PSE&G

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038

Nuclear Department

Ref: LCR 83-07

September 28, 1983

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Steven Varga, Chief
Operations Reactors Branch 1
Division of Licensing

Gentlemen:

REQUEST FOR AMENDMENT
FACILITY OPERATING LICENSE DPR-75
UNIT NO. 2
SALEM GENERATING STATION
DOCKET NOS. 50-311

In accordance with the Atomic Energy Act of 1954, as amended and the regulations thereunder, we hereby transmit copies of our request for amendment and our analyses of the changes to Facility Operating License DPR-75 for Salem Generating Station, Unit No. 2.

This request proposes to change the surveillance test requirement for maintaining the control room at a positive pressure of 1/4 inch W.G. to 1/8 inch W.G. relative to outside atmosphere.

This change is deemed not to involve a significant hazard consideration and involves consideration of a single safety issue; therefore, it is deemed to be a Class III Amendment as defined by 10CFR '70.22. A check in the amount of $4,000 will be sent to you under separate cover.

Pursuant to the requirements of 10 CFR50.91(b)(1), a copy of this request for amendment has been sent to the State of New Jersey as indicated below.



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This submittal includes three (3) signed originals and forty (40) copies.

Very truly yours,

E. A. Liden
Manager - Nuclear
Licensing and Regulation

Enclosure

CC: Mr. Donald C. Fischer
Licensing Project Manager

Mr. James Linville
Senior Resident Inspector

Mr. Frank Cosolito, Acting Chief
Bureau of Radiation Protection
Department of Environmental Protection
380 Scotch Road
Trenton, New Jersey 08628

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

RICHARD A. UDERITZ, being duly sworn according to law deposes and says:

I am a Vice President of Public Service Electric and Gas Company, and as such, I find the matters set forth in our Request for Amendment to Facility Operating License DPR-75 dated September 28, 1983, concerning Control Room Ventilation System (LCR 83-07), are true to the best of my knowledge, information and belief.

RICHARD A. UDERITZ

Subscribed and sworn to before me
this 30th day of September, 1983

Donna G. Kitchner
Notary Public of New Jersey

My Commission expires on March 24, 1987

LCR 83-07

PROPOSED LICENSE CHANGE
SALEM GENERATING STATION
UNIT NO. 2
DOCKET NO. 50-311

Plant Systems

Control Room Emergency Air Conditioning System

Surveillance Requirements

Description of Change

Change surveillance requirement 4.7.6.1.d.3 to read:

> "Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the outside atmosphere during system operation with makeup air being supplied through the HEPA filters and charcoal adsorbers."

Reason For Change

The present Emergency Air Conditioning System (EACS) and the control room enclosure are not designed to maintain a positive pressure of 1/4 inch W.G. relative to outside atmosphere during system operation with makeup air being supplied through the HEPA filters and charcoal adsorbers. Although recent pressurization test in the control room has verified that the system can be operated to meet the Technical Specification requirement because of the built-in conservatism in the design calculation, success of this test was very marginal. The possibility exists that as the plant gets older (e.g. with filter bank aging) this margin will wear out. A positive pressure of 1/8 inch W.G. relative to outside atmosphere is more realistically achievable, and still adequately satisfies the intent of the present Technical Specification surveillance requirement. Thus, this license change request will help ease an unnecessary strain on our surveillance effort.

Safety Evaluation

General Design Criterion No. 19 requires that adequate radiation protection be provided to permit access and occupancy of the control room during accident conditions without personnel receiving radiation exposure in excess of 5 rem whole body or its equivalent to any part of the body, for the duration of the accident. Additionally, General Design Criterion No. 4, as it

Safety Evaluation (continued)

relates to the control room habitability, requires that the control room be protected from events or conditions outside the nuclear power unit.

In order to assure that both GDC-19 and GDC-4 (control room habitability criteria) are fulfilled, the following operational requirements have been factored into the Emergency Air Conditioning System (EACS) design: (1) During and after an accident that results in radioactive release, the EACS will be automatically triggered by high radiation signal from the Radiation Monitoring System (RMS) which will automatically isolate the control room from the outside environment by recirculating air in the control room through the charcoal and HEPA filters. (2) After ten hours of operation in the recirculation mode, a predetermined amount of outside makeup air (300 CFM) is introduced into the control room through the charcoal and HEPA filters for a period of one hour to reduce the carbon dioxide concentration. The makeup air flow rate also functions to pressurize the control room to preclude any inleakage of airborne activity through the building structure. (3) The EACS charcoal filter is periodically tested to verify the system operability.

As discussed in the FSAR, the possibility of toxic chemical release either onsite or offsite which would affect the control room habitability is extremely remote.

a. Probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report will not be increased.

   The requested change in the control room minimum positive pressure for surveillance testing in the makeup air mode of EACS operation does not, in any way, affect the EACS design function to protect the control room habitability for all normal, accident and outside chemical releases. The FSAR dose calculations do not take any credit for control room pressurization and are based on the makeup air flow rate of 300 CFM or a conservatively assumed bypass leakage of 100 CFM. Contribution from either of these two sources (makeup air or bypass leakage) to the total calculated dose to the control room personnel is insignificantly small. Calculated total dose to control room personnel is well within GDC-19 limits.

b. The possibility of an accident or malfunction of a different type than any evaluated previously in the safety analysis report will not be created.

This LCR is not related to any plant modification. Reducing the control room positive pressure during makeup air mode of EACS operation in the surveillance criteria does not impact safe operation of any system, component or structure required for safety.

c. The margin of safety as defined in the basis for any Technical Specification is not reduced.

As detailed above in paragraph (a), credit is not taken for positive pressure; thus, reducing the control room surveillance pressure criteria from 1/4 inch to 1/8 inch W.G. positive will not compromise the system operational safety margin. The dose calculation provided in the FSAR as discussed in paragraph (a) above results in control room doses well within the GDC-19 limits.

Our evaluation of the conditions described herein enable us to determine that this change introduces no Unreviewed Safety Question and involves no Significant Hazards Consideration.