

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

**ADJUDICATORY ITEM**  
**POLICY SESSION**

November 24, 1980

SECY-A-80-179C

For: The Commissioners  
From: Leonard Bickwit, Jr.  
General Counsel  
Subject: REDRAFT OF NDIAN POINT ORDER

Discussion: At the Commission meeting on November 14, 1980, the Commission reached agreement on most disputed issues, with some matters left for later resolution. Most notably, the Commissioners were divided on the statement of the principal focus of the adjudication, and on several of the questions to be addressed by the Licensing Board.

At the Commission's request, OPE has drafted a paragraph designed to reconcile the differences on the focus of the adjudication. That paragraph (18A) appears along with the Commissioners' earlier versions of the same paragraph (17 and 18). We have noted where the transcript indicated that a resolution of that paragraph might affect the wording of other portions of the Order.

The attached draft reflects the Commissioners' divergent positions on certain of the questions; no attempt has been made in this draft to reconcile those positions. The draft reflects that Commissioner Bradford will be supplying a footnote describing in greater detail the technical differences, as outlined by Mr. Stello in his briefing, between Units 2 and 3. This redraft uses the same paragraph numbers as in the earlier draft.

In this redraft, additions are marked by underlining, and deletions by a minus sign in a circle. The nature of the deleted material is indicated by notes in the margin.

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SECY NOTE: This paper is currently scheduled for discussion at an open Commission meeting on Tuesday, November 25, 1980.

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

John F. Ahearne, Chairman  
Victor Gilinsky  
Joseph M. Hendrie  
Peter A. Bradford

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

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

Docket Nos. 50-274  
50-286

MEMORANDUM AND ORDER

Background\*

#1  
On May 30, 1980, the Commission issued an order establishing a four-pronged approach for resolving the issues raised by the Union of Concerned Scientists' petition regarding the Indian Point nuclear facilities, and by the decision of the Director, Office of Nuclear Reactor Regulation (NRR), granting in part and denying in part that petition. The order announced the Commission's intention to hold a discretionary adjudication

- \* The Commission has received a motion from the Union of Concerned Scientists, dated June 23, 1980, requesting the disqualification of Commissioner Hendrie from participation in this matter. In its Diablo Canyon decision (In the Matter of Pacific Gas and Electric, 11 NRC 411 (1980), the Commission, with Commissioner Bradford dissenting, stated that requests for the disqualification of a Commissioner would not be entertained by the Commission as a whole but would be referred to the Commissioner whose disqualification was requested. By memorandum of April 23, 1980, Commissioner Hendrie has denied the request for his disqualification.

for the resolution of safety issues concerning the plants; initiated an informal proceeding for the purpose of defining the questions to be answered in that adjudication, as well as the criteria to be applied; announced the Commission's plan to address the generic question of the operation of nuclear reactors in areas of high population density through a generic proceeding, to be decided at a later date; and directed, the Commission's General Counsel and Director, Office of Policy Evaluation, to establish a Task Force to address the question of the status of the reactors during the pendency of the planned adjudication. In this order, we will deal with the issue of interim operation of the Indian Point units during the adjudicatory hearing and will take the steps necessary to initiate that adjudicatory hearing.

#### Interim Operation

#2 The Commission must decide whether the Indian Point Units 2 and 3 should continue to operate on an interim basis during the time it takes to complete the adjudicatory hearing we order today. A decision on interim operation is not a decision about the long-term safety of the Indian Point plants.

#3 In his decision on February 11, 1980, the Director of Nuclear Reactor Regulation found that the interim risk of the continued operation of the Indian Point units did not warrant their shutdown while the matter was being further considered. Additionally, the Task Force, formed to conduct a separate investigation of comparative risks of interim operation, completed its work in June. The conclusion of the

Task Force was that the overall risk of the Indian Point reactors is about the same as the typical reactor on a typical site. The Task Force

