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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	Docket No. 50-272
PUBLIC SERVICE ELECTRIC & GAS COMPANY	)	Proposed Issuance of Amendment to Facility Operating License No. DPR-70
	)	
(Salem Nuclear Generating Station, Unit No. 1)	)	

NRC STAFF OBJECTION TO BOARD QUESTION

The Staff of the Nuclear Regulatory Commission (the Staff) hereby objects to that portion of question No. 3 propounded by the Atomic Safety and Licensing Board (the Board) in the above-captioned proceeding which requires consideration of Class 9 accidents.

BACKGROUND

On April 18, 1979, the Board propounded three questions to be answered by the Staff and the Licensee. These questions are:

1. To what extent did the accident at Three Mile Island affect the spent fuel pool at that site?

2. If there had been an explosion or "meltdown" at Three Mile Island, what effect would that have had upon the spent fuel pool? To what extent would it have mattered how much spent fuel was present at the pool?

3. If an accident such as the one at Three Mile Island occurred at Salem, to what extent would the accident affect the spent fuel pool? If an explosion or "meltdown" occurred at Salem, to what extent would that affect the spent fuel pool? To what extent would it have mattered how much spent fuel was present at the pool at Salem?

In a conference call involving the Board and parties which took place on April 19, 1979, the Staff brought two matters concerning these questions to the Board's attention. First, the Staff objected to question No. 2, and the Board agreed to withdraw that question. Second, the Staff asked for clarification of the third Board question. The Board was asked whether they interpreted the words "explosion" and "meltdown" to refer to a Class 9 accident. The Board Chairman gave an affirmative answer to this question. At that time the Staff made an oral objection to the portion of the Board's third question which referred to a possible "explosion" or "meltdown". The Chairman asked that such an objection be submitted in writing. During this call the Intervenors were also granted permission to submit testimony on the Board questions.

On April 26, 1979, the Staff filed a Motion for a Continuance of that portion of the hearing then scheduled for May 2-4, 1979, which would deal with the Board questions. The continuance was requested both in order to prepare testimony on the subject of Three Mile Island, and in order to file any necessary legal objections to the Class 9 accident portion of the Board's third question. This Motion was granted at the hearing. Tr. 391.

The Board ruled at the hearing that it would not go into the area of Class 9 accidents at that time, but that it felt it could do so at the time testimony on Three Mile Island was heard if it felt that the exploration of a Class 9 accident issue was warranted. The Board also indicated at the hearing that the Staff and Licensee could file written objections to the consideration of a Class 9 accident if they desired to do so. The Staff is planning to file written responses to question 1, and to the first part of question 3. The Staff is now reasserting its objection to that portion of the third Board question which states:

> "If an explosion or 'meltdown' occurred at Salem, to what extent would that affect the spent fuel pool?"

The Commission's Case Law And Policy Prohibit The Consideration of Class 9 Accidents By The Applicant, The Staff, Or An Adjudicatory Board In The Cost/Benefit Analysis Absent Special Circumstances.

The definition of Class 9 accidents is a definition which applies to both the Staff's health and safety and environmental review of a particular facility.[1/] See, proposed Annex A to Appendix D to 10 CFR Part 50. The Staff has defined four groups of postulated accidents:

1. Those accidents of moderate probability of occurrence which lead to no significant releases;

1/ It should be noted that there is no specific mention of particular classes of accidents in a safety evaluation. An evaluation is conducted of particular types of accidents, e.g., loss-of-coolant accident, none of which results in a failure of the containment vessel.

2. Those accidents of low probability involving small releases;

3. Design basis accidents of very low probability and large releases; and

4. Accidents of extremely low probability which involve failures beyond those considered in the design of the plants engineered safety features. See, SECY-78-137, Enclosure D (March 7, 1978). The accidents in this fourth caregory are represented by some combination of failures which lead to core-melt and containment vessel failure. Id. It is this fourth category of accidents which the Commission has entitled Class 9 accidents. See, proposed Annex A to Appendix D to 10 CFR Part 50. In the proposed Annex the Commission defined Class 9 accidents as: "successive failures more severe than those postulated for the design basis for protective systems and engineered safety features." 36 F.R. 22852. This definition has been adopted both by the Atomic Safety and Licensing Appeal Board (Appeal Board),[2/] and by at least one Court of Appeals[3/] in their consideration of Class 9 accidents.

