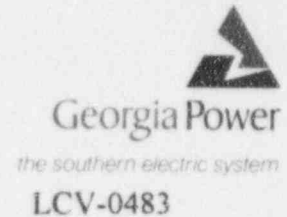


Georgia Power Company  
40 Inverness Center Parkway  
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Telephone 205 877-7122

C. K. McCoy  
Vice President, Nuclear  
Vogtle Project

December 27, 1994



Docket Nos. 50-424  
50-425

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

**VOGTLE ELECTRIC GENERATING PLANT  
REQUEST TO REVISE TECHNICAL SPECIFICATIONS  
REVISION TO LEAK TEST FREQUENCY FOR VALVES WITH RESILIENT SEALS**

In accordance with the provisions of 10 CFR 50.90 and 10 CFR 50.59, Georgia Power Company (GPC) hereby proposes to amend the Vogtle Electric Generating Plant (VEGP) Unit 1 and Unit 2 Technical Specifications, Appendix A to Operating Licenses NPF-68 and NPF-81. The revision will change the period for conducting leak testing of containment purge valves to every refueling outage.

During the initial licensing of VEGP there was insufficient experience with large containment isolation valves utilizing resilient seals to demonstrate that the seals would not degrade within the two year test interval required by 10 CFR 50 Appendix J. Consequently GPC agreed to more frequent testing of these valves and the Technical Specifications included a quarterly test requirement. Since that time (1987) the valves have been routinely tested every three months and no indication on seal degradation has been observed. Therefore GPC is requesting that the Technical Specifications be amended to require a test interval of once per refueling outage which meets the 10 CFR 50 Appendix J requirements. This change is consistent with the test interval subsequently approved by the NRC for similar valves using resilient seat material on other operating plants.

The frequent testing of these valves requires extensive work inside the reactor containment during operation, with the consequential radiation exposure and risks associated with erection and removal of scaffolding and installation and removal of flanges. The approval of this change to the Technical Specifications will reduce the required activities inside the containment during plant operation. This is a Cost Beneficial Licensing Action (CBLA) and it is estimated that this change will save about 750 manhours between refueling outages per unit.

Georgia Power Company requests that this revision be approved by June 1, 1995.

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U. S. Nuclear Regulatory Commission

LCV-0483

The proposed change and the bases for the changes are described in enclosure 1 to this letter. Enclosure 2 provides an evaluation pursuant to 10 CFR 50.92 showing that the proposed changes do not involve significant hazards considerations. Instructions for incorporation of the proposed changes into the technical specifications and a copy of the changes are provided in enclosure 3.

In accordance with 10 CFR 50.91, the designated state official will be sent a copy of this letter and all enclosures.

Mr. C. K. McCoy states that he is a vice president of Georgia Power Company and is authorized to execute this oath on behalf of Georgia power company and that, to the best of his knowledge and belief, the facts set forth in this letter and enclosures are true.

**GEORGIA POWER COMPANY**

By: C. K. McCoy  
C. K. McCoy

Sworn to and subscribed before me this 27<sup>th</sup> day of December, 1994.

Karan J. Thompson  
Notary Public

MY COMMISSION EXPIRES  
July 19, 1998

Enclosures:

1. Basis for Proposed Change
2. 10 CFR 50.92 Evaluation
3. Instructions for Incorporation and Revised Pages

c(w): Georgia Power Company  
Mr. J. B. Beasley, Jr.  
Mr. M. Sheibani  
NORMS

U. S. Nuclear Regulatory Commission  
Mr. S. D. Ebnetter, Regional Administrator  
Mr. D. S. Hood, Licensing Project Manager, NRR  
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

State of Georgia  
Mr. J. D. Tanner, Commissioner, Dept. of Natural Resources

## ENCLOSURE 1

### VOGTLE ELECTRIC GENERATING PLANT REQUEST TO REVISE TECHNICAL SPECIFICATIONS REVISION TO LEAK TEST FREQUENCY FOR VALVES WITH RESILIENT SEALS

#### BASIS FOR PROPOSED CHANGE

##### Proposed Change

The proposed change to the Technical Specifications (TS) will change specification 4.6.1.7.2 from "At least once per 3 months the containment purge valves with resilient material seals in each sealed closed containment purge supply and exhaust penetration shall be demonstrated operable..." to "At least during each refueling outage the containment purge valves with resilient material seals in each sealed closed containment purge supply and exhaust penetration shall be demonstrated operable...", and delete the phrase "...will provide early indication of resilient material seal degradation and..." from bases section 3/4.6.1.7.

