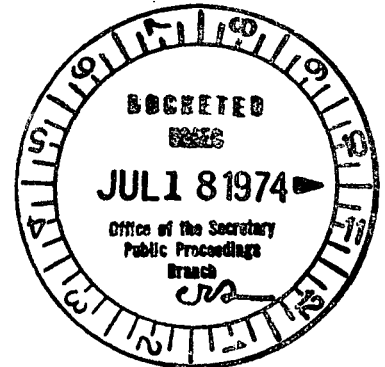


UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

COMMISSIONERS:

Dixy Lee Ray, Chairman
William E. Kriegsman
William A. Anders



In the Matter of

CONSOLIDATED EDISON COMPANY OF
NEW YORK

(Indian Point Nuclear Generating
Unit 3)

Docket No. 50-286

MEMORANDUM AND ORDER

In this operating license proceeding, the Atomic Safety and Licensing Board has expressed the view that it is compelled to explore -- whether it deems the inquiry essential or not -- specific issues which have not been placed in controversy by the parties. The Board considers itself duty-bound because of certain decisions of the Appeal Board, which it regards as directing a full inquiry. Believing that its duty to inquire may clash with Commission regulations, the Board has asked the Appeal Board and the Commission for guidance.^{1/}

In response, the Appeal Board has expressly found that none of its decisions impose such a duty upon Licensing Boards in proceedings of this type.^{2/}

^{1/} Certification of Question, dated March 20, 1974; transcript, pp. 119-124, of prehearing conference dated November 27, 1973.

^{2/} ALAB-186, p. 4; RAI-74-3-245, 247.

Nonetheless, the Appeal Board has also requested guidance from the Commission. The question it poses is whether AEC regulations are intended to bar a Licensing Board in proceedings of this type from examining and deciding issues which the Board itself deems relevant, when the parties have not placed such matters in controversy.^{3/} We invited the parties to file briefs and address specific questions.^{4/}

I.

The Licensing Board has mistakenly assumed that it is under a mandate from the Appeal Board to explore and resolve specific issues in operating licensing proceedings which have not been raised by the parties. We affirm the Appeal Board's finding that none of its decisions require such an undertaking.

To have a Licensing Board engage in an idle exercise examining issues just for the sake of examination -- when the parties have not raised such matters, and the Board is satisfied that there is nothing to inquire about -- would serve no useful purpose. This is particularly true since an operating license proceeding is not to be used to rehash issues already ventilated and resolved at the construction permit stage. Alabama Power Co. (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-74-12 (RAI-74-3-203).

^{3/} Id. ALAB-186, pp. 5-7; RAI-74-3, at pp. 247-48.

^{4/} Letter to the parties, dated April 12, 1974. The regulatory staff's motion for leave to supplement its brief is granted.

The doctrines of res judicata and collateral estoppel apply to this type of proceeding "'with a sensitive regard for any supported assertion of changed circumstances or the possible existence of some special interest factors in the particular case'" (Id.). Consequently, if the Licensing Board in this proceeding is satisfied that there is no reason to explore issues beyond those framed by the parties, it has no obligation to inquire further. Union of Concerned Scientists v. AEC, D.C. Cir. No. 73-1099 (June 10, 1974) (slip opinion, pp. 6-18).

II.

There remains the question of whether AEC regulations are meant to prohibit a Licensing Board from exploring an issue which concerns it merely because the parties have not placed the matter in controversy.^{5/} We decline to impose such an absolute restriction.

A Licensing Board, typically comprised of two technical experts and a lawyer, is this agency's primary fact-finding tribunal in the hearing process. These expert tribunals are entrusted with critical tasks in the licensing process. Indeed, operating licenses may issue immediately upon initial decisions by these Boards. To tie a Board's hands, when it sees an issue that needs to be explored, would be utterly inconsistent with its stature and responsibility. Nor would it be an adequate solution, as the applicant and the regulatory staff suggest, to have a Licensing Board which

^{5/} See, e.g., 10 CFR §§ 2.760a; 2.104(c); V and VIII(b) of Appendix A to 10 CFR Part 2.

spots an issue merely refer the matter to the staff for resolution. The regulatory staff, to be sure, plays a critical role in this agency's procedures, even aiding our Boards in resolving issues.^{6/} But when a Board uncovers an issue, we expect it to resolve the matter openly and on the record, after giving the parties (which includes the staff) an opportunity to comment or otherwise be heard. Moreover, referral to the staff for still another review offers the potential for unnecessary delay in the licensing process.

Equally unacceptable is the argument that this Commission can examine issues never raised by the parties, but the Licensing and Appeal Boards cannot. Shutting these Boards out of the process, in turn, produces a record which would not enable us to review the proceeding meaningfully.

The fact that the Boards may inquire into matters that concern them should in no way be construed as a license to conduct fishing expeditions. As a general rule, Boards are neither required nor expected to look for new issues. The power to do so should be exercised sparingly and utilized only in extraordinary circumstances where a Board concludes that a serious safety or environmental issue remains. Normally, there is a presumption that the parties themselves have properly shaped the issues, particularly because the hearing follows comprehensive reviews by the regulatory staff and the Advisory Committee on Reactor Safeguards. Union of Concerned Scientists,

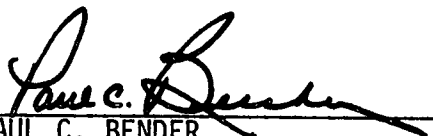
^{6/} See, e.g., Consumers Power Company (Midland Plant, Units 1 and 2), ALAB-106 (RAI-73-3-182, 186); ALAB-132 (RAI-73-6-431, 436-37); ALAB-147 (RAI-73-9-636).

supra. In addition, as noted above, with res judicata and collateral estoppel principles applicable to operating license proceedings, the Boards need not go over the issues settled at the construction permit stage.

For purposes of clarification, existing regulations^{7/} will be modified to reflect the construction embodied in this memorandum and order.

It is so ORDERED.

By the Commission.


PAUL C. BENDER
Secretary of the Commission

Dated at Germantown, Maryland
this 16th day of July 1974.

^{7/} Regrettably, some have read our existing regulations as proscribing any inquiry by the Boards. Insofar as any Board decisions have interpreted the regulations in this restrictive manner, they have no further precedential effect.

Despite the applicant's assertions to the contrary, the statement of considerations accompanying the 1972 restructured rules of practice did not address the question presented here. It simply made the point that Licensing Boards are obliged to decide only the issues placed in controversy by the parties. Union of Concerned Scientists, supra. It did not foreclose the Boards from exploring other matters in those rare cases where the Boards deem inquiry to be warranted.

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)

CONSOLIDATED EDISON COMPANY)

Docket No.(s) 50-286

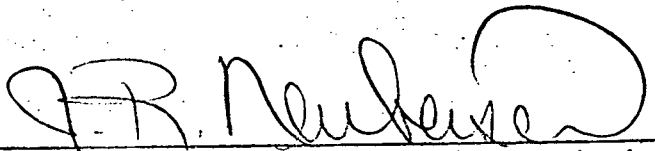
(Indian Point Nuclear Generating)

Unit No. 3))

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document (s*____) upon each person designated on the official service list compiled by the Office of the Secretary of the Commission in this proceeding in accordance with the requirements of Section 2.712 of 10 CFR Part 2 - Rules of Practice, of the Atomic Energy Commission's Rules and Regulations.

Dated at Washington, D. C. this
18th day of July 1974.



Office of the Secretary of the Commission

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)

CONSOLIDATED EDISON COMPANY)

(Indian Point Nuclear Generating)
Unit No. 3))

Docket No. 50-286

SERVICE LIST

Samuel W. Jensch, Esq., Chairman
Atomic Safety and Licensing Board
U. S. Atomic Energy Commission
GTN O C-419
Washington, D. C. 20545

Dr. Franklin C. Daiber
College of Marine Studies
University of Delaware
Newark, Delaware 19711

Mr. R. B. Briggs, Associate
Director
Molten-Salt Reactor Program
Oak Ridge National Laboratory
P. O. Box Y
Oak Ridge, Tennessee 37830

Mr. Ernest E. Hill
Lawrence Livermore Laboratory
University of California
P. O. Box Y
Oak Ridge, Tennessee 37830

Max D. Paglin, Esq.
Alternate Chairman
Atomic Safety and Licensing Board
U. S. Atomic Energy Commission
Washington, D. C. 20545

Honorable Louis J. Lefkowitz
Attorney General, State of
New York
80 Centre Street
New York, New York 10013

Carmine J. Clemente, Esq.
New York State Atomic Energy Council
Department of Commerce
99 Washington Avenue
Albany, New York 12210

Myron Karman, Esq.
Winston Haythe, Esq.
Regulatory Staff Counsel
U. S. Atomic Energy Commission
Washington, D. C. 20545

Arvin E. Upton, Esq.
LeBoeuf, Lamb, Leiby & MacRae
1757 N Street, N.W.
Washington, D. C. 20036

Nicholas A. Robinson, Esq.
Marshall, Bratter, Greene,
Allison and Tucker
430 Park Avenue
New York, New York 10022

Angus Macbeth, Esq.
Natural Resources Defense Council
15 West 44th Street
New York, New York 10036

J. Bruce MacDonald, Esq.
Deputy Commission and Counsel
Department of Commerce
99 Washington Avenue
Albany, New York 12210

Mrs. Kay Winter, Librarian
Hendrik Hudson Free Library
31 Albany Post Road
Montrose, New York 10548

