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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY	)	Docket No. 50-289 (Restart)
	)	
(Three Mile Island Nuclear Station, Unit No. 1)	)	

LICENSEE'S OBJECTIONS TO RECEIPT INTO EVIDENCE OF BEYEA TESTIMONY ON ANGRY CONTENTION V(D)

I. INTRODUCTION

ANGRY pre-filed the "Direct Testimony of Dr. Jan Beyea on Behalf of the Anti-Nuclear Group Representing York Regarding A.N.G.R.Y. Contention No. V(D)" on October 3, 1980. At the Prehearing Conference held on October 15, 1980, prior to the beginning of the evidentiary hearing in this proceeding, counsel for Licensee informed the Board and the parties of Licensee's objections to Dr. Beyea's testimony as (1) beyond the scope of ANGRY's original contention and (2) inconsistent with the Board's rulings on the admissibility of contentions. Tr. 2525-2527.

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The usual practice is to raise such objections when a motion is made to receive the testimony into evidence. However, Licensee here files its written objections to Dr. Beyea's testimony, so that ANGRY and the Staff may respond in writing to Licensee's objections or in argument at a prehearing conference session, should the Board schedule such a session. The Board will thus have the opportunity to make a considered ruling on Licensee's objections to the testimony well in advance of the time it would be offered into evidence, the preparation and filing of cross-examination plans on the testimony may be obviated, and Dr. Beyea need not appear for cross-examination only to have his direct testimony excluded, should Licensee's objections to the testimony be sustained.

II. DISCUSSION

A. Beyea's Testimony Is Beyond the Scope of ANGRY's Original Contention V(D)

Dr. Beyea's testimony proposes the installation of a controlled filtered venting system at TMI-1, prior to restart. According to Dr. Beyea's testimony:

> A reactor containment with "Filtered Venting" would have a filter system large enough to trap a significant fraction of the radioactivity which is projected to be released to the atmosphere in hypothetical core meltdown scenarios * * *.

"Direct Testimony of Dr. Jan Beyea on Behalf of the Anti-Nuclear Group Representing York Regarding A.N.G.R.Y. Contention V(D),"

at p.1. Dr. Beyea further states that a "filtered venting" system would mitigate radiological consequences should the containment "be deliberately vented because of concern that a hydrogen explosion or fire might lead to a more catastrophic failure [of containment]." Testimony, at p.10. However, ANGRY Contention V(D) does not, on its face, raise either hydrogen control or "Class 9" accident issues. Contention V(D) states:

> The NRC Order fails to require as conditions for restart the following modifications in the design of the TMI-1 reactor without which there can be no reasonable assurance that TMI-1 can be operated without endangering the public health and safety:
>
> (D) Installation in effluent pathways of systems for the rapid filtration of large volumes of contaminated gases and fluids.

ANGRY has never briefed or argued the admissibility of its Contention V(D) as a hydrogen control or "Class 9" accident contention. Nor has the Board ever expressly recognized the contention as a hydrogen control or "Class 9" accident contention.

ANGRY did not address its Contention V(D) in the context of discussion, at the first Special Prehearing Conference, of contentions presenting hydrogen control and "Class 9" issues, Tr. 605-606, though ANGRY did acknowledge its Contention V(A) (on hydrogen recombiner installation) as a hydrogen control contention. Tr. 598-599.

Licensee never contemplated that ANGRY's Contention V(D) sought to raise any issue other than a general challenge to the capacity of those conventional filtration systems which played a part in the TMI-2 accident.*/ At the first Special Prehearing Conference, ANGRY's representative stated that the filtration system which ANGRY proposed was a design modification that had been proposed in studies of the TMI-2 accident, and that there was at that time no way to further specify the contention. Tr. 605-606. Indeed, if ANGRY had originally intended to litigate systems for controlled filtered venting capability in "Class 9" accidents and for use in hydrogen control, ANGRY could have expressly so stated. Moreover, Licensee knows of no study of the TMI-2 accident which recommends installation of the controlled filtered venting system which is the subject of Dr. Beyea's testimony.