①  
"has now  
completed  
its work"  
DELETED

[numerous  
minor text  
changes]

found that although the Indian Point site was considerably more risky than the average nuclear power plant site because of the density of the surrounding population, the design features of the plants reduced the accident risk from Indian Point by a comparable factor. The report acknowledged, however, that the degree of uncertainty for the design comparison was much greater than for the site comparison. Based upon this report, as well as the Director's previous decision, we concluded on July 15 that the risk posed by the operation of the Indian Point facilities did not warrant the suspension of the operating licenses during the adjudicatory proceedings. The Task Force findings and the Director's findings are not the final judgment on the safety of Indian Point Units 2 and 3. That final judgment may only be made after all parties have had the opportunity to examine in detail the Task Force report and other evidence presented by the NRC staff and present additional evidence of their own. In the event that the Licensing Board conducting the adjudication determines that new evidence warrants interim relief, it may at any time recommend a course of action to the Commission. The Task Force Report itself will be distributed free upon a written request to the NRC.

Reference to  
attached  
Summary of  
Task Force  
Report is  
DELETED

"have" deleted.

# 4 In making this decision, we considered the positions taken by the many commenters. Certain of those positions warrant specific discussion.

# 5 UCS has alleged that there are specific safety defects in the Indian Point units which raise questions about whether or not the units comply with NRC regulations. The Director responded to these allegations in his February 11, 1980 Order and UCS responded in turn in the submittal of March 10, 1980. We believe these specific allegations raise issues

#5 which are best resolved in the forthcoming adjudicatory proceedings. We have not made a judgment about these allegations and rely in the interim upon the judgment of the Director of NRR. However, we do note that the Task Force report found no significant difference in risk between the Indian Point 2 and 3 designs. It also found that the technical fixes ordered in the Director's decision would be clearly beneficial in reducing risk, but questioned whether the factor of improvement was significant in light of the uncertainties in estimating overall risk. If the Board at any time during the proceeding believes that any of these issues are serious enough to warrant immediate action, it should make an appropriate recommendation to the Commission.

statistically  
sign. - can't  
when looking  
at overall  
risk"  
DELETED

#6 Several commenters contended that the Commission should not permit continued operation because of the lack of an emergency plan for the surrounding area. While a successful plan for evacuation at Indian Point would probably reduce overall risk, the fact is that most operating reactor sites do not yet have an approved plan and Indian Point is not different in this regard.

#7 New York PIRG requested that we make no decision on interim operation until Senate confirmation of a new chairman. We cannot delay Commission business pending a confirmation process which is beyond our control. Furthermore, such delay would not make a significant difference in this case since the decision on interim operation was unanimous. New York PIRG also requested that the Commission examine a copy of the FEMA review on the status of state and local emergency planning ordered by the President. We have examined this report and it does not change the opinion on emergency planning we expressed above.

"is" deleted

# 4 We note that the Governor of New York has strongly urged that the plants remain in operation pending the outcome of the proceeding.

# 9 Both UCS and New York PIRG s... t to address the Commission orally on the subject of interim operation. By a vote of 2-2, that request was denied.

# 9A  
Attachment  
B from  
SECY-A-  
SD-179B,  
is marked  
up in the  
meeting  
of 11/14.  
Replaces  
JAS #24  
and VG's  
#35.

The recent leaks of large amounts of water into the containment and reactor vessel cavity at Indian Point Unit 2 are still being reviewed by the Commission's Office of Inspection and Enforcement. On November 14, 1980, the Commission received a briefing on the status of the investigation at Indian Point Unit 2, and on the implications of the problem for Unit 3. Unit 2 is currently shut down, and must remain so for technical reasons for a period of months. With respect to Unit 2, prior to permitting resumption of operations, the Commission will determine whether its decision of July 15, 1980, to permit continued operation remains valid. With respect to Unit 3, we decided to stand by our earlier determination to allow operation during the pendency of the adjudication. Our judgment is based upon the information received in the November 14 briefing from the Director of the Office of Inspection and Enforcement, who advised that the containment fan cooler units at Unit 3 are in markedly better condition than those which have been the source of problems at Unit 2, and that Unit 3 has additional safety features not present in Unit 2 in this regard.<sup>1/</sup> Our judgment also reflects the fact that the two units are owned and operated by separate entities.

