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J. D. Woodard
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the southern electric system

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LCV-0821

Docket Nos. 50-424
50-425

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

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
REVISION TO TECHNICAL SPECIFICATION 4.8.1.1.2.j (2),
A. C. SOURCES

Georgia Power Company herewith transmits an application for amendment to Facility Operating Licenses NPF-68 and 81 for Vogtle Electric Generating Plant (VEGP) Units 1 and 2, respectively.

This amendment application clarifies the requirements of Technical Specification Surveillance Requirement 4.8.1.1.2.j (2) that prescribes a pressure test of those portions of the diesel fuel-oil system that are designed to Section III, Subsection ND of the American Society of Mechanical Engineers (ASME) Code. This system pressure test is to be performed at a pressure equal to 110% of the system design pressure at least once per 10 years. At VEGP, Technical Specification 4.0.5 does not impose the equivalent surveillance requirements for inservice inspection, since this piping system is not included in the inservice inspection (ISI)/ inservice testing (IST) programs referenced by Technical Specification 4.0.5. However, ASME Section XI, 1983 Edition with Addenda through Summer 1983, Article IWD-5000, will be used for guidance. This article allows for certain portions of piping systems to be exempted from pressurizing the piping to 110% of the system design pressure. This includes atmospheric storage tanks, open ended portions of suction and drain lines from a storage tank extending to the first shutoff valve, open ended portions of discharge lines beyond the last shutoff valve in non-closed systems, open ended vent and drain lines from components extending beyond the last shutoff valve, and open ended safety or relief valve discharge lines. Georgia Power Company requests approval of this Technical Specification revision by August 15, 1996.

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This amendment application requests that portions of the diesel fuel oil piping be excluded from the Technical Specification requirement to perform a system pressure test at 110 % of the system design pressure. These portions would be allowed to be excluded per ASME Section XI, 1983 Edition. In providing clarification to the Technical Specification requirement for the emergency diesel generator fuel oil system pressure test, ASME Section XI is used for guidance only. Although important to safety, the emergency diesel generator and subsystems thereof, are not part of the VEGP ISI and IST programs and are specifically excluded by NRC Regulatory Guide 1.26.

Enclosure 1 provides a description of the proposed change and the basis for the change. Enclosure 2 provides the basis for a determination that the proposed change does not involve significant hazards considerations. Enclosure 3 provides instructions for incorporating the proposed change into the Technical Specifications.

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

Mr. J. D. Woodard states that he is a senior vice president of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company, and to the best of his knowledge and belief, the facts set forth in this letter are true.

GEORGIA POWER COMPANY

By: _____
J. D. Woodard

Sworn to and subscribed before me this 17th day of June, 1996.

_____
Notary Public

MY COMMISSION EXPIRES
9-14-98

JDW/PAH/gmb

Enclosures: 1. Proposed Change and Basis
2. Significant Hazards Evaluation
3. Instructions for Incorporation

cc: Georgia Power Company
Mr. J. B. Beasley, Jr.
Mr. M. Sheibani
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebneter, Regional Administrator.
Mr. L. L. Wheeler, Licensing Project Manager, NRR
Mr. C. R. Ogle, Senior Resident Inspector, Vogtle

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

ENCLOSURE 1

VOGTLE ELECTRIC GENERATING PLANT
REVISION TO TECHNICAL SPECIFICATION 4.8.1.1.2.j.(2),
AC SOURCES

PROPOSED CHANGES

This amendment clarifies the requirements of Technical Specification (TS) Surveillance Requirement 4.8.1.1.2.j(2) that requires a pressure test of those portions of the diesel fuel oil system that are designed to Section III, Subsection ND of the ASME Code, (i.e., Class 3, which applies to all components of the diesel fuel oil system except fill and test connection piping beyond isolation valves and vent piping). This system pressure test is required to be performed at a pressure equal to 110% of the system design pressure at least once per 10 years. This amendment clarifies that only isolable portions of the diesel fuel oil system will be pressure tested. The Technical Specifications currently state:

" 2) Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code at a test pressure equal to 110% of the system design pressure."

In order to test the piping system to ensure the intent of ASME Section XI has been met, it is proposed that the following changes be made:

" 2) Performing a pressure test of those isolable portions of the diesel fuel oil piping system designed to Section III, subsection ND of the ASME Code at a test pressure equal to 110% of the system design pressure."

It is proposed that the following wording be added to the first paragraph of the Bases for the diesel generator on TS page B3/4 8-3:

"A pressure test of the diesel generator fuel oil piping will be required on (1) the transfer pump discharge piping to the day tank, (2) the fuel oil supply line from the day tank to the vendor-supplied piping, and (3) the fuel oil return piping from the vendor-supplied piping to the regulator valve. The diesel generator fuel oil day tank will be tested by recirculating the fuel oil and verifying no tank leakage. The diesel generator fuel oil storage tank will be tested by filling the tank to a level greater than the normal fill level and monitoring the level for a period of time and verifying no drop in fuel oil level."

