

PHILADELPHIA ELECTRIC COMPANY

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SHIELDS L. DALTROFF
VICE PRESIDENT
ELECTRIC PRODUCTION

November 26, 1980

Mr. Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Licensing
Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Reid:

In our letter of October 5, 1978 we proposed modifications to the Reactor Protection System (RPS) power supply to protect the RPS from undetected single failures and from a postulated sequence of events initiated by an earthquake. Your letter of September 24, 1980 requested a schedule for completion of our modifications and a schedule for submission of design information and Technical Specifications.

As per our previous submittal, we propose installing Class 1E detection and isolating devices between the output of the RPS motor-generated (MG) sets and the RPS load. Design information for these devices and our proposed modification is attached.

Procurement of the detection and isolating devices needed for this modification is proceeding at this time. Peach Bottom 2 Unit RPS power supply modifications will be made during the refueling outage scheduled for January, 1982. The next refueling outage for Unit 3 begins in March, 1981, however, your letter indicates that a subsequent refueling outage is acceptable if the first scheduled outage is within six months of your letter. We will still attempt to make this modification to Unit 3 during the Spring, 1981 outage contingent on procurement of the necessary equipment. If this equipment is not available in time for the outage, the modifications will be made no later than the Fall, 1982 refueling outage. Technical Specifications which incorporate our proposed RPS power supply design will be submitted by July 31, 1981.

Very truly yours,



Attachment

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PEACH BOTTOM ATOMIC POWER STATION
UNITS 2 AND 3
REACTOR PROTECTION SYSTEM POWER SUPPLY MODIFICATIONS

A Class 1E circuit breaker panel will be installed on the output of each RPS MG set (2 per Unit). Each panel will be divided by a steel barrier into two separate compartments. Each compartment will house an overvoltage sensing relay, an undervoltage sensing relay, an underfrequency sensing relay, a two pole, magnetic trip, shunt trip circuit breaker, a control power monitoring relay and a time delay trip relay. The devices that we anticipate using are:

Undervoltage	GE	NGV13	108 VAC Setpoint
Overvoltage	GE	NGV23	132 VAC Setpoint
Underfrequency	GE	SFF31A	57 Hz Setpoint
Circuit Breaker	GE	TJJ400A	
Control Power	Agastat	EGP	
Time Delay	Agastat	ETR	10 Secs. Setpoint

Each compartment will be provided with a separate 125V DC circuit for use as control power. The control power will be continuously monitored and alarmed by the EGP relay (A loss of DC will prevent the tripping of one of the circuit breakers).

When one of the relays operate, the timing sequence on the ETR relay will begin. If the voltage or frequency variation persists for more than the setpoint of the ETR, the circuit breaker will be tripped. Since both sets of relays per panel will be monitoring the same conditions, both series circuit breakers will be tripped, although independently.

The panels will be designated Class 1E and will be qualified for their operating environment per IEEE 323-1974 and IEEE 344-1975. They will be purchased as qualified devices and will have the documentation as required by the above IEEE standards.