#### Adjudicatory Proceeding

# 10 The Commission has received a motion for reconsideration of that portion of the Commission's order dated May 30, 1980 which directs that

<sup>1/</sup> Footnote to be supplied by Commissioner Bradford



an adjudicatory hearing be held on the long-term safety of the Indian Point units. The basis for the petition is the Task Force's conclusions that Indian Point poses the same overall societal risk and less of an individual risk than a typical reactor on a typical site. The licensees also contend that the population density is not materially dissimilar from numerous other sites not subject to adjudicatory hearings.

#11 We deny the motion for reconsideration. The licensees would have us treat the Task Force report as the final word on the risks of the Indian Point site, instead of a document designed to aid the Commission in its decision on interim operation. As we stated previously in this order, the Task Force report, compiled in a short time period and not disclosing its detailed methodology and underlying data, will be tested in an adjudicatory setting where parties may present additional or rebuttal evidence. Furthermore, the Task Force report, even if perfectly accurate, does not answer all of the questions the Commission wishes explored by the Licensing Board in a full proceeding. In short, we will not turn a decision on interim operation into a final decision on the long-term acceptability on the Indian Point site.

#12 Licensees also contend that the Indian Point demography is not different from other sites. In fact, according to the Task Force report, Indian Point has the highest population within 10, 30 and 50 miles of any nuclear power plant site in the United States. At 50 miles, its population is more than double any other plant site.

① The Commission directs that the discretionary proceeding will be conducted in the vicinity of Indian Point by an Atomic Safety and Licensing Board, using the full procedural format of a trial-type adjudication,

#16  
#13, 14, + 15 DELETED, on the grounds that the substance of those paragraphs is contained in #16.

#16  
including discovery and cross-examination.<sup>1/</sup> The purpose of the proceeding will be to take evidence and make recommended findings and conclusions on disputed issues material to the question whether the Indian Point Units 2 and 3 plants should be shut down or other action taken. The record of the proceeding, together with recommendations, will then be forwarded to the Commission for the final agency action on the merits of the proceeding. In view of the complexity of this proceeding, and in order that the Commission may make its decision within a reasonable period of time, we stress that the Board should focus clearly upon the questions asked by the Commission.

2/ Because of the investigative nature of this proceeding, further guidance is necessary with respect to certain procedural matters. Because the proceeding, although adjudicatory in form, is not mandated by the Atomic Energy Act, it is not an "on the record" proceeding within the meaning of the Atomic Energy Act. Although normal ex parte constraints will apply to communications to the Licensing Board, the Commission will not be limited in its ability to obtain information with respect to Indian Point from any source. Because the Commission itself is designating by this Order the issues it wishes to be addressed in the adjudication, it is particularly important that the Licensing Board have discretion to formulate contentions and subissues, upon the advice of the parties, so as to effectuate that purpose. In admitting and formulating contentions and subissues, therefore, the Licensing Board will not be bound by the provisions of 10 CFR Part 2. The Licensing Board may also, without regard to the provisions of 10 CFR Part 2 establish whatever order of presentation it deems best suited to the proceeding's investigative purposes. Except as provided above or elsewhere in this Order, 10 CFR Part 2 will control. If the Board concludes that further relaxation of the rules is necessary for the efficient conduct of the hearing, we expect it to request such authorization from the Commission. The Commission expects the Licensing Board to use its authority under Part 2 to assure the relevance and efficiency of discovery and cross-examination. The Licensing Board shall not reach an initial decision, but as noted in the Order, shall instead formulate recommendations on the questions posed by the Commission. No party will have the "burden of persuasion" as the term is normally used in adjudicatory proceedings; if evidence on a particular matter is in equipoise, the Board's recommendation may be expected to reflect that fact. The staff will be a party to the proceeding, and the licensees will be admitted as parties upon request filed within 30 days of Federal Register notice of the appointment of a Licensing Board. All others wishing to intervene shall file petitions for intervention within 30 days of Federal Register notice of the appointment of a Licensing Board. The appointment of the Licensing Board will be announced by subsequent order of the Commission.

PROCEDURAL  
FOOTNOTE  
Attachment C  
to SECY-A-  
80-179A,  
as modified  
by Attachment A  
to SECY-A-80-  
179B, and  
is further  
marked up  
in the meeting  
of 11-14)

—  
Sentences  
allowing  
departure from  
Part 2 on  
discovery and  
cross-examina-  
tion are  
DELETED.