Licensee objected to ANGRY Contention V(D) as lacking in specificity. However, the Board accepted the contention at pages 36-37 of its "First Special Prehearing Conference Order" (December 18, 1979), "with the understanding that ANGRY must specify in the course of discovery." The Board's order

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*/ Nor did the Staff, apparently. See "Licensee's Testimony of William F. Itschner, Richard Barley, James Moore and Charles Pelletier in Response to The Lewis Contention and ANGRY Contention No. V(D)" (September 15, 1980); "NRC Staff Testimony of Phillip G. Stoddart Regarding Rapid Filtration for Large Volumes of Contaminated Gases and Fluids in Effluent Pathways: ANGRY Contention V(D)" (September 15, 1980).

accepting the contention gave no indication that the contention encompassed hydrogen control or "Class 9" accident issues. See "First Special Prehearing Conference Order" (12/18/79), pp. 36-37.

ANGRY never stated an intent to seek a waiver of 10 CFR 50.44 to litigate Contention V(D), though ANGRY did express such an intent with respect to its Contention V(A) (on hydrogen recombiner installation). Tr. 598-599. Nor was Contention V(D) included in the Board's "Certification To The Commission" (January 4, 1980) on hydrogen control, though the certification did include a discussion of ANGRY Contention V(A).

ANGRY first indicated in its March 17, 1980 response to Licensee's Interrogatory 5-2 that the filtration system modifications which ANGRY proposed are described in a report entitled "Post-Accident Filtration As A Means of Improving Containment Effectiveness." However, in the context of Licensee's interrogatory and ANGRY's full response, Licensee reasonably understood Contention V(D) to call for modification of those TMI-1 radwaste control systems which played a role in the TMI-2 accident, i.e., the modification of systems located in the auxiliary building, not the installation of an entirely new system for containment venting. The full text of Licensee's interrogatory and ANGRY's response follows:

Interrogatory 5-2

> Describe the system(s) which ANGRY proposes be installed for rapid filtration of contaminated gases. For each system described:

(a) Identify the principal radioactive isotope which ANGRY contends would be removed by such system.

(b) Explain how such system would in ANGRY's view improve on the systems presently installed at TMI-1 for the control, hold-up and filtration of radioactive gases, as described in Section III-D-2-a of the Final Environmental Statement for TMI-1 and TMI-2 (copy attached).

ANGRY's Response

5-2. Such a system is described in B. Gossett, et.al., "Post Accident Filtration As A Means of Improving Containment Effectiveness," UCLA-ENG-7775, Dec., 1977. Furthermore, the NRC/TMI Special Inquiry Group found that "the design bases of TMI's radwaste system were exceeded" (vol. 2, pt. 2, p. 70). The filtration or other capacity of each component of the TMI-1 radwaste system for which this statement is true for the corresponding component at TMI-2 should be enhanced so as to enable it to withstand the demands of a TMI-2-type accident.

a. Adequate filtration or other control capability should be available for all radioactive isotopes listed in Table 4 of the Final Environmental Statement for TMI-1 and TMI-2.

b. See answer 5-2.

ANGRY's citation to the report of "the NRC/TMI Special Inquiry Group" (Vol II, Part 2, p.364 in the final edition) is a reference to a discussion of the capacity of TMI-2's conventional

waste control systems, located outside the containment. Moreover, ANGRY's response clearly contemplates an "enhancement" of the capacity of radwaste system components whose design basis was exceeded in the TMI-2 accident, not the installation of an entirely new "filtered venting" system in the containment. ANGRY even defines the class of TMI-1 components which it alleges should be "enhanced" solely by reference to corresponding TMI-2 components; and since neither TMI-1 nor TMI-2 has a "filtered venting" system, such a system by definition could not be within the scope of the upgrade which ANGRY recommends. ANGRY's assertion that TMI-1 radwaste system components should be "enhanced" to "withstand the demands of a TMI-2-type accident" (emphasis supplied) further undermines ANGRY's efforts to introduce testimony on "filtered venting" of containment since -- during the TMI-2 accident -- the major gaseous effluent pathway was through systems in the auxiliary building, not the containment structure.