##### Basis

During the initial licensing of the Vogtle Electric Generating Plant the NRC staff expressed concerns about seal degradation for large isolation valves having resilient seats. In response to this concern Georgia Power Company and the staff agreed to a program of accelerated testing for these valves. Georgia Power believes that the concern was based on the lack of confidence in the performance of resilient seats and that the intent of the accelerated testing program was to determine if increased testing was needed on a permanent basis. Georgia Power Company has conducted quarterly tests on these valves since 1987 and has determined that seal degradation does not occur. Based on the results of these tests we have concluded that increased testing is not required on a permanent basis and that the history of these valves supports a test interval in accordance with 10 CFR 50 Appendix J. The results of the tests are tabulated in table 1-1 which demonstrates that the measured leak rates have consistently been well below the allowable leakrate (26,320 SCCM) and that there were no instances of increased leakage due to degradation of resilient seats. Figure 1-1 provides a schematic of the valve arrangement and identifies the valves referenced in table 1-1. The conclusions about the performance of the resilient seat material and the revision to the testing frequency is consistent with the findings of the NRC staff on other operating plants. (See SER for Amendment 54 to operating license DPR-18, TAC number M77849) Since the leak test requires the construction of scaffolding and installation of flanges, the change to the frequency will significantly reduce the level of required activity inside containment during plant operation by allowing the tests to be conducted during refueling outages.

TABLE I-1  
VEGP CONTAINMENT PURGE VALVES

UNIT-1 TEST DATA

| PENETRATION #83 |                     |                     |                     |                     |        |
|-----------------|---------------------|---------------------|---------------------|---------------------|--------|
| DATE            | 1HV2626A<br>24" IRC | 1HV2626B<br>14" IRC | 1HV2627A<br>24" ORC | 1HV2627B<br>14" ORC | NOTES  |
| 08/24/87        | 162.00              | 162.00              | 162.00              | 162.00              | 1      |
| 11/20/87        | 610.00              | 610.00              | 610.00              | 610.00              | 1      |
| 02/13/88        | 241.90              | 241.90              | 241.90              | 241.90              | 1      |
| 06/02/88        | 344.00              | 344.00              | 344.00              | 344.00              | 1      |
| 08/23/88        | 141.70              | 141.70              | 141.70              | 141.70              | 1      |
| 11/17/88        | 200.00              | 200.00              | 200.00              | 200.00              | 1      |
| 12/14/88        | 43.20               | 34.60               | 1132.00             | 1132.00             |        |
| 02/13/89        | 856                 | 856                 | 856                 | 856                 | 2      |
| 03/08/89        | 150.00              | 22.00               | 401.00              | 401.00              |        |
| 06/01/89        | 1453.00             | 18.05               | 506.00              | 506.00              |        |
| 08/30/89        | 2450.00             | 72.80               | 3140.00             | 3140.00             |        |
| 11/14/89        | 1112.00             | 79.20               | 709.00              | 709.00              |        |
| 02/20/90        | 1070.00             | 53.70               | 570.00              | 570.00              |        |
| 03/24/90        | 2750.00             | 14.30               | 18.10               | 18.10               |        |
| 06/20/90        | 3900.00             | 25.80               | 134.40              | 134.40              |        |
| 09/11/90        | 410.00              | 84.60               | 1202.00             | 1202.00             |        |
| 12/18/90        | 2260.00             | 35.00               | 297.00              | 297.00              |        |
| 02/26/91        | 12070.00            | 115.80              | 843.00              | 843.00              | 3      |
| 02/27/91        | 850.00              |                     |                     |                     | RETEST |
| 05/21/91        | 316.00              | 86.60               | 794.00              | 794.00              |        |
|                 |                     |                     |                     |                     |        |
| 08/13/91        | 230                 | 6                   | 122                 | 122                 |        |
| 11/04/91        | 91.3                | 16.1                | 383                 | 383                 | 4      |
|                 |                     |                     |                     |                     |        |
| 01/28/92        | 565                 | 11.1                | 520                 | 520                 |        |
| 04/21/92        | 142                 | 47                  | 470                 | 470                 |        |
| 07/19/92        | 69.1                | 446                 | 517                 | 517                 |        |
| 10/06/92        | 470                 | 59                  | 611                 | 611                 |        |
| 01/05/93        | 43.8                | 22.3                | 698                 | 698                 |        |
| 03/18/93        | 6380                | 38                  | 345                 | 345                 |        |
| 04/19/93        | 201000              | 42.5                | 461.5               | 461.5               | 3      |
| 04/20/93        | 89.3                |                     |                     |                     | RETEST |
| 06/15/93        | 159                 | 95                  | 706                 | 706                 |        |
| 09/07/93        | 57.9                | 6.9                 | 376                 | 376                 |        |
| 11/30/93        | 86.5                | 18.3                | 672                 | 672                 |        |

