>3,39<br>343         | 10.<br>3.20<br>8.24<br>.58        | 7.59<br>7008<br>101                | 10.<br>1.30<br>2215<br>131          | 9<br>3.79<br>TP<br>854     |   |
| 3.40<br>TP<br>F46                    | 10.<br>3.80<br>8P12<br>J16                  | 9.<br>3.79<br>RD04<br>H53          | 10.<br>3.80<br>9P24<br>J70   | 3,39<br>8008<br>H31                 | 10.<br>3.80<br>8P24<br>J68         | 3,39<br>TP<br>H02                  | 10.<br>3.80<br>8P24<br>J56 | 3.39<br>RD0 <b>8</b><br>H45           | 10.<br>3.80<br>8P24<br>J84  | 8.<br>3.39<br>8 <b>P08</b><br>H27 | 10.<br>3.80<br>9P24<br>J55         | 1.79<br>R004<br>H64                 | 10.<br>3.80<br>BP12<br>JS1 | 3,40<br>TP<br>F3                          |
| 10.<br>3.80<br>3208<br>364           | R001<br>H70                                 | 3.80<br>5/24<br>J15                | 3.39<br>TP<br>H40  | 10<br>3.80<br>824<br>J73            | 7.40<br>R005<br>638                | 10.<br>3.80<br>8P24<br>J13         | 3.40<br>RD02<br>F12        | 3.80<br>824<br>335                    | 3.40<br>R005<br>645         | 10.<br>3.80<br>8224<br>J63        | 3, <b>39</b><br>TP<br>H23          | 10.<br>3.80<br>8 <b>P</b> 24<br>J43 | 9<br>3.79<br>RD01<br>H68   | 10<br>3,80<br>9908<br>367                 |
| 3,79<br>10<br>H75                    | 10.<br>3.80<br>5P20<br>J71                  | 3.39<br>RD07<br>H36                | 10.<br>3.80<br>3.24<br>J83   | 3,39<br>R008<br>H30                 | 10<br>3.80<br>3P24<br>507          | 3,40<br>TP<br>537                  | 10.<br>3.80<br>3P20<br>J82 | 7<br>3,40<br>19<br>549                | 3,80<br>8,24<br>109         | 3,39<br>TP<br>H19                 | 10.<br>3.80<br>BP24<br>J23         | 3.39<br>RD07<br>H08                 | 10.<br>3.80<br>8P20<br>J12 | 9<br>3,79<br>TP<br>H67                    |
| 10.<br>3,80<br>10<br>J24             | 3,3 <b>9</b><br>R0 <b>06</b><br>H2 <b>9</b> | 3, 39<br>7 <b>9</b><br>H38         | 7.40<br>R003<br>F36  | 10.<br>3.80<br>8P24<br>J42          | J.40<br>R002<br>F51                | 10.<br>3.80<br>8 <b>P20</b><br>J41 | J. 30<br>R001<br>C55       | 10.<br>3.80<br>920<br>J17             | 3.40<br>RD02<br>F31         | 10.<br>8024<br>160                | 7.40<br>R003<br>F30                | 3,39<br>19<br>H28                   | 3.39<br>R006<br>H14        | 10.<br>3,80<br>348                        |
| 3.79<br>10<br>177                    | 10.<br>3.80<br>BP20<br>J74                  | 3.39<br>RD07<br>H22                | 10.<br>3.80<br>5 <b>P</b> 24<br>344  | 3,39<br>TP<br>H04                   | 10<br>3.80<br>5P24<br>J18          | 7.<br>3.40<br>TP<br>548            | 10.<br>3.80<br>8P20<br>J32 | 7.<br>3.40<br>TP<br>505               | 10.<br>3.80<br>8924<br>311  | 1.39<br>R008<br>H06               | 10<br>3.80<br>BP24<br>J10          | 3.39<br>R007<br>H35                 | 10.<br>3.80<br>8P20<br>J20 | 3,79<br>19<br>174                         |
| . 10.<br>3.80<br>8 <b>P08</b><br>J57 | 3.7 <b>°</b><br>R001<br>H73                 | 10.<br>3.80<br>BP24<br>J75         | 3.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1.<br>1. | 10<br>3.80<br>9P24<br>J21           | 7.<br>3.40<br>RD05<br>551          | 10.<br>3.80<br>BP24<br>J04         | 3.40<br>RD02<br>F29        | 10.<br>3.80<br>BP24<br>J02            | 7.40<br>R <b>005</b><br>619 | 10.<br>3.80<br>8024<br>J30        | 3,39<br>TP<br>H15                  | 10<br>3.80<br>9P24<br>J80           | 3.79<br>RD01<br>H6?        | 10.<br>3 <b>80</b><br>3 <b>908</b><br>J76 |
| 3.40<br>F54                          | 10.<br>3.80<br>BP12<br>J79                  | 9<br>70<br>8004<br>H81             | 10.<br>3.80<br>8P24<br>J29   | 3.39<br>8008<br>H05                 | 10.<br>3.80<br>8P24<br>J25         | 3, 39<br>R008<br>H21               | 10.<br>3.80<br>BP24<br>J53 | 3.39<br>TP<br>H11                     | 10.<br>3.80<br>BP24<br>J49  | J.39<br>BP08<br>H09               | 10.<br>3.80<br>8P24<br>539         | 3.79<br>R004<br>H59                 | 10.<br>3.80<br>BP12<br>J19 | 3.40<br>F06                               |
|                                      | 3.79<br>19<br>182                           | 10<br>3.80<br>9 <b>91</b> 5<br>J05 | 3.39<br>R008<br>H47  | 10.<br>3.80<br>8P24<br>J65          | 3.39<br>TP<br>H <b>48</b>          | 10.<br>3.80<br>BP24<br>J47         | 3.40<br>RD03<br>F44        | 10.<br>3.80<br>3P24<br>J38            | 3.<br>39<br>H39             | 10.<br>3.80<br>8P24<br>J22        | 3.39<br>7008<br>112                | 10.<br>3.30<br>2016<br>346          | 3,79<br>7,79<br>456        |   |
|                                      | 3,40<br>756                                 | 3, 39<br>R002<br>653               | 3.80<br>8016<br>377  | 9<br>3.79<br>RD04<br>H83            | 10.<br>3.80<br>8P24<br>J62         | 3.39<br>RD07<br>H26                | 3,39<br>19<br>H32          | 3.39<br>R007<br>H44                   | 10.<br>3.80<br>BP24<br>J28  | 7.79<br>3.79<br>8004<br>H57       | 10.<br>3.80<br>8 <b>916</b><br>J72 | 3.39<br>R002<br>654                 | 3,40<br>TP<br>F48          |   |
|                                      |   | 3, <b>40</b><br>F02                | 9<br>3,79<br>10<br>184   | 10.<br>].80<br>8012<br>]66          | 3,79<br>R001<br>H66                | 10.<br>3.80<br>8P20<br>J27         | 3,39<br>R006<br>H24        | 10.<br>3.80<br>8 <b>P</b> 20<br>J37   | 9<br>3.79<br>RD01<br>H80    | 10.<br>3.80<br>8P12<br>J26        | 9<br>3,7 <b>9</b><br>TP<br>H72     | J.40<br>TP<br>F04                   |                            |   |
|                                      |   |                                    |  | 7. <b>4</b> 0<br>FJ2                | 10.<br>3.80<br>3 <b>208</b><br>J08 | 3.79<br>TP<br>H61                  | 3.80<br>7.80<br>76<br>767  | J.40<br>F23                           | 10.<br>3.80<br>808<br>J81   | J.40<br>F15                       |                                    |                                     |                            |   |

