

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526-3195

Mailing Address
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 868-5086

J. D. Woodard
Senior Vice President

July 11, 1996

the southern electric system

LCV-0678

Docket Nos. 50-424
50-425

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001


Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS

Pursuant to 10 CFR 50.55a(a)(3), Georgia Power Company (GPC) is hereby requesting relief for Vogtle Electric Generating Plant (VEGP), Units 1 and 2, from the requirements of 1974 ASME Section III, Summer 1975 Addenda, Subsection NC, Article NC-7000, Paragraph NC-7153. This relief would allow VEGP to retain the installation of several manual block valves located in series with overpressure protection devices discharging to the Recycle Hold-Up Tanks and the Reactor Coolant System. The manual block valves which were installed as part of the original Westinghouse standard design, have strict administrative controls for maintaining them in the open position during plant operation to ensure overpressure protection is not defeated. A detailed description of the relief request is provided in Enclosure 1.

Should there be any questions regarding this issue, please contact this office.

Sincerely,


J. D. Woodard

JDW/KLG

9607170108 960711
PDR ADOCK 05000424
PDR

100112

1/1
A447

U. S. Nuclear Regulatory Commission
LCV-0678
Page 2

Enclosure: Relief Request from ASME Section III Requirements

xc: Georgia Power Company

Mr. J. B. Beasley, Jr. (w/encl.)
Mr. W. L. Burmeister (w/encl.)
Mr. M. Sheibani (w/encl.)
NORMS (w/encl.)

U. S. Nuclear Regulatory Commission

Mr. S. D. Ebnetter, Regional Administrator (w/encl.)
Mr. C. R. Ogle, Senior Resident Inspector, Vogtle (w/encl.)
Mr. L. L. Wheeler, Licensing Project Manager, NRK (w/encl.)

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

COMPONENTS FOR WHICH RELIEF IS REQUESTED

1. Relief Systems that Discharge to Recycle Hold-Up Tanks

The components for which relief from the requirements of the 1974 Edition of ASME Section III, Summer 1975 Addenda, Subsection NC, Article NC-7000, Paragraph NC-7153 is being requested are manual block valves A1210U6042, A1210U6043, and A1210U4216 for VEGP Units 1 and 2. These common block valves, which are locked in the open position, are located in the discharge path of relief valves 1PSV8120 and 2PSV8120 which provide overpressure protection for the Unit 1 and Unit 2 Volume Control Tanks (VCTs), and several other relief systems that are listed below. The relief valves discharge to one of two available Recycle Hold-Up Tanks (RHTs) which are common between the units such that any radioactive gas or liquid discharged through the relief valves would be contained in a closed system. The purpose of the block valves is to isolate individual RHTs for personnel safety during maintenance, to allow processing of the individual tank contents without having uncontrolled discharges, and to allow testing of individual RHTs without incapacitating overpressure protection for the VCT and other systems listed below. An illustration of the current VEGP configuration is provided as Figure 1.

- Safety Injection/Residual Heat Removal Heat Exchanger Discharge, Train A and B, Units 1 and 2
- Safety Injection Cold Leg Injection, Units 1 and 2
- Residual Heat Removal Hotleg Crossover, Units 1 and 2
- Chemical and Volume Control Charging Pump Suction, Units 1 and 2
- Safety Injection Pumps, Train A and B, Units 1 and 2
- Safety Injection Pump Suction, Units 1 and 2

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

COMPONENTS FOR WHICH RELIEF IS REQUESTED

2. Thermal Relief System for the Regenerative Heat Exchanger

Additional components for which relief is being requested are manual block valves 11208U4498 and 21208U4498 for VEGP, Units 1 and 2, respectively. The block valves, which are locked in the open position, are located in the discharge path of spring-loaded thermal relief check valves 11208U4034 and 21208U4034 which provide overpressure protection for the Regenerative Heat Exchangers (RHEs). The thermal relief check valves discharge into the Reactor Coolant System (RCS). The purpose of the manual block valve is to facilitate maintenance of the RHEs and support hydrostatic testing of the charging systems. An illustration of the current VEGP configuration is provided as Figure 2.

