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8/18/89

Chief, Rules and Regulation Branch
Division of Rules and Records
Office of Administration
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: NUREG-1150
Second Draft for Peer Review
Severe Accident Risks: An Assessment for
Five U. S. Nuclear Power Plants

- REFERENCES:
- 1) Letter, S. J. Kowalski to Chief, Rules and Procedures Branch, dated September 25, 1987
 - 2) Telecon, R. Robinson (NRC) and G. A. Krueger (PECo), 12/11/89

The Philadelphia Electric Company (PECo) appreciates the opportunity to comment on the subject document. The opportunity to work with your contractor personnel during preparation of supporting documentation for NUREG-1150 has been beneficial for us in understanding the current issues and risks calculated for PECo's Peach Bottom Atomic Power Station. We believe the major issues cited in the reference letter, namely phenomenological uncertainties, conservative assumptions, and the expert solicitation process have been addressed and have resulted in a more accurate and defensible picture of severe accident risk.

Although NUREG-1150 provides a summary of supporting documentation it is difficult to comment on specific issues or analyses regarding Peach Bottom when the supporting NUREGs, specifically NUREG/CR-4551 and NUREG/CR-4550 Vol. 4, Part 3 have yet to be published. PECo would like the opportunity to comment when these documents are published. Philadelphia Electric has initiated a PRA on Peach Bottom and at the conclusion of the study we will provide comments on NUREG/CR-4550 Vol. 4.

Some comments on specific details in NUREG-1150 are included in Attachment I.

Per the reference 2 conversation, we are providing these comments after the official deadline for public comment on NUREG-1150.

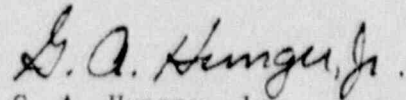
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Our experience and continued interaction with the NRC and its contractors indicates we are all interested in a document of high technical quality which accurately characterizes reactor risk.

Very truly yours,



G. A. Hunger, Jr.
Director
Licensing Section
Nuclear Services Department

/rr

Attachment

ref: GK121501.DOC

cc: M. Cunningham - NRC
R. Robinson - NRC
W. Russell - NRC Region I

ATTACHMENT I
COMMENTS ON NUREG-1150
SECOND DRAFT FOR PEER REVIEW

- Page 4-1, first paragraph

The Peach Bottom Atomic Power Station is a 3293 MWth reactor with an electrical capacity of 1065 MWe.

- Page 4-2, Table 4.1, item 1g

In addition to the depressurization capability of the five (5) safety relief valves that comprise the ADS system the remaining 6 S¹'s may also be used to manually depressurize the reactor.

- Page 4-2, Table 4.1, item 5c
Page 4-13, 4.3.1, first paragraph

The design pressure of the primary containment at Peach Bottom is 56 psig.

- Page 4-5, second bullet

A total loss of AC power or station blackout sequence with a stuck open relief valve will depressurize the reactor vessel sufficiently to affect HPCI & RCIC operability in less than 10 hours, similar to that of a medium LOCA.

- Page 4-7, Figure 4.3

Please define the acronyms RVR and RWTB. This nomenclature is not presently used at Peach Bottom.

- Page 4-9, 4.

During a loss offsite power (LOSP) the diesel generators that are shared between Units 2 & 3 would be required to power loads on each unit. The A diesel would not run independently of the others since it does not power an ESW pump unless cross-tied to another bus. In addition, if only one diesel were operating, the loads from each unit would be required to be alternately loaded and shed since some interlocks exist that prohibit the corresponding pumps from each unit to be loaded simultaneously on a diesel.

The shared emergency service water (ESW) system provides not only lube oil cooling to the diesels but also jacket and air cooling as well.

- Page 4-9, 6.

The loss of HPCI and RCIC due to the loss of room cooling is a long term effect.

- Page 4-9, 7.

Although the ADS valves are located inside the containment, the instrument nitrogen and DC power required to operate the valves are supplied from outside the containment.

- Page 4-10, 9.

The ILRT line from the drywell is a 6" line.

- Page 4-10, 4.2.3, first bullet

The vessel water levels corresponding to level 2 and level 1 are not those used at Peach Bottom. We suggest deleting any reference to specific levels unless there is an indication of an appropriate frame of reference, (i.e. distance from these levels to the top of active fuel). In addition, HPCS is not applicable to PBAPS.

- Page 4-13, 4.3.1, third paragraph

Early containment failure is defined as failure 2 hours before or after vessel breach. It would be appropriate to indicate for the dominant sequences at Peach Bottom what ranges of time after initiation of the accident containment failure occurs.

- Page 4-19, 4.4.2.1

The Peach Bottom primary containment is not a small structure but is small only in volume as compared to other reactor containment types. The pressure suppression concept allows a smaller volume due to the heat sink available (water) in the torus. The total heat capacity of the Mark I containment is similar to that of large dry PWR containments.

- Page 13-7, first paragraph

The paragraph should be changed to indicate that all MARK I containment performance improvement modifications proposed by the staff except containment venting have been subsumed into the IPE process.