Licensee therefore reasonably concluded -- in light of the above, as well as in light of ANGRY's failure to treat its Contention V(D) as a hydrogen control or "Class 9" accident contention -- that ANGRY's true concern was that the capacity of the conventional TMI-1 filtration system be increased to handle a TMI-2 accident at Unit 1, and that ANGRY either had not had an opportunity to review the referenced report or had misconstrued it. Licensee's analysis of the interrogatory response was reinforced by the "Memorandum and Order Requiring Further

Specification of Contentions" (June 23, 1980), which discussed ANGRY's response to Interrogatory 5-2, at page 8, but gave no indication that the Board understood ANGRY's contention to raise the hydrogen control and "Class 9" issues which ANGRY now seeks to litigate through Dr. Beyea's testimony. Finally, a representative of ANGRY attended the August 11, 1980 meeting at which Licensee, the Staff and other intervenors discussed the grouping of contentions and Licensee's proposal on the subject, which was subsequently discussed at the August 12-13 Prehearing Conference (Tr. 2401-2405) and adopted by the Board. That grouping characterizes ANGRY Contention V(D) as a general plant design modification contention, rather than a hydrogen control or "Class 9" accident contention. ANGRY never objected to that characterization or otherwise indicated to either Licensee or the Board that the characterization was misleading or inaccurate.

Dr. Beyea's testimony, with its explicit broad assumptions of core melt accidents, generation of substantial quantities of hydrogen and breach of containment, thus expands ANGRY Contention V(D) far beyond the scope of the contention as it was originally presented by ANGRY, understood by Licensee, and accepted by the Board. Licensee therefore objects to the admission of the testimony.

B. Beyea's Testimony Is Inconsistent With Board and Commission Rulings on Admissibility of Contentions

Much of the discussion among the parties and the Board early in this proceeding focused on the standards for admissibility of contentions which seek to litigate the consequences and/or

risks of "Class 9" accidents. The Board summarized its considerations at pages 11-17 of the "First Special Prehearing Conference Order" (December 18, 1979). The Board concluded, at page 11:

> [I]t would be too broad and non-specific and inconsistent with still viable Commission precedent to open up this proceeding to the extent of embracing generally the litigation of unspecified Class 9 accidents. Such an approach would be particularly inappropriate in this proceeding, since * * * the board must be able to find at least a reasonable nexus between the TMI accident and matters sought to be litigated.

The Board has consistently applied the standards articulated in the "First Special Prehearing Conference Order" to exclude contentions which sought to litigate the consequences and/or risks of "Class 9" accidents but which, the Board found, did not comply with the Board's rulings. See e.g., "First Special Prehearing Conference Order" (12/18/79), at p.24 (rejecting UCS Contention 16); at p.26 (rejecting UCS Contention 20); at p.41 (rejecting ECNP Contention 4(d)); at pp. 42-43 (rejecting ECNP Contention 14); and at p.37 (rejecting ANGRY Contention 6).

The admission of Dr. Beyea's testimony on ANGRY Contention V(D) would be wholly inconsistent with the cited Board precedent. The testimony is largely premised upon broad assumptions of core meltdown and breach of containment; it is replete with references to "meltdown" and "containment failure." Yet neither the contention nor the testimony either set forth specific

sequences of events leading to the assumed meltdowns and failures of containment or discuss the nexus between any such sequences and the actual sequence of events during the TMI-2 accident. Thus, Dr. Beyea's testimony fails the basic test established to determine the admissibility of general "Class 9" accident issues in this proceeding.

Dr. Beyea's testimony is also premised, in part, on a postulated need for deliberate venting as a means of hydrogen control. The showing required of an intervenor wishing to litigate hydrogen control issues in this proceeding has also been defined, through a series of Board and Commission orders. As the Board pointed out at pages 7-8 of its "Memorandum and Order On Hydrogen Control Contentions" (May 30, 1980), in accordance with the Commission's May 16, 1980 "Memorandum and Order," CLI-80-16:

> The licensee may elect to defend against * * * [a hydrogen control] contention on the questions of the likelihood of generation, the likelihood of combustion, or the capacity of the containment to withstand the effects of combustion. Perhaps licensee may never reach the point of depending upon engineered post-accident hydrogen control measures.