Edward J. Sack, Esq.
Joyce P. Davis, Esq.
Consolidated Edison Company
of New York, Inc.
4 Irving Place
New York, New York 10003

Honorable James P. Corcoran
Assistant Attorney General
State of New York
Two World Trade Center
New York, New York 10047

FROM

Anthony Z. Roisman

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Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

Chairman_____
Director of Regulation

DESCRIPTION

☐ Original☐ Copy☐ Other

Petition req review by the Commission of Reg Staff decision to reject a request filed pursuant to 10 CFR 2.206 to issue a show cause order and thereby institute an adjudicatory proceeding concerning Indian Point 1, 2 and 3

REMARKS

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DIRECTOR OF REGULATION
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BEFORE THE COMMISSION

In the Matter of)	
)	
CONSOLIDATED EDISON COMPANY)	
OF NEW YORK)	
)	
(Indian Point, Unit No. 1))	Docket No. 50-3
(Indian Point, Unit No. 2))	Docket No. 50-247
(Indian Point, Unit No. 3))	Docket No. 50-286

REQUEST FOR REVIEW OF DECISION
OF ACTING DIRECTOR, DIRECTORATE OF LICENSING

As with any action by its employees, the Commission possesses the inherent power to review the decision of the Acting Director, Directorate of Licensing, to reject a request filed pursuant to 10 CFR § 2.206 to issue a show cause order and thereby institute an adjudicatory hearing. While the Commission has never reviewed a decision on a request filed pursuant to § 2.206, we think the circumstances of this case require such a review because: first, this matter involves issues critical to the public health and safety; second, the Acting Director, Directorate of Licensing, has applied an erroneous legal standard in exercising discretion pursuant to 10 CFR §§ 2.202, 2.206; third, apparently no review has been conducted nor decision made by the Director of Regulation.

I

The purpose of this petition is to request a review of the decision by the Regulatory Staff to reject a request filed pursuant to 10 CFR § 2.206 to issue a show cause order and thereby

-4-

institute an adjudicatory proceeding for resolution of issues regarding the seismic hazards at the site of the Indian Point Station. Our request 1/, filed May 22, 1974, was prompted by release of a report by the Geological Survey, New York State Museum and Science Service 2/, which disagreed with conclusions contained in the geologic and seismic section of the Final Safety Analysis Report for Indian Point, Unit 3 regarding the capability of the Ramapo Fault complex, the maximum intensity earthquake which could occur at the site, and the appropriate ground acceleration value. The Geological Survey's criticisms, relating to the Indian Point site as a whole, apply equally to the design basis for Units 1 and 2.

In a letter dated November 29, 1974, we were advised that the Regulatory Staff, having concluded "an extensive investigation of the entire seismological circumstances surrounding Indian Point Station" had concluded that "the Ramapo Fault is not 'capable' within the meaning of Appendix A to 10 CFR Part 100 and that the site geology, seismic design parameters, and

1/ After participating in the operating license proceeding regarding Indian Point, Unit 2, Citizens' Committee for Protection of the Environment (CCPE) lacked the financial resources to participate in the construction license proceeding for Indian Point, Unit 3. (see, Citizens' Committee for Protection of the Environment Request for Reimbursement of Costs, dated December 10, 1974) However, the release of the Geological Survey's Report provided an opportunity for C.C.P.E. to raise these important issues upon the limited budget available - \$400.00- utilizing the only procedural tact available, § 2.206. We would add that we certainly would have no objection were these issues to be heard by the hearing board presiding over Indian Point, Unit 3, provided that the findings regarding the seismic design basis were made applicable to Indian Point, Units 1 and 2.

2/ The Geological Survey-New York State Museum and Science

seismic design methods for Indian Point, Units 2 and 3 are satisfactory from a safety standpoint;" that the adequacy of the seismic design of Unit 1, presently shut down for either decommissioning or accomplishing required ECCS and Protection System modification, would be reconsidered during the extended shutdown period needed to accomplish the required modification, should the licensee propose to resume operation; 3/ and, there-

2/ (cont'd from page two)

Service; Comments on Licensing of Indian Point Reactor #3 and Discussion of the Final Safety Analysis Report Sections 2.7 (Geology) and 2.8 (Seismology). [hereinafter cited as The Geological Survey]

3/ The Staff Appears to suggest that because Indian Point, Unit 1 is no longer operating, we need no longer be concerned about its seismic design.

Unit 1 will be shut down on October 31, 1974 for either decommissioning or the accomplishment of safety modifications. The adequacy of the seismic design of Unit 1 for continued long-term operation will be reconsidered during the extended shutdown which will be needed if the licensee proposes to later resume operation. Due to the low probability of occurrence of an earthquake with a maximum ground acceleration in the .1 to .15g range during the short period of time prior to plant shutdown on October 31, 1974, we believe Unit 1 can be operated until that time without undue risk to the public health and safety.

However, we believe that as long as the Unit, although inoperative, continues to house radioactive material which would be released into the environment as a result of structural or component failure, its seismic design should be scrutinized. In that regard, the Staff's statement that

[A]lthough it cannot be demonstrated rigorously by calculation, we would expect that many of the redundant plant safety features such as the steel containment sphere and the surrounding biological shield would remain at least partially functional and continue to provide protection to the public in the event of a ground acceleration in the 0.1 to .15g range.

falls short in giving the measure of protection to the public required by Congress in the Atomic Energy Act. In fact, it appears that the Staff agrees that Unit 1 is underdesigned and accordingly the Staff should have ordered that all radioactive material be removed from the facility and storage pools.

fore, the Staff did not "contemplate any proceeding with regard to Indian Point, Units 1, 2 and 3 pursuant to 10 CFR § 2.202." 4/

Despite the Regulatory Staff's investigation and review, the major points of disagreement between the Staff and the Geological Survey remained unreconciled. In addition, recent studies by recognized experts in the field of seismology and earthquake engineering, which we forwarded to the Staff for consideration, 5/ seem directly to contradict the conclusions of the Staff. Under these circumstances, we believe that proper resolution of these important issues must be accomplished by the adjudicatory procedure contemplated by § 2.202, and we request the Commission to reverse the Staff's decision and so hold.

In the alternative, we request the Commission to afford notice to affected parties who may wish to exercise their statutory rights, as provided by 42 U.S.C. § 2239 (1964), and request

4/ Letter from Edson G. Case, Acting Director of Licensing, Atomic Energy Commission to Anthony Z. Roisman, Esq. dated November 29, 1974, with attachment entitled "Geological and Seismic Evaluation of the Indian Point Site." (hereinafter cited as Staff Report)

5/ Statement from Dr. Michael Chinnery, Seismic Discrimination Group, Lincoln Laboratory, Massachusetts Institute of Technology, to the ACRS, October 31, 1974.

Comments by Dr. Mihailo Trifunac, Assistant Professor of Applied Science, Earthquake Engineering Research Laboratory, California Institute of Technology, to the ACRS.

Both papers were delivered to the ACRS hearing regarding Public Service Company of New Hampshire, Seabrook Station, Units 1 and 2, Docket Nos. 50-443 and 50-444. However both have application to the issue of seismic hazards in the Eastern United States.

a hearing to contest the validity of the amendments to the operating and construction permits of Indian Point, Units 2 and 3 respectively.

II

The major difference between the Geological Survey and the Staff remain unresolved. The report of the Geological Survey dated April 19, 1974 states

1. From a seismic hazard point of view the pertinent question is "Can the Ramapo Fault system be termed a capable fault using the nomenclature of Appendix A, CFR 10 Part 100 (adopted by the Atomic Energy Commission on December 13, 1973)?" It is our contention that the Ramapo system is a capable fault which has been associated with significant macroseismic activity. 6/
2. The historical record indicates that earthquakes producing at least an Intensity VII are possible in the region around Indian Point. 7/
3. ...a "conservative" application of data would require the use of an acceleration even greater than .2g at the Indian Point facility. 8/

With regard to the Ramapo fault the Staff's conclusion is "that the Ramapo fault is not capable within the meaning of

6/ The Geological Survey, supra note 1, at 3.

7/ Id. at 1.

8/ Id. at 11.

Appendix A to 10 CRF Part 100." 9/ Inasmuch as the Geological Survey has framed its conclusions by reference to Appendix A of Part 100, one must draw one of two conclusions:

1. The Geological Survey and the Staff have interpreted Appendix A in the same manner and arrived at different scientific conclusions;
2. The Geological Survey and the Staff have interpreted Appendix A in a different manner and arrived at different scientific conclusions.

In either case a hearing is merited. In the first case, the square conflict in the scientific conclusions would be thoroughly explored in the adjudicatory proceedings. In the second case, such a proceeding would test the proposition that the Regulatory Staff has not adopted a sufficiently conservative approach in the interpretation of Appendix A to Part 100.

With regard to the maximum intensity earthquake, the Staff now agrees with the Geological Survey that the appropriate value is Modified Mercalli VII. 10/

This leaves the final area of disagreement, and here there is also no reconciliation. The Staff finds the old ground acceleration value .15g acceptable; the Geological Survey has urged a value in excess of .20g. 11/

Thus two critical areas of disagreement remain. This fact alone affords sufficient reason for convening an adjudicatory

9/ Staff Report, supra note 4 at 1-5.

10/ Staff Report, supra note 4 at 2-13.