KEY: Color Enrichment Rods/TP Assembly ID

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\* Secondary Source Rods

Public Service Electric and Gas Company

Corbin A. McNeill, Jr. Vice President -Nuclear

N. S.

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609 339-4800

## June 11, 1986

NLR-N86087

Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission 7920 Norfolk Avenue Bethesda, MD 20014

Mr. Steven A. Varga, Director Attention: PWR Project Directorate #3 Division of PWR Licensing A

Dear Mr. Varga:

ASME CODE CASE N-133-2 SALEM GENERATING STATION UNIT NOS. 1 AND 2 DOCKET NOS. 50-272 AND 50-311

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PDR

ADOCK 05000272

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The purpose of this letter is to request, pursuant to the requirements of 10CFR50.55a(a)(3), that the NRC approve the use of ASME Code Case N-133-2 for use in the design and fabrication of replacement valves for the Salem Units 1 and 2 service water The replacement valves currently being purchased are systems. Jamesbury Model 815L-11-14RLMT which utilize alternate bolting material for the four bolts closest to the shaft on either valve The use of alternate bolting material was approved in Code face. Case N-133-2 and represented the only change from Code Case The use of Code Case N-133-1 has been approved by the N-133-1. NRC.

The replacement valves are of a more reliable design in that the use of Aluminum Bronze Alloy 954, as approved by Code Case N-133, is more resistant to erosion. Maintenance of these valves is also easier to accomplish resulting in greater system The alternate bolting material was fabricated from availability. Monel Alloy 400 utilizing material specification SB-164. This material combines the mechanical and material properties necessary to assure structural integrity and limit galvanic corrosion. For these reasons, PSE&G believes that the requirements of 10 CFR 50.55a(a)(3) have been satisfied and that the use of ASME Code Case N-133-2 is acceptable.

Steven A. Varga

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Should you have any questions regarding this information, we would be happy to discuss them with you. An expeditious response to this request would be greatly appreciated.

Sincerely,

Cano

C Mr. Donald C. Fischer Licensing Project Manager

> Mr. Thomas J. Kenny Senior Resident Inspector

A. Kaplan who, being duly sworn, deposed and said that (1) he is Vice President, Nuclear Operations Division of The Cleveland Electric Illuminating Company, (2) he is duly authorized to execute and file this report on behalf of The Cleveland Electric Illuminating Company and as duly authorized agent for Duquesne Light Company, Ohio Edison Company, Pennsylvania Power Company and the Toledo Edison Company, and (3) the statements set forth therein are true and correct to the best of his knowledge, information and belief.

A. Kaplan

Sworn to and subscribed before me, this \_\_\_\_\_ day of \_\_\_\_\_\_,

Bethanit 7 ecce

BETHANY J. REESE Notary Public - STATE OF OHIO My Commission expires 3/11/88 (Recorded in Lake County)