Class 9 accidents are considered by the Commission to be highly unlikely. See, 36 F.R. 22852. In the proposed Annex, the Commission points out that in Applicants' Safety Analysis Reports and the Staff's Safety Evaluations,

2/ In the Matter of Offshore Power Systems, Inc. (Floating Nuclear Power Plants), ALAB-489, 8 NRC 194 (1978).

3/ Carolina Environmental Study Group v. U.S., 510 F.2d 796, 798 (D.C. Cir. 1975); Union of Concerned Scientists v. AEC, 499 F.2d 1069, 1088-91 (D.C. Cir. 1974).

for example, the events considered are Class 8 events. These events, together with highly conservative assumptions, are design basis events used to establish the performance requirements for engineered safety features. 36 F.R. 22851. In this discussion the Commission makes no reference to the necessity of additional conservatism in safety evaluations by requiring the consideration of Class 9 accidents. The courts have also recognized that it is something less than a Class 9 event which is considered in a safety evaulation. See, Union of Concerned Scientists v. AEC, supra.[4/]

The Staff in its Safety Evaluation Report (SER), issued before construction of the Salem facility, followed the Commission's policy in its accident analysis. Chapter 15 of the SER discusses the various design basis accidents analyzed by the Applicant and the Staff, and indicated that the doses from such accidents would be within the limits of 10 CFR Part 100. None of the accidents described in that chapter are Class 9 events.

The Commisson also has a long-standing policy that, due to their low probability, Class 9 accidents are not required to be considered by the Staff

4/ In this case, the Court of Appeals did not consider such a safety evaluation inadequate as long as it complied with the site criteria in 10 CFR § 100.11(a) of the Commission's regulations Id. at 1090. 10 CFR 100.11(a), fn. 1, states: "The fission product release assumed...should be based upon a major accident, hypothesized for purposes of site analysis or postulated from considerations of possible accidental events, that would result in potential hazards not exceeded by those from any accident considered credible. Such accidents have generally been assumed to result in substantial meltdown of the core and a subsequent release of appreciable quantities of fission products." There is no indication that such an accident involves a failure of the containment vessel, and therefore is not a Class 9 accident as defined at page 3, supra.

in its Final Environmental Impact Statement.[5/] The courts have upheld the Commission's view in this matter.[6/]

The most recent expression of the Appeal Board's view of its consideration of Class 9 accidents is found in the case of Offshore Power Systems, Inc. (Floating Nuclear Power Plants), supra, fn. 2.[7/] In that case the Staff considered Class 9 accidents in its Environmental Review of the Floating Nuclear Plants, and the applicant argued that such consideration was improper because it was against Commission policy to do so. The Appeal Board interpreted the proposed Annex A to Appendix D to 10 CFR Part 50 as the manifestation of the Commission's policy on Class 9 accidents. Id. at 210. It was noted that, though Appendix D had been deleted at the adoption of Part 51, the Annex had not been changed and, in fact, the Commission at that time stated that Part 51 did not affect the Annex. Id. The Appeal Board also noted that the Annex was not an absolute bar to the discussion of Class 9 accidents. It pointed to the previous decisions where rulings had been made that the discussion of Class 9 accidents would be permitted if an intervenor could

5/ In the Matter of Offshore Power Systems, Inc., supra; Duke Power Company (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397 (1975); Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-226, 8 AEC 381 (1974); Long Island Lighting Co. (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831 (1973); Proposed Annex A to Appendix D to 10 CFR Part 50.

6/ Carolina Environmental Study Group, supra; Porter County Chapter of the Izaak Walton League v. AEC, 533 F.2d 1011, 1007 (7th Cir. 1976).