11/ Staff Report, supra note 4 at 4-5.

hearing. There is, however, additional justification for convening such a hearing. First, the Staff's conclusions apparently contradict the findings of other nationally recognized experts. A study prepared by Dr. M. D. Trifunac, Assistant Professor of Applied Science, Earthquake Engineering Research Laboratory, California Institute of Technology (and consultant to the ACRS) reaches the following conclusion: 12/

A reasonable upper bound of peak acceleration versus Modified Mercalli intensity should then be as in the following table:

<u>MM Intensity</u>	<u>Peak Acceleration</u>
VII	.20g

This study was forwarded to the Staff in connection with the review of the seismic hazards at the Indian Point site. It is notable that Dr. Trifunac and the Geological Survey come to an identical conclusion regarding the appropriate ground acceleration rate - and that this conclusion disagrees with that of the Regulatory Staff.

Second, the Staff's conclusions regarding the peak ground acceleration which would occur with the Safe Shutdown Earthquake (Modified Mercalli VII) appear to contain an inherent contradiction. The position formerly taken was that the appropriate Safe Shutdown Earthquake for the site was a Modified Mercalli VI with an attendant peak ground acceleration rate of .15g. 13/

12/ Comments by Dr. Mihailo D. Trifunac, supra note 4 at 2.

13/ This position was formally taken by the Staff in the FSAR for both Indian Point, Units 2 and 3.

In the latest report, the Staff agrees that the appropriate Safe Shutdown Earthquake should be a Modified Mercalli VII - but the Staff does not change the recommended peak ground acceleration rate. (The plant earthquake design basis is a direct function of the value of the peak ground acceleration.) The assignment of the same ground acceleration for earthquakes of different intensities is a matter which merits a full exploration - particularly in light of the two contending conclusions that .20g is the appropriate peak ground acceleration rate for a Modified Mercalli VII earthquake.

Finally, the Staff's justification for eliminating near field effects in evaluating the appropriate peak ground acceleration appears to rest on faulty assumptions. In the report attached to the letter of November 29, 1974, the Staff states:

The absence of capable faults in the vicinity of the Indian Point site means that there is no geologic reason to consider that structures there are unusually subjected to near field accelerations. Moreover, the fact that the units are founded on high density bed-rock rather than over-burden of low density and seismic velocity means that wave amplification need not be considered. Accordingly, the staff considers far field acceleration data to be appropriate in determining the SSE acceleration. 14/

The necessary underlying assumption is that there is a predictable relationship between earthquake mechanisms and fault structures in the vicinity of the Indian Point site. However, it is widely recognised that in contrast to the Western United States, no definite relationship has been established between

14/ Staff Report, supra note 3 at 4-3.

III

The request to invoke the provisions of § 2.202 was procedurally correct. We begin the discussion with an examination of Subpart B, the subpart in which §2.202 is contained. The purpose of Subpart B is to establish procedures "to impose requirements by order on a licensee or to modify, suspend, or revoke a license, or for such other action as may be proper."

Pursuant to that purpose, §2.202 provides that

- (a) The Director of Regulation may institute a proceeding to modify, suspend or revoke a license or for such other action as may be proper by serving on the licensee an order to show cause.... [emphasis added]

In recognition of the fact that other interested parties may have legitimate reasons for initiating actions contemplated by §2.202, the Commission adopted §2.206 which provides

15/ See, Letter from W. R. Stratton, Chairman, Advisory Committee on Reactor Safeguards, to Dixie Lee Ray, Chairman, United States Atomic Energy Commission, dated May 16, 1973 - "In the western part of the United States, it is usually possible to correlate occurrence of earthquakes with known active faults. Many of the earthquakes in Western United States are accompanied by visible fault displacements, and it is possible to relate the occurrence of these earthquakes to tectonic framework of the region. In the Eastern United States, the earthquake sources are not well understood and at the present time we must depend almost completely on the historic records to project a future pattern of earthquake occurrence."

- (a) Any person may file a request for the Director of Regulation to institute a proceeding pursuant to §2.202 to modify, suspend, revoke a license, or such other action as may be proper.

Thus the explicit terms of those sections authorize the Director of Regulation, upon receipt of a request from any person, to request the Commission to issue an order establishing a hearing to resolve the issues regarding the seismic hazards at the site. 16/

It is not disputed that instituting a proceeding pursuant to §2.202 is discretionary with the Director of Regulations. Nevertheless, in order to provide guidance and to prevent the arbitrary use of power, there must exist appropriate standards to govern the exercise of that discretion. We believe that standard is met where there exists a fundamental conflict between two opinions based on legitimate scientific evidence on issues involving significant hazards considerations. 17/

16/ While the main thrust of Subpart B is to provide a means by which the Director of Regulation can require "corrective steps" to be taken where there is evidence of a "violation" of any provision of the Act, §2.202 does not require that issues be formulated in terms of a licensee violation. In fact §2.202 explicitly recognizes that "potentially hazardous conditions or other facts" may be "deemed to be sufficient grounds for the proposed action."³ Thus the rules provide that when appropriate, as in the instant case, a hearing may be convened without placing the stigma of apparent violation on the Licensee.

17/ Obviously, the Director of Regulation would have grounds to reject a request filed pursuant to §2.206 had the opinion and supporting scientific evidence been considered at either the construction or operating license proceeding. Parties must be prevented from using §2.206 as a vehicle for reconsideration of issues previously decided. This, however, is not the case here. The opinions and evidence offered here have not been heard by an objective, independent hearing board and will not be heard by any Board unless this request is granted.

In this matter, the refusal to convene a public adjudicatory hearing pursuant to §2.202 is based on the fact that the Staff has satisfied itself that "the site geology, seismic design parameters and seismic design methods for Indian Point, Units 2 and 3 are satisfactory from a safety standpoint." In short, the basis for action is the Staff's judgement on the merits of its own scientific conclusion.

The Staff has formerly taken a position reflected in the FSAR for the plants involved. In judging the merits of its opinion versus that of other experts, it came to an expected and altogether natural position. In effect, the Staff has said: "We are satisfied that we are right and that the other experts are wrong." It is on this basis that our request was refused. We suggest that this is a legally insufficient basis for acting on requests filed pursuant to §2.206. It is contrary to the basic philosophy of the Atomic Energy Act, which establishes independent, objective hearing boards to resolve differences between competing scientific viewpoints. In contrast, the standard we suggest is in concert with that philosophy. It requires a threshold determination as to whether there exists a fundamental conflict based on legitimate scientific evidence between two points of view. If such a conflict exists, the Director of Regulations should convene an adjudicatory hearing so that the issues can be resolved by an independent body.

Therefore, we believe that under the circumstances, by rejecting the application to convene an adjudicatory hearing, the Regulatory Staff has abused its discretion and should be reversed

on that basis.

In addition, at this point there is a further reason for reversing the Regulatory Staff's position. By changing the value for the Safe Shutdown Earthquake, the Staff has, in effect, amended the operating and construction licenses for Indian Point, Units 2 and 3, respectively. Since such an amendment involves a significant hazards consideration, the construction permit having been issued, the Staff was obligated to publish in the Federal Register its intent to amend the permits in order to notify any interested person. 42 U.S.C. §2239 (1964) Not having done so, the Commission is now obligated to afford notice so that interested parties may choose whether to contest the validity of the amendments. Brooks v. Atomic Energy Commission, 476 F. 2d 924 (D.C. Cir. 1973).

In Brooks, the Commission, without notice, amended the construction permit of Unit 1 and 2 of the Donald C. Cook Nuclear Power Plant by summarily extending the construction permit completion dates. The Court held that where the Commission had made no determination that the amendment did not involve significant hazards (and note that determination in its order, thereby avoiding the notice and hearing provisions), the Commission was obligated to provide the 30 day notice to allow interested persons to decide whether they desired to exercise their statutory right and request a hearing to contest the validity of the amendment.

Brooks is directly applicable to this case. Both permits,

in effect, have been summarily amended. The Commission has not made any determination as to whether the matter concerns a significant hazards consideration - although it clearly does. Therefore the Commission is now obligated to provide 30 days notice to allow affected parties to determine whether to challenge the validity of the amendment.

IV

It is important to understand the limited nature of our initial request and the important principles to which it is addressed. First, as we stated in our request dated May 22, 1974, "it is not our contention that the New York State data conclusively proves that these plants should be shut down." Thus we do not request that construction be halted on Indian Point, Unit 3, or that Indian Point, Unit 2 be shut down pending resolution of these issues. 18/ Rather, we request institution of an adjudicatory process in the belief that such a process - where scientists' assumptions, data base, methodology and conclusions can be tested through informed examination, where competing theories clash openly - resolves in the best possible manner issues vital to the public health and safety.

Second, such a public proceeding serves the additional important purpose of allowing the public to participate in and observe the manner in which issues vital to the public health and safety are resolved. In that regard our request is totally

18/ Furthermore, resolution of these matters in the manner we have suggested will cause no delay in the operating license proceeding. That proceeding would take place unabated by the hearings on the

in concert with the spirit of the Atomic Energy Act, with its numerous provisions for public participation, and with the recent policy announcements regarding the importance of opening up the decision-making process. 19/

Finally, given the limits of our understanding of seismic hazards in the eastern seaboard, it is appropriate that these issues be resolved in as careful a manner as possible. 20/ We believe that due care in this matter requires convening an adjudicatory hearing, particularly in view of the site's proximity to major metropolitan areas.

18/ (cont'd from page thirteen)
seismic issue, and we would expect modifications to be ordered, if at all, only after resolution of the issue at the hearing.

19/ L. Manning Muntzing Speech, August 14, 1974 at 13th U.S. A.E.C. Air Cleaning Conference, San Francisco, California.

