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OFFICE OF SECRETARY
GENERAL INVESTIGATIVE
DIVISION

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

James P. Gleason, Chairman
Frederick J. Shon
Dr. Oscar H. Paris

In the Matter of)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.)
(Indian Point, Unit No. 2))

POWER AUTHORITY OF THE STATE OF NEW YORK)
(Indian Point, Unit No. 3))

Docket Nos.
50-247 SP
50-286 SP

November 9, 1982

LICENSEES' RESPONSE TO UNION OF CONCERNED
SCIENTISTS' ORAL MOTION TO AMEND CONTENTIONS

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At the prehearing conference of November 3, 1982, counsel for the Union of Concerned Scientists (UCS) sought to add several documents as additional bases for contentions 2.1(a), 2.1(c), and 2.1(d) as set forth in the Board's October 1, 1982 Order. Transcript of Proceedings at 4682-84 (Nov. 3, 1982). These contentions deal with filtered vented containment systems, core-catchers and separate containment buildings, respectively. UCS is once again belatedly attempting to satisfy the two-pronged test established by the Commission as a prerequisite to consideration of proposed further safety features under Commission Question 2. The Board has requested that Consolidated Edison Company of New York, Inc. and the Power Authority of the State of New York (licensees) address whether the material cited by UCS on November 3¹ aids UCS in satisfying the two-pronged

1. At the November 3 prehearing conference, counsel for UCS referred to NUREG/CR-1410 (Report of the Zion/Indian Point Study: Volume I (1980)), NUREG/CR-1411 (Report of the Zion/Indian Point Study Volume II (1980)), NUREG/CR-2155 (A Review of The Applicability of Core Retention Concepts to Lightwater Reactor Containments (1981)), and an article by Dr. Beyea and Dr. Von Hippel in the August/September 1982 issue of the Bulletin of Atomic Scientists (Beyea/Von Hippel article) as additional bases for the above-mentioned contentions. Transcript of Proceedings at 4682-83 (Nov. 3, 1982). Subsequent to the prehearing conference, UCS supplied specific pages in each NUREG on which they relied to bolster affirmative Board findings regarding the two-pronged test. These pages are as follows:

NUREG/CR-1410 - pp. 1-1 to 1-81 and Appendices 1C, D and E
NUREG/CR-1411 - pp. 140-42
NUREG/CR-2155 - pp. 19-20, 43, 63-64.

test for the abovementioned contentions. Transcript of Proceedings at 4686 (Nov. 3, 1982).

For the reasons set forth below, licensees do not believe that this Board should permit the amendment of the contentions sought by UCS. Even if the amendment is permitted, none of the cited documents cure UCS' failure to satisfy the two-pronged test respecting these contentions as discussed by the licensees in their respective responses to the October 1 Order. See Power Authority's Response to Board's October 1, 1982 Order Reformulating Contentions at 11-14, 18-20 (Oct. 19, 1982) (Power Authority Comments); Con Edison's Memorandum Respecting the Licensing Board's October 1, 1982, Order Reformulating Contentions at 20-25, 31-33 (Oct. 19, 1982) (Con Edison Comments).

I. The Requested Amendments Are Not Timely

In proposing that the NUREGs and the magazine article be accepted by the Board as additional bases for Contentions 2.1(a), (c) and (d), counsel for UCS stated that "two of them . . . have come out since the time of the original bases being set forth." Transcript of Proceedings at 4685 (Nov. 3, 1982); see also id. at 4683. This is not accurate. Even the most recently published of the Nuclear Regulatory Commission (Commission) publications,

NUREG/CR-2155, was available in September 1981. NUREG/CR-1410 and 1411 were published in mid-1980. Because UCS' original contentions were not filed until December 2, 1981 (and therefore post-dated the availability of each of the three NUREGs), UCS could have and should have referenced them at that time. Its current attempt to amend contentions comes too late, and is accompanied by no explanation of that lateness. Because no "good cause" has been offered or established for UCS' failure to cite the NUREG documents with its original statement of contentions, the Board should not permit the proposed amendment to contentions at this late date.¹

1. In In re Cincinnati Gas and Electric Co. (William H. Zimmer Nuclear Station), 12 N.R.C. 231 (1980), the Board applied the late intervention standards of 10 C.F.R. § 2.714(a)(1) (1982) to determine that the intervenor could not belatedly submit an additional contention. Similarly, UCS has not satisfied these requirements regarding its new bases.

While there is no reason why the NUREG documents could not have been referenced in UCS/NYPIRG's contentions in 1981, at the very least the documents should have been referenced in UCS/NYPIRG's October 19, 1982 response to the Board's October 1 Order. Intervenors' Response to ASLB Memorandum and Order of October 1, 1982 (Oct. 19, 1982).

