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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

) October 19, 1982  
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POWER AUTHORITY'S RESPONSE TO BOARD'S  
OCTOBER 1, 1982 ORDER REFORMULATING CONTENTIONS

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## INTRODUCTION

As requested by the Atomic Safety and Licensing Board (Board), the Power Authority of the State of New York (Power Authority) hereby submits comments on the reformulated contentions in the Board's recent Order. See Memorandum and Order at 40 (Oct. 1, 1982) (October 1 Order). A proposed partial schedule for the proceeding has been submitted separately.

The Power Authority concurs with many of the conclusions stated in the Board's October 1 Order and accordingly raises no objection to the admission of Board Questions 1.1, 1.2, 1.3, and 1.4, the deferral of consideration of contentions under Commission Questions 3 and 4, the treatment of Commission Question 5, the admission of Contentions 6.1 and 6.3, and the deletion of Contention 6.2. For the reasons set forth below, the Power Authority objects to the admission of New Contention 1.1, Contentions 2.1(a)-(d), Contentions 2.2(a) and 2.2(b), and Board Question 2.2.1.

## COMMISSION QUESTION 1

What risk may be posed by serious accidents at Indian Point 2 and 3, including accidents not considered in the plants' design basis, pending and after any improvements described in (2) and (4) below? Although not requiring the preparation of an Environmental Impact Statement, the Commission intends that the review with respect to this question be conducted consistent with the guidance provided the Staff in the Statement of Interim Policy on "Nuclear Power Plant Accident Considerations under the National Environ-



mental Policy Act of 1969;" 44 F.R. 40101 (June 13, 1980).  
[Footnote omitted.]

Original Contention 1.1

The accident consequences that would be suffered by the public, even allowing for emergency planning measures, and their associated probabilities combine to produce high safety risks or risks of environmental damage including: prompt fatalities, early fatalities, early and latent illnesses, fatal and non-fatal cancers, thyroid nodules, genetic effects, and contamination of buildings, soils, waters, agricultural lands, recreational lands, and wildlife areas.

New Contention 1.1

The probabilities and consequences of accidents at Indian Point Units 2 and 3 combine to produce unacceptably high risks of health and property damage not only within the plume exposure EPZ but also beyond the plume exposure EPZ as far as the New York City metropolitan area.

Power Authority's Response to New Contention 1.1

The Power Authority objects to the Board's use of the term "unacceptably high risks." This language appeared in the original statement of Contention 1.1 in the Board's April 9, 1982 Order. See Memorandum and Order at 4 (Apr. 9, 1982). At the April 13-14, 1982 prehearing conference, the Power Authority argued that the Commission in asking Question 1 had directed the Board to determine only the quantitative risk associated with operation of the Indian Point facilities, and had reserved for itself the responsibility for making a judgment as to whether that risk was acceptable or unacceptable. See Transcript of Proceedings at 562-63 (Apr. 13, 1982). In response, the Board deleted "unacceptably high risks" from its reformulation of Contention 1.1 in its April 23, 1982 Order. See Memorandum and

Order at 3 (Apr. 23, 1982) (April 23 Order). This language, however, has reappeared in New Contention 1.1. The Power Authority believes that for the reasons previously stated and accepted by the Board the phrase "unacceptably high risks" should be stricken from any contention arising under Commission Question 1. The same rationale applies to Basis 2 of Contention 1.1 in which a similar phrase, "unacceptable risk," appears. See October 1 Order at 8.

The Power Authority also objects to the use of the term "reasonably probable accidents" in Bases 1 and 2 for New Contention 1.1. See October 1 Order at 8. That description is undefined and does not give notice to the Power Authority of what accident scenarios must be addressed in its testimony. The Board has been asked by the Commission to quantify the risk associated with the Indian Point plants. Unless the qualitative term "reasonably probable" is defined, the testimony, later proposed findings of fact by the parties, and the Board's recommendations to the Commission may be of little value.

The Power Authority objects to the bases set forth by the Board to support New Contention 1.1.<sup>1</sup> With regard to

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1. The Commission's Rules of Practice contain well-understood requirements for bases for contentions, which must be set forth with "reasonable specificity." See 10 C.F.R. § 2.714 (1982); see also Power Authority's Objections and Answers to Contentions of Potential Intervenors at 2-4 (Dec. 31, 1981). In earlier submissions to the Board, and in argument at the special prehearing conference on April 13

Basis 1(a), the Union of Concerned Scientists (UCS) and the New York Public Interest Research Group (NYPIRG) originally asserted, in their basis for Contention IB5, that the licensees had not demonstrated that proper emergency action levels (EALs) had been established as required by 10 CFR § 50.47(b)(4). Contentions of Joint Intervenors Union of Concerned Scientists and New York Public Interest Research Group at 2 (Dec. 2, 1981) (UCS and NYPIRG Contentions).