20/ See, Letter from W. R. Stratton, Chairman, Advisory Committee on Reactor Safeguards, to Dixie Lee Ray, Chairman, United States Atomic Energy Commission, dated May 16, 1973, supra note 15.

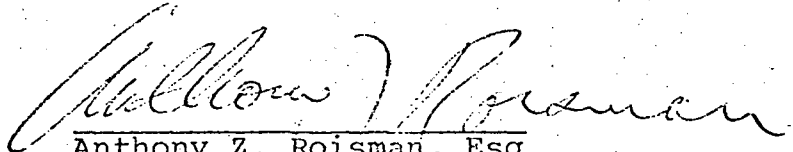
Letter from W. R. Stratton, Chairman, Advisory Committee on Reactor Safeguards to Dixie Lee Ray, Chairman, United States Atomic Energy Commission, dated May 16, 1973, concerning Seabrook Station, Units 1 and 2; see in particular additional comments by D. Okrent.

Mechanisms for earthquake generation in the New England area are not well understood and expert opinion differs concerning the potential for and probability of relatively large earthquakes at or near the site.

V

In conclusion, we urge the Commission to reconsider the decision of the Regulatory Staff and order an adjudicatory hearing to resolve the issues regarding the seismic hazards at the Indian Point site. We do not intend to denigrate the efforts of the Staff in this matter. However, the areas of disagreement between the Geological Survey and other experts on the one hand; and the Regulatory Staff on the other, remain. In view of this fact, we strongly believe that the inhouse study is a poor substitute for a public adjudicatory hearing.

Respectfully submitted,



Anthony Z. Roisman, Esq.

David S. Fleischaker, Esq.

Berlin, Roisman, Kessler & Cashdan
1712 N. Street, N.W.

Washington, D. C. 20036
(202) 833-9070

Counsel for Citizens Committee
for Protection of the Environment

Dated: January 15, 1975

BEFORE THE
UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)

CONSOLIDATED EDISON COMPANY)
OF NEW YORK)

(Indian Point, Unit No. 1))

(Indian Point, Unit No. 2))

(Indian Point, Unit No. 3))

Docket No. 50-3

Docket No. 50-247

Docket No. 50-286

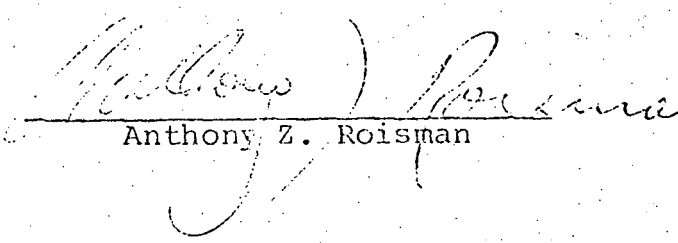
CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing "Request
For Review Of Decision Of Acting Director, Directorate Of
Licensing" was mailed, postage prepaid this day of
January, 1975, to the following:

Chase Stephens, Chief
Docketing and Service Section
Office of the Secretary
of the Commission
U. S. Atomic Energy Commission
Washington, D. C. 20545

L. Manning Muntzing, Esq.
Director of Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545

Arvin Upton, Esq.
LeBoeuf, Lamb, Leiby & MacRae
1757 N Street, N. W.
Washington, D. C. 20036


Anthony Z. Roisman

FROM Andrew Kiss Hutchinson, H. J.		CONTROL NUMBER 8032	FILE LOCATION
		DATE OF DOCUMENT 1/9/75	ON COMPLETION DEADLINE 1/20/75
TO L. Manning Manning		ACTION PROCESSING DATES Acknowledged _____ Interim Reply _____ Final _____	PREPARE FOR SIGNATURE OF: _____ Chairman _____ Director of Regulation X Gianbucce
DESCRIPTION Ltr <input checked="" type="checkbox"/> Original <input type="checkbox"/> Copy <input type="checkbox"/> Other Petitions ABC for a show-cause order to revoke licenses for Indian Point 1 and 2 and the construction permit for Indian Point 3		REMARKS	
REFERRED TO Gianbucce f/action	DATE 1/14/75	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____	
		Cys: Case Docket Files) 50-3 PDR) 50-247 LPDR) 50-286	

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Copy sent PDR

1/9/75
40 Bounty St.
Metuchen, N.J.
08840

Mr. L. Manning Muntzing
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Muntzing,
I am petitioning the
AEC for a show-cause
order to revoke Con Edison's
licenses for Indian Point
I and II and the construction
permit for III, on the basis
of the evidence in the
Davis report.

I am genuinely
concerned about the ever-
diminishing prospects of safe
nuclear power.

Thank you and comments
on my letter would be
appreciated.

Sincerely,
Andrew Kiss
Andrew Kiss

DR 8032

2
H.K.

8135

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DEC 23 1974

Docket Nos. 50-3
50-247
and 50-286 ←

Mr. Joshua Turner
4331 Osage Avenue
Philadelphia, Pennsylvania 19104

Dear Mr. Turner:

Thank you for your patience in waiting for us to complete our response to your inquiry which, as we told you in our previous letter, was awaiting completion of our reinvestigation of the seismic conditions at the site of the Indian Point facility. The results of our investigation are presented in the enclosed report, "Geologic and Seismic Evaluation of the Indian Point Site". We hope that this report will satisfactorily answer your questions and relieve your concerns.

Sincerely,

/s/
Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Enclosure:
Geologic and Seismic Evaluation
of the Indian Point Site

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OFFICE ▶	L:ORB-3 x7872:esp	L:ORB-3	L:AD/ORs			
SURNAME ▶	PBERickson	Glear	KRGoller			
DATE ▶	12/ /74	12/ /74	12/ /74			

IDENTICAL LETTERS SENT TO THOSE LISTED BELOW:

Ms. Barbara Geary (DR #7587)
613 West Connell
Stillwater, Oklahoma 74074

Dr. Stephen Q. Shafer (DR #7588)
285 Riverside Drive
New York, New York 10025

Elise Jerard, M.P.H., Ph.D. (DR #7457)
Chairman, Independent Phi Beta Kappa
Environmental Study Group
115 Central Park West
New York, New York 10023

Mrs. Henry Easton (DR #7640)
Woodybrook Lane
Croton-on-Hudson, New York 10520

Ms. Barbara W. McHugh (DR #7664)
406 Lexington Drive
Silver Spring, Maryland 20901

Captain Robert D. Millberry (DR #7736)
218448807/0302 USMC
780 4th Street
Lakeport, California 95453

Mr. Robert P. Patten (DR #7610)
17 Greenfield Terrace
Congers, New York 10920

Dr. Jack J. Adler (DR #7513)
Citizens League for Education
about Nuclear-Energy, Inc.
Box 1087
New Rochelle, New York 10802

Mr. & Mrs. Joseph B. Noonan (DR #7566)
1763 Stockton Street
St. Helena, California 94574

Mr. Bill Teague (DR #7575)
1714 Robinson Avenue
San Diego, California 92103

Mr. Steven Plotnick (DR #7611)
140-26 Debs Place
Bronx, New York 10475

Mr. J. E. Falletta, Jr. (DR #7641)
321 1/2 2nd Avenue
Chula Vista, California 92010

Ms. Adrianne Rueff (DR #7620)
347 Tungsten
Henderson, Nevada 89105

Mr. Don Ogden (DR # 7622)
Camp Rainbow
Croton-on-Hudson, New York 10520

Ms. Mary C. Eagan (DR # 7480)
27 Dewey Avenue
New Rochelle, New York 10802

Mr. Garrison R. Corwin, Jr. (DR #7479)
Theodore Gordon Flyfishers, Inc.
24 East 39th Street
New York, New York 10016

Mr. Henry Vaugle (DR #7476)
Keys to Education for
Environment Protection
P. O. Box 203
Summit, New Jersey 07901

Ms. Lorna Salzman (DR #7478)
Friends of the Earth
72 Jane Street
New York, New York 10014

Mr. Alfred S. Forsythe (DR #7461)
Sierra Club
51 West 51st Street
New York, New York 10019

Mr. Walter H. Schwane (DR #7493)
President
Hudson River Sloop
Restoration, Inc.
88 Market Street
Poughkeepsie, New York 12601

Mrs. Sol Levin (DR #7495)
151 Grandview Avenue
Monsey, New York 10952

OFFICE ▶

SURNAME ▶

DATE ▶

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NOV 29 1974

Docket No. 50-3

Docket No. 50-247

Docket No. 50-286 ←

Anthony Z. Roisman, Esq.
Berlin, Roisman & Kessler
1712 N Street, N. W.
Washington, D. C. 20036

Dear Mr. Roisman:

Reference is made to your petition pursuant to 10 CFR §2.206, dated May 22, 1974, for an order to show cause why operating authority for Indian Point, Units 1 and 2, and construction authority for Indian Point Unit 3, should not be revoked. The petition was based on data which you claim questions the adequacy of seismic analysis for the Indian Point Station.

Upon receipt of information from the New York State Geological Survey staff, the Regulatory staff undertook an extensive investigation of the entire seismological circumstances surrounding the Indian Point Station. We have kept you advised of the progress of the investigation, and met with you on August 7, and November 15, 1974 with respect to this matter.

The Regulatory staff has concluded its investigation of the subject matter, and has issued a report "Geologic and Seismic Evaluation of the Indian Point Site" (copy enclosed).

