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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

6/29/79

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

PUBLIC SERVICE ELECTRIC &
GAS COMPANY

(Salem Nuclear Generating
Station, Unit No. 1)

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Docket No. 50-272
Proposed Issuance of Amendment
to Facility Operating License
to DPR-70

NRC STAFF OBJECTIONS AND MOTION TO
STRIKE PORTIONS OF TESTIMONY FILED
BY INTERVENOR TOWNSHIP OF LOWER ALLOWAYS
CREEK IN RESPONSE TO QUESTIONS POSED BY THE
LICENSING BOARD BY ORDER OF APRIL 18, 1979

In accordance with a Board Order (Order) dated April 18, 1979, as modified, the Township of Lower Alloways Creek (Intervenor) filed on April 25, 1979 and June 12, 1979, the testimony of Dr. Richard E. Webb and Dr. Earl A. Gulbransen, respectively. Pursuant to the Board's Notice of Hearing dated May 14, 1979, the Staff is filing its written objections and a Motion to Strike the written testimony of Dr. Webb and Dr. Gulbransen. The grounds for the Staff's objections and Motion to Strike are set forth below.

The Staff and Licensee have both filed written objections to that portion of Board Question No. 3 which asks "If an explosion or 'meltdown' occurred at Salem, to what extent would that affect the spent fuel pool?"^{1/} The testimony

^{1/} NRC Staff Objection to Board Question dated June 1, 1979. Licensee's Response to NRC Staff Objection to Board Question and Motion for Extension of Time to File Response to Board Question Relating to Class 9 Accidents.

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of Dr. Webb's and the testimony of Dr. Gulbransen discuss Class 9 accidents. Therefore, for the reasons set forth in the Staff's and Licensee's objections to the Board's questions,^{2/} their testimony is inadmissible. If the Board overrules the objections, portions of Dr. Webb's testimony and all of Dr. Gulbransen's should be stricken on the ground of relevancy.

Objections to Dr. Webb's Testimony

Dr. Webb's testimony addresses an accident which is beyond the design basis for Salem Unit 1 spent fuel pool; therefore, it represents a Class 9 accident. The testimony addresses the likelihood and consequences of an accident in which the Salem Unit spent fuel pool loses all of its cooling water, i.e., loss-of-water accident. He does not assign a probability to the occurrence of the accident because in his opinion "the probability of a loss-of-water accident is indeterminable" (Webb Testimony, p. 3.) This is contra to the findings of the Sandia Report, Spent Fuel Heatup Following Loss of Water During Storage (NUREG CR-0649), cited by Dr. Webb. This report found that "[a] complete drainage of a spent fuel pool, therefore, has to be considered as an extremely unlikely occurrence." (Sandia Report, at p. 12.) Since Dr. Webb has not asserted that the loss-of-water accident is a credible accident, the testimony is inadmissible.

^{2/} Id.

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In the event the Board decides to hear testimony relating to Class 9 accidents, portions of Dr. Webb's testimony are not relevant and should be stricken. The first part of Question No. 3 asks the parties to assume that an accident similar to the one at Three Mile Island -2 (TMI-2) occurred at Salem Unit 1 and to explain the impact of such an accident on the spent fuel pool. The second part asks the effect of an explosion or "meltdown" in the reactor on the spent fuel pool. The Staff does not interpret the second part to call for an endless analysis of initiating events which could cause an accident within the reactor or to assume that the initiating event occurs within the spent fuel pool. To respond to the second part one must only assume an accident causes a breach of containment and then determine the impact on the spent fuel pool. Dr. Webb does this in only one section of the testimony addressed below. The remainder deals with matters outside the scope of the Question No. 3.

The relevant portion of Dr. Webb's testimony is where he postulates that a severe reactor accident, presumably a Class 9 accident, results in such a large amount of radiation that the spent fuel storage pools would be abandoned. (Testimony, pp. 8, 16.) Because no one would be maintaining the spent fuel pool, a loss-of-water accident would be initiated in the spent fuel pool.

The remaining portion of Dr. Webb's testimony addresses initiating accidents within the reactor or the spent fuel pool caused by a spent fuel shipping cask drop, criticality error, sabotage and terrorism, earthquakes, large airplane crashes (Testimony, pp. 16-25) and a litany of other accidents

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(Testimony, pp. 25 through 33). All of these involve accident scenarios beyond that contemplated by the Board's question and should therefore be stricken.

Permanent disposal is also addressed in Dr. Webb's testimony (Testimony pg. 33). This is beyond the scope of the Board's questions and inappropriate for consideration by this Board. State of Minnesota, By The Minnesota Pollution Control Agency, Petitioner v. United States Nuclear Regulatory Commission and United States of America, Respondents, Northern States Power Company, Intervenor, ____ F.2d ____, Nos. 78-1269, 78-2032, (D.C. Cir., May 23, 1979) (Slip. Opinion at pp. 10-11.)

In summary, the testimony does not really address the Board's question, but is merely a broad scale attack on this facility and the Commission's policies. This is evident from Dr. Webb's own words "[t]he preceding contentions describe a broad scope of theoretical analysis and experiments that would be necessary in order to fully evaluate the hazards of spent fuel storage (and reactor accidents). (Testimony, p. 35.) In essence, the testimony is a guise to bring in a new contentions relating to the loss of water accident in the spent fuel pool. The Staff submits that the good intentions of the Board should not be a vehicle to amend the Intervenor's petition to intervene.

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Based on the above objections the Staff moves that pp. 2-7, 8 (beginning with par. (m)) -15, 16 (beginning of section 5) - 35 of Dr. Webb's testimony be stricken.

Objection to Testimony of Dr. Gulbransen

Dr. Gulbransen's testimony relates to the use of zirconium alloys as cladding for the uranium dioxide fuel pellets in nuclear reactors. The testimony presents the witness' theory of why a hydrogen bubble formed in the TMI-2 reactor. While this may be a very important theory,^{3/} it is not relevant to the Board's question because there is no explanation of how his theory affects the spent fuel pool. The only statement relating to the spent fuel pool is on page four (4) where the witness indicates that it would be prudent to store the spent fuel away from the site. This is not sufficient to demonstrate relevancy. Therefore, the testimony is inadmissible.

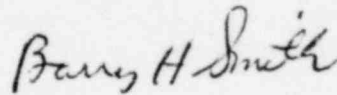
The Staff also objects to this testimony on the ground that it is specifically addressing a "meltdown" or explosion, i.e., Class 9 accident. (See Testimony, p. 4.)

^{3/} Staff Counsel is forwarding a copy of the testimony to a Staff's Task Force relating to TMI-2 accident.

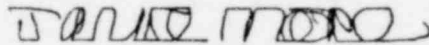
Conclusion

The testimony of Drs. Webb and Gulbransen is inadmissible because they address Class 9 accidents. In addition, only a portion of Dr. Webb's testimony is relevant to Board Question No. 3. The remainder of the testimony should be stricken.

Respectfully submitted,



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Janice E. Moore
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 29th day of June, 1979.

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