As a practical matter, these defenses are foreclosed to Licensee if intervenors wishing to litigate hydrogen control issues are not required to set forth specific scenarios which they allege will generate the substantial quantities of hydrogen on which their cases rest. The Board has acknowledged the need for intervenors' specification of such hydrogen generation scenarios. See, e.g., Tr. 4556-4570, especially 4568-4569. However, neither

ANGRY Contention V(D) nor Dr. Beyea's testimony on the contention sets forth the required specific scenarios. Dr. Beyea's testimony thus not only fails the basic test to determine the admissibility of "Class 9" accident issues, but also fails to meet the established conditions precedent to the litigation of hydrogen control issues in this proceeding. Accordingly, Licensee objects to the admission of the testimony.

III. CONCLUSION

Dr. Beyea's testimony on ANGRY Contention V(D) is premised upon broad assumptions of core melt accidents, generation of substantial quantities of hydrogen, and breach of the containment. The testimony is thus far beyond the scope of ANGRY Contention V(D) as originally represented by ANGRY, understood by the Licensee, and accepted by the Board. Moreover, neither the contention nor the testimony include the specific scenarios required as conditions precedent to the litigation of hydrogen control and "Class 9" accident issues in this proceeding.

Further, the exclusion of Dr. Beyea's testimony from this proceeding will not leave ANGRY without a forum for the presentation of the concerns expressed in Dr. Beyea's testimony. The Board noted, at page 18 of the "Third Special Prehearing Conference Order" (January 25, 1980):

> [A]ctions by the Commission on the subject of Class 9 accidents, * * * with regard to the question of rule-making before it * * * will be factored into our consideration of Class 9 accidents in this proceeding.

The Advance Notice of Proposed Rulemaking on "Consideration of Degraded or Melted Cores in Safety Regulation," states the Commission's intent to consider generically:

> what changes, if any, in reactor plant designs and safety analyses are needed to take into account reactor accidents beyond those considered in the current design basis accident approach. Accidents under consideration include a range of loss-of-core cooling, core damage, and core-melting events both inside and outside historical design envelopes.

45 Federal Register 65475. Specifically, Question 6 of the Advance Notice of Rulemaking asks:

> 6. Should the NRC require construction, at each nuclear reactor plant site, of a new structure for controlled filtered venting of the reactor containment structure? Would you limit the function of such a new structure to filtering particulates, elemental iodine, and inorganic iodine, or would you include adsorption bed systems using charcoal or other processes so that organic iodine and noble gases could also be trapped? What quantities and release rates of gases and particulates would you design such a structure to handle and at what removal efficiency and cost? Do the potential reductions in risk expected from such a structure offset potential increases in risk that may materialize from incidents such as inadvertent operation or the concentration of hydrogen in the filtering apparatus?

45 Federal Register 65476 [Emphasis supplied]. Thus, the system which ANGRY now seeks to litigate in this proceeding is the precise subject of one of six specific questions presented in the Com. ssion's recent Advance Notice of Rulemaking. ANGRY may therefore address the concerns expressed in Dr. Beyea's testimony in the rulemaking forum.

Accordingly, for all these reasons, Licensee objects to the receipt into evidence of Dr. Beyea's testimony on ANGRY Contention V(D).

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE

By: Thomas A. Baxter
Thomas A. Baxter

Dated: November 13, 1980

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CERTIFICATE OF SERVICE

I hereby certify that copies of "Licensee's Objections To Receipt Into Evidence of Beyea Testimony on ANGRY Contention V(D)" were hand served upon those persons on the attached Service List whose names are marked by an asterisk, and upon all others on the attached Service List by deposit in the United States mail, postage prepaid, this 13th day of November, 1980.

Thomas A. Baxter

Thomas A. Baxter

Dated: November 13, 1980

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