Section 50.47(b)(4) requires that:

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters is in use by the nuclear facility licensee, and state and local

and 14, 1982, both the Power Authority and the Staff objected that several of the contentions proposed by intervenors lacked the specific factual bases required by the Rule. In its April 23, 1982 Order, however, the Board found that § 2.714(b) basis requirements for contentions did not apply to contentions arising under the Commission's questions, and thereby excused intervenors from supplying the bases -- set forth with reasonable specificity -- that would otherwise be required. The Board's April 23 Order stated that:

We have deliberately avoided specifying detailed factual bases in our formulation of contentions because this is an investigative proceeding.

April 23 Order at 2. However, the Commission ruled in its July 27, 1982 Order that the requirements of § 2.714 must be satisfied. Memorandum and Order at 12 (July 27, 1982). The Commission stated that it "had in mind that the Board would, first, assure itself that proffered contentions included a statement of bases and that both the contentions and bases were stated with reasonable specificity." *Id.*

The Power Authority submits that the "reasonable specificity" basis requirements of § 2.714(b) are still lacking in those contentions opposed in this memorandum.

response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Guidance for complying with the above requirement is provided in Appendix 1 to NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants. Because UCS and NYPIRG are the proponents of this contention, it was incumbent upon them to identify what they contended the Power Authority failed to do that resulted in noncompliance with the regulation. As the Power Authority emphasized in its December 31, 1981 and February 11, 1982 submissions regarding contentions, no such specification was made by UCS or NYPIRG. See Power Authority's Objections and Answers to Contentions of Potential Intervenors at 2 (Dec. 31, 1981); Authority's Reply to Responses to Objections to Contentions of Potential Intervenors at 6 (Feb. 11, 1982). As the Commission reiterated in its July 27 Order, "[W]e had in mind that the Board would . . . assure itself that proffered contentions included a statement of bases and that both the contentions and bases were stated with reasonable specificity." Memorandum and Order at 12 (July 27, 1982) (July 27 Order).

UCS and NYPIRG instead claim that the licensees "have failed to demonstrate" compliance with § 50.47(b)(4). October 1 Order at 8. Such a standard for admissibility of

contentions would relieve an intervenor of any burden to specify inadequacies in the plants or procedures. Having initiated the process by which we are now considering the risk of these facilities, UCS and NYPIRG bear the burden of specifying in some detail how the Power Authority is not in compliance with § 50.47(b)(4). UCS and NYPIRG have improperly requested a demonstration by the Power Authority that it is in compliance with the regulation.

Basis 1(b) is also insufficient. In their January 29, 1982 filing, UCS and NYPIRG abandoned this portion of original Contention IB5, as is apparent from a review of its amended Contention IB5, without ever specifying with which provisions of the Regulatory Guide the Power Authority had not complied. See UCS/NYPIRG Response to Objections to UCS/NYPIRG Contentions Filed by NRC Staff, Power Authority of the State of New York and Con Edison at 55 (Jan. 29, 1982). UCS and NYPIRG have not since pursued the matter. Therefore, no apparent basis exists for this Board to admit a contention relating to compliance with Regulatory Guide 1.97. Because this contention was abandoned and because it never contained a basis sufficient to comply with the requirements of 10 C.F.R. § 2.714, it should not be admitted by the Board.

Board Question 1.1

What are the consequences of serious accidents at Indian Point and what is the probability of occurrence of such accidents? In answering this question the parties

shall address at least the following documents: (a) the Indian Point Probabilistic Safety Study (IPPSS) prepared by the Licensees; (b) any reviews or studies of the IPPSS prepared by or for the Licensees, the NRC Staff, or the Inter-venors, or any other document which addresses the accuracy of the IPPSS.

Board Question 1.2

What bearing, if any, do the results reported in NUREG/CR-2497, "Precursors to Potential Severe Core Damage Accidents: 1969-79, A Status Report" (1982), have upon the reliability of the IPPSS? For example, are there specific accident scenarios at Indian Point whose probability may have been inaccurately estimated in light of the real-life data reported and analyzed in NUREG/CR-2497?

Board Question 1.3

What are the probabilities associated with the consequences presented in the testimony of Dr. Beyea and Mr. Palenik?

Board Question 1.4

What risk to public health and safety is presented by the Indian Point plants through a chain of events including pressurized thermal shock to the reactor pressure vessels?

Power Authority's Response to Board Questions 1.1-1.4

The Power Authority believes that these Board-formulated contentions are appropriate for the evidentiary hearing.

COMMISSION QUESTION 2

What improvements in the level of safety will result from measures required or referenced in the Director's Order to the licensee, dated February 11, 1980? (A contention by a party that one or more specific safety measures, in addition to those identified or referenced by the Director, should be required as a condition of operation would be within the scope of this inquiry if, according to the Licensing Board, admission of the contentions seems likely to



be important to resolving whether: (a) there exists a significant risk to public health and safety, notwithstanding the Director's measures, and (b) the additional proposed measures would result in a significant reduction in that risk.)