ENCLOSURE 1

VOGTLE ELECTRIC GENERATING PLANT
REVISION TO TECHNICAL SPECIFICATION 4.8.1.1.2.j.(2),
AC SOURCES

BASES

In providing clarification to the technical specification requirement for the emergency diesel generator fuel oil system pressure test, ASME Section XI is used for guidance only. Although important to safety, the emergency diesel generator and subsystems thereof are not part of the VEGP ISI and IST programs and are specifically excluded by NRC Regulatory Guide 1.26.

Vogtle Technical Specification 4.8.1.1.2.j.(2) requires "performing a pressure test of those portions of the diesel fuel oil system designed to Section III, Subsection ND of the ASME Code at a test pressure equal to 110% of the system design pressure" at least once per 10 years. Updated VEGP Final Safety Analysis Report (FSAR) Section 9.5, Paragraph 9.5.4.1.3 states, "The diesel generator fuel oil system is designed to American National Standards Institute (ANSI) Standard N195-1976."

Per the above, the diesel fuel oil system was designed to meet ANSI N195-1976 requirements. This is in conformance with NRC Regulatory Guide (RG) 1.137. The only requirement for pressure testing for VEGP currently exists in the Technical Specification. In reviewing the history of TS 4.8.1.1.2.j(2) requirements, it appears this requirement is a direct result of Revision 1 of RG 1.137 (VEGP is committed to this revision). Regulatory Position C.1.e.(1) introduced the concept of pressure testing the fuel-oil system to a pressure 1.10 times the system design pressure at 10-year intervals. (Note: This Regulatory Position was not present in Revision 0 of RG 1.137).

Section 7.4 of ANSI N195-1976 requires the piping, fittings, pipe supports, valves, tanks, pumps, and strainers to be designed to the ASME Section III Code, Subsection ND. The fuel oil system at VEGP complies with this requirement. ANSI N195-1976, Section 7.3 states, "The arrangements shall provide for inservice inspection and testing in accordance with ASME Boiler and Pressure Vessel Code, Section XI, Rules for In-Service Inspection of Nuclear Power Plant Components." ANSI N195-1976 does not contain additional requirements for inspection or testing of the system after it is placed in service. However, our interpretation of the requirement in ANSI N195-1976 to provide arrangements to allow inservice inspection and testing indicates the ANSI standard endorses that some type of inspection and testing be performed. RG 1.137, Paragraph 1.e, states that "... an acceptable method of meeting the requirements of Section 7.3 is to ensure that the system arrangement would allow: (1) Pressure testing of the fuel-oil system to a pressure 1.10 times the system design pressure at 10-year intervals. In the case of storage tanks, recommendations of the tank vendor should be taken into account when establishing the test pressure."

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The current code of record for performing inservice inspection and inservice testing activities at VEGP is the 1983 Edition of ASME Section XI with Addenda through Summer 1983. All references to ASME Section XI contained herein refer to that particular edition and addenda of ASME Section XI.

Article IWA-2000, Subarticle IWA-2400 defines the inspection intervals for inservice examinations and system pressure tests required for Class 3 (Subsection ND) systems. Subarticle IWA-2420 defines the inspection intervals at 10-years. ASME Section XI, Article IWD-5000, Subarticle IWD-5223, Item (a), requires a test pressure of at least 1.10 times the system pressure P_{sy} for systems with a design temperature of 200 degrees Fahrenheit or less.

Based on ANSI N195-1976 requiring arrangements be provided for inservice inspection and testing in accordance with ASME Section XI, it appears that NRC Regulatory Guide 1.137 was written with the intent of defining the test interval and test pressure from ASME Section XI as applicable to Class 3 systems. It is reasonable to believe that the intent of that RG 1.137 is to place requirements on the fuel oil system equivalent to the ASME Section XI requirements. Therefore, it is our position that complying with the requirements for a pressure test as described in ASME Section XI meets the intent of the pressure test required by the Technical Specifications.

Per ASME Section XI, the intent of a pressure test is to detect leakage (reference ASME Section XI, Article IWA-5000, Subarticle IWA-5211). ASME Section XI, Article IWD-5000, provides requirements and guidance in performing the pressure tests for Class 3 systems.

Subarticle IWD-5223 of ASME Section XI, Item (b) states that "In the case of atmospheric storage tanks, the hydrostatic head, developed with the tank filled to its design capacity, shall be acceptable as the test pressure." The fuel oil storage tank and day tank are atmospheric tanks; therefore, the test pressure of 1.10 times the system pressure is not required for these tanks. The day tank is an aboveground, exposed tank which can be visually inspected for leaks. The storage tank is an underground tank which cannot feasibly be visually inspected for leaks. To identify leaks in the storage tank would require verifying a level change over a period of time. Per Technical Specification 4.8.1.1.2, the fuel level in the storage tank is verified at least every 31 days. Therefore, the tank can be filled to its design capacity and the surveillance data can be used to verify any leakage without having to declare the emergency diesel generator inoperable.

