

Public Service
Electric and Gas
Company

Louis F. Storz

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-5700

Senior Vice President - Nuclear Operations

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LCR S95-34
SEP 17 1998

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

**REQUEST FOR AMENDMENT
ELECTRICAL POWER SYSTEMS - SHUTDOWN SALEM GENERATING STATION
UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311**

In accordance with the requirements of 10CFR50.90, Public Service Electric & Gas Company (PSE&G) hereby transmits a request for amendment to Facility Operating Licenses DPR-70 and DPR-75 for Salem Generating Station Unit Nos. 1 and 2 respectively. Pursuant to the requirements of 10CFR50.91(b)(1), a **copy** of this request for amendment has been sent to the State of New Jersey.

The proposed amendment modifies Electrical Power Sources specifications 3/4.8.2.2, AC Distribution - Shutdown, 3/4.8.2.4, 125-Volt D.C. Distribution Shutdown, and 3/4.8.2.6, 28-Volt D.C. Distribution - Shutdown. The Applicability is being revised to address movement of irradiated fuel and the Action requirements for failure to meet the Limiting Condition For Operation are being modified to delete the requirement to establish Containment Integrity. The proposed changes are consistent with NUREG-1431, Standard Technical Specifications - Westinghouse Plants, Revision 1, dated April 1995.

The proposed change has been evaluated in accordance with 10CFR50.91(a)(1), using the criteria in 10CFR50.92(c), and it has been determined that this request involves no significant hazards considerations.

A description of the requested amendment, the reason for the changes and the justification for the changes are provided as Attachment 1. The basis for no significant hazards consideration determination are provided in Attachment 2. The Technical Specification pages affected by the proposed changes are provided in Attachment 3.

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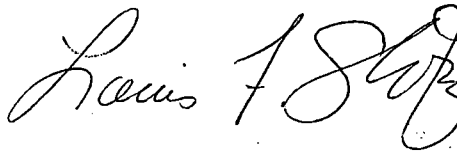
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By letters dated June 21, 1991 and February 7, 1994, similar amendments were approved for Baltimore Gas and Electric Company's Calvert Cliffs Nuclear Power Plant (Docket Nos. 50-317 and 50-318) and Duquesne Light Company's Beaver Valley Power Station (Docket Nos. 50-334 and 50-412) respectively.

PSE&G requests a 60 day implementation period after amendment approval. Approval of this change is requested by January 8, 1999 to permit implementation prior to the next scheduled Salem refueling outage.

Should you have any questions regarding this request, please contact Brooke Knieriem, Salem Licensing, at (609) 339-1782.

Sincerely,



/rbk
Affidavit
Attachments (2)

C Mr. H. J. Miller, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. P Milano, Licensing Project Manager - Salem
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 14E21
Rockville, MD 20852

Mr. S. Morris (X24)
USNRC Senior Resident Inspector

Mr. K. Tosch, Manager IV
Bureau of Nuclear Engineering
33 Arctic Parkway
CN 415
Trenton, NJ 08625



STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

L. F. Storz, being duly sworn according to law deposes and says:
I am Senior Vice President - Nuclear Operations for the Public Service Electric & Gas Company, and as such, I find the matters set forth in the above referenced letter, concerning the Salem Generating Station, Units Nos. 1 and 2, are true to the best of my knowledge, information and belief.



Subscribed and Sworn to before me
this 3rd day of Sept, 1998



Notary Public of New Jersey

DELORIS D. HADDEN
Notary Public of New Jersey
My Commission Expires
03-29-2000

My Commission expires on _____

LR-N980358

ELECTRICAL POWER SYSTEMS - SHUTDOWN

I. DESCRIPTION OF THE PROPOSED CHANGES

The proposed changes will revise the Applicability and Actions for the below listed specifications as indicated:

- a. Specification 3.8.2.2 is being revised to state:

Applicability:

MODES 5 and 6.
During movement of irradiated fuel assemblies.

Actions:

With less than the above complement of A. C. busses and inverters OPERABLE and energized, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, and movement of irradiated fuel assemblies until the minimum required A. C. electrical power sources are restored to OPERABLE status.

- b. Specification 3.8.2.4 is being revised to state:

Applicability:

MODES 5 and 6.
During movement of irradiated fuel assemblies.

Actions:

With less than the above complement of D.C. equipment and busses OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, and movement of irradiated fuel assemblies until the minimum required 125-Volt D.C. electrical power sources are restored to OPERABLE status.

- c. Specification 3.8.2.6 is being revised to state:

Applicability:

MODES 5 and 6.
During movement of irradiated fuel assemblies.