7/ This case is presently on appeal to the Commission. If the decision handed down by the Commission represents a change in policy concerning Class 9 accidents, the Staff will promptly notify the Board and file the necessary pleadings reflecting that change in policy.

show that, with respect to the reactor in question, there was a reasonable possibility of the occurrence of a particular type of accident generically regarded as being in Class 9. In the Matter of Long Island Lighting Company (Shoreham Nuclear Power Station),ALAB-156, 6 AEC 831, 836 (1973). The Appeal Board rejected the Staff's argument that the exception to the proposed Annex should be interpreted to permit the discussion of Class 9 accidents in an environmental statement in a situation where either the probability or the consequences of such an accident due to some unusual feature of the reactor in question would be more severe than for plants generally. The Appeal Board interpreted the proposed Annex to mean that neither Staff, applicants, nor adjudicatory boards could voluntarily consider Class 9 accidents absent the showing of a reasonable possibility of occurrence of a particular Class 9 accident at a particular plant. Id. at 217-18. The Board stated: "Of course the Commission is free to change the policy respecting the proper scope of environmental impact statements. And, to be sure, it may delegate the authority to the staff. It is simply our considered judgment that the Commission has not done so in the case of power reactors covered by the Annex." Id. at 218.

The Staff, adhering to the Commission's policy, did not analyze Class 9 accidents in the review it conducted prior to the issuance by an earlier Licensing Board of a construction permit for the Salem facility. Nor did the Staff analyze such accidents in the review it conducted to evaluated Licensee's application for an amendment to its operating license to expand the capacity of the spent fuel pool at Salem Unit 1.

Because of the Appeal Board's interpretation of the proposed Annex in the Offshore Power case, the Licensing Board in this spent fuel pool expansion proceeding is prohibited from requiring the Staff to do such as analysis at this time, without showing some special circumstance that make a Class 9 accident reasonably likely to occur at the Salem facility. Both health and safety and environmental considerations are integral parts of a single facility evaluation, and so cannot be treated independently. Citizens for Safe Power v. NRC, 524 F.2d 1211, 1299 (D.C. Cir. 1975). Therefore, the special circumstances standard must be met by the Licensing Board regardless of whether the Board in its question is concerned with the health and safety or environmental aspects of Class 9 accidents. Since the Board's authority to raise issues should, according to the Commission, be used sparingly, in the Matter of Consolidated Edison Co. of New York (Indian Point Nuclear Generating Station, Unit 1), CLI-74-28, 8 AEC 7, 9 (1974), the Board should, before insisting on the consideration by the Staff and Licensee of the consequences of an "explosion" or "meltdown" on the Salem spent fuel pool, describe particular circumstances related to the Salem facility which make the Board think that such an accident is reasonably likely at this facility. Since the Board has not described any such circumstances, it should sustain the Staff's objection to the portion of the third Board question which states:

> "If an explosion or 'meltdown' occurred at Salem; to what extent would that affect the spent fuel pool?"

CONCLUSION

For the foregoing reasons, the Staff objects to that portion of the third Board question which inquires into the effect of an "explosion" or "meltdown" on the spent fuel pool at Salem Unit 1. It should be noted that a task force has been created to review and evaluate information concerning the Three Mile Island accident gathered by this agency and groups outside the agency in order to identify, analyze and recommend changes to licensing requirements and the licensing process for nuclear power plants based on the lessons learned at Three Mile Island. SECY-79-344 (May 19, 1979). One of the areas of interest to this task force is reactor transient and accident analysis. Id. If, when the work of this task force has been completed, a determination is made that the Commission's policy concerning Class 9 accidents should be changed in a way which would require the discussion of such accidents in a spent fuel pool expansion proceeding, the Staff will promptly notify the Board of such a determination. As of this time, however, the Staff still requests the Board to sustain its objection to that portion of the Board's third question dealing with the consideration of the effect of a Class 9 accident on the Salem Unit 1's spent fuel pool.

Respectfully submitted,

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Dated at Bethesda, Maryland
this 1st day of June, 1979.

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CERTIFICATE OF SERVICE

I hereby certify that copies of NRC STAFF OBJECTION TO BOARD QUESTION in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 1st day of June, 1979.

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