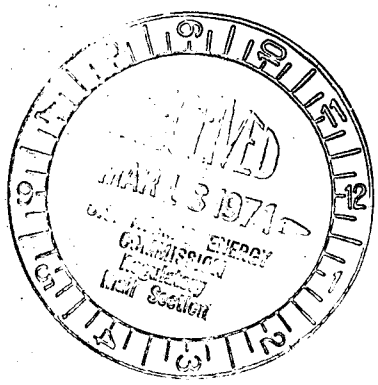

3-16-71

BEFORE THE UNITED STATES

ATOMIC ENERGY COMMISSION

In the Matter of	)	
Consolidated Edison Company of New York, Inc. (Indian Point Unit No. 2)	)	Docket No. 50-247

JOINT MOTION

The Citizens Committee for the Protection of the Environment (Citizens Committee) and Consolidated Edison Company of New York, Inc. (Applicant) hereby request a ruling on Applicant's objections to certain questions posed by the Citizens Committee. The questions, objections, and supporting arguments are attached to this motion.

From the informal question and answer process certain areas have been identified in which the Citizens Committee wishes to introduce evidence, by cross-examination or otherwise, during the hearing. The Citizens Committee takes the position that these areas are relevant to the safety issues being considered by the Board, and Applicant disagrees. The attached questions are representative of those areas, which include matters such as the expected availability of

electrical power from Unit No. 2 to meet anticipated demands, the availability of alternatives to the operation of Unit No. 2 for meeting anticipated demands, and the estimated costs of certain suggested modifications to Unit No. 2.

Applicant and the Citizens Committee have chosen the course of submitting this motion rather than awaiting the questioning of a witness or other introduction of evidence at a hearing session in the belief that an early determination on these matters will clarify the scope of hearing preparation and expedite the hearing itself.

Respectfully submitted,

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for the Protection of the
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Attachments
A. Questions
B. Applicant's objections
C. Citizens Committee response to Applicant's objections

Dated: March 16, 1971

ATTACHMENT A

Set G

Questions Submitted by the Citizens Committee for Protection of the Environment to Consolidated Edison with Regard to Indian Point No. 2

1. If Indian Point No. 2 operates normally and without malfunction of any kind, how many days each year will the plant not be in operation? Will this number of predictable non-operating days increase as the plant gets older? Can the unavoidable non-operating days be scheduled to avoid peak periods of power demand? Once a specific date is selected for shutdown of the plant what flexibility exists in the timing of the shutdown to respond to unpredicted energy demands or failures of other electric supply systems?

2. Have you prepared a study of the expected actual electric output of Indian Point No. 2 for each year for the next 5, 10, 20, 40 years? If so, please supply a copy of these studies and with respect to each study answer the following:

a. Does the study take account of loss of electric output due to malfunctions? If not, why not? If so, state for each year the number of days expected to be last due to malfunction of the plant and identify the type, cause and predicted duration of the postulated malfunction.

b. Are the factors in a. above based upon the actual experience of other nuclear power reactors? If not, why not and upon what are the predictions based? If so, please identify the operating records used and attach copies of these operating records.

c. To what extent are malfunctions or other periods of non-operation or reduced operation of the plants predicted to be limited to specific seasonal periods. If no analysis has been made of this factor, why not? If an analysis has been made state the basis for such predictions including reliance upon studies from other plants.

3. At the time the decision was made to construct Indian Point No. 2 what was the load growth estimate of the interconnected power system of which this plant is a part for the following 15 years?

4. If the license to operate Indian Point No. 2 is not granted, what plans does the company have for meeting its anticipated demand for power during the next five years? Do these plans include programs to reduce the demand (including programs for Con Ed to discontinue encouraging the use of electric power) for power and if so

what are the programs? With respect to this question, describe in detail which users of power would be required to reduce demand; would reduction of power be permanent or only temporary; would it be only during the day or only at night, etc. In short, describe precise plan now developed by Con Ed to apportion electricity to its customer in a situation where for an extended period of times the demand for power is greater than the supply. Do these plans include construction of non-nuclear power plants and if so, describe the plants in detail including their size, method of generating electricity, location, cost and estimated construction time. Do these plans include purchasing power from other power companies and how much power?

