

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

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

6-20-80

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

UNION OF CONCERNED SCIENTISTS' COMMENTS
ON THE COMMISSION'S ORDER OF MAY 30, 1980

By Order dated May 30, 1980, the Commission solicited the views of interested members of the public on the issues to be addressed in the adjudicatory proceeding initiated by the Commission to determine whether Indian Point Units 2 and 3 can be operated without undue risk to the public health and safety. In addition, the Commission requested comments on the criteria that should govern the Commission's decision concerning continued operation of the reactors.

The Union of Concerned Scientists submits the following comments:

1. CRITERIA BY WHICH "ACCEPTABLE RISK" SHOULD BE DETERMINED

The extreme concentration of population in the vicinity of Indian Point results in a situation in which the consequences

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of an accident would be substantially more severe than they would be in a less populated area. In addition to the fact that many thousands, perhaps millions, of people would be killed by a major radioactive release, even the need for evacuation in the event of an accident such as Three Mile Island could well cause panic and loss of life that has never before been considered. The consequences in either case are extreme and, as yet, unknown.

Given the overwhelming consequences of even a minor accident at Indian Point, much less a major release, a risk-oriented examination of safety issues in which accident probabilities are used to determine the extent of the consequences that must be considered becomes irrelevant. The potential consequences are so great that substantial risk exists because the probability is not zero.

The result of this situation and of the fact that it would, in any event, be extremely difficult to assess the risks given the range of uncertainties involved in this effort, is that the Commission must address the basic question of "how safe is safe enough?" at Indian Point. In most cases, the existing regulatory requirements are assumed to answer, or at least to provide the necessary guidance on that question. That is not the case here, however, because the Commission has never adequately addressed hazards such as those posed by this case in developing its regulatory requirements. Since neither the Commission nor anyone else has answered that question to date, it is a fundamental issue in this proceeding. Because the question has not

been answered, it is not yet possible to determine what criteria will assure adequate public safety. After the special ASLB completes its hearing on the issues, the Commission itself must address the underlying question of what criteria must be followed to determine whether the plants can be made safe at this site. UCS requests an opportunity to address the Commission on this point at that time. To an extent, the Commission apparently intends to address these questions in its generic rulemaking on plants in populated areas. However, until that rulemaking is completed (which, given the history of such rulemakings, may be years from now), the Commission must address the question in this proceeding. If it does not, it will have no assurance that it has even answered the right questions in this case.

At a minimum, the Commission should apply the same criteria in determining whether Indian Point Units 2 and 3 should be permitted to continue operation as would be applied today for the issuance of a construction permit (for site suitability questions) and of an operating license (for design adequacy questions). As recommended by UCS's initial petition, the Commission should determine whether

- 1) the site is currently suitable for nuclear power generation,
- 2) each applicable unresolved safety problem is addressed, and
- 3) the requirements of each Regulatory Guide and Branch Technical Position are addressed.

The burden of proof must remain on the licensee and the staff to establish each point with substantial evidence.

2. PROPOSED QUESTIONS FOR ADJUDICATION

Although the Commission acknowledges that the proposed adjudication involves "matters of high public importance,"^{1/} the Commission's claim that it gave "careful consideration"^{2/} to over 100 public comments on these matters^{3/} is not evident from the list of questions proposed by the Commission to be addressed before the special ASLB convened to prepare the record. To the extent that the Commission's proposed questions omit any of the issues presented by UCS in its initial petition and in its Comments on the Director's Order,^{4/} UCS is convinced that the record will be inadequate to resolve the ultimate issue.

The ultimate issue raised by the initial UCS petition is whether any conceivable procedural and structural modifications of Indian Point Units 2 and 3 would be sufficient to ensure that operation of these two reactors would not unduly endanger the residents of the metropolitan New York area. The deficiencies in the questions proposed by the Commission are discussed below:

^{1/} In the Matter of Consolidated Edison (Indian Point, Unit 2) and Power Authority of the State of New York (Indian Point, Unit 3), Commission Order (hereafter "Commission's Order"), Sl.op. p. 5.

^{2/} Id at 2.

^{3/} Public comments on the Order of the Director of the Office of Nuclear Reactor Regulation (hereafter "Director's Order"), Feb. 11, 1980, solicited by the Commission, 45 Fed. Reg. 11969 (Feb. 22, 1980).

^{4/} UCS Petition, pp. 24-25; UCS Comments on Director's Order, p. 2.