POWER AUTHORITY'S RESPONSE TO COMMISSION QUESTION 2

The admission of contentions under Commission Question 2 is subject to a two part test. Such contentions must "seem[] likely to be important to resolving whether (a) there exists a significant risk to public health and safety, notwithstanding the Director's measures, and (b) the additional proposed measures would result in a significant reduction in that risk."

The Board's extrapolation of this two-pronged test suggests that it will apply the test after it admits the Question 2 Contentions, not before, as the Commission clearly intended. According to its October 1 Order, the Board intends to require only "at the stage where we are considering the admissibility of the contention[s] . . . an adequate showing that (a) there may exist a significant risk to public health and safety, notwithstanding the Director's measures, and that (b) the additional proposed measures could result in a significant reduction in that risk." October 1 Order at 13-14 (emphasis added). Only after the contention is admitted under this standard will the Board "make the finding that there does or does not exist a significant risk without the proposed safety measures and that

the proposed measures would or would not significantly reduce that risk." Id. at 14.

In addition to an after-the-fact application of the threshold test, the Board's interpretation of the two-pronged test is contrary to the Commission's instructions. The Commission's earlier September 18, 1981 Order, which the Board quotes but does not employ, provides the appropriate two-pronged test:

A contention by a party that one or more specific safety measures, in addition to those identified or referenced by the Director, should be required as a condition of operation would be within the scope of this inquiry if, according to the Licensing Board, admission of the contention seems likely to be important to resolving whether (a) there exists a significant risk to public health and safety, notwithstanding the Director's measures, and (b) the additional proposed measures would result in a significant reduction in that risk.

Memorandum and Order at 4 (Sept. 18, 1981) (emphasis added) (September 18 Order). This standard requires more than the ordinary bases and factual underpinnings generally required in adjudicatory proceedings and takes into account the Commission's intent that there be "some special considerations regarding admission of contentions under question 2 . . . [i]n addition to assuring compliance with 10 CFR § 2.714 before admitting such contentions." July 27 Order at 13. The intervenors in this proceeding must do more than simply "establish that there is an 'issue' to be



presented," as required by 10 C.F.R. § 2.714 (1982). In re Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), 6 A.E.C. 188, 192 (1973). They must identify persuasive evidence suggesting that a significant risk exists and that the proposed measures would significantly reduce that risk. Only then should the Board determine that Question 2 Contentions "seem[] likely to be important" to the resolution of the two prongs of the Commission's test.

In addition, one fundamental difficulty with Commission Question 2 Contentions admitted under the Board's April 23, 1982 Order was that the proposed safety measures were not sufficiently described. The Commission expressly provided in its January 8 and September 18, 1981 Orders that only contentions proposing "one or more specific safety measures" would be admissible under Question 2. September 18 Order at 4; Memorandum and Order at 9-10 (Jan. 8, 1981) (emphasis added). Without knowing exactly what safety measures and design descriptions are being proposed, the Power Authority will not be on notice of the ways in which such measures will allegedly reduce risk, and will be unable to formulate responsive testimony. Contentions which merely complain of some supposed problem but offer no corrective measure at all -- specific or non-specific -- should not be admitted.

Contention 2.1<sup>1</sup>

The following additional specific safety measures should be required as conditions of operation:

2.1(a) A filtered vented containment system for each unit must be installed.

2.1(d) A separate containment structure must be provided into which excess pressure from accidents and transients can be relieved without necessitating releases to the environment, thereby reducing the risk of containment failure by overpressurization.

Power Authority's Response to Contentions 2.1(a), (d)

In its July 27 Order, the Commission reaffirmed the necessity for the Board to require the intervenors to meet the two-pronged threshold standard for presentation of contentions under Question 2. See July 27 Order at 13.

Although the Board has adopted a standard considerably weaker than that articulated by the Commission, Contentions 2.1(a) through (d) do not meet the Board's test.

Contentions 2.1(a) and 2.1(d) will be commented upon together because both address overpressurization and because the Board has in its discussion of Contention 2.1(d) "incorporate[d] by reference [its] rationale under 2.1(a) for making a threshold finding" by using its two-pronged test. October 1 Order at 19. The Power Authority objects to these contentions because the language used by the Board to make

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1. This contention was not reformulated by the Board.

its threshold finding is itself undefined. The Board states that

The fact that NUREG-0850 rates one mode of overpressurization as a 'high concern' item . . . in combination with the fact that the Director may consider above-design accident pressures to be reasonably probable convinces us that a threshold finding that a significant risk to public health and safety may exist is warranted.

October 1 Order at 16 (emphasis added). This conclusory statement combines the Board's own highly speculative statement that the Director "may consider" such pressures to be "reasonably probable" with one reference from NUREG-0850. Such theorizing as to what the Director might consider in light of subsequent information does not meet even the low threshold that the Board has established.