5. Were the considerations of alternative means of meeting the need for power, including adopting programs to reduce power needs, referred to in question 4. explored at the time the decision to construct Indian Point No. 2 was made? If not, why not? If so, explain this decision in detail and attach a copy of all studies conducted with respect to these and any other alternatives.

6. Could a nuclear power plant of the size and electric capacity of Indian Point No. 2 have been built in an area with considerably fewer people living within a 50 mile radius (meeting TID14844 guidelines without regard to engineered safeguards) of the plant and still have met the electric power needs of Con Ed's customers? If the answer is no explain in detail all of the reasons for this answer. With respect to this question use the following assumptions or explain in detail why they are invalid. If only a portion of the assumption is invalid indicate that portion only as inapplicable.

a. The plant could be built anywhere and by any company (with or without Con Ed's assistance) in the U. S. so long as the power could reach the Con Ed customers through an interconnected power system.

b. The plant could have been designed and planned at the same time as Indian Point No. 2 and could have been ready for operation as soon as Indian Point No. 2.

c. Excess power generating capacity is frequently exported within an interconnected system and there are no insurmountable barriers to such arrangements.

7. Answer question 6 assuming that plans for construction and construction begin as soon after denial of an operating license for Indian Point No. 2 as is possible. With respect to this question indicate how the proposals referred to in question 4 would be used before the new plant had been constructed.

8. In rough figures what would be the cost of the addition of the following systems or modifications to Indian Point No. 2?

a. Construction of a second containment large enough to surround the existing containment of Indian Point No. 2 and constructed with the same specifications.

b. A foot by foot test of every pipe, every weld, every component in the plant by an independent firm of engineers for the purpose of seeing if construction in fact meets design criteria.

9. With respect to each of the items referred to in question 8, how much would this increase the kilowatt per hour generating cost of Indian Point No. 2? Include reference to the present anticipated kilowatt per hour generating cost of Indian Point No. 2 and include copies of the detailed studies upon which these estimates are based. Is there or has there ever been a point at which the cost of Indian Point No. 2 or the cost of power generation at Indian Point No. 2 would be so high that Con Ed would not continue the project? What is that point in terms of overall cost and cost per kilowatt hour of generating capacity?

ATTACHMENT B

Applicant's Objections

Applicant objects to each of the questions set forth in Attachment A on the grounds that the testimony which the questions seek to adduce is not relevant to the issues specified in the Notice of Hearing in this proceeding.

Applicant understands that the Citizens Committee by this line of questioning seeks to establish that Unit No. 2 will not produce reliable power, that alternatives are available to the operation of Unit No. 2 (including the alternative of reduction of demand), and that various ways purportedly to improve the safety of Unit No. 2 are economically feasible. Apparently the Citizens Committee would have the Board conclude from this that the level of risk involved in the operation of Unit No. 2, no matter how small, is unacceptable and that therefore the Board may not find reasonable assurance that the health and safety of the public will not be endangered. The Citizens Committee in effect argues that the Board should weigh the benefits of this individual facility in the process of assessing the risk.

Applicant believes that the Citizens Committee has misconstrued the regulatory framework that has been established for facility licensing. Although Applicant is confident that

the benefits to the public of this facility far outweigh any risk, Applicant does not consider that a demonstration of either the existence or absence of such benefits is appropriate to the Board's consideration of the issues in this proceeding. The benefits accruing from the private development of nuclear power have been determined by Congress by enactment of the Atomic Energy Act of 1954 as amended, and the only demonstration of benefits required is that the proposed facility falls within one of the categories of facilities licensable under the Act. 1/ Beyond this the Board's duty is to decide, in light of these benefits and within the framework established by the AEC's regulations, whether any technical uncertainties associated with the safety of the plant have been sufficiently removed that it is

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1/ The Applicant received a construction permit under Section 104 b of the Atomic Energy Act, which at the time the permit was issued authorized the licensing of facilities involved in the conduct of research and development activities leading to the demonstration of the practical value of such facility for industrial or commercial purposes. Recent legislative changes abolished the need for a finding of practical value, and the present Section 104 b (in conjunction with Section 102 b) authorizes the Commission to issue licenses under that section, for a utilization facility for industrial or commercial purposes, the construction of which was licensed pursuant to Section 104 b prior to the legislative changes.