You are hereby advised of our conclusions that the Ramapo fault is not "capable" within the meaning of Appendix A to 10 CFR Part 100 and that the site geology, seismic design parameters, and seismic design methods for Indian Point Units 2 and 3 are satisfactory from a safety standpoint. Indian Point Unit 1, which is evaluated in the enclosed report, was shut down on October 31, 1974. Consolidated Edison Company will now decide on whether to accomplish the AEC required ECCS and Protection System modifications or to decommission Unit 1. We, therefore, do not contemplate any proceeding with regard to Indian Point Units 1, 2 or 3 pursuant to 10 CFR §2.202 at this time.

OFFICE →

SURNAME →

DATE →

Henry H.

Anthony Z. Roisman, Esq.

-2-

Your letter of November 4, 1974 requested that the staff consider in its Indian Point geologic and seismic evaluation certain documents relative to the Seabrook site. The staff is and has been aware of the referenced data, and the information furnished therein does not affect the staff conclusions in the Indian Point report. These data are being considered in connection with the Seabrook case.

Sincerely,

Original Signed By
E. G. Case

Edson G. Case
Acting Director of Licensing

Enclosure: Geologic and
Seismic Evaluation of
the Indian Point Site

bcc: (w/encl.)
Eugene Fidell, Esq.
Carmine J. Clemente, Esq.

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See attached yellow for previous concurrences

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SURNAME ➤	MKarman/ss1	JTourtellotte	JGallo	KGollar	HDenton	ECASE
DATE ➤	11/19/74	11/20/74	11/22/74	11/25/74	11/22/74	11/ /74

GEOLOGIC AND SEISMIC EVALUATION

OF THE

INDIAN POINT SITE

1.0 Introduction

1.1 Background

On May 24, 1974, the U.S. Atomic Energy Commission received a petition from the Citizen's Committee for Protection of the Environment requesting it to order the Consolidated Edison Company to show cause why the operating authority for Indian Point Nuclear Generating Plant Units 1 and 2 and the construction permit for Unit 3 should not be revoked. As the basis for such action, the petition contends in essence the following:

1. That the seismologic data submitted for Units 1, 2, and 3 indicated that essentially the same data were used to evaluate the seismic design of all three plants;
2. That the design for all three plants is based on three crucial assumptions about earthquakes in the site vicinity which are erroneous or, at a minimum, of doubtful validity. These are: (1) that the maximum historical earthquake is of intensity VI; (2) that a peak ground acceleration associated with intensity VI and for which the plant should be designed is 0.15g; and (3) that the Ramapo Fault is not a capable fault within the meaning of Appendix A, 10 CFR Part 100.

In support of its position the petitioner cited a report prepared by the New York Museum and Science Service, Geological Survey (Davis, et al., 1974), letters from Drs. Jack E. Oliver (Cornell University), Nicholas Ratcliffe (City College of New York), and comments by the New York State Department of Environmental Conservation.

Because of their unique knowledge of the geology of the Indian Point region, the New York State Geological Survey was asked to review the Environmental Statement for Unit 3. That review led to their report questioning the adequacy of the seismic design for the Indian Point units and a subsequent meeting with the AEC staff in which those concerns were discussed at length. The meeting was held on April 22, 1974.

Following that meeting, the AEC staff met with representatives of Consolidated Edison to express the view that the safety concerns raised by the New York State Survey warranted serious attention and indicated the need for more precise knowledge about the geology and seismology of the Indian Point site region. Consolidated Edison responded by initiating additional studies of the structural details of the Ramapo fault system and by installing a dense network of seismograph stations to obtain accurate locations of earthquakes in the region sufficient to permit unambiguous conclusions to be drawn about the relationship between earthquake occurrence and geologic structure.

During the conduct of this investigation, the staff has reviewed the professional literature concerning the seismologic and geologic characteristics of the Indian Point site independently of the information contained in the FSAR. In addition, the staff visited the site area on two occasions, consulted once again with the New York State Geological Survey, consulted with the New Jersey Bureau of Geology and Topography, consulted with its United States Geological Survey (USGS) advisor, and consulted with representatives of Consolidated Edison.

1.2 Requirements of Appendix A to 10 CFR Part 100

The staff's evaluation of the Ramapo fault applied Appendix A to 10 CFR Part 100, "Seismic and Geologic Siting Criteria for Nuclear Power Plants."* Appendix A defines the geologic and seismic hazards that must be investigated for all proposed sites of nuclear power plants and describes the scope and types of investigations required either to demonstrate that the hazard is absent or to determine appropriate design criteria. Section III(g) of the Appendix defines a capable fault (a fault that is deemed capable of causing ground displacement at or near the surface) in terms of (1) age of most recent movement, (2) associated macro-seismicity, and (3) a demonstrated relationship to known capable faults. The definition of a capable fault as it appears in 10 CFR 100, Appendix A, subsection III(g) is as follows:

* Appendix A was not in force at the time the Indian Point units were licensed.

"(g) A 'capable fault' is a fault which has exhibited one or more of the following characteristics:

"(1) Movement at or near the ground surface at least once within the past 35,000 years or movement of a recurring nature within the past 500,000 years.

"(2) Macro-seismicity instrumentally determined with records of sufficient precision to demonstrate a direct relationship with the fault.

"(3) A structural relationship to a capable fault according to characteristics (1) or (2) of this paragraph such that movement on one could be reasonably expected to be accompanied by movement on the other.

"In some cases, the geologic evidence of past activity at or near the ground surface along a particular fault may be obscured at a particular site. This might occur, for example, at a site having a deep overburden. For these cases, evidence may exist elsewhere along the fault from which an evaluation of its characteristics in the vicinity of the site can be reasonably based. Such evidence shall be used in determining the fault is a capable fault within this definition.

"Notwithstanding the foregoing paragraphs III(g)(1), (2) and (3), structural association of a fault with geologic structural features which are geologically old (at least pre-Quaternary) such as many of those found in the Eastern region of the United States shall, in the absence of conflicting evidence, demonstrate that the fault is not a capable fault within this definition."

In addition, the staff addressed the remaining contentions with respect to the adequacy of the Safe Shutdown Earthquake (SSE). The staff's evaluation is again based on Appendix A to 10 CFR Part 100. Section III(c) defines the SSE as that earthquake, which in consideration of the regional and local geology and seismology, produces the maximum vibratory ground motion at the site for which certain systems, structures, and components are designed to remain functional.

Section V(a)(1) specifies the procedure to be applied in determining the SSE. The specified procedure requires the association of maximum historical earthquakes with tectonic provinces and tectonic structures. These earthquakes are postulated to occur at points of their respective tectonic structures or provinces closest to the site. The SSE is then defined by a response spectrum, in consideration of the maximum sustained vibratory accelerations which would occur at the site in consequence of the postulated earthquakes.

1.3 Summary of Conclusions

Based on its review, the staff has concluded that (1) there has been no geologically recent surface movement on the Ramapo fault system, (2) no macroearthquake activity is clearly demonstrated to have had a direct relationship with the Ramapo fault, and (3) there is no demonstrated structural relationship between the Ramapo fault and any known capable fault. Accordingly, it is the staff's conclusion that the Ramapo fault is not capable within the meaning of Appendix A to 10 CFR Part 100.

Regarding the SSE, the staff has determined that (1) the earlier evaluation of the SSE by its United States Coast and Geodetic Survey (now USGS) advisor assumed an intensity of VII rather than VI as the site intensity, (2) a site intensity of VII is an adequate value for the SSE consistent with the requirements of Appendix A to 10 CFR Part 100, and

(3) 0.15g is an adequately conservative value of the reference acceleration for seismic design to be used as the high frequency asymptote of the response spectrum which represents horizontal motion applied at the foundation level.

The seismic design of Units 2 and 3 was based on a sustained maximum ground acceleration of 0.15g using a conservative related response spectrum and damping value. These seismic design practices assure that there is considerable margin in all plant structures, systems and components important to safety to withstand an earthquake having a maximum ground acceleration of 0.15g. Accordingly, the staff finds no reason for changing the earlier conclusion contained in the Safety Evaluation Reports for Indian Point Units 2 and 3 that the site geology, seismic design parameters, and seismic design methods for these plants are satisfactory from a safety standpoint.

Unit 1 was designed on the basis of the seismic practices and codes existing in the mid-fifties, and, as a minimum, would be expected to withstand an earthquake having a ground acceleration of 0.1g without the occurrence of offsite exposures exceeding Part 100. Although it cannot be demonstrated rigorously by calculation, we would expect that many of the redundant plant safety features such as the steel containment sphere and the surrounding biological shield would remain at least partially

functional and continue to provide protection to the public in the event of a ground acceleration in the 0.1 to 0.15g range. Unit 1 will be shut down on October 31, 1974, for either decommissioning or the accomplishment of safety modifications. The adequacy of the seismic design of Unit 1 for continued long-term operation will be reconsidered during the extended shutdown which will be needed if the licensee proposes to later resume operation. Due to the low probability of occurrence of an earthquake with a maximum ground acceleration in the 0.1 to 0.15g range during the short period of time prior to plant shutdown on October 31, 1974, we believe Unit 1 can be operated until that time without undue risk to the public health and safety.^{1/}

^{1/} This conclusion was reached prior to the shutdown of Indian Point Unit 1 on October 31, 1974.

2.0 Geology and Seismology of the Indian Point Site

2.1 Introduction

In considering the contention that the Safe Shutdown Earthquakes for Indian Point Units 1-3 are not adequately conservative, the staff has reviewed the geology and seismology of the Indian Point site and vicinity. This review has been conducted in accordance with the requirements of Appendix A to 10 CFR Part 100, "Seismic and Geologic Siting Criteria" and independently of the information contained in the Final Safety Analysis Reports on these units.