3. Relief System for the Residual Heat Removal Loop Suction Isolation Valve Piping

Similarly, relief is being requested for manual block valves 1(2)1201U4255 and 1(2)1201U4256 for VEGP, Units 1 and 2, respectively. The block valves, which are locked in the open position, are located in the discharge path of check valves 1(2)1201U4251 and 1(2)1201U4252 which provide overpressure protection for the Residual Heat Removal (RHR) loop suction piping between the primary and secondary RCS isolation valves, 1(2)HV8701A and 1(2)HV8701B, 1(2)HV8702A and 1(2)HV8702B, respectively. The thermal relief check valves discharge into the Reactor Coolant System. The purpose of the manual block valve is to facilitate leak testing and maintenance of the primary and secondary RHR suction isolation valves. An illustration of the current VEGP configuration is provided as Figure 3.

ASME CODE SECTION III REQUIREMENTS

In general, ASME Code Section III allows the installation of stop valves or similar devices in the relief path for a component, provided that "positive controls and interlocks" are applied to assure that the relief path is open, when required. ASME Code Interpretations III-1-89-25 and III-1-80-67R state that the use of a manual isolation valve,

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

ASME CODE SECTION III REQUIREMENTS

with administrative controls to assure that the valve is open, does not meet the "controls and interlocks" requirement of the ASME Code Section III. These interpretations were identified to GPC by Westinghouse letter NSAL-94-009 dated May 12, 1994, and are cited as follows:

- A. "Interpretation III-1-89-25 Section III, ND-7153 "Provisions When Stop Valves Are Used," (1974 Edition with Summer 1974 Addenda)

Date Issued: March 3, 1989
File: NI88-032

Question: Does the placement of a manual valve which is locked in the full open position in each of two redundant parallel flow paths from the discharge of a common relief valve header combined with appropriate cautions in the maintenance procedures to insure that only one valve could be closed at a time, meet the requirements of ND-7153 in the 1974 Edition of Section III?

Reply: No"

- B. "Interpretation III-1-80-67R Section III, Division 1, NC-7142 "Provisions When Stop Valves Are Used," (1980 Edition)

Date Issued: March 1, 1989
File: NI79-241

Question (1): What is meant by the term "controls and interlocks" as found in NC-7142?

Reply (1): The "controls and interlocks" referred to in NC-7142 are pressure sensing devices which would activate the stop valve to provide fluid access to the relief valve thereby assuring the pressure relieving function is met at all times.

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

ASME CODE SECTION III REQUIREMENTS

Question (2): May administrative controls such as operating procedures governing the use and application of the system be construed as the "controls" of NC-7142?

Reply (2): No.

Note: Interpretation III-80-67, originally issued April 16, 1980, was revised to be consistent with Interpretation III-81-131 issued November 9, 1981. The above Interpretation supersedes Interpretation III-80-67 which appeared in Volume 7, page 55."

Based on these two ASME Code Section III interpretations, a deviation appears to exist between the design of the relief systems which discharge to the Recycle Holdup Tanks and the relief systems for the Regenerative Heat Exchangers and RHR loop suction piping between the RCS isolation valves. Accordingly, GPC is requesting relief from the "control and interlock" requirements of the 1974 ASME Section III, Summer 1975 Addenda, Subsection NC, Article NC-7000, Paragraph NC-7153.

BASIS FOR RELIEF

Compliance with the 1974 ASME Section III, Summer 1975 Addenda, Subsection NC, Article NC-7000, Paragraph NC-7153 is impractical for the subject manual block valves. This relief request is justified in accordance with 10 CFR 50.55a(a)(3)(i), 50.55a(a)(3)(ii), and 50.55a(f)(6)(i).