[NOTE: THE FOLLOWING THREE PARAGRAPHS ARE ALTERNATIVE APPROACHES TO THE SAME ISSUE.]

#17 [JA/JH: The primary bases for the Commission's decision will be whether the risks to individuals living in the vicinity of the Indian Point site, including those resulting from the difficulty in evacuating, are significantly greater than the risks to individuals living in the vicinities of other operating nuclear power reactors in the U.S. and whether the societal risks from the Indian Point station are significantly above the range of societal risks from other operating units station. The Commission intends to compare Indian Point to the range of risk from other nuclear power plants.]

#18 [VG, PB: The Commission is primarily concerned about the extent to which the large population around Indian Point affects the risks posed by Indian Point as compared to the risks posed by other plants. In particular, the Commission is concerned about: (1) the risks to individuals resulting from the difficulty of evacuating the vicinity of Indian Point; and (2) the total risk to persons and property posed by the Indian Point plants. The Commission intends to compare the risks posed by the Indian Point plants to the risks posed by other nuclear power plants.]

#18A OPE DRAFT [The Commission's primary concern is the extent to which the population around Indian Point affects the risk posed by Indian Point as compared to the range of risk posed by other nuclear plants. In particular, the Commission is concerned with the total risk to persons and property posed by the Indian Point plants as well as the risk to individuals resulting from the difficulty of evacuating the vicinity of Indian

Point. The Commission intends to compare the risks posed by the Indian Point plant to the range of risk posed by other nuclear plants.]

#19 The Commission is also interested in the current state of emergency planning in the vicinity of the Indian Point site and in future improvements in that planning as well as in resolving the specific contentions in the UCS Petition to the effect that some of our regulations are not met in one or both units.

#20 Risks from nuclear power reactors are defined by the probabilities and consequences associated with potential accidents. In directing a comparison of the risks of the Indian Point units with those from a representative group of other operating units, the Commission is fully aware of the uncertainties that attend such quantitative risk assessment calculations (reference NUREG-CR-0400, the Lewis Report, and the Commission policy statement on it.) Nevertheless, risk assessment methods offer the best means available for objective and quantitative comparison of the kind needed here. Further, some of the uncertainty that is associated with risk assessment estimates of the absolute values of accident probabilities and consequences does not apply to comparisons such as those sought here.

#21 Several measures of risk are useful for the comparisons the Commission seeks. For individual risks, these include the probabilities of early effects--fatalities and injuries that could occur soon after an accident--and of long-term effects--cancers and genetic effects that could occur more than a year after an accident, all as a function of distance from the reactor.

#22 For societal risks the useful measures include early effects, long-term effects, and property damage and costs in terms of interdiction, decontamination, and crop and milk losses and the possibility that some

areas affected by an accident might be uninhabitable for long periods. Societal risk measures should include the distributions of probabilities and consequences as well as the expected risks or mean annual values of the consequences. Risk measures of these kinds for the Indian Point units and for a representative group of other operating nuclear power plants were presented in the report of the Commission's Task Force on Interim Operation of the Indian Point, NUREG-0715, and were found useful by the Commission in its consideration of the interim operation matter.

DELETION of  
Sentence  
stating that  
distributions  
of probabilities  
and consequences  
as well as expected  
risks or mean  
annual values  
of consequences  
should be  
presented

In developing the record of the proceeding, the Board should address a series of questions as follows:

[NOTE: COMMISSIONERS GILINSKY AND BRADFORD, ON THE ONE HAND, AND CHAIRMAN AHEARNE AND COMMISSIONER HENDRIE, ON THE OTHER, FAVOR DIFFERENT APPROACHES TO THE INITIAL QUESTIONS TO THE BOARD. THE FOLLOWING REPRESENTS OUR BEST ATTEMPT TO REPRODUCE THOSE POSITIONS, BASED UPON THE TRANSCRIPT OF THE NOVEMBER 14 MEETING, WITH UNRESOLVED AREAS NOTED.]

GILINSKY/BRADFORD:

1. (a) What is the range of probabilities assigned by experts to the possibility of core [melt] [damage] accident at a pressurized water reactor? of a breach of containment?