A. Major Design Modifications

The Commission's proposed questions ask only whether the current situation is safe and whether already proposed improvements are adequate to provide an acceptable risk to the population.^{5/} For example, the Commission asks "What improvements in the level of emergency planning can be expected in the near future," instead of "What specific offsite emergency procedures could feasibly be taken to protect the public. . .?"^{6/} Also, the Commission's reference to the "measures required or referenced in the Director's Order"^{7/} ignores the deficiencies in that order which were detailed in the prior comments by UCS on that decision (UCS Comments on Director's Order, pp. 8-21, 35-42). The Director's Order simply does not require the licensees to identify or implement any long-term design changes. The Commission must determine what "specific design changes can be made at Indian Point to mitigate the consequences" of serious accidents.^{8/} By relegating potentially significant design modifications to a footnote authorizing contentions by interested public parties, the Commission prevents the full utilization of staff resources and expertise in developing this critical area

^{5/} The footnote on page 4 of the Commission's Order will be discussed below.

^{6/} Commission's Order, p. 3; UCS Comments on Director's Order, p. 2.

^{7/} Commission's Order, p. 3.

^{8/} UCS Comments on Director's Order, p. 2.

of inquiry. In fact, a staff task force is already examining long-term plant modifications,^{9/} and alternatives such as a vented, filtered containment, core retention devices, and hydrogen control mechanisms should be presented in detail by the staff in order that a complete range of modification options may be reviewed by the Commission.

B. Applicable Unresolved Generic Safety Issues and Regulatory Guides

In addition, the Commission's proposed questions omit an examination of the myriad unresolved generic safety issues such as post-accident monitoring, equipment aging, and asymmetric loads on reactors which have already been identified by the staff as being directly applicable to the types of nuclear plants used at Indian Point Units 2 and 3.^{10/} At a minimum, the Commission should require the procedure mandated by the Atomic Safety and Licensing Appeal Board for the issuance of all operating licenses. The Staff is now required to identify all unresolved generic safety problems which apply to the plant, and to show either how they have been satisfactorily resolved on a plant-specific basis or, if they have not, to provide the specific justification for permitting the plants to operate. Virginia Electric and Power Co. (North Anna

^{9/} Director's Order, p. 9: UCS Comments, pp. 14-15.

^{10/} See Appendix A to "Testimony of Michael B. Aycock, Lawrence P. Crocker and Cecil O. Thomas, Jr., relating to the Status of NRC Staff Activities Regarding Generic Safety Issues, Sept. 27, 1978 submitted to ASLB in Dockets 50-556 and 50-557; UCS Petition, pp. 19-22; UCS Comments, pp. 27-33.

Nuclear Power Station, Units 1 and 2), ALAB-491, 8 NRC 245 (1978).

UCS strongly urges the Commission to adopt the position of Commissioner Bradford, who recommended that the staff fully develop and present to the special ASLB the relevant unresolved generic safety questions and "the extent to which Indian Point Units 2 and 3 meet current Regulatory Guide and Branch Technical Positions."^{11/}

C. Unit 3 Modifications Must Apply to Unit 2

The special ASLB should also examine the "safety related design differences between Units 2 and 3, distinguishing between those changes (in Unit 3) ordered by the Staff and those changes made voluntarily."^{12/} The design changes in Unit 3 required by the staff to achieve compliance with the regulations should, without compelling reasons to the contrary, be backfitted in Unit 2. All improvements from Unit 2 which were voluntarily made by the licensee for Unit 3 must have some safety significance. There should be a strong presumption in favor of backfitting each of these modifications as well.

^{11/} Commission's Order, "Separate Views of Commissioner Bradford," p. 7ff.

^{12/} UCS Comments on Director's Order, pp. 2, 21-23.

D. Consideration of Extrinsic Economic Consequences is Secondary to Mandate to Protect Public Health and Safety

Finally, the consideration of energy and economic consequences must be subservient to and contingent upon the finding that continued operation of Indian Point Units 2 and 3 will not pose an undue risk to the public health and safety.^{13/} The Commission's statutory mandate to protect the public health and safety cannot be compromised by balancing that duty with extrinsic economic factors. If the plants are not safe enough, the questions of the energy, economic and environmental impacts of ordering these plants closed are irrelevant. Any secondary consideration of such impacts should include a definitive showing by the utility on each of the following criteria:

a) that the utility is using all alternative sources of power available to it, including purchase power and deferral of routine maintenance shutdown of other capacity on its systems;

b) that the utility is using all means available to cut load, including load shedding techniques;

c) that the risk to health and safety from loss-of-load is greater than the risk to public health and safety from a major nuclear accident; and

d) that loss-of-load after all compensating measures have been adopted would, in fact, create health and safety problems of significant importance.^{14/}

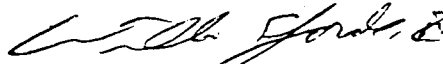
^{13/} Commission's Order, p. 4; UCS Petition, pp. 25-26.

^{14/} UCS Petition, p. 26.

Respectfully submitted,



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