1. Administrative controls are in place to verify that the subject block valves are physically locked in the open position prior to system operation and remain open during system operation. Restricted access to the RHE and RHR loop suction isolation manual block valves inside containment makes the inadvertent closure of the valves highly unlikely. Similarly, the inadvertent closing of the three manual block valves to the RHTs is also highly unlikely. In these cases, the current administrative controls provide an acceptable alternative to the requirements of ASME Section III and an acceptable level of quality and safety.

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

BASIS FOR RELIEF

2. Compliance with the code requirements would result in a hardship or unusual difficulties without a compensating increase in the level of quality and safety. The block valve and relief valve configurations were part of the original Westinghouse standard design. Modification of the systems to install controls and interlocks in compliance with the code would result in costly backfit design changes.
3. The current configurations provide an acceptable level of quality and safety. Mispositioning of these block valves, although not desirable, would not impair the capability of plant shutdown or operation of the emergency core cooling systems. In the extreme unlikely event that the valves were mispositioned closed and an overpressurization condition resulted in a line rupture, the failure consequences are bounded by the Small-Break Loss of Coolant Accident (SBLOCA) analysis provided in Chapter 15 of the updated Final Safety Analysis Report for VEGP.

PROPOSED ALTERNATIVE TO CODE REQUIREMENTS

As an alternative to the ASME Code Section III requirements, GPC proposes to maintain the current As-Built configurations based on the following administrative controls:

Relief Systems that Discharge to the Recycle Hold-Up Tank

Manual block valves A1210U6042, A1210U6043, and A1210U4216 are physically locked in the full open position. VEGP Procedure 11703-C, "Boron Recycle System Alignment," verifies that these valves are locked in the open position during system operation.

Thermal Relief System for the Regenerative Heat Exchanger

Manual block valves 11208U4498 and 21208U4498 are physically locked in the open position. VEGP procedures 11006-1 and 11006-2 entitled "Chemical and Volume Control System Alignment" for VEGP Units 1 and 2, respectively, verify that these valves are locked in the open position during system operation.

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

PROPOSED ALTERNATIVE TO CODE REQUIREMENTS

Relief System for Residual Heat Removal Loop Suction Isolation Valve Piping

Manual block valves 1(2)1201U4255 and 1(2)1201U4256 are physically locked in the open position. VEGP procedures 11001-1 and 11001-2 entitled "Reactor Coolant System Alignment" for VEGP Units 1 and 2, respectively, verify that these valves are locked in the open position during system operation.