| PENETRATION #84 |                     |                     |                     |                     |        |
|-----------------|---------------------|---------------------|---------------------|---------------------|--------|
| DATE            | 1HV2628A<br>24" IRC | 1HV2628B<br>14" IRC | 1HV2629A<br>24" ORC | 1HV2629B<br>24" ORC | NOTES  |
| 08/22/87        | 172.00              | 172.00              | 172.00              | 172.00              | 1      |
| 11/20/87        | 39.20               | 39.20               | 39.20               | 39.20               | 1      |
| 02/14/88        | 239.30              | 239.30              | 239.30              | 239.30              | 1      |
| 05/20/88        | 390.00              | 390.00              | 390.00              | 390.00              | 1      |
| 08/19/88        | 128.70              | 128.70              | 128.70              | 128.70              | 1      |
| 11/17/88        | 196.60              | 196.60              | 196.60              | 196.60              | 1      |
| 12/14/88        | 37.20               | 32.40               | 1280.00             | 1280.00             |        |
|                 |                     |                     |                     |                     |        |
| 03/06/89        | 12.00               | 24.60               | 327.00              | 327.00              |        |
| 06/06/89        | 580.00              | 101.20              | 783.00              | 783.00              |        |
| 08/31/89        | 94.30               | 32.60               | 795.00              | 795.00              |        |
| 11/15/89        | 95.50               | 47.20               | 506.00              | 506.00              |        |
| 02/21/90        | 350.00              | 53.70               | 720.00              | 720.00              |        |
| 03/23/90        | 57.40               | 34.50               | 56.80               | 56.80               |        |
| 06/20/90        | 36.40               | 1012.00             | 1061.00             | 1061.00             |        |
| 09/12/90        | 862.00              | 57.00               | 1181.00             | 1181.00             |        |
| 12/19/90        | 453.00              | 44.00               | 283.00              | 283.00              |        |
| 02/27/91        | 515.00              | 42.50               | 543.00              | 543.00              |        |
|                 |                     |                     |                     |                     |        |
| 05/22/91        | 8150.00             | 134.00              | 455.00              | 455.00              | 5      |
| 07/03/91        | 87.3                | 121.8               | 438                 | 438                 | RETEST |
| 08/14/91        | 275                 | 72.1                | 1320                | 1320                |        |
| 11/02/91        | 6200                | 135.3               | 1770                | 1770                | 3      |
| 11/07/91        | 65.7                |                     |                     |                     | RETEST |
| 01/29/92        | 1400                | 57.4                | 1420                | 1420                |        |
| 04/22/92        | 780                 | 82.6                | 1370                | 1370                |        |
| 07/15/92        | 324                 | 18                  | 285                 | 285                 |        |
| 10/07/92        | 227                 | 23.8                | 608                 | 608                 |        |
| 01/06/93        | 260                 | 282                 | 940                 | 940                 |        |
| 03/18/93        | 50.6                | 6.2                 | 436                 | 436                 |        |
| 04/19/93        | 317                 | 56.2                | 74.7                | 74.7                |        |
|                 |                     |                     |                     |                     |        |
| 06/16/93        | 674                 | 36.8                | 65.1                | 65.1                |        |
| 09/08/93        | 99.2                | 17                  | 658                 | 658                 |        |
| 12/01/93        | 49.1                | 3.2                 | 727                 | 727                 |        |