According to Appendix A, the Safe Shutdown Earthquake is to be evaluated by a procedure which entails the determination of (1) tectonic provinces, (2) a maximum earthquake associated with each such province, (3) within these provinces reasonable correlations of earthquakes with tectonic structures, and (4) within these provinces the existence and characteristics of capable faults. These determinations are to be made on the basis of geologic and seismic history as well as characteristic of tectonic structure and seismicity and are discussed in the sections which follow.

2.2 Tectonic Provinces

The Indian Point site is located within the Appalachian Highlands.

Within 200 miles of the site, this larger division is subdivided into

four physiographic or geologic provinces. From northwest to southeast these are the Appalachian Plateaus, Valley and Ridge, New England, and Piedmont provinces. A fifth province, the Atlantic Coastal Plain, lies to the southeast of the Appalachian Highlands and at its closest is about 25 miles from the site.

Earthquakes characteristic of the Valley and Ridge and Appalachian Plateaus provinces are not of significance in determining the SSE because earthquakes characteristic of those provinces are sufficiently small and distant that they can be expected to affect the site with less severity than would earthquakes of the Piedmont and New England provinces. Accordingly, the Appalachian Plateaus and Valley and Ridge provinces will be given no further consideration in this report.

On the basis of geologic structure and depositional and deformational history, two tectonic provinces are recognizable in the remaining region of interest. The first, the Piedmont-New England tectonic province, is geographically composed of the Piedmont and New England physiographic provinces, while the second consists of the Atlantic Coastal Plain physiographic province.

In the Piedmont-New England tectonic province, several episodes of deformation are recognized during late Precambrian (570 million years before present [m.y.]) to near the close of the Paleozoic Era (225 m.y.).

As a consequence of these deformations, the province as a whole is characterized by en-echelon anticlinoria and synclinoria paralleling the trend of the province and associated with metamorphism and plutonic intrusion.

The geologic history of the Piedmont is less well known than that of New England. However, it is known that the principal Paleozoic deformations affecting the two regions were not simultaneous. The extensive faulting and folding of New England appears to have occurred during the mid-Paleozoic Acadian orogeny (380 m.y.) while that of the Piedmont seems to have occurred in late Paleozoic (225 m.y.).

A final orogenic episode affected the Piedmont-New England tectonic province as a whole in the Triassic Period (225-190 m.y.). In contrast to the strongly compressional Paleozoic orogenic episodes, the Triassic phase reflects tensional forces. The Triassic deformation resulted in the formation of a series of northeast-southwest trending basins over the entire extent of the Piedmont-New England tectonic province. These basins are faulted on one or both sides, and their sedimentary histories indicate that faulting accompanied sedimentation in them. The final regional tectonic event recorded in the geologic record of the region is the widespread intrusion of diabase dikes that are considered to be of Triassic to Jurassic age (190-136 m.y.). Since the formation of the Triassic basins, the Piedmont-New England tectonic province as a whole

may have undergone differential uplift; however, there is no geologic evidence of orogenic activity nor regional faulting.

An explanation of the tectonic stability of this region since Jurassic (136 m.y.) may be provided by the hypothesis of plate tectonics. The period from Jurassic to Cretaceous (190-65 m.y.) marks the beginning of ocean ridge spreading and the formation of the lithospheric plates that now characterize the global tectonic pattern. Since that time the Appalachian region has moved on the tail of North American Plate.

Rock types and structures characteristic of the Piedmont-New England tectonic province disappear eastward beneath the deposits of the Atlantic Coastal Plain so that no structurally significant eastern boundary is shown. However, because it has been a region of active sedimentation since the Jurassic Period (190-136 m.y.) (Owens, 1970), we recognize the Atlantic Coastal Plain as a distinct tectonic province.

Several major structural features within the Coastal Plain (the Salisbury embayment, the Cape Fear arch, and the Southeast Georgia embayment) have major axes trending normal to the trend of Coastal Plain, in sharp contrast to the structural grain in the Piedmont-New England province which is parallel to the northeast-southwest trend of the province.

For the most part Atlantic Coastal Plain subsidence began in the Mesozoic (225-65 m.y.) and continued throughout most of the Tertiary (2 m.y.), although the rate and amount has varied both in time and from place to place. Little faulting is known in the Atlantic Coastal Plain. Those few faults exhibiting tectonic movement that have been reported have displaced strata ranging in age from Cretaceous (65 m.y.) to no younger than Miocene (10 m.y.).

The historic record of earthquakes in the Appalachian region reveals significant differences in the seismic characteristics of its tectonic provinces. The Piedmont-New England tectonic province shows the greatest rate of earthquake occurrence. There appears to be a tendency for the geographic clustering of activity in an east-west trending zone in central Virginia (Bollinger, 1973) and a southeast-northwest trending zone in New England and Canada (Diment, et al., 1972).

Bollinger (1973) has named the Virginia cluster the Central Virginia Seismic Zone. Within this zone the largest historic earthquakes were two events of maximum intensity VII.* These occurred near Richmond, Virginia, in 1774 and 1875.

Sbar and Sykes (1973) referred to the New England zone as the Boston-Ottawa Seismic Belt and suggested that it may be associated with a

* Intensity as measured on the Modified Mercalli Scale.

paleofracture zone. Within this belt earthquakes occur at about the same rate as in the Central Virginia Seismic Zone. The historical activity has included events of about maximum intensity VIII. Two of these occurred off the northern Massachusetts-New Hampshire coast in 1727 and 1755. A third shock, which may have been slightly larger, occurred at Montreal in 1732. Because of the association of this activity with geologic structure, future occurrences of similar shocks are expected to be within the Boston-Ottawa Seismic Belt.

Several damaging earthquakes have also occurred in the tectonic province which are not associated with the above zones. These include the 1791 East Haddam, Connecticut earthquake. Following Heck and Eppley (1958), Coffman and Von Hake (1973) list the intensity of this shock as VIII; however, after reviewing the historical records, Linehan (1964) concluded that the intensity was no greater than V-VI. The staff has reviewed Linehan's data and concurs that an intensity of VIII overestimates the severity of this earthquake. The remaining damaging shocks have been of intensity VII and have no known association with tectonic structure. Accordingly, the staff considers the occurrence of an intensity VII equally probable (a low order of probability) at any place within the Piedmont-New England tectonic province that is not also within the Central Virginia Seismic Zone or Boston-Ottawa Seismic Belt.

Most historical earthquakes in the Atlantic Coastal Plain have occurred in recognizable geographic clusters. Although it has no generally accepted association with a known geologic structure, one such cluster of activity is located within the Southeast Georgia embayment in the vicinity of Charleston, South Carolina. Included in this cluster of more than 400 events is the 1886 Charleston, South Carolina earthquake which had a maximum intensity of X. A second more diffuse cluster is located within the Salisbury embayment in Delaware. Like the Charleston cluster, it has no generally accepted association with a known geologic structure.

The two largest Coastal Plain earthquakes to have occurred outside these clusters have been of intensity VII. Both of these are of interest with respect to the Indian Point site because they occurred near New York City. One, an 1884 shock, had its maximum intensity at Jamaica and Amityville on southern Long Island, while the other occurred in the vicinity of nearby Asbury Park, New Jersey in 1927. Because of the spatial clustering exhibited by historical events and the correlation of these clusters with the coastal embayments, we have accepted that near future earthquakes in the Coastal Plain will occur according to a similar pattern. Since the Charleston earthquake occurred in a distant cluster, an earthquake in the Coastal Plain Province is not expected to result in an intensity at the Indian Point site that will exceed approximately intensity VI. Such a site intensity could result from

the occurrence of an intensity VII earthquake at the Coastal Plain-Piedmont boundary, some 25 miles from the site.

2.3 Earthquake-Tectonic Structure Correlations

Studies of the relationships between earthquake occurrence and geologic structure is an important means of assessing the likelihood of movement of faults and, when this relationship is known, an accurate assessment of the seismic hazard at a site can usually be made. Unfortunately, historic earthquakes in the eastern United States have not been well enough located to permit detailed studies of earthquake-structure relationships. During the most recent 10 to 15 years we have reasonably accurate epicenter locations; however, depths at which movements occur remain poorly known. Some general observations can be made, however, from the geographic distribution and relative frequency of historic earthquakes and their relation to major regional structure.

A series of faulted basins, extends from South Carolina to Nova Scotia. These Triassic basins contain sedimentary rocks of Triassic to Jurassic (190-136 m.y.) age (Cornet, et al., 1973) and can be considered a unifying geologic feature of the Piedmont and New England geologic provinces. They also underlie parts of the Coastal Plain. Because sedimentary rocks in these basins are little deformed and rest unconformably on the older rocks affected by the various Appalachian orogenies,

they provide terminal dates for major rock deformation in these two provinces.

Igneous rocks of basaltic composition form flows, sills, and stocks within the basins. Basaltic dikes following normal faults and cutting across older structures are commonly found both within and outside the basins and crop out as far south as the Alabama Piedmont. These cross-cutting features serve to date the various faulting events. De Boer (1968) has suggested a northwestward displacement of volcanic activity in the Triassic basins during late Triassic to Jurassic (190-136 m.y.). This would indicate a progressive northeastward expansion of the broad geanticlinal arching of the Appalachians in early Mesozoic time (190 m.y.), which may correspond to the early opening and development of the North Atlantic as described by LePichon and Fox (1971).