NUREG-0850, itself, fails to supply the necessary underpinning for a finding that this contention "seems likely to be important to resolving whether . . . there exists a significant risk." See Preliminary Assessment of Core Melt Accidents at the Zion and Indian Point Nuclear Power Plants and Strategies for Mitigating Their Effects (1981) (NUREG-0850). NUREG-0850 does not assess the level of risk presented by operation of the Indian Point facilities. It simply reports the results of a limited inquiry into the major contributors to the existing level of risk. Thus, despite the fact that the authors of the NUREG were concerned with late overpressurization of the containment as

a contributor to risk, the significance or level of that risk was neither discussed nor identified. It is, therefore, impossible to make a determination that a significant risk exists from overpressurization of containment notwithstanding the measures ordered by the Director by reference to a document which does not discuss the level of that risk.

With regard to the second prong, UCS and NYPIRG Contention III A's sole comment on filtered vented containments is that they are "capable of being constructed at Indian Point Units 2 and 3 to permit controlled venting of the containment buildings during accidents to prevent or mitigate overpressurization of the containments." UCS and NYPIRG Contentions at 41-42. This basis for UCS and NYPIRG Contention III A addresses only the feasibility of installation of such systems and does not identify any evidence that implementation of this safety measure at Indian Point would significantly reduce the risk of overpressurization at these facilities.

With regard to Contention 2.1(d), the Board's threshold finding is that a separate containment "could result in a significant reduction" in overpressurization risk "because it would reduce containment pressure without allowing the escape of radioactive material." October 1 Order at 20. The Board has again employed the same less stringent standard. Further, in making its finding, the Board has

simply stated what a separate containment is designed to do (reduce containment pressure without allowing a radioactive release). The Board has not identified any persuasive evidence to explain why, in its view, employment of this design feature would result in a significant reduction in risk.

The Board has identified no bases for this contention under the traditional test, see 10 C.F.R. § 2.714(b), much less under the two-pronged test.

2.1(b) License conditions must be imposed to prohibit power operations with less than a fully operable complement of safety-grade and/or safety-related equipment. [Footnote omitted].

Power Authority's Response to Contention 2.1(b)

This Board's findings with regard to proposed Contention 2.1(b) represent a serious departure from the application of the two-pronged threshold test as envisioned by the Commission. Although the Commission added the two-pronged test because it wished the Board only to consider specific proposals which were supported by specific reasoning, the statements made by the Board do not support the findings made. See October 1 Order at 17-18.

The Intervenor's failure to identify which equipment is at issue is particularly important to this contention because the Commission has already addressed the reduction of the margin of safety when redundancy is lost by appending to the operating licenses of all plants, including Indian Point

Unit 3, detailed "Limited Conditions for Operation."<sup>1</sup> This section sets forth the requirements for operation and shut-down of the units when redundant safety-related equipment is not operable.

This failure to specify adequate bases makes insufficient the Board's statement "that lacking the proposed safety measure the plants may pose a significant residual risk to public health and safety because the probability of the failure of redundant systems increases as the number of such systems in operation decreases." October 1 Order at 18. Thus, this statement lacks the specificity required for a valid Question 2 Contention because the Board has failed to suggest any evidence as to why the limiting conditions for operation already required by the Commission do not adequately protect the public health and safety, and why, in spite of the actions required in the Director's Order of February 11, 1980, a significant risk still exists.

This lack of identification is not cured by the Board's statement, without more, that "[t]he proposed improvement is not an improvement imposed by the Director's order, but the Director's order did consider limiting the time of operation with one specific safety-related system disabled (11 NRC 351, 362)." Id. Nothing contained in the above portion of

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1. See Section 3 of Appendix A to Facility Operating License, DPR-64, Technical Specification and Bases for the Indian Point Nuclear Generating Plant No. 3.



the Board's Order supports its findings with regard to the first portion of the two-pronged test. The Director not only considered a limitation on the time one auxiliary feedwater pump could be inoperable, but, as the Director's Decision clearly indicates, Con Edison had already submitted an amendment to the technical specifications to incorporate that measure prior to issuance of the decision.<sup>1</sup> The limiting conditions for operation were made even more conservative by incorporating the auxiliary feedwater pump limitation. The Board's conclusion that a significant risk may be presented by a lack of redundancy notwithstanding the Director's order lacks support in light of the fact that the limiting conditions for operation explicitly address that lack of redundancy and require shutdown of the plant under specified conditions.

With regard to the two-pronged test, the Board finds:

The extent and degree of significance of this risk should be made apparent at the evidentiary hearing, but it is clearly not zero. It follows that a requirement for all systems to be operable could significantly reduce the risk.