LR-N980358

Actions:

With less than the above complement of D.C. equipment and busses OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, and movement of irradiated fuel assemblies until the minimum required 28-Volt D.C. electrical power sources are restored to OPERABLE status.

- d. The Bases for specifications 3/4.8.1 and 3/4.8.2 is being revised to state:

The Applicability of specifications 3.8.2.2, 3.8.2.4, and 3.8.2.6 includes the movement of irradiated fuel assemblies. This will ensure that adequate electrical power is available for proper operation of the Fuel Handling Area Ventilation system during movement of irradiated fuel in the spent fuel pool.

II. REASON FOR THE CHANGES

Salem Technical Specifications for AC and DC Distribution, Shutdown (MODES 5 and 6), require that with less than the minimum complement of AC or DC sources available, containment integrity must be established within 8 hours. Under the same conditions, NUREG-1431, Standard Technical Specifications - Westinghouse Plants, requires that immediate action be taken to suspend core alterations, to suspend movement of irradiated fuel assemblies, and to suspend operations involving positive reactivity additions.

Salem Technical Specifications define containment integrity and require that containment integrity be established during normal plant operation in Modes 1 through 4. Containment integrity is necessary in Modes 1 through 4 to mitigate the consequences of a Design Basis Accident in those modes. The Salem Technical Specifications also require the establishment of containment closure during refueling operations (Mode 6). This action is necessary to mitigate the consequences of a Fuel Handling Accident. A specific technical specification requirement for containment integrity or for containment closure in Mode 5 does not exist. When required by Technical Specification 3.8.2, 3.8.4, and 3.8.6 actions, Salem must establish containment integrity, as defined, for Modes 1 through 4.

The requested Technical Specification changes are based upon the impracticality of establishing containment integrity, as defined for Modes 1 through 4, in Mode 5 and during refueling operations in Mode 6. In Modes 5 and 6, conditions could exist when the equipment necessary to establish containment integrity has been removed from service for required maintenance and the minimum AC or DC power systems required by specifications 3.8.2.2, 3.8.2.4, and 3.8.2.6 are not available.

The proposed changes will also extend the Applicability of the Technical Specifications 3.8.2.2, 3.8.2.4, and 3.8.2.6 to include the movement of irradiated fuel. For the Salem units, the Spent Fuel Pool is located outside of the containment, in the Fuel Handling Building. The present Salem Technical Specifications do not contain requirements for electrical power during movement of fuel in the Spent Fuel Pool. The Applicability of specifications 3.8.2.2, 3.8.2.4, and 3.8.2.6 is being changed to ensure that adequate electrical power is available for proper operation of the Fuel Handling Area Ventilation system during movement of irradiated fuel in the Spent Fuel Pool.

III. JUSTIFICATION FOR CHANGES

The minimum Power Distribution System trains required to be OPERABLE in Modes 5 and 6 are necessary to provide sufficient power to ensure that:

1. The unit can be maintained in the shutdown or refueling condition for extended periods, and
2. Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status, and
3. Adequate electrical power is available to mitigate events postulated during shutdown, such as a fuel handling accident.

The proposed change will eliminate the requirement imposed by Technical Specifications 3.8.2.2, 3.8.2.4, and 3.8.2.6 to establish containment integrity in Modes 5 and 6 if the minimum number of AC or DC power sources are not available. The requirement to establish containment integrity will be replaced by a requirement to immediately suspend all operations involving core alterations, positive reactivity changes, and movement of irradiated fuel assemblies until the minimum required electrical power sources are restored to an operable status.

The elimination of the requirement to establish containment integrity is justified based upon the nature of the consequences of the postulated shutdown events, the Technical Specification requirements already in place to mitigate the consequences of those events, and the proposed Technical Specification actions.

During operation in Modes 1 through 4, a Design Basis Accident would pressurize containment and result in the release of radioactive material into the containment. Prevention against the release of this radioactive material to the environment is accomplished by Technical Specification 3.6.1, Primary Containment, Containment Integrity. This Technical Specification requires that containment integrity be maintained in Modes 1 through 4.

LR-N980358

In Modes 5 and 6 the probability and consequences of a Design Basis Accident are lower because of the reduced Reactor Coolant system temperature and pressure. In these modes, a minimum complement of electrical power sources is maintained to assure adequate power for systems required for mitigation of a fuel handling accident.

For a fuel handling accident in Mode 6, establishment of containment integrity to prevent the release of radioactive material to the environment is unnecessary because of the lack of containment pressurization potential and the reduced radiological source term associated with that accident. The spread of radioactive material to the environment from a fuel handling accident is mitigated by the requirements of Technical Specification 3.9.4, Refueling Operations, Containment Building Penetrations. Technical Specification 3.9.4 is applicable in Mode 6 and establishes containment closure during refueling operations (core alterations and movement of irradiated fuel within containment). For Mode 6, the proposed Technical Specification Action will also require that all operations involving core alterations, positive reactivity changes, and movement of irradiated fuel within the containment be suspended unless the minimum A.C. and D.C. power sources are available. This requirement will ensure that adequate power is available for systems and components necessary to mitigate a postulated event during refueling operations.