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

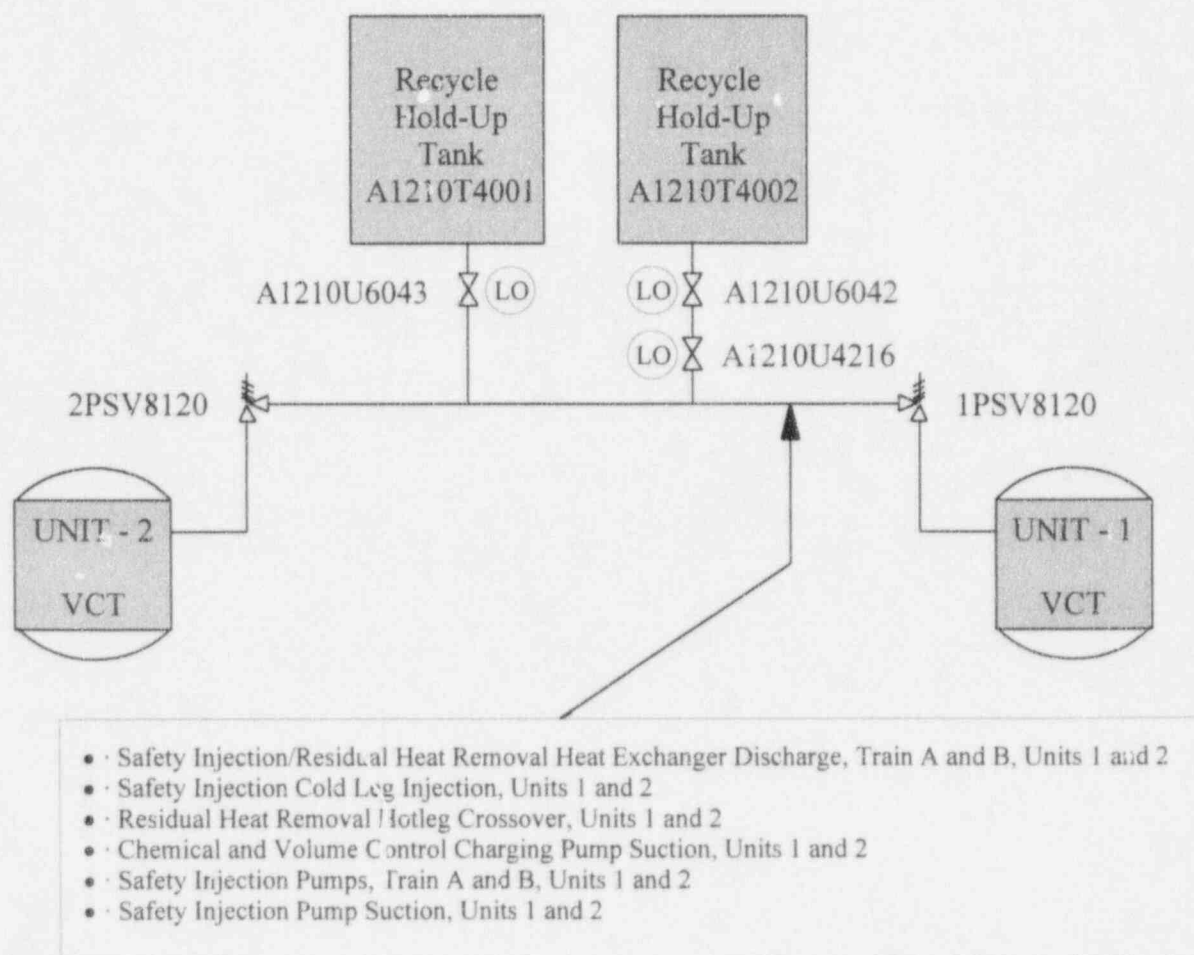


Figure 1: Representative Relief Path for Volume Control Tank

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

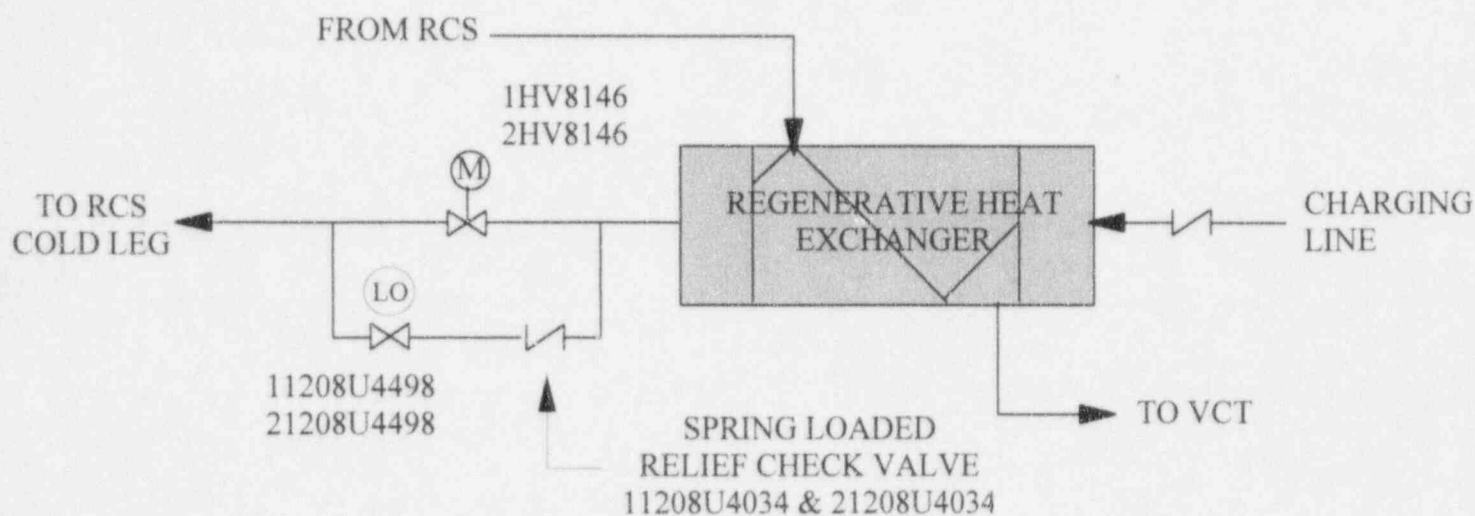


Figure 2: Representative Relief Path for the Regenerative Heat Exchanger

ENCLOSURE
TO
