

PHILADELPHIA ELECTRIC COMPANY

NUCLEAR GROUP HEADQUARTERS

955-65 CHESTERBROOK BLVD.

WAYNE, PA 19087-5691

(215) 640-6000

NUCLEAR SERVICES DEPARTMENT

November 9, 1992

Docket Nos. 50-277  
50-278

License Nos. DPR-44  
DPR-56

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

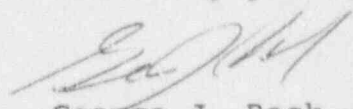
Subject: Diesel Generator Fuel Oil Consumption Rates

Reference: Letter dated 1/31/92 from G. J. Beck (PECo) to NRC,  
transmitting Technical Specification Change  
Request 88-08

Dear Sir:

A telephone conversation between J. W. Shea, C. R. Thomas and M. T. Widmann (USNRC) and G. J. Siefert, W. J. McFarland and H. J. Ryan (PECo) was held on November 4, 1992. During that discussion the NRC requested clarification on the diesel fuel oil consumption presented in the Reference letter. The specific requests and their resolution are presented in Attachment II to this letter. Attachment I contains the oath or affirmation required for supplemental information to a Technical Specification Change Request.

Sincerely yours,

  
George J. Beck  
Manager-Licensing

Attachments

cc: T. T. Martin, Administrator, Region I, USNRC  
J. J. Lyash, USNRC Senior Resident Inspector, PBAPS

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COMMONWEALTH OF PENNSYLVANIA :

SS.

COUNTY OF CHESTER :

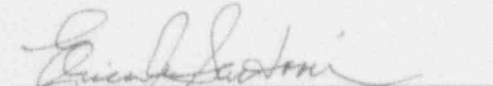
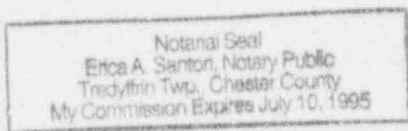
G. R. Rainey, being first duly sworn, deposes and says:

That he is Vice President of Philadelphia Electric Company;  
that he has read the Supplemental Information to Technical Specification  
Change Request 88-08, and knows the contents thereof; and that the  
statements and matters set forth therein are true and correct to the best  
of his knowledge, information and belief.



Vice President

Subscribed and sworn to  
before me this 9<sup>th</sup> day  
of November 1992.

  
Notary Public

Request:

1. Page 40 of 44. The NRC requested that PECO provide the basis behind the statement that 28,000 gallons represents "... (a minimum of 6.2 days) for operators to monitor actual fuel consumption and transfer fuel between tanks as necessary":

Response:

Seven days of operation of all four PBAPS EDGs requires a total of 105,000 gallons of fuel; however, this value is not equally distributed between the four EDGs.

The heaviest loaded EDG (E-4) requires 31,366 gallons for 7 days of operation.

$$\frac{31,366 \text{ gal}}{7 \text{ days}} = 4,480.9 \text{ gal/day}$$

$$\frac{28,000 \text{ gal}}{4,480.9 \text{ gal/day}} = 6.249 \text{ days}$$

=> round to 6.2 days

This represents the length of time that all four EDG's may run post-LOCA before the first operator action is required to transfer fuel between the tanks to keep all EDGs running with good fuel in all four storage tanks.

2. Request:

Page 41 of 44. The NRC requested that PECO provide the basis for the statement that "...if one fuel oil storage tank must be isolated, sufficient fuel would be onsite for 5.6 days of operation with 4 EDGs or 6 days of operation with 3 EDGs."

Response:

With one tank out of service, the other three tanks will have a minimum of  $3 \times 28,000 \text{ gal} = 84,000 \text{ gal}$  total available.

- a. Four EDGs operating for 7 days requires a total of 105,000 gallons, or

$$\frac{105,000 \text{ gal}}{7 \text{ days}} = 15,000 \text{ gal/day}$$

Thus:

$$\frac{84,000 \text{ gal}}{15,000 \text{ gal/day}} = 5.6 \text{ days}$$

This represents the minimum length of time that 4 EDGs may run on the remaining onsite fuel before more fuel is needed, assuming a DBA LOCA with LOOP and one bad fuel oil tank.

- b. Three EDGs operating for 7 days requires 97,000 gallons since each EDG is more heavily loaded than the 4 EDG case. Therefore,

$$\frac{97,000 \text{ gal}}{7 \text{ days}} = 13,857 \text{ gal/day}$$

With one tank out of service, the other three tanks will also have a minimum of 84,000 gallons available. Thus:

$$\frac{84,000 \text{ gal}}{13,857 \text{ gal/day}} = 6.06 \text{ days}$$

This represents the minimum length of time that any 3 EDGs may run on the remaining onsite fuel before more fuel is needed, assuming a DBA LOCA with LOOP, one bad fuel oil tank, and any 3 EDGs running.

Operator actions to not operate the discretionary loads used in the fuel analyses could further extend these times. PECO believes that the above analysis in conjunction with the information presented in our January 31, 1992 submittal provides sufficient justification for our request to extend the time to re-establish 108,000 gallons of fuel onsite from 24 hours to 72 hours.