Further, the licensees do not understand why counsel for UCS waited until the November 3 conference to mention, for the first time, the Beyea/Von Hippel article which has been available for two months. Had that article been referenced in its response to the October 1 Order, the licensees could have been prepared to address its effect on Contentions 2.1(a), (c), and (d) at the conference.

II. The Beyea/Von Hippel Article

Although this article, entitled "Containment of a Reactor Meltdown," does discuss the use of filtered vented containment systems to prevent containment failure by overpressurization, it provides no support for an affirmative finding with respect to either prong of the Commission's two-pronged test.

First, the article contains no discussion of any particular site. Therefore, even using this Board's liberal interpretation of the two-pronged test,¹ it is not useful in determining whether, absent a filtered vent, a significant risk could exist at Indian Point or whether there could be a significant reduction in risk resulting from the employment of that safety measure.

Second, the major focus of the article is the potential use of this safety measure for small volume, ice condenser, and other pressure suppression containments which are more susceptible to overpressurization than larger structures. The Indian Point containments are large volume, dry containments. Third, the article contains no analysis of risk or the potential for risk reduction at any site, and the authors do not suggest that they have performed any experiments or analyses which would support the effectiveness of

1. See Power Authority Comments at 8-10 (discussion of two-pronged test); Con Edison Comments at 10-19 (discussion of two-pronged test).

such a device. Indeed, the article amounts to nothing more than a discussion of the history of consideration of filtered vented containments. Therefore, it cannot be useful to the Board's determination of whether the two-pronged test is met for Indian Point.

Finally, as the authors themselves explicitly recognize, the potential use of filtered vented containments is "two-edged" because there are competing risks which have yet to be weighed by the NRC in "thorough safety analyses" for each containment type. Beyea/Von Hippel Article at 56. This weighing must be followed by detailed, plant-specific analyses before there can be a determination whether such a system will reduce the overall risk for any given facility. Id.

For these reasons, the article does not aid in making affirmative findings with regard to the two-pronged test.

III. NUREG/CR-1410 - "Report of the Zion Indian Point Study: Volume I"

Because the pages of NUREG/CR-1410 referred to by UCS deal with filtered vented containment and the use of a separate containment, presumably this document is offered as a basis for Contentions 2.1(a) and (d). After reviewing NUREG/CR-1410, the licensees continue to object to the admission of contention 2.1(a) for the reasons stated in their respective memoranda in response to the Board's

October 1 order. Power Authority Comments at 11-14; Con Edison Comments at 20-25. Neither the pages of NUREG/CR-1410 referred to by UCS nor the document as a whole cure the defects of contention 2.1(a) cited previously by licensees.

NUREG/CR-1410 is but one of a series of documents which have been generated as part of the assessment of the Indian Point and Zion sites by the NRC Staff. Volume I of NUREG-0850, one of the documents upon which the Board relied as a basis for contention 2.1(a), is also a product of this effort. NUREG-0850, which is itself entitled a "Preliminary Assessment of . . . Strategies for Mitigating" core melt accidents at the two plants, post-dates NUREG/CR-1410 by fifteen months and, in fact, refers to the earlier document. See NUREG-0850 at 1-8 (Preliminary Assessment of Core Melt Accidents at the Zion and Indian Point Nuclear Power Plants and Strategies for Mitigating Their Effects (1981)). As noted in licensees' October 19 memoranda, NUREG-0850 did not even address the level of risk presented by the operation of the Indian Point facilities, much less discuss or estimate likely the significance or level of the risk from overpressurization. Power Authority Comments at 12; Con Edison Comments at 22-23. Thus NUREG-0850 is of no assistance in satisfying the first prong of the two-pronged test as enunciated by the Board.

Like NUREG-0850, the earlier NUREG/CR-1410 is a preliminary analysis of very limited scope. NUREG/CR-1410

notes that its results "should be considered preliminary" and that the "[o]perational features such as venting strategies . . . should also be considered as preliminary, and the ideas expressed should not be taken as having been proven feasible." NUREG/CR-1410 at 1.1.

Like NUREG-0850, NUREG/CR-1410 did not assess the level of risk posed by the Indian Point plants, nor did it calculate or estimate the possibilities of overpressurization at these plants actually causing the failure of containment. It instead assumed that an accident of this sort had already occurred and then discussed the reduction in consequences which might result from different filtered vented options, utilizing the reactor Safety Study consequence model. Id. at 1.68-69. Thus, the NUREG did not even address the likelihood of significant risk or the likelihood of significant incremental reduction in that risk -- which constitute the two-pronged test.

The authors of NUREG/CR-1410 emphasized the limited nature of their analysis and the fact that they did not consider the overall safety impacts of filtered vented containment systems. Thus, referring to the possible reduction in consequences from filtered vents, the NUREG states that:

these calculations correspond to one accident only, and do not reflect the effect of vent filter systems on overall reactor risks nor the effect of faulty or inadvertent operation of the system.