October 1 Order at 18 (emphasis added). The Board has thus

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1. The Power Authority instituted an administrative procedure on June 10, 1980, and amended its technical specifications on May 8, 1981, in a similar manner. See Section 3.4, Steam and Power Conversion System, Appendix A to Facility Operating License, DPR-64 Technical Specification and Bases for the Indian Point Nuclear Generating Plant No. 3.

concluded that because the risk is "clearly not zero," it could be significant when a full complement of safety grade equipment is not operable. A "clearly not zero" test employs a standard which would justify admission of a limitless range of additional safety measures.

Any accident scenario that can be imagined has, in theory, a probability greater than zero, but there is no evidence on which to base a conclusion that there is a significant risk in light of the protection to the public associated with application of existing limiting conditions for operation contained in the Indian Point licenses. It follows that no basis exists for postulating a significant reduction in a risk which is itself not significant. Thus, by this mere reference to a risk that "is clearly not zero," the Board has not fulfilled the first prong of the threshold test because it has suggested no persuasive evidence that there exists a significant risk to public health and safety and that that risk would be significantly reduced by the implementation of these proposed additional measures.<sup>1</sup>

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1. The assertion that simple reference to a risk greater than zero is insufficient is supported by a long line of cases holding that every conceivable radiological risk need not be mitigated. See, e.g., Citizens for Safe Power, Inc. v. NRC, 524 F.2d 1291, 1297 (D.C.Cir. 1975) ("[a]bsolute or perfect assurances are not required by [the Atomic Energy Act], and neither present technology nor public policy admit of such a standard"); In re Honicker Petition, 46 Fed. Reg. 39,573, 39,580 (1981) (footnote omitted) ("it is reasonable to conclude that such a standard, as distinguished for example from 'absolute'



2.1(c) A "core catcher" must be installed at each unit to provide additional protective action time in the event of a "melt-through" accident in which the reactor pressure vessel is breached by molten fuel.

Power Authority's Response to Contention 2.1(c)

The Power Authority objects to the admission of this contention because it fails to meet the two-pronged test for proposed additional safety measures at Indian Point. No attempt has been made to satisfy the first prong of the test -- neither the referenced intervenor contention (UCS and NYPIRG III A) nor the discussion of the contention in the October 1 Order identifies persuasive evidence that suggests that the Indian Point plants in their "current" conditions (i.e., after the adoption of the measures called for in the Director's Order) pose "a significant risk to public health and safety." September 18 Order at 4.

Contention 2.1(c) is a verbatim restatement of subparagraph (g) of original UCS and NYPIRG Contention III (A). The basis for Contention 2.1(c) is, in turn, a word-for-word restatement of the basis offered by UCS and NYPIRG in its original submittal. See UCS and NYPIRG Contentions at 41. The basis for the contention simply amounts to an

protection, left room for some degree of health impact on the public commensurate with the benefits of having a nuclear power program . . . . A country that builds highways, that licenses airplanes, that regulates coal mines, has clearly not established 'zero risk' or 'zero deaths' as a legal or moral absolute"); see also Power Reactor Development Co. v. International Union of Electrical, Radio & Machine Workers, 367 U.S. 396 (1961).

assertion of what a core-catcher may do if it works properly, i.e., delay or prevent a reactor cavity basemat melt-through. Such a conclusory and unsubstantiated reference to the intended function of a safety device does not meet the Commission's two-pronged test.

The October 1 Order's discussion of Contention 2.1(c) also refers to the Director's February 11, 1980 Order. October 1 Order at 18. While acknowledging that the Director's Order does not address the core-catcher concept, the October 1 Order cites the Director's Order for the proposition that the Director recognized "that additional mechanical safety measures are appropriate where the population density is high." Id. In other Commission proceedings, this conclusion might support the admission of any further safety measure contentions, but it cannot support the admission of a contention dealing with a core-catcher in this unique proceeding. The Commission's orders in this proceeding establish that it was aware of the high density population around Indian Point, was concerned that this fact might justify the adoption of additional specific safety measures, and mandated that the Board utilize the two-pronged test to determine which possible safety measures appear to be valuable.

Regarding the second prong, missing is a linkage between a core-catcher and a delayed release of radioactivity related to evacuation. The October 1 Order refers to the

high population density as a factor which supports the admission of this contention because it "may lengthen evacuation time for a serious accident." October 1 Order at 19. Whatever relevance high population density may have to the application of the two-pronged test it is clearly irrelevant to the admission of a contention dealing with a core-catcher. NUREG-0850, a document which the Board has relied upon in admitting contentions, estimates that basemat penetration without a core-catcher and with a dry cavity would take three to four days. See NUREG 0850, at 3-98. With a wet cavity it is likely to be even longer. Id. More importantly, however, no one has even suggested that postulated reactor cavity basemat melt-through could result in an airborne release or that a possible ground release could occur within a time period related to promptness of evacuation. Given these Staff conclusions and the absence of any materials from UCS to meet the second prong, possible delays in evacuation due to population density cannot provide support for the admission of a core-catcher contention under the two-pronged test.

