PSE&G

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Nuclear Business Unit

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LR-N96161
LCR S96-05

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U. S. Nuclear Regulatory Commission
Washington, DC 20555

REQUEST FOR ADDITIONAL INFORMATION
CONTROL ROOM EMERGENCY AIR CONDITIONING SYSTEM
SALEM GENERATING STATION NO. 2
FACILITY OPERATING LICENSE DPR-75
DOCKET NO. 50-311

Gentlemen:

On May 7, 1996, Public Service Electric & Gas Company (PSE&G) submitted a request for a one-time change to the Salem Unit 2 Technical Specifications to allow entry into Modes 5 and 6 with the Control Room Emergency Air Conditioning System (CREACS) inoperable (ref. LR-N96091). Based upon the Staff's review of this license change request (LCR), clarifications were requested which were verbally discussed on June 6, 1996. This letter is being submitted in response to the Staff's request for additional information for those items detailed in the referenced discussion.

The submitted LCR refers to analyses that were performed pertaining to the radiological consequences of a postulated fuel handling accident. These analyses concluded that the following doses would result at the CAACS air intakes for a fuel handling accident: 1.86E-03 rem whole body gamma dose, 2.15E-01 rem beta skin dose and 7.52E-05 rem thyroid dose. These doses are considered to be negligible and well within the guidelines of General Design Criteria 19.

These values differ from those that would result from calculations for the Chapter 15 design bases fuel handling accident, since the LCR calculation was based on present fuel conditions and changes to the analytic method and parameters used in the originally licensed analyses. Specifically, the LCR dose assessment conservatively assumed six months of decay time for the Salem Unit 2 fuel (actual decay time will be more than eleven months at the time of core reload, which is currently scheduled for July 3, 1996).

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The analysis also did not take any credit for charcoal filtration provided by the Fuel Handling Building ventilation system or the CREACS filtration system nor did it credit prompt radiation detection and containment isolation, which would be expected if the accident were to occur in containment. In addition, a conservative overall effective spent fuel pool decontamination factor of 100 was assumed rather than the 500 that was used in the design bases analyses.

The dose values provided above (e.g., those that were used as the basis for the submitted LCR) were acquired using the ARCON95 computer code documented in NUREG/CR-6331 to determine the site specific X/Q values. These values were determined to be the most conservative of the various X/Q values evaluated, which included Salem's current design basis X/Q.

It should be noted that since the improved methodologies that were employed for the submitted LCR have not been reviewed and approved by the NRC for specific use at Salem, revised calculations have since been prepared using existing licensing basis methods and assumptions. The results of these revised calculations are consistent with the ARCON95 results and, therefore, the conclusions reported in LCR S96-05 and provided previously in this submittal remain valid. PSE&G is requesting formal NRC approval to use the above referenced methodologies in conjunction with a second, permanent LCR (ref. LR-N96154 dated June 10, 1996), which considers the Control Room ventilation system upgrades that are being undertaken at Salem and will be transmitting that information under a separate submittal.

For temperature control, the LCR stated that the normally operating Control Area Air Conditioning System (CAACS) will be used to maintain the Control Room temperature less than 85°F while CREACS is inoperable. The ability for CAACS to maintain this temperature has been substantiated both analytically via calculation and functionally via inservice operation. The Salem site has recently experienced outside air temperatures in the 90°F range with the CREACS unavailable and has been able to maintain temperatures below the design value using the CAACS.

In the event that temperatures cannot be maintained below 85°F in the Control Room, expeditious measures will be taken. These measures may include the starting of additional chillers or fans, isolation of non-essential Chilled Water loads, or the return of any inoperable CAACS equipment as necessary. In any instance of excessive temperature in the Control Room, fuel movement will be stopped until ambient temperature is returned to less than 85°F. Applicable actions to be taken will be delineated in an Operations procedure.

It is anticipated that the control room heat loads for credible Mode 5 and 6 accidents will not deviate significantly from those experienced during normal shutdown operation.

PSE&G included in the LCR discussions of potential Hope Creek events, in addition to Salem specific events, to ensure the plant's close proximity would not have an impact on the habitability of Salem's Control Room. It was concluded that potential events occurring at Hope Creek would not expose the operators to unacceptable conditions.

If you have any further questions regarding the above clarifications, please feel free to contact us.

Sincerely,

for

D. R. Powell
Manager -
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