NOTE 1: TEST PERFORMED BETWEEN INBOARD AND OUTBOARD VALVES. TOTAL LEAKAGE RECORDED.

NOTE 2: SPECIAL TEST TO COMPARE BETWEEN VALVE TEST AND TESTING FROM ACCIDENT FLOW DIRECTION.

NOTE 3: RETESTED DUE TO HIGH PREVIOUS LEAK RATE. NO VALVE ADJUSTMENTS WERE MADE, TEST BOUNDARY LEAKAGE SUSPECT.

NOTE 4: VALVE WOULD NOT PRESSURIZE, VALVE FOUND NOT FULLY CLOSED. OUTAGE POST LLRT. RE-CLOSED VALVE, TEST PERFORMED SATISFACTORY.

NOTE 5: HIGH LEAKAGE DUE TO LEAK AT BLIND FLANGE. RETESTED VALVE WITH DIFFERENT GASKET MATERIAL IN BLIND FLANGE.

TABLE 1-1 (CONTINUED)  
VEGP CONTAINMENT PURGE VALVES

UNIT-2 TEST DATA

PENETRATION #83

| DATE     | 2HV2626A<br>24" IRC | 2HV2626B<br>14" IRC | 2HV2627A<br>24" ORC | 2HV2627B<br>14" ORC | NOTES |
|----------|---------------------|---------------------|---------------------|---------------------|-------|
| 08/10/89 | 638.00              | 34.10               | 700.00              | 700.00              |       |
| 11/01/89 | 338.00              | 150.00              | 3500.00             | 3500.00             |       |
| 02/07/90 | 240.00              | 174.00              | 737.00              | 737.00              |       |
| 04/18/90 | 269.00              | 244.00              | 138.00              | 138.00              |       |
| 07/10/90 | 162.90              | 62.10               | 922.00              | 922.00              |       |
| 10/22/90 | 178.40              | 46.90               | 23.00               | 23.00               |       |
| 01/24/91 | 64.30               | 20.40               | 227.30              | 227.30              |       |
|          |                     |                     |                     |                     |       |
| 04/17/91 | 334.00              | 30.00               | 433.00              | 433.00              |       |
| 07/09/91 | 92.40               | 74.60               | 491.00              | 491.00              |       |
| 10/02/91 | 259.00              | 81.00               | 783.00              | 783.00              |       |
| 01/07/92 | 3120.00             | 2740.00             | 4550.00             | 4550.00             |       |
| 04/15/92 | 36.30               | 255.00              | 38.40               | 38.40               |       |
| 07/07/92 | 218.00              | 34.60               | 36.50               | 36.50               |       |
| 09/30/92 | 275.00              | 33.40               | 187.00              | 187.00              |       |
| 12/17/92 | 6.00                | 46.10               | 168.70              | 168.70              |       |
| 03/12/93 | 132.00              | 27.00               | 55.00               | 55.00               |       |
| 06/02/93 | 410.00              | 623.00              | 582.00              | 582.00              |       |
| 10/12/93 | 152.00              | 12.00               | 32.00               | 32.00               |       |
| 01/26/94 | 272.00              | 659.00              | 547.00              | 547.00              |       |