Id. at 1.73. The tentative nature of the analyses was

underscored by a section of the NUREG entitled "Unresolved Issues" which begins as follows:

To establish that a vent-filter system design is beneficial, it is necessary to show that the risk reduction potential for accidents which would have led to overpressure failure of containment is greater than the risk increment associated with accidents which would not have led to containment overpressurization and in which a vent-filter could result in increased releases of radioactive material. Thus the most important remaining task is the evaluation of competing risks for each of the vent strategy options and vent-filter design options that have been proposed.

Id. at 1.78-79.

This NUREG does not attempt to establish the likelihood of a significant risk at Indian Point, or the likelihood of a significant reduction of risk from a filtered vent. The former point is expressly not addressed, nor were the net incremental effects of the device considered. The two-pronged test is not met because the NUREG did not attempt to assess either the overall level of risk associated with the operation of Indian Point, or the effect of the adoption of a filtered vent upon this level of risk.

IV. NUREG/CR-1411 - "Report of the Zion/Indian Point Study Volume II"

Licensees have been informed by UCS that it relies on pages 140-42 of this document to aid it in satisfying the two-pronged test for Contention 2.1(a), dealing with fil-

tered vented containment systems. However, the single paragraph of the report which appears in these pages does nothing more than indicate what is believed by the NUREG's authors to be conservative and realistic set points in pounds per square inch for initial activation of a filtered vent. The report neither recommends the installation of a filtered vented containment system at Indian Point as a risk reduction device, nor does it even assess the risk posed by the facility with or without such a device. Therefore, it provides no basis for affirmative threshold findings with respect to the two-pronged test.

V. NUREG/CR-2155 - "A Review of the Applicability of Core Retention Concepts in Light Water Reactor Containments"

Given the title of NUREG/CR-2155, licensees assume that this document has been offered by UCS as an additional basis for Contention 2.1(c). However, the contention, as supplemented by the additional proffered basis of the NUREG, continues to fail to satisfy the Commission's two-pronged test for further safety measures.

NUREG/CR-2155 does not attempt to estimate the current level of risk at Indian Point, the contribution of the potential for basemat melt-through to this level of risk or the reduction in risk from utilizing a core-catcher. The document is an assessment of the potential "risk-reduction benefit of a retainer at five specific reactor sites --

Surry, Peach, Bottom, Sequoyah, Oconee and Grand Gulf." Id. at 6. This assessment is based "upon documented risk analyses for [those] plants." Id. (emphasis added). Analyses specifically limited to other plants obviously cannot be utilized to satisfy the two-pronged test, given the Commission's oft-repeated desire that this hearing be focused upon the risk of the Indian Point plants. See, e.g., Memorandum and Order at 13 (July 27, 1982).

The NUREG also refers to "uncertainties" related to the effectiveness of a core-retainer, the need to perform "experimental work" to resolve these uncertainties, twelve "concerns" that must be addressed "before an effective core retainer can be identified," "areas" that would have to be addressed once such a retainer has been identified (including the impact of a retainer upon the operation of other systems) and the "phenomena associated with accident sequences which need to be better understood." Given these many caveats and the lack of any analysis for the Indian Point facilities, NUREG/CR-2155 cannot be used as a basis to satisfy the two-pronged test, and Contention 2.1(c) should not be admitted.

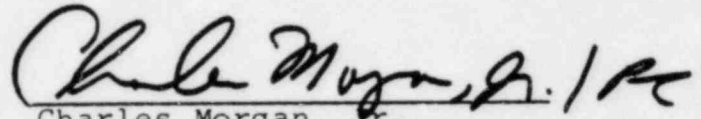
A minimal acceptable effort to satisfy the two-pronged test for a core-catcher would require some assessment of the significance of risk due to basemat melt-through at Indian Point, and whether the core-catcher device would be a likely source of a significant reduction in risk from the basemat

melt-through scenario. Such an evaluation is absent from NUREG/CR-2155, and UCS, the sponsoring intervenor, has accordingly supplied no grounds for concluding that this device meets the two-pronged test.

Respectfully submitted,


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CERTIFICATE OF SERVICE

I hereby certify that on the 9th day of November, 1982, I caused a copy of the Licensees' Response to Union of Concerned Scientists' Oral Motion to Amend Contentions to be hand delivered to those parties marked with an asterisk, and served by first class mail, postage prepaid on all others.

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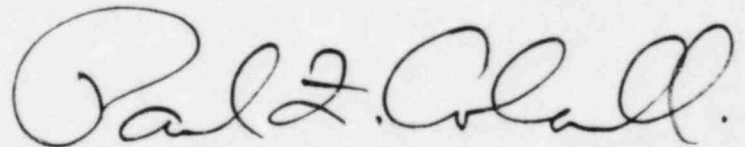
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