GEORGIA POWER COMPANY LETTER LCV-0678,
"RELIEF REQUEST FROM ASME CODE SECTION III REQUIREMENTS"

Vogtle Electric Generating Plant, Units 1 and 2
NRC Dockets 50-424 and 50-425

(continued)

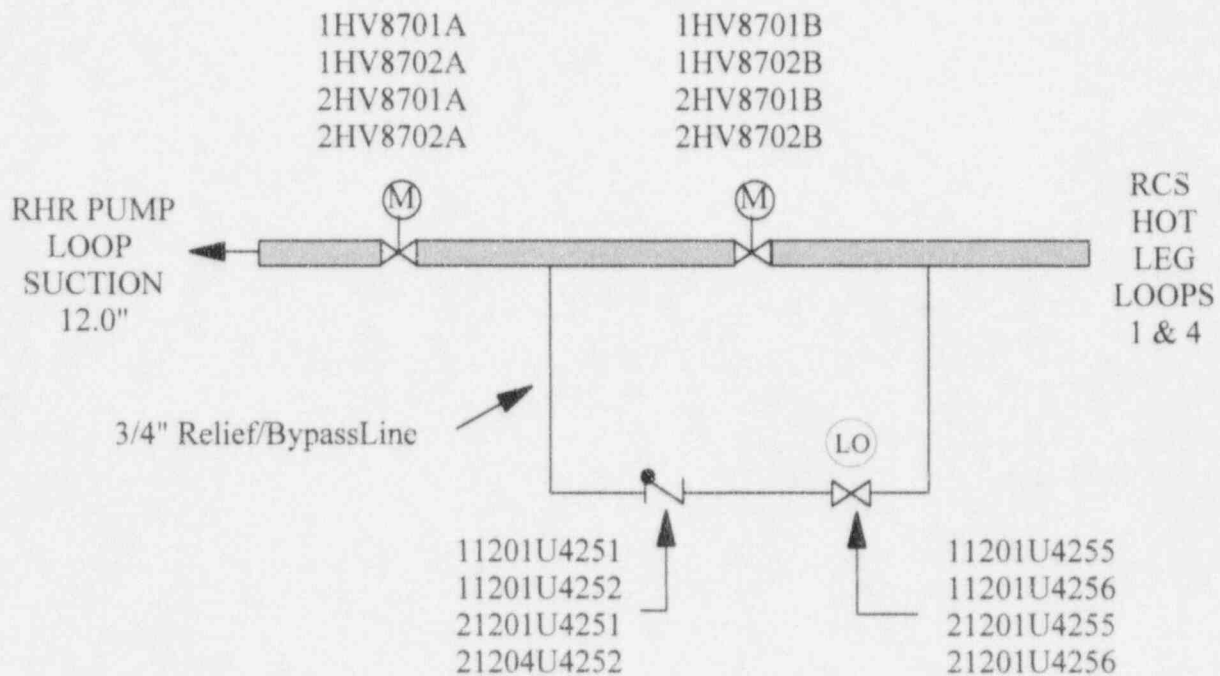


Figure 3: Representative Relief Path for the RHR Loop Suction Piping Between the Primary and Secondary RCS Isolation Valves.