PENETRATION #84

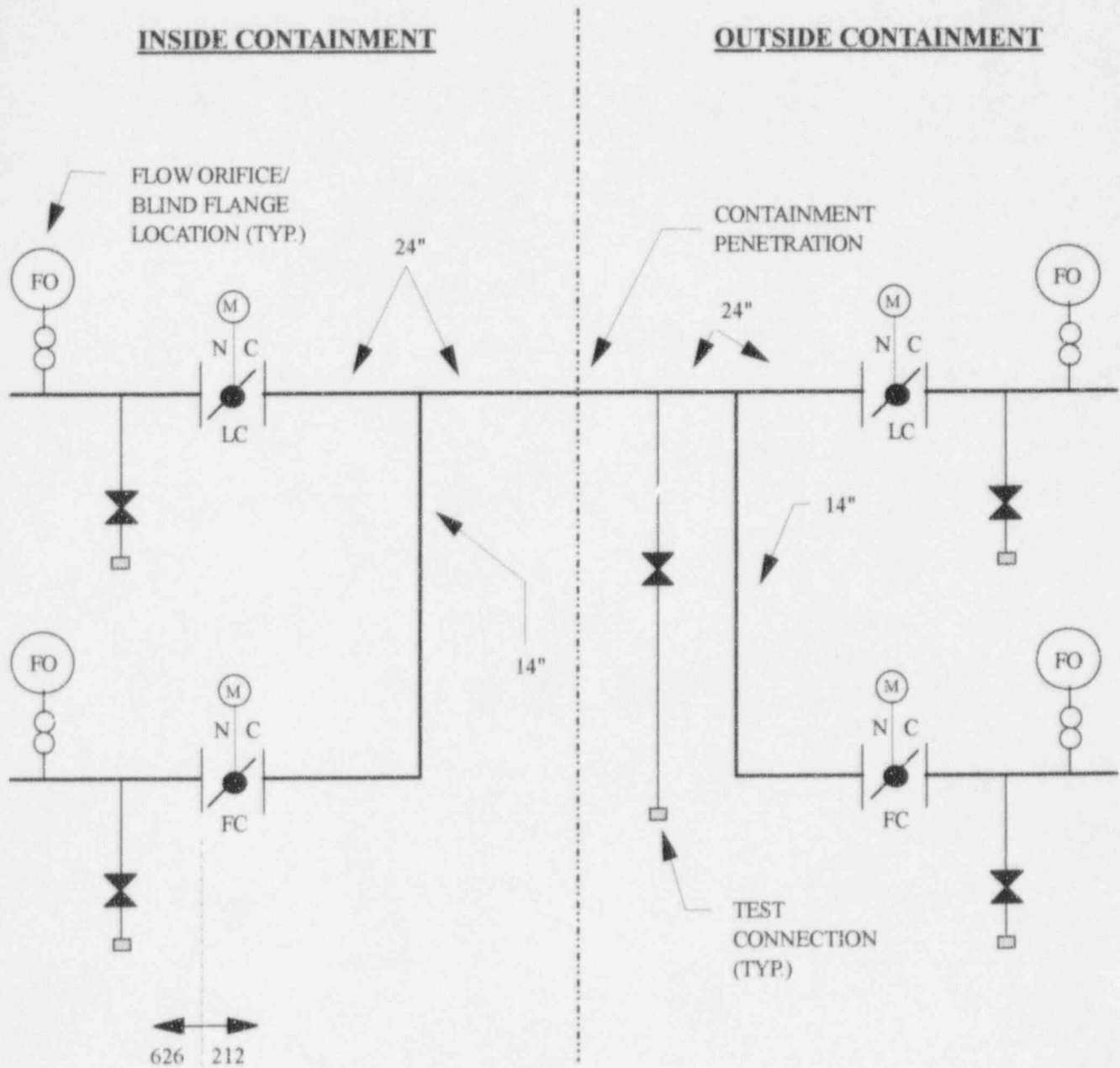
| DATE     | 2HV2628A<br>24" IRC | 2HV2628B<br>14" IRC | 2HV2629A<br>24" ORC | 2HV2629B<br>14" ORC | NOTES  |
|----------|---------------------|---------------------|---------------------|---------------------|--------|
| 08/10/89 | 280.00              | 808.00              | 1562.00             | 1562.00             |        |
| 11/02/89 | 335.00              | 91.90               | 6010.00             | 6010.00             |        |
| 02/08/90 | 440.00              | 108.00              | 191.00              | 191.00              |        |
| 04/20/90 | 1103.00             | 863.00              | 1008.00             | 1008.00             |        |
| 07/10/80 | 425.00              | 42.00               | 7.00                | 7.00                |        |
| 10/23/90 | 578.00              | 108.00              | 672.00              | 672.00              |        |
| 01/24/91 | 560.00              | 65.80               | 5700.00             | 5700.00             | 1      |
| 03/21/91 |                     |                     |                     | 472.00              | RETEST |
| 04/17/91 | 284.00              | 68.80               | 433.00              | 433.00              |        |
| 07/10/91 | 87.00               | 50.00               | 1150.00             | 1150.00             |        |
| 10/04/91 | 435.00              | 29.00               | 1796.00             | 1796.00             |        |
| 01/08/92 | 526.00              | 101.30              | 910.00              | 910.00              |        |
| 04/16/92 | 1186.00             | 85.40               | 519.00              | 519.00              |        |
| 07/08/92 | 111.20              | 60.70               | 274.00              | 274.00              |        |
| 09/30/92 | 290.00              | 38.00               | 457.00              | 457.00              |        |
| 12/17/92 | 460.00              | 130.00              | 635.00              | 635.00              |        |
| 03/18/93 | 112.00              | 6.00                | 157.00              | 157.00              |        |
| 06/03/93 | 114.00              | 54.00               | 89.00               | 89.00               |        |
| 10/12/93 | 67.20               | 38.50               | 65.80               | 65.80               |        |
| 01/27/94 | 10.00               | 13.60               | 283.00              | 283.00              |        |