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AC SOURCES

Subarticle IWD-5223, Item (d) of ASME Section XI states that "For open ended portions of discharge lines beyond the last shutoff valve in non-closed systems, confirmation of adequate flow during system operation shall be acceptable in lieu of system hydrostatic test." The overflow line from the day tank to the storage tank and the truck fill lines could be considered open ended discharge lines in non-closed systems. Therefore, a pressure test of these lines would not be required.

In accordance with plant procedures, the fuel oil is recirculated prior to taking samples to comply with Technical Specification 4.8.1.1.2.c, d, e, and f. When the fuel oil is recirculated, it is pumped from the storage tank to the day tank and overflows back to the storage tank. Although the procedures do not specifically state that adequate flow through the overflow line is verified, the recirculation process assures the flow through the overflow line is adequate. Adequate flow through the truck fill line to the fuel oil storage tank is assured when fuel oil is added to the tank. The day tank is normally filled by transferring fuel from the storage tank via the transfer pumps and associated piping. However, since fuel is not required to be transferred through the truck fill line to the day tank in support of the operation of the emergency diesel generator and the fill line is a 4" line that gravity feeds from the fuel truck to the day tank, it can be concluded that the fill line would provide adequate flow.

Subarticle IWD-5223, Item (e) of ASME Section XI states that "Open ended vent and drain lines from components extending beyond the last shutoff valve and open ended safety and relief valve discharge lines shall be exempt from hydrostatic test." Based on this, the vent and drain lines associated with the tanks and the fuel oil transfer pump safety relief valve discharge lines can be exempted from the pressure test.

Based on the above, a pressure test will only be required on the isolable portions of:

(1) the transfer pump discharge piping to the day tank, and

(2) the fuel oil supply line from the day tank to the vendor-supplied piping, and

(3) the fuel oil return piping from the vendor-supplied piping to the regulator valve.

The day tank will be tested by recirculating the fuel oil in accordance with a plant procedure and verifying no tank leakage. The storage tank will be tested by filling the tank to a level greater than the normal fill level and monitoring the level for a period of time and verifying no drop in level (The fuel oil system does not have to be declared inoperable during this test period).

Enclosure 2

VOGTLE ELECTRIC GENERATING PLANT
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AC SOURCES

Pursuant to CFR 50.92, Georgia Power Company has evaluated the attached proposed amendment and has determined that operation of the facility in accordance with the revised Technical Specifications will not involve a significant hazards consideration. The basis for this determination is as follows.

This amendment request clarifies the requirements of Technical Specification (T/S) Surveillance Requirements 4.8.1.1.2.j(2) that requires a pressure test of those portions of the diesel fuel-oil system that are designed to Section III, Subsection ND of the ASME Code, (i.e., Class 3, which applies to all components of the diesel fuel oil system except fill and test connection piping beyond isolation valves and vent piping). The system pressure test is to be performed at a pressure of 110% of the design pressure, at least once per 10 years and only on those sections of piping that are isolable.

The proposed clarification of T/S 4.8.1.1.2.j(2) does not involve a significant hazards consideration because operation of VEGP with this change would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. The configuration of the diesel fuel-oil system as currently installed and operated is such that a pressure test of 110% of design pressure would be impractical to perform. The system contains tanks designed for atmospheric pressure and isolation of them and their vent lines from the specified pressure test is not practical. The ASME Code, Section XI, provides alternate test methods to use when storage tanks are involved in a system pressure test. By clarifying this T/S requirement, the requirements set forth in ASME Section XI can be utilized as guidance for testing requirements to ensure the integrity of the diesel fuel-oil system to perform its intended safety function.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated. There are no design changes being made that would create a new type of accident or malfunction and the method and manner of plant operation remain unchanged. Using ASME Section XI as guidance for pressure testing the isolable sections of piping provides assurance that the fuel oil supply system will perform its intended function.

3. Involve a significant reduction in a margin of safety. There are no changes being made to the safety limits or safety system settings that would adversely impact plant safety. Utilizing ASME Section XI as guidance for determining those sections of piping that should be pressure-tested and atmospheric-tested will ensure proper operation of the diesel generator fuel oil supply system.

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AC SOURCES

(continued)

Based on the above discussions, it has been determined that the requested Technical Specification changes do not involve a significant increase in the probability or consequences of an accident or other adverse condition over previous evaluations; or create the possibility of a new or different kind of accident or condition over previous evaluations; or involve a significant reduction in a margin of safety. Therefore, the requested license amendment does not involve a significant hazards consideration.