

Public Service  
Electric and Gas  
Company

Joseph J. Hagan

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-1200

Vice President - Nuclear Operations

**MAY 26 1995**

LR-N95067

LCR 94-08, 94-11 & 94-12

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

Gentlemen:

**RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION  
LICENSE CHANGE REQUESTS 94-08, 94-11 & 94-12  
FACILITY OPERATING LICENSE NPR-57  
HOPE CREEK GENERATING STATION  
DOCKET NO. 50-354**

The purpose of this letter is to respond to the April 7, 1995, request for additional information (RAI). The RAI consists of five questions faxed to PSE&G following a teleconference between PSE&G and the NRR Hope Creek Project Manager.

Attachment 1 of this letter contains the details of the licensing positions relative to the questions comprising the RAI, and is being provided to supplement the probabilistic risk justification utilized in the Significant Hazards Consideration Evaluation required by 10CFR50.92.

In addition, Attachment 2 of this letter contains revised Technical Specification changes as indicated on re-typed Technical Specification pages. These modifications are being made only to clarify the intent of the original proposed Technical Specification changes. Specifically, the modifications ensure that sufficient decay heat removal capability will be available for post loss-of-offsite-power scenarios when Station Service Water System pumps and/or Safety Auxiliaries Cooling System pumps are inoperable. These changes were discussed with William Lefave on May 11 and 12, 1995.

Please note, however, that this submittal does not change nor modify any of the conclusions stated in the Significant Hazards Consideration Evaluation previously submitted for License Change Requests (LCRs) 94-08, 94-10 & 94-12.

A copy of this response to the RAI has been sent to the State of New Jersey.

9506050298 950526  
PDR ADCK 05000354  
P PDR

ADD

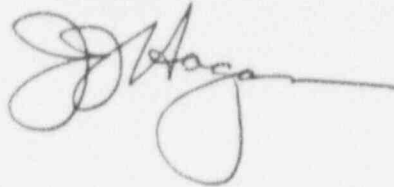
MAY 26 1995

Document Control Desk  
LR-N95067

-2-

Should you have any questions regarding this transmittal, please feel free to contact us.

Sincerely,



Attachments (2)

ALL WITH ATTACHMENT:

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

Mr. D. H. Moran, Licensing Project Manager - Hope Creek  
U. S. Nuclear Regulatory Commission  
One White Flint North  
Mail Stop 14E21  
11555 Rockville Pike  
Rockville, MD 20852

Mr. R. Summers (S09)  
USNRC Senior Resident Inspector

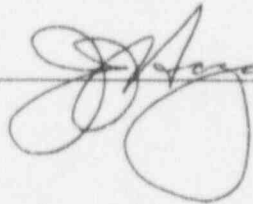
Mr. K. Tosch, Manager, IV  
NJ Department of Environmental Protection  
Division of Environmental Quality  
CN 415  
Trenton, NJ 08625



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

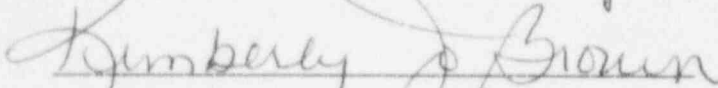
J. Hagan, being duly sworn according to law deposes and says:

I am Vice President - Nuclear Operations of Public Service Electric and Gas Company, and as such, I find the matters set forth in the above referenced letter, concerning the Hope Creek Generating Station, are true to the best of my knowledge, information and belief.



---

Subscribed and Sworn to before me  
this 31<sup>st</sup> day of May, 1995

  
Notary Public of New Jersey

My Commission expires on \_\_\_\_\_  
KIMBERLY JO BROWN  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires April 21, 1998

## ATTACHMENT 1

### RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION

LCRS 94-08, 94-11 & 94-12

HOPE CREEK GENERATING STATION

FACILITY OPERATING LICENSE NPR-57

LR-N95067

DOCKET NO. 50-354

#### NRC QUESTION 1:

Indicate the loss of offsite power (LOOP) loads (including decay heat removal loads) off of each bus and demonstrate that any two EDGs have the capacity and capability to achieve and maintain a safe shutdown following a LOOP.