#### Original Contention 2.2

The following additional specific safety measures should be required as conditions of operation:

2.2(a) The cooling system at the plants should be changed so that it no longer uses brackish Hudson River water. This change is needed to combat safety-related corrosion problems.

2.2(b) A solution to the radiation embrittlement problem in the units' reactor pressure vessels must be found and implemented.

2.2(c) A solution to the problem of steam generator tube deterioration must be found and implemented.

2.2(d) A complete review of both plants must be undertaken to discover and correct flaws resulting from poor quality control in construction and in operation.

New Contention 2.2

2.2(a) The cooling system at the plants should be changed so that it no longer uses brackish Hudson River water. This change is needed to combat safety-related corrosion problems.

Power Authority's Response to New Contention 2.2(a)

The Power Authority objects to the admission of this contention because it does not propose specific safety measures, lacks adequate specificity and factual bases, and does not meet the Commission's two-pronged test.

Although the West Branch Conservation Association (WBCA) filing cited in support of this contention faults the use of brackish Hudson River water, neither it nor the Board's Order refers to any proposed "specific safety measures" required for admission under the two-pronged test of Question 2. Thus, it is impossible to determine what decrease in risk might be achieved by the adoption of this contention which poses a problem but no solution.

In addition, the contention fails to meet the Commission's normal standard for specificity and factual bases. It fails to provide the Power Authority with notice as to

what charges it should be prepared to defend against in order to deal with unspecified "safety corrosion problems."

Neither the WBCA Contention nor Contention 2.2(a) satisfies the two-pronged test. No estimate has been made by WBCA of what the current level of risk posed by the Indian Point plants is, how much of this risk is due to the use of brackish water, and how eliminating the use of this water and replacing it with something else will reduce the risk.

The WBCA Contention cited by the Board relied heavily upon the October 1980 containment leakage at Indian Point Unit 2. The October 1980 incident was, of course, the subject of an intensive investigation by the I&E Staff. It should be noted that reliance on the leakage event as the basis for the admission of a contention has already been rejected by the Board in the October 1 Order. The Board rejected former Contention 2.2(d), which cited the October 1980 incident, because "the investigation of events such as the one cited is the responsibility of the Commission's Office of Inspection and Enforcement [I&E]. That office thoroughly investigated the event cited, and is uniquely qualified to investigate and act on such events in the future" October 1 Order at 23-24. The same reasoning requires rejection of the October incident as a basis for Contention 2.2(a). The flood and the changes adopted to avoid a recurrence of similar events have long since been investigated and evaluated by the I&E staff.

The October 1 Order also refers to pitting in steam generator tubes at Indian Point 3. This fact does not support the admission of Contention 2.2(a). As the Order acknowledges, NUREG-0886, Steam Generator Tube Experience (1982), to which the Board refers, states that the cause of the pitting is "still under investigation," October 1 Order at 21, and does not cite the use of Hudson River water as a cause of the pitting. Under normal operating conditions, Hudson River water is not used in the secondary system. Should a small leakage path develop, no immediate safety concerns would arise.

2.2(b) The residual risk posed by the Indian Point plants and discussed under Board Question 1.4 above is great enough to justify remedial measures to prevent pressure vessel damage by pressurized thermal shock. The specific measures needed include one or more of the following:

- (i) pressure vessel replacement;
- (ii) in situ annealing of the pressure vessel;
- (iii) revision of technical specifications to reduce the probability of pressurized thermal shock;
- (iv) use of preheated water for safety injection.

Power Authority's Response to New Contention 2.2(b)

In New Contention 2.2(b), the Board seeks to treat deterministically the pressurized thermal shock issue. However, in its discussion of Board Question 1.4, which also pertains to thermal shock, the Board states that "[t]he Commission has directed us to give close attention to proba-



bilistic evaluations of residual risks." October 1 Order at 11 (emphasis in original). Thus, the Board is straying from its mandate to "screen out those contentions which . . . [do] not seem likely to be important in answering [the Commission's] questions." July 27 Order at 12. The Sandia Letter Report, relied upon by the Board in concluding that thermal shock should be subjected to probabilistic treatment, did not find pressurized thermal shock to be a significant risk at either Indian Point plant, nor did it in any way endorse the measures listed in Contention 2.2(b) and thus cannot serve as the basis for a positive finding under the two-pronged test.

Moreover, the Board recognizes that, regarding thermal shock as a probabilistic issue, the "Staff is addressing this problem generically and considers it unnecessary to examine it for Indian Point in particular. . . . [The Board is] also aware that analysis of eight other plants has suggested that, for the plants reviewed, this event would not pose a hazard for some years." October 1 Order at 11 (emphasis added). On October 8, 1982, the Commission staff discussed the question of pressurized thermal shock with the Advisory Committee on Reactor Safeguards. The purpose of the meeting was to present the staff's suggested regulatory approach to pressurized thermal shock. The staff's conclusion was that no immediate change was required at any nuclear plant to account for the potential of pressurized

thermal shock and that the first plant would trigger the staff's proposed screening criterion for pressurized thermal shock only in "the late 1987-88 timeframe." Transcript of 270th General Meeting of the Advisory Committee Reactor Safeguards at 331-32 (Oct. 8, 1982). The analysis also concluded that the proposed criterion would be exceeded at Indian Point 3 in December 2002. Id., Attachment Slide 14. Indian Point 2 was not listed as a plant of concern to staff. Id.