Data concerning the border faults and some faults within the basins have been interpreted in several different ways. Bain (1932) first thought them to be thrust faults, and later to be wrench faults (Bain, 1957). Sanders (1963) also considered wrench faulting to be a possibility. However, most exposures of fault surfaces support the favored hypothesis mentioned by Eardley (1962) of normal faulting for major displacements along the border faults.

With respect to the Indian Point site, two Triassic basins are of interest. The Newark Basin, the largest of these sedimentary basins, extends from its northernmost terminus near the site southwestward to Charlottesville, Virginia, about 300 miles away and is customarily divided into several sub-basins. In western New Jersey and eastern Pennsylvania the width of this basin reaches a maximum of about 30 miles. Strata of the basin dip northwest away from its southeastern margin and toward the bordering Ramapo fault system. The northwestern margin of the basin is thought to have formed against mountain fronts which resulted from movement along the en-echelon faults of this fault system.

The Connecticut Basin to the north is very similar in dimensions and structure to the Newark Basin, but the structural elements are reversed (beds dip eastward toward an eastern border fault). It has been proposed by Sanders (1963) that the Newark and Connecticut basins were connected during deposition; however, Klein (1969) presented evidence to the contrary based on the volcanics and sediments of the basins.

Several recent seismicity studies in the Eastern United States have suggested seismic zones transverse to the structural grain of the region. Bollinger (1973) has reviewed the seismicity of the southeastern United States. The spatial pattern of earthquakes together with the orientation of major axes of their isoseismal areas causes him to postulate

seismic trends both parallel (Southern Appalachian region) and transverse (central Virginia and South Carolina-Georgia) to the structural trend of the Piedmont.

Geological support for a transverse earthquake trend in central Virginia was given in a paper by Dennison and Johnson (1971), in which they describe a zone of igneous intrusives that extends from Highland County, Virginia southeastward into the Piedmont. Rocks in this intrusive zone, which are progressively older from the northwest toward the southeast, range in age from Eocene (38 m.y.) to Precambrian (570 m.y.). They suggest that these intrusives represent a zone of weakness in the earth's crust. As such, it could act as a zone of stress concentration in the North American plate. However, detailed investigations needed to clearly determine whether or not the central Virginia seismic zone is structurally related to this transverse intrusive zone have not been made.

Several lines of geological and geophysical evidence indicate the existence of a structural basis for the Boston-Ottawa Seismic Belt. Fletcher, et al. (1972) describe a zone of significant P-wave travel time anomalies relative to adjacent areas. This zone, which is coincident with the seismic belt, indicates a local crustal or upper mantle structural or petrologic anomaly. Sbar and Sykes (1973) point out that the seismic belt is subparallel to and partly within the

Ottawa-Bonnechere graben and that the Montereian Hills and the White Mountain intrusives are contained within this belt as well. All three of these features are of Mesozoic or Tertiary age (Kay and Colbert, 1965; Fairbairn, et al., 1963; Foland, et al., 1970). Diment, et al. (1972) hypothesize that the seismic belt may be located along an extension of the Kelvin seamount chain. LePichon and Fox (1971) suggest that this seamount chain formed along a zone of crustal weakness, which may have been a fracture zone during the early opening of the North Atlantic in the Jurassic and Cretaceous (136-65 m.y.). In fact, both the seismic belt and Kelvin seamounts are approximately on a small circle about the center of rotation that LePichon and Fox propose for plate movement during this period.

In only one instance, the Newark Basin in New York and New Jersey, has it been suggested that instrumentally located earthquakes are associated with Triassic Basin faults (Page, et al., 1968; Davis, et al., 1974). These proposed microearthquake associations are given detailed consideration in subsection 3.2 below. Similar correlations have not been recognized elsewhere and no macroearthquake activity is known on these structures.

The absence of definitive earthquake-structure correlations, together with the absence of geologically young movements on the Triassic Basin

faults, causes the staff to conclude that the Triassic Basin faults are not currently active sources of earthquakes.

2.4 Summary

The major structures of the Piedmont-New England tectonic province were formed in the mid to late Paleozoic Era (380-225 m.y.). They are dominantly large anticlinoria and synclinoria. Faulting is also regionally associated with these fold structures. The final episode of regional tectonism, which formed a series of faulted basins, occurred during the Triassic-Jurassic Periods (225-136 m.y.). Seismic activity is not known to be associated with specific tectonic structures. The two zones of most frequent earthquake activity, the Boston-Ottawa Seismic Belt and the Central Virginia Seismic Belt, may reflect instability along paleofracture zones. Even within these rather wide zones, however, no historic earthquakes have been associated with specific structures. No surface displacement has been observed in association with historical earthquakes in the Piedmont-New England tectonic province. With respect to seismicity, low orders of probability apply to the occurrence of earthquakes of maximum intensity VII anywhere in the Piedmont-New England tectonic province outside of the two above seismic belts.

3.0 The Ramapo Fault System

3.1 Geologic Evidence for Age of Last Movement

The Ramapo Fault as defined by Ratcliffe (1971) extends from Stony Point, New York, southwest to Peapack, New Jersey, a distance of about 50 miles. The Ramapo Fracture System as defined by Ratcliffe (1971) includes the Ramapo Fault proper plus the distance from Tomkins Cove, New York, northeast through Canopus Hollow to about the latitude of Newburgh, New York, or an additional 20 miles. The Ramapo Fault proper lies then essentially along the northwestern margin of the Newark basin, while the Ramapo Fracture system extends into the area between the Reading and Manhattan Prongs. Ratcliffe (1970, 1971) indicated that differential movement and igneous activity appeared to have occurred here in pre-Triassic (225 m.y.) time, specifically in the late Precambrian (570 m.y.) and early Paleozoic (380 m.y.). He also indicated that there is no direct evidence for Triassic (190 m.y.) or younger movement east of the Hudson River on the strands of the fault system that pass closest to the Indian Point Site. Southwest of the Hudson River it appeared to him that Triassic (190 m.y.) movements were rather limited along the northern trace of the Ramapo Fault and were confined to the previously formed Precambrian (570 m.y.) and Paleozoic (380 m.y.) areas of weakness. Ratcliffe (1971) believed the Ramapo Fault to be hinged at a point north of Tomkins Cove, New York, with an increasingly greater displacement to the southwest. This hinge hypothesis accounts for the different times of movement seen along the fracture system.

Direct field evidence for movements younger than Triassic (190 m.y.) along the Ramapo Fault has not been found to date.

Members of the AEC staff made an extensive field examination of the Ramapo Fault zone from Canopus Creek, New York, to Boonton, New Jersey. No evidence indicating that movement at or near the ground surface had occurred since Triassic time (190 m.y.) was observed in any of the examined areas. Within the meaning of item (1) 10 CFR 100, Appendix A, subsection III(g), the Ramapo Fault system is considered not capable.

3.2 Seismic Activity

The staff has also reviewed the studies in the seismological literature related to the Ramapo fault which Davis, et al. (1974) cited. An early study of earthquake activity in the vicinity of the Ramapo fault was conducted by Isacks and Oliver (1964). Their data base consisted of earthquakes with non-instrumentally determined epicenters reported by Heck and Eppley (1958), Smith (1962) and United States Earthquakes (1935-1960), instrumental epicenters reported by Leet (1938) and Linehan and Leet (1941), and microearthquake epicenters determined by the authors. These earthquakes occurred within a 300 kilometer radius of Ogdensburg, New Jersey.

Geographically, the pattern of microearthquake epicenters found by Isacks and Oliver conforms to the broad northeast trending band defined by the previously reported macroearthquake epicenters. This band roughly follows the regional northeast-southwest structural grain.

The Ramapo and numerous other faults of ancient origin lie within it. In consideration of a hypothesis posed by Woollard (1958) that eastern United States earthquakes result from movement on old planes of weakness, Isacks and Oliver suggested that these epicenters may be associated with Triassic and older faulting. They also suggested that one microearthquake of Richter magnitude 2.0 originated on the Ramapo fault. In drawing upon this earlier work and two additional microquakes, Page, et al. (1968) suggested that, within the uncertainty of the data, four microearthquakes and seven macroearthquakes may have occurred on the Ramapo fault.

Davis, et al. (1974) compiled a list of sixty-six earthquakes which have occurred within fifty miles of the Indian Point Site since 1768. Thirty-two of these events occurred within twenty miles of the Ramapo fault. These include the data of Page, et al. (1968) and consist of five instrumentally determined macroshocks, five microshocks, and twenty-two events which were not instrumentally located. Focal mechanism solutions and depth determinations were not available for any of the earthquakes considered in the above studies.

Sbar, et al. (1970) investigated a microearthquake swarm which occurred at Lake Hopatcong, N. J., a man-made reservoir, in 1969. Lake Hopatcong is located in the New Jersey highlands about twelve miles northwest of the Ramapo fault. The earthquakes, all of magnitude less than about 1.5, were well located and were evidently very shallow. A composite focal mechanism solution for the swarm indicates N 12°E normal faulting with a dip of 60° to the southeast. Although no surface faults have been mapped at the reservoir, there is a known fault, five miles to the northeast. If extended southwest along its strike, this fault intersects the location of the microearthquake swarm. Moreover, such an extension would be compatible with the trend of the fault indicated by the focal mechanism solution. Davis, et al. suggested that this focal mechanism solution could be interpreted as indicating a regional stress condition which could cause movement on the Ramapo fault.