#### PSE&G RESPONSE:

Table 8.3-1 of the Hope Creek UFSAR indicates the emergency load assignments of Class 1E and selected non-Class 1E loads on the four emergency diesel generators (EDGs). The essential loads required for post LOOP decay heat removal consist of Residual Heat Removal (RHR) pumps, Safety Auxiliaries Cooling System (SACS) pumps, Station Service Water System (SSWS) pumps and the EDGs. In addition, various support equipment (i.e., room unit coolers, fans, valves, EDG fuel oil transfer pumps) are also needed to ensure that decay heat removal can be accomplished.

At Hope Creek, the above loads are separated into four channels of Class 1E power, with each channel supplied by an independent EDG. Under normal post LOOP conditions, either the A or B EDG would be required to facilitate decay heat removal since the RHR heat exchangers normally receive flow from the A or B RHR pumps. Since this is the case, in post-LOOP scenarios either the A or B EDG is required in conjunction with any other single EDG. This is reflected in the slightly higher core damage frequency assigned to these two EDGs compared to the C and D EDGs in our submittal.

The justification provided in the license change request to support a 30 day EDG AOT was based upon probabilistic calculations. The PRA was used to establish an appropriate period for EDG inoperability such that large increases in core damage risk are not introduced. The license change request does not alter Hope Creek's licensing and design bases, and the response of the onsite Class-1E electrical power sources in post-accident, as well as post-LOOP scenarios, will remain the same.

NRC QUESTION 2:

Describe any changes that will be made to the Hope Creek FSAR to reflect new shutdown capability of the EDGs and their respective trains during a LOOP (i.e., any 2 trains instead of A and C or B and D trains).

PSE&G RESPONSE:

Changes will be made to the Hope Creek UFSAR, as appropriate, to reflect the shutdown capabilities described in the response to question 1. However, these situations are beyond the Hope Creek design and licensing bases, and are addressed in the BWR Owners Group based Hope Creek Emergency and Abnormal Operating Procedures. These procedures reflect the capability of Hope Creek to shutdown following a LOOP with following combinations of SSWS pumps, SACS pumps and their respective EDGs: A & B, A & C, A & D, B & C and B & D.

For this license change request, the justification for the EDG AOT duration is based upon PRA models of the Hope Creek plant revised to indicate SACS and SSWS capabilities as reflected in our revised PRA models. No credit is taken for additional decay heat removal capability provided by EDG capacity.

NRC QUESTION 3:

Indicate how the operability of the remaining EDGs will be demonstrated before taking an EDG out for extended periods of time.

PSE&G RESPONSE:

Performance of extended preventative maintenance (>72 hours) with another EDG already inoperable would not be expected since Technical Specification 3.8.1.1, ACTION e., would require the initiation of a plant shutdown in order to perform the extended preventative maintenance. In addition, existing Station Planning Department standards would require that a "net safety gain" analysis be performed prior to planned EDG outages, which includes a review of remaining EDG operability. When one EDG is inoperable for planned extended maintenance (> 72 hours), Technical Specification 3.8.1.1, ACTION b., would be imposed. This ACTION prescribes when demonstration of offsite A.C. source OPERABILITY and OPERABILITY of the remaining EDGs is required.

NRC QUESTION 4:

What controls will be used to minimize the removal of other safety systems, important non-safety equipment, and offsite power sources from service during EDG preventative maintenance?

PSE&G RESPONSE:

Currently, preventative maintenance is scheduled at Hope Creek such that the removal of equipment is done with minimal safety impact. Existing Station Planning Department standards would require that a "net safety gain" analysis be performed prior to removal of other safety systems, important non-safety equipment and offsite power sources while preventative maintenance is performed on the EDGs. This net safety gain analysis includes probabilistic risk assessments on the removal of equipment to ensure that unacceptably large increases in core damage risk are not introduced while preventative maintenance is being performed.

NRC QUESTION 5:

What controls will be used to prevent entry into this LCO during severe weather or unstable grid conditions?

PSE&G RESPONSE:

The current Hope Creek abnormal operating procedures related to grid disturbances and acts of nature will be revised to include a provision for the senior nuclear shift supervisor to implement measures, at his discretion, that prevent initiation of EDG preventative maintenance or defer ongoing work to expedite restoration of the EDG to an operable status.

ATTACHMENT 2

REVISED TECHNICAL SPECIFICATION CHANGES