The Board relies solely on the Sandia Letter Report for the inclusion of New Contention 2.2(b), but nothing in the report satisfies either of the two-prongs under Commission Question 2. Nowhere in this document is it concluded that the Indian Point plants pose a significant risk to the public that pressurized thermal shock is a significant component of this risk or that any of the Board's proposed safety measures would significantly reduce this risk. Thus, a factual basis does not exist that would provide sufficient support for the admission of this contention under the traditional test of 10 C.F.R. § 2.714(b) (1982), much less under the two-pronged test required for its acceptance in this proceeding.

#### Board Question 2.2.1

Should any of the requirements proposed at the July 29, 1982, meeting of the NRC Staff and members of the SGOG be required for Indian Point Units 2 and/or 3, considering the risk of a steam generator tube rupture in this high population area?



Power Authority's Response to Board Question 2.2.1

This Board question is objectionable because the Board has articulated inadequate bases and it thus has not met its own two-pronged threshold test. As the Board itself recognizes, the purpose of the July 29, 1982 meeting was "to present proposed generic requirements for steam generators." October 1 Order at 23 (emphasis added). It has not yet been determined whether any of these suggestions will be adopted generically; thus, treatment of them in this proceeding is premature.

COMMISSION QUESTION 3

What is the current status and degree of conformance with NRC/FEMA guidelines of state and local emergency planning within a 10-mile radius of the site and, of the extent that it is relevant to risks posed by the two plants, beyond a 10-mile radius? In this context, an effort should be made to establish what the minimum number of hours warning for an effective evacuation of a 10-mile quadrant at Indian Point would be. The FEMA position should be taken as a rebuttable presumption for this estimate.

COMMISSION QUESTION 4

What improvements in the level of emergency planning can be expected in the near future, and on what time schedule, and are there other specific offsite emergency procedures that are feasible and should be taken to protect the public?

POWER AUTHORITY'S RESPONSE TO COMMISSION QUESTIONS 3 AND 4

The Power Authority concurs in the Board's decision to defer consideration of contentions under Questions 3 and 4.

COMMISSION QUESTION 5

Based on the foregoing, how do the risk posed by Indian Point Units 2 and 3 compare with the range of risks posed by

other nuclear power plants licensed to operate by the Commission? (The Board should limit its inquiry to generic examination of the range of risks and not go into any site-specific examination other than for Indian Point itself, except to the extent raised by the Task Force.)

Contention 5.1

The risks associated with Indian Point Units 2 and 3 are greater than those associated with many other operating nuclear power plants. These greater risks result from the design and operating conditions of the plants.

Board Question

What bearing does the fact that Indian Point has the highest population within 10, 30, and 50 miles of any nuclear plant site in the United States have on the relative risk of Indian Point compared to other plants?

POWER AUTHORITY'S RESPONSE TO COMMISSION QUESTION 5

The Power Authority concurs in the Board's treatment of Commission Question 5.

COMMISSION QUESTION 6

What would be the energy, environmental, economic or other consequences of a shutdown of Indian Point Unit 2 and/or Unit 3?

Contention 6.1

An economic consequence of the shutdown of Indian Point Units 2 and 3 would be a [sic] economic benefit accruing to Rockland County through the sale of replacement power.

Contention 6.2

The physical and psychological environment of children will be improved by permanently shutting down the Indian Point Nuclear Power Station. [Footnote omitted]

Contention 6.3

Considering the savings in operating expense which would result from shutting down Indian Point Units 2 and 3, and allowing for the ways in which cogeneration and conservation can mitigate the costs of replacement power, the net costs of shutdown are small; in fact, they are smaller

than previous studies by UCS, GAO, or Rand suggest, and are entirely acceptable.

POWER AUTHORITY'S RESPONSE TO COMMISSION QUESTION 6

The Power Authority concurs in the Board's deletion of Contention 6.2 and in the treatment of Contentions 6.1 and 6.3.