In Mode 5, fuel handling is limited to placement of new fuel prior to core off load or movement of irradiated fuel within the spent fuel pool. Because the Spent Fuel Pool is not located within containment, establishment of either containment integrity or containment closure would not help to mitigate the consequences of a fuel handling accident in that area. Mitigation of a fuel handling accident in the Spent Fuel Pool is accomplished through Technical Specification 3.9.12, Refueling Operations, Fuel Handling Area Ventilation System, which requires that the Fuel Handling Area Ventilation system be operable whenever irradiated fuel is present in the storage pool. This ensures that all radioactive material released from the rupture of an irradiated fuel assembly would be filtered through filtration equipment prior to discharge to the atmosphere. For Mode 5, the proposed Technical Specification Action will require that movement of irradiated fuel assemblies be suspended if the minimum AC or DC power sources are not available. This requirement will ensure that the Fuel Handling Area Ventilation system is available to mitigate the consequences of an accident associated with the movement of irradiated fuel in the Spent Fuel Pool.

The proposed changes are consistent with the content of NUREG-1431, Standard Technical Specifications Westinghouse Plants.

IV. DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Pursuant to 10CFR50.92, PSE&G reviewed the proposed amendment to determine whether our request involves a significant hazards consideration. PSE&G has determined that operation of Salem Generating Station, Unit Nos. 1 and 2, in accordance with the proposed changes:

1. **Will not involve a significant increase in the probability or consequences of an accident previously evaluated.**

In Modes 1 through 4, a Design Basis Accident would cause the release of radioactive material into the containment. Release of that radioactive material to the environment is prevented during operation in Modes 1 through 4 by maintaining containment integrity. In Modes 5 and 6 the probability and consequences of this event are lower because of the reduced reactor coolant pressure and temperature limitations of these modes.

A minimum complement of electrical power sources and distribution systems is established in Modes 5 and 6 to assure that adequate electrical power is available to mitigate the consequences of a fuel handling accident. Because of the lack of containment pressurization potential during a fuel handling accident, less stringent requirements are needed to isolate containment from the outside atmosphere. These requirements are applied during refueling operations by Technical Specification 3.9.4, Refueling Operations, Containment Building Penetrations. Technical Specification 3.9.4 is applicable in Mode 6 and establishes containment closure vice containment integrity during refueling operations (core alterations and movement of irradiated fuel within containment).

In Mode 5, fuel handling is generally limited to placement of new fuel prior to core off load or movement of irradiated fuel within the spent fuel pool. Because the Spent Fuel Pool is not located within containment, establishment of either containment integrity or containment closure would not help to mitigate the consequences of a fuel handling accident in that area. Mitigation of a fuel handling accident is accomplished through Technical Specification 3.9.12, Refueling Operations, Fuel Handling Area Ventilation System, which requires that the Fuel Handling Area Ventilation system be operable whenever irradiated fuel is present in the storage pool. This insures that all radioactive material released from the rupture of an irradiated fuel assembly would be filtered through filtration equipment prior to discharge to the atmosphere.

With the number of energized A.C. or D.C. power distribution systems less than the required, sufficient power may not be available to recover from a fuel handling accident. Consequently, the Action statements require immediate suspension of all operations involving core alterations, positive reactivity changes, and

LR-N980358

movement of irradiated fuel assemblies. This precludes the possibility of a fuel handling accident and the need for containment integrity.

Based upon the above, the proposed change will not increase the probability or consequences of an accident previously analyzed.

2. Will not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes do not require any change in the configuration or operation of the plant. Specifically, no new hardware is being added to the plant as part of the proposed change, no existing equipment is being modified, and no significant changes in operations are being introduced. Therefore, these changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will not involve a significant reduction in a margin of safety.

The proposed change will not alter any assumptions, initial conditions, or results of any accident analyses. The proposed additional Applicability will ensure proper operation of the Fuel Handling Area Ventilation system during movement of irradiated fuel in the spent fuel pool. The proposed ACTIONS, to be taken in the event that the LCO is not met, will preclude the conditions that would lead to the need for establishing containment integrity. The change will, therefore, not involve a significant reduction in a margin of safety.

V. CONCLUSIONS

Based on the above, Public Service Electric & Gas has determined that the proposed changes do not involve a significant hazards consideration.