reasonable to conclude that plant operations will not endanger public health and safety.[2/]

A reading of the AEC regulations, particularly 10 CFR Part 50 and 10 CFR Part 100, demonstrates that this is the case. Note particularly 10 CFR §§50.33 and §§50.34, which require none of the information of the type here sought by the Citizens Committee.[3/] Under the AEC's regulations, the number of safety features required depends on certain things such as the population of the surrounding area, but it does not depend on such things as how badly the power from the plant is needed, how costly the features are, whether there are other ways of producing the same power, or any of the other questions raised by the Citizens Committee.

2/ Matter of Consolidated Edison Company of New York, Inc. Indian Point Unit No. 3, AEC Docket No. 50-286, Initial Decision of August 13, 1969, p. 38. (Ruling on Applicant's Proposed Finding No. 39).

3/ Section 50.34a requires applications filed on or after January 2, 1971 to identify the design objectives and means to be employed for keeping radioactive releases to unrestricted areas "as low as practicable." That term takes into account "the economics of improvements in relation to benefits to the public health and safety and in relation to the utilization of atomic energy in the public interest." This section by its terms applies, however, only to effluents during normal operations, including expected operational occurrences. No comparable provision applies to reactor safety features and other measures to protect against nuclear accidents.

It would hardly be comforting to require fewer safety features in a case where power from the plant is needed more badly than that of another plant. In the case of additional safety features, if these features are required for safety, they will be required by the AEC, regardless of their cost and the need for the power. If they are not required for safety, the ability or willingness of the applicant to pay for them is not and should not be the measure of whether they are required.

Applicant objects to questions 3, 5, 6 and 8a on the further ground that they raise matters of site suitability and fundamental design questions which have been decided at the construction permit stage of this proceeding and are not appropriate for the operating license stage. Even if such questions pertained to matters which were relevant at the construction permit stage, to permit such questions to be litigated at the operating license stage would contravene the "two-step" licensing arrangement contemplated by the Act and the AEC's regulations.

Respectfully submitted,

Leonard M. Trosten

Leonard M. Trosten
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Attorneys for Applicant

Memorandum of Citizens Committee for Protection of the Environment in Support of Relevance of the Questions in Set G and Similar Questions.

The issuance of the construction permit and the application for issuance of the operating license for Indian Point No. 2 were made pursuant to Section 104b of the Atomic Energy Act of 1954 which, at the time read[1/] as follows:

> In issuing licenses under this subsection, the Commission shall impose the minimum amount of such regulations and terms of license as will permit the Commission to fulfill its obligations under this Act to promote the common defense and security and to protect the health and safety of the public and will be compatible with the regulations and terms of license which would apply in the event that a commercial license were later to be issued pursuant to section 103 for that type of facility. In issuing such licenses, priority shall be given to those activities which will, in the opinion of the Commission, lead to major advances in the application of atomic energy for industrial or commercial purposes. (Emphasis added).

In Section 3 of the Atomic Energy Act Congress defines its purposes to include:

a. a program of conducting, assisting, and fostering research and development in order to encourage maximum scientific and industrial progress;

* * * *

d. a program to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public;

* * * *

f. a program of administration which will be consistent

1/ With the enactment of P.L. 91-560 on December 19, 1970, this section was changed and now reads:

> b. As provided for in subsection 102 b or 102 c., or where specifically authorized by law, the Commission is authorized to issue licenses under this subsection to persons applying therefor for utilization and production facilities for industrial and commercial purposes. In issuing licenses under this subsection, the Commission shall impose the minimum amount of such regulations and terms of license as will permit the Commission to fulfill its obligations under this Act.

with the foregoing policies and programs, with international arrangements, and with agreements for cooperation, which will enable the Congress to be currently informed so as to take further legislative action as may be appropriate.

It is thus clear beyond question that the mission of the AEC with respect to Indian Point No. 2 is not merely to decide the question of health and safety in a vacuum but to explore that issue in the context of the development of nuclear power for commercial use.