POWER AUTHORITY'S COMMENTS REGARDING CONSOLIDATION

Although the Board dismisses as "frivolous," October 1 Order at 5 n.1, the Power Authority's assertion that UCS and NYPIRG remain unconsolidated, it implicitly agrees with the Power Authority when it "rule[s] that those parties which we referred to as 'contributing intervenors' in our April 23, 1982, order are consolidated with the 'lead intervenor' with respect to the issue[s] to which they were assigned in that order, except as herein amended." Id. at 4-5.<sup>1</sup> The Power Authority supports the Board's October 1 formal consolidation of UCS with NYPIRG. In the past, both UCS and NYPIRG counsel have indicated that they were willing to cooperate but that they were not and did not wish to be formally

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1. In spite of this statement, the Board in its Mailgram of October 16, 1982, appears to delay the issue of consolidation until after the upcoming prehearing conference, notwithstanding the Board's October 1 ruling on consolidation. See Mailgram (Oct. 16, 1982). This action requires clarification.

consolidated. Ms. Potterfield, counsel for NYPIRG, has stated:

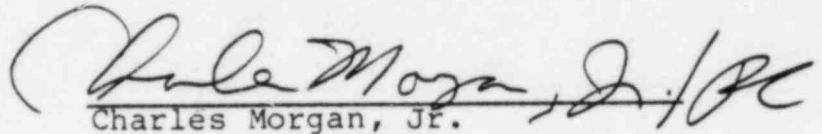
We have indicated in our various submissions that we are willing to cooperate and to coordinate our effort to avoid duplication since we share many of the same contentions. In fact, we share all the same contentions. However, we don't anticipate that our interests are the same in every respect. And, in fact, our governing body hasn't authorized the other organization to represent it; so we ask not to be formally consolidated on giving our commitment to do everything we can not to duplicate effort and certainly not to duplicate any more paper than is absolutely necessary because of the interests.

Transcript of Proceedings at 699 (Apr. 13, 1982) (emphasis added). She was echoing the earlier comments of UCS Counsel Jordan: "With respect to consolidation, we believe that we can effectively coordinate certainly UCS and NYPIRG. . . . We prefer not to see anything that would actually be even called a consolidation until the Board sees that there is a need for it. We do not think that there will be." Transcript of Proceedings at 150 (Dec. 2, 1981).

Regarding consolidation of lead and contributing intervenors, the Board has inadvertently designated "UCS/NYPIRG" a contributing intervenor on Contention 2.2, see October 1 Order at 39, even though neither UCS nor NYPIRG filed proposed contentions in the areas included in Contention 2.2. See UCS and NYPIRG Contentions; UCS/NYPIRG Opposition to Licensees' Petition for Directed Certification

of Issues Arising from the Atomic Safety and Licensing Board's Order of April 23, 1982 (May 25, 1982); see also Transcript of Proceedings at 594-96 (Apr. 13, 1982) (UCS Counsel Blum failed to address Judge Shon's question whether "you or UCS-NYPIRG together would like to be a contributing intervenor").

Respectfully submitted,



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Dated: October 19, 1982

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

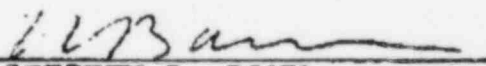
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
CONSOLIDATED EDISON COMPANY	)	
OF NEW YORK, INC. (Indian	)	
Point, Unit No. 2)	)	
	)	
POWER AUTHORITY OF THE STATE	)	Docket Nos. 50-247
OF NEW YORK (Indian Point	)	50-286
Unit No. 3)	)	

NOTICE OF APPEARANCE

Notice is hereby given pursuant to 10 C.F.R. §2.713(b) that the undersigned, Stephen L. Baum, will appear in this matter for the Power Authority of the State of New York; 10 Columbus Circle, New York, New York 10019. The undersigned is a member in good standing of the bars of the States of New York, Massachusetts and Virginia, the United States District Court for the Southern District of New York, the United States Court of Appeals for the Second Circuit and the Supreme Court of the United States.

October 19, 1982

  
STEPHEN L. BAUM

POWER AUTHORITY OF THE STATE OF  
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10 Columbus Circle  
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(212) 397-7610

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.	)	Docket Nos. 50-247 SP
(Indian Point, Unit No. 2)	)	50-286 SP
	)	
POWER AUTHORITY OF THE STATE OF	)	
NEW YORK	)	
(Indian Point, Unit No. 3)	)	
_____	)	

CERTIFICATE OF SERVICE

I hereby certify that on the 19th day of October, 1982, I caused a copy of the Power Authority's Response to Board's October 1, 1982 Order Reformulating Contentions and Notice of Appearance of Stephen L. Baum to be served by first class mail, postage prepaid on the following:



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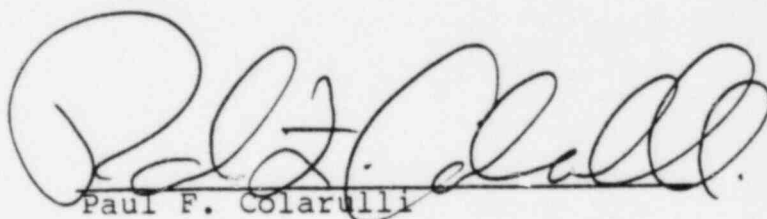
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