NOTE 1: RETESTED DURING FORCED OUTAGE DUE TO PREVIOUS HIGH LEAKAGE RATE.

Enclosure 1 (Continued)

**FIGURE 1-1**

**Containment Purge Supply/Exhaust Penetration  
Typical Arrangement**





## ENCLOSURE 2

### VOGTLE ELECTRIC GENERATING PLANT REQUEST TO REVISE TECHNICAL SPECIFICATIONS REVISION TO LEAK TEST FREQUENCY FOR VALVES WITH RESILIENT SEALS

#### 10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, Georgia Power Company (GPC) has evaluated the proposed revision to the Technical Specifications and has determined that operation of the facility in accordance with the proposed amendment would not involve any significant hazards considerations.

GPC has concluded the following concerning:

1. The proposed change to the Technical Specifications does not involve a significant increase in the probability or consequences of an accident previously evaluated because the tests results have demonstrated that the resilient seat material does not degrade and cause containment isolation valves to leak. Therefore the valves will perform as assumed in the accident analyses.
2. The proposed change to the Technical Specifications does not create the possibility of a new or different kind of accident from any accident previously evaluated because it does not require the valves to function in any manner other than that which is currently required.
3. The proposed addition to the Technical Specifications does not involve a significant reduction in a margin of safety because it only affects the frequency of the test and does not change the leakage acceptance criteria. Since sufficient data has been collected to demonstrate that the resilient seals do not degrade, testing at the same frequency as other containment isolation valves will not reduce the margin of safety provided by the Technical Specifications.

Based upon the preceding information, it has been determined that the proposed Technical Specifications addition does not involve a significant hazards consideration as defined by 10 CFR 50.92.

ENCLOSURE 3

VOGTLE ELECTRIC GENERATING PLANT  
REQUEST TO REVISE TECHNICAL SPECIFICATIONS  
REVISION TO LEAK TEST FREQUENCY FOR VALVES WITH RESILIENT SEALS

INSTRUCTIONS FOR INCORPORATION

The proposed change to the Vogtle Electric Generating Plant Technical Specifications would be incorporated as follows.

Remove Page

3/4 6-11\* and 3/4 6-12  
B 3/4 6-3 and B 3/4 6-4\*

Insert Page

3/4 6-11\* and 3/4 6-12  
B 3/4 6-3 and B 3/4 6-4\*

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\* Overleaf page containing no change.