#23 [NOTE: COMMISSIONER GILINSKY INDICATES POSSIBLE WILLINGNESS TO MAKE THIS QUESTION MORE SPECIFIC TO INDIAN POINT. SEE TRANSCRIPT, PAGE 126.]

(b) Assuming that a core [melt] [damage] accident, followed by a breach of containment, has occurred at Indian Point, what are the possible patterns of radiation release under a variety of meteorological conditions?

(c) How much time would be required for an [effective] [PG: adequate] evacuation of the surrounding population?

(d) What are the possible health consequences of a core [melt] [damage] accident with a breach of containment, assuming that [effective evacuation has taken place] [PB: evacuation has taken place according to (c) above]?

(e) What would be the property damage, including long-term uninhabitability, caused by a core [melt] [damage] accident with breach of containment?

AHEARNE/HENDRIE:

#24 1. 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, to 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. [JA: The FEMA position should be taken [as a rebuttable presumption] for this estimate.]

#25 2. 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 could be feasible and should be taken to protect the public?

#26 3. 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 operating the facility or facilities, would be within the scope of this inquiry.)

DELETION OF two sentences asking whether emergency plans provide adequate protection and what the probability and risks are of a core melt accident with early breach of containment

# 27  
4. 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 (3) above?

[NOTE: THE FOLLOWING QUESTION APPEARS TO HAVE THE GENERAL AGREEMENT OF ALL COMMISSIONERS, WITH THE PROVISIO THAT ITS LANGUAGE MAY BE ALTERED TO REFLECT THE ATTEMPT TO RECONCILE THE LANGUAGE OF PARAGRAPHS 17 AND 18. SEE TRANSCRIPT, PAGES 143-45. OPE'S DRAFT OF COMPROMISE LANGUAGE APPEARS AS PARAGRAPH 18A.]

# 28  
5. Based on the foregoing, how do the risks 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.)

[NOTE: THE FOLLOWING QUESTION APPEARS TO HAVE THE AGREEMENT OF ALL COMMISSIONERS. SEE TRANSCRIPT, PAGES 145-46.]

# 29  
6. What would be the energy, environmental, economic or other consequences of a shutdown of Indian Point Unit 2 and/or Unit 3?

[NOTE: AT THE SUGGESTION OF CHAIRMAN AHEARNE THE FOLLOWING QUESTION WAS SET ASIDE FOR LATER CONSIDERATION, TO ALLOW AN OPPORTUNITY TO STUDY THE ORIGINAL UCS CONTENTIONS. PREVIOUSLY, CHAIRMAN AHEARNE AND COMMISSIONER HENDRIE DISAPPROVED THIS QUESTION, AND COMMISSIONERS BRADFORD AND GILINSKY APPROVED IT. RESOLUTION OF THIS QUESTION WAS TO BE CONSIDERED IN THE CONTEXT OF RESOLUTION OF THE LANGUAGE OF PARAGRAPHS 19 AND 26. TRANSCRIPT, PAGES 146-52.]

# 30  
7. Are Units 2 and 3 in compliance with those NRC regulations about which specific contentions of non-compliance have been made?

⊖ "Full or  
off-peak  
DELETED

⊖ → (# 31) DELETED. It would have asked the official position of the State of N.Y. with regard to long-term operation.)

[NOTE: THE FOLLOWING QUESTION APPEARS TO HAVE THE AGREEMENT OF ALL COMMISSIONERS. TRANSCRIPT, PAGES 153-55.]

#32 8. Does the Governor of the State of New York care to express an official position with regard to the long-term operation of the units?

⊖ It is so ORDERED.

For the Commission

\_\_\_\_\_  
SAMUEL J. CHILK  
Secretary of the Commission

Dated at Washington, D.C.

This \_\_\_\_\_ day of \_\_\_\_\_, 1980.

→ Paragraphs # 33, 34, + 35 are DELETED # 33 would have directed the Board to convey to the Commission any views submitted by the State of N.Y. or local governments, and declare the Commission's intent to obtain those views. # 34 and # 35 were alternative approaches to the implications of the fan cooler leaks at Unit 2, and are REPLACED by Paragraph # 9A.