This conclusion is not startling or new. Obviously the development of nuclear power was intended to produce technology which would be useful for the production of electricity. It appears to us to be equally obvious that the scheme for regulation of nuclear power development contemplates a thorough analysis of the projected benefits of the development weighed against the risks involved. Those benefits could include research and development advances, supplying needed power and the like. But to authorize operation of a nuclear power plant with a specified level of risk without consideration of the benefits to be obtained in exchange for the risk is unthinkable.

There are of course certain levels of risks which the AEC has decided are unacceptable regardless of any possible benefit and 10 CFR sets forth those outer limits. But within those limits the Board must decide how much risk is acceptable. For a construction permit it must decide if the risk is "undue" and for an operating license there must be "reasonable" assurance that the health and safety of the public will not be endangered. The standards in 10 CFR are in many instances broad and non-specific.

See for instance siting criteria in Part 100 and Design Criteria in Appendix A of Part 50. How can the Board decide what level of risk or uncertainty is acceptable unless that judgment is made in the context of benefits obtained?

We respectfully submit that the Atomic Safety and Licensing Boards have reached decisions on the safety of nuclear power plants based upon the unspoken and unexamined assumption that the generation of power by the particular nuclear plant was useful and beneficial. Why else allow any risk to the members of the public? Why else permit plants to operate until they are proven 100% safe? We believe that unexamined assumption is subject to serious question in this hearing.

The AEC has acknowledged in its regulations that there are degrees of acceptable risks and that the specific risk authorized for any plant depends upon a balance between the need for power, the ability of the plant to meet that need, alternative and safer means of providing that power, and the cost of greater safety. For instance the AEC has recently amended 10 CFR Part 50 to add Section 50.34a which establishes requirements for releases of radioactivity at a level as low as practicable and provides in pertinent part:

> ...The term "as low as practicable" as used in this part means as low as is practicably achievable taking into account the state of technology, and the economics of improvements in relation to benefits to the public health and safety and <u>in relation to the utilization of atomic energy in the public interest</u>. (Emphasis added.)

Although the specific requirements of this Section apply to applications filed after January 2, 1971, the AEC makes clear that this is merely a codification of existing practice. It describes the regulation as follows (35 Fed. Reg. 18386 (December 3, 1970)):

> [the amendment would] improve the framework in Part 20 for assuring that reasonable efforts are made by all Commission licensees to continue to keep exposures to radiation, and releases of radioactivity in effluents as low as practicable. . . (Brackets and emphasis added)

Thus the AEC has always intended that the exposure of the public to radioactivity, whether from an accident or normal operation, be kept as low as practicable and that decision requires that the state of technology and the economics of improvements in relation to the benefits to public health and safety and in relation to utilization of atomic energy in the public interest be considered.

Applicant in its objections suggests that certain questions are not relevant at this hearing because they relate to siting. We do not find anything in the statute or regulations to justify the conclusion that siting criteria are irrelevant at the operating license hearing. In 10 CFR, Part 100, the siting criteria include the use of "compensating engineering safeguards" to overcome siting defects. 10 CFR, Part 100, Section 110.10(d). Those safeguards, their design and construction are clearly involved in this proceeding and the judgment regarding their effectiveness will depend upon the appropriateness of the site. If this plant could fulfill all of its objectives by operation at a lower power level which would enhance the effectiveness of the safety features or avoid depending upon safety features which have not been fully tested, that lower power level requirement should be imposed. The need to impose such a requirement in part depends upon the site selected for the plant.

We urge this Board to permit the public to explore the issue which more than any other has been the focus of public attention--whether a nuclear power plant at this site and as designed by Con Ed will be beneficial to the public. That issue is unavoidably involved in this Boards decision on the question of whether there is reasonable assurance that this plant will operate without endangering the public health and safety.

Respectfully submitted,

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By Anthony Z. Roisman
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BEFORE THE UNITED STATES

ATOMIC ENERGY COMMISSION

In the Matter of	)	
Consolidated Edison Company of New York, Inc. (Indian Point Station, Unit No. 2)	)	Docket No. 50-247

CERTIFICATE OF SERVICE

I hereby certify that I have served the attached document entitled "Joint Motion," including attachments A, B and C thereto, by mailing copies thereof first class and postage prepaid, to each of the following persons this 16th day of March, 1971:

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