

Georgia Power Company  
333 Piedmont Avenue  
Atlanta, Georgia 30306  
Telephone 404 526-3195

Mailing Address:  
40 Inverness Center Parkway  
Post Office Box 1295  
Birmingham, Alabama 35201  
Telephone 205 868-5581

September 28, 1989

*the southern electric system*

W. G. Hairston, III  
Senior Vice President  
Nuclear Operations

ELV-00610  
1482n

Docket No. 50-424

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

Gentlemen:

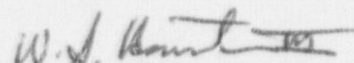
VOGTLE ELECTRIC GENERATING PLANT  
REVISION TO EXEMPTION REQUEST  
WORKER RESPIRATORY PROTECTION APPARATUS

Georgia Power Company (GPC) requested an exemption to 10 CFR 20 Appendix A, footnote d-2(c) by letter VL-41 dated August 26, 1988 for the Vogtle Electric Generating Plant - Unit 1. The exemption was granted via a NRC letter dated October 27, 1988. Item number 3 in the NRC letter under Operating Conditions states in part that "the GMR-I canisters will be stored in a Class A or better environment, as defined in ANSI N45.2...".

Mine Safety Appliances (MSA) has furnished a summary of their test results justifying Class C storage requirements for these canisters. A copy of this correspondence from MSA is attached for your reference.

Georgia Power Company hereby requests an amendment to the exemption request for Plant Vogtle to allow GMR-I canisters to be stored in a Class C storage environment. It is requested that this amendment to the exemption be granted by January 15, 1990.

Sincerely,

  
W. G. Hairston, III

WGH,III/TJK/PAH/gm

Enclosures:

1. Letter from MSA dated April 5, 1989
2. Letter from MSA dated September 18, 1989

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U. S. Nuclear Regulatory Commission  
ELV-00610  
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xc: Georgia Power Company  
Mr. C. K. McCoy  
Mr. G. Bockhold, Jr.  
Mr. R. L. LeGrand  
Mr. P. D. Rushton  
NORMS

U. S. Nuclear Regulatory Commission  
Mr. S. D. Ebnetter, Regional Administrator  
Mr. J. B. Hopkins, Licensing Project Manager, NRR  
Mr. J. F. Rogge, Senior Resident Inspector, Vogtle

ENCLOSURE 1



Mine Safety Appliances Company • P.O. Box 426 • Pittsburgh, PA 15230

Telephone: (412) 967-3000

Writers Direct Dial No.  
(412) 967-3194

April 5, 1989

Mr. Tim Kirkham  
Southern Company Services  
P.O. Box 1295  
Birmingham, AL 35201

Dear Mr. Kirkham:

The purpose of this letter is to confirm our telephone conversation regarding MSA's recommendations on the storage of the GMR-I Canister (MSA P/N 466220) at nuclear facilities having NRC exemptions for radioiodine protection factor credit.

The original exemptions (including Farley Nuclear Plant) required that GMR-I canisters be stored in a Class A environment. MSA did not feel this level of storage was necessary and we began a test program to determine if any special storage was required. Accelerated storage and moisture permeation tests were conducted and they indicated that Class C storage was sufficient. Storage for all canister inventory at MSA is Class C.

Later exemptions (e.g. Callaway) reflect the Class C storage requirements. You may want to contact them to obtain a copy of the data they submitted to the NRC.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric J. Beck', is written over a horizontal line.

Eric J. Beck  
Product Line Manager

LOCATION: RIDC Industrial Park • 121 Gamma Drive • Pittsburgh, PA 15238



Mine Safety Appliances Company • P.O. Box 426 • Pittsburgh, PA 15230

Telephone: (412) 967-3000

Writers Direct Dial No.  
(412) 967-3194

September 18, 1989

Mr. Tim Kirkham  
Southern Company Services  
42 Inverness Center Parkway  
Birmingham, AL 35242

Dear Mr. Kirkham:

The purpose of this letter is to update you on the further testing we have done on GMR-I canisters.

#### ACCELERATED STORAGE TESTS

In August 1985 we randomly selected 24 canisters from Lot 96 (which were manufactured on April 18, 1985), and placed them in 120°F, 100% RH storage. The initial inspection on Lot 96 showed an average instantaneous methyl iodide penetration of .43% at 480 minutes (challenge concentration was 10 ppm methyl iodide).

After 6 months storage, three canisters were removed and tested. No detectable penetrations (<0.1%) occurred at 480 minutes (5 ppm methyl iodide concentration). The testing was continued to the end of service life and the elapsed time to a 1% breakthrough was 44 hours.

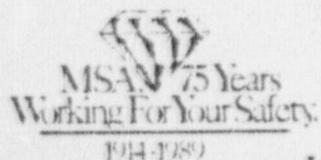
After 1 year, another canister was drawn from storage. Penetration after 480 minutes was below 0.5% (8 ppm methyl iodide challenge concentration).

#### CLASS B STORAGE TESTS

A larger sample of Lot 96 canisters are under class B storage at our X-Stores warehouse. Samples were drawn at three- and four-years storage and penetrations at 480 minutes were at or below the initial lot inspection results.

#### MOISTURE PERMEATION OF BOTTOM SEAL

In October 1984, we conducted a moisture permeation study on the canister seal material at 100°F and 100% RH. After three years (maximum shelf-life for the canister) moisture incursion was found to be insignificant.



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LOCATION: RIDC Industrial Park • 121 Gamma Drive • Pittsburgh, PA 15238

Mr. Tim Kirkham  
September 18, 1989

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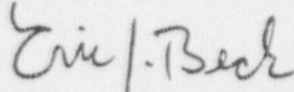
Mine Safety Appliances Company

CONCLUSION

Storage of GMR-I canisters under Class C storage will not degrade the methyl iodide performance of an unopened canister.

Please do not hesitate to contact me if you have questions or need further information.

Sincerely,



Eric J. Beck  
Product Line Manager

cc: Al Faircloth