The staff has considered these studies in the context of subparagraph III(g)(2) of Appendix A to 10 CFR Part 100. Microearthquakes have become increasingly valuable for seismo-tectonic studies with the development of high gain, high frequency seismographs. While many such studies have been reported in the literature, a general relationship between microearthquake activity and the occurrence of larger earthquakes significant to engineering design has not yet been established. Furthermore, it is not certain how microearthquake observations should

be interpreted relative to tectonic processes. It has been verified by many observations that tectonic structures which generate macroearthquake activity also generate microearthquake activity. Indeed, many characteristics of the observed micro-activity are similar to those of the macro-activity. However, the converse has not been shown to be true and would almost certainly not hold for microearthquake activity at the lower energy levels presently observable. Thus the degree of seismic risk implied by microearthquake data obtained in a given study must be interpreted largely in terms of those specific data. Accordingly, subparagraph III(g)(2) does not recognize microearthquake activity as evidence that a fault is to be considered capable.

The macroearthquakes of the above studies have been located by using either non-instrumental or limited instrumental data. Consequently, the uncertainty of location of these events is typically greater than 10 miles. In fact, Smith (1966) estimates that the location uncertainty of one of the better recorded macroshocks, the September 3, 1951 Rockland County, NY, event of intensity V, is of the order of 15 miles. Moreover, no depths or focal mechanisms have been determined. In view of the above, the density of mapped surface faults in the region of interest and the sparse earthquake data sample, the staff feels that a direct relationship between macroearthquakes and the Ramapo fault has not been demonstrated as required by subparagraph III(g)(2).

On the basis of the above considerations, we have concluded that the Ramapo fault is not capable as defined in subparagraph III(g)(2) of Appendix A to 10 CFR Part 100.

3.3 Structural Relationship to Capable Faults

The staff has also considered possible structural relationship between the Ramapo fault system and capable faults which would imply that faults of the Ramapo system are also capable according to subparagraph III(g)(3) of Appendix A to 10 CFR Part 100. In this context, the staff has found that no fault in the Piedmont or New England provinces is reported in the literature to have experienced movement either at or near the ground surface during the past 500,000 years. In fact, according to the weight of evidence in the literature, the last significant age of tectonism occurred during the Mesozoic (more than 65 m.y. ago and probably more than 136 m.y. ago). Moreover, there are no correlations of well determined macroearthquakes with any faults that are structurally related to the Ramapo fault system. The staff has, therefore, concluded that the faults of the Ramapo system have no structural relationship with other capable faults which would imply that they, too, are capable under subparagraph III(g)(3).

3.4 Summary

There is no evidence of movement of faults of the Ramapo system, at or near the ground surface, during the past 500,000 years. In fact, the

weight of the geologic evidence indicates that no such movements have occurred since Jurassic (136 m.y.) at the latest and east of the Hudson River, possibly not since the Paleozoic (225 m.y.). No macroearthquake activity can be demonstrated to have a direct relation with the Ramapo fault system and there is no evidence of any capable faults structurally related to the Ramapo fault system. Accordingly, the staff has concluded that the faults of the Ramapo system are not capable in the meaning of subparagraph III(g) of Appendix A to 10 CFR Part 100.

4.0 Safe Shutdown Earthquake (SSE)

4.1 Maximum Earthquake

The SSE at the Indian Point Site is based on the following findings of our review of the geology and seismicity of the region according to the requirements of Appendix A to 10 CFR Part 100:

1. There are no capable faults in the vicinity of the site.
2. The major earthquakes in the Atlantic Coastal Plain have occurred within geographic clusters which correlate with the Southeast Georgia and Salisbury embayments. Near future earthquakes will follow the pattern that has shown stability for more than 200 years of historical record.
3. The maximum earthquake in the Piedmont-New England tectonic province will have a maximum intensity of VII and will affect the site with that intensity.

The first of the above implies that the Safe Shutdown Earthquake intensity can be appropriately determined by subsections V(a)(1)(ii)-(iii) of Appendix A to 10 CFR Part 100. The second results in a site intensity no greater than VI in consequence of a postulated occurrence no closer than 25 miles to the site of an earthquake similar to the 1884 New York earthquake which had a maximum intensity of VII on Long Island. The third results in a site intensity of VII in consequence of a postulated random occurrence of an earthquake similar to the 1871 Wilmington, Delaware earthquake of maximum intensity VII. Accordingly, we consider

a Safe Shutdown Earthquake intensity of VII to be an adequately conservative representation of the seismicity of the region. The SSE is specified in terms of an acceleration which serves as a value for the high frequency asymptote of the response spectrum representing horizontal motion at the foundations of Category I structures and for which those structures are designed.

With respect to determination of the SSE acceleration, Davis, et al. (1974) point out the necessity of considering the fact that (1) high peak accelerations have recently been recorded in the source regions of relatively low magnitude earthquakes, (2) a study by Nuttli (1973) shows that attenuation of seismic waves in the eastern United States may be as low as 1/10 that in western United States, and (3) the only strong motion record which exists for an earthquake in the eastern part of the nation, the Blue Mountain Lake (New York) record of August 3, 1973, exhibits a rich high frequency content.

Consideration of these points has been implicit in the staff's review. Davis, et al. cite several examples of high accelerations which have been recorded during low magnitude earthquakes. These high accelerations were recorded near the earthquake source (i.e., in the near field) where amplitudes of higher frequency vibrations had not been attenuated.

Such recordings are consistent with a now widely accepted model of the earthquake source mechanism which predicts accelerations in the near field to be proportional to the effective stress (Brune, 1970). Accordingly, high accelerations at high frequency are to be expected in the near field of earthquakes and would be observed in recordings like that obtained at Blue Mountain Lake. Moreover, seismic waves of high frequency are subject to local amplification by topographic features of relatively small dimension (Davis and West, 1973). The effect of local amplification on the Blue Mountain Lake recording is uncertain, although it is not believed to have been significant.

With increasing distance from the earthquake source, the high frequency amplitudes of seismic waves are reduced by rapid attenuation as well as by several wave optical effects attributable to the finite dimensions of the source (Brune, 1970). The reference acceleration for seismic design is considered to be the far field acceleration of sustained duration.

The absence of capable faults in the vicinity of the Indian Point site means that there is no geologic reason to consider that structures there are unusually subjected to near field accelerations. Moreover, the fact that the units are founded on high density bedrock rather than overburden of low density and seismic velocity means that wave amplification need not be considered. Accordingly, the staff considers far field acceleration data to be appropriate in determining the SSE acceleration.

The staff has accepted that attenuation of seismic waves in the eastern United States is lower than that in the west. It has also recognized that eastern earthquakes of a given magnitude generally result in damage over a greater distance from the epicenter than do similar shocks in the west. Accordingly, were the staff to base its determination of the SSE acceleration on the magnitude and location of the causative earthquake, it would be necessary to give explicit consideration to the effects of attenuation; however, because the staff has instead based its evaluation on intensity at the site, no such consideration is needed.

Intensity is a site specific measure of degree of damage, independent of geographic location, so that it implicitly accounts for attenuation effects. Similarly, by virtue of its site specific nature and its dependence on degree of damage alone, empirical relationships between intensity and acceleration are independent of the geographic source of the data used in establishing those relationships. Thus, the staff considers far field intensity versus acceleration correlations, based on western United States data, to be appropriate for determining SSE accelerations anywhere in the United States.

Accordingly, the staff considers a value of 0.15g, which is consistent with available bedrock acceleration (Coulter, Waldren and Devine; 1973) an adequately conservative value for the high frequency asymptote of the design response spectrum for the Indian Point Units 2 and 3.

4.2 Summary

A maximum site intensity of VII is in accord with the interpretation of the geology and seismicity as required by Appendix A to 10 CFR Part 100 and is a conservative Safe Shutdown Earthquake intensity. We do not consider the low attenuation of seismic energy observed in the eastern United States to be an indication that western United States earthquake intensity-acceleration data is inappropriate for the eastern United States. The staff, therefore, concludes that an SSE using a value of 0.15g as the high frequency asymptote of the design response spectra, is adequately conservative for Indian Point Units 2 and 3.

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Captain Robert D. Millberry
218448807/0302 USMC
780 4th Street
Lakeport, California 95453

Dear Captain Millberry:

Your post card received September 26, 1974, to the Director of Regulation has been referred to me for my reply. In your post card you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up

correction to letter per MGroff
10/31.

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Mrs. Henry Easton

Woodybrook Lane

Croton-on-Hudson, New York 10520

Dear Mrs. Easton:

Your post card dated August 26, 1974, to the Director of Regulation has been referred to me for my reply. In your post card you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By

K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up

correction made in letter per MGroff
10/31.

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Ms. Barbara W. McHugh
406 Lexington Drive
Silver Spring, Maryland 20901

Dear Ms. McHugh:

Your post card received September 9, 1974, to the Director of Regulation has been referred to me for my reply. In your post card you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By

K. R. Goller

Earl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up

correction on letter per MGroff
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Mr. Robert P. Patten
17 Greenfield Terrace
Congers, New York 10920

Dear Mr. Patten:

Your letter received August 22, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By
L. K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up

correction on letter per MGroff
10/31.

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11/18/74

TO

L. Manning Muntzing

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Final _____

PREPARE FOR SIGNATURE OF:

Chairman

Director of Regulation

X **Schroeder**

DESCRIPTION

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REMARKS

**Req that documents listed, given to the ACRS in connection
with review of seismicological considerations at the Seabrook
plant be made a part of the record re petition for Ebas Cause
order why licenses for Indian Point 1, 2 and 3 should not
be revoked**

NOV 11 1974

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DATE

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Schroeder E/action

11/11/74

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STUART M. BLUESTONE
CLIFTON E. CURTIS

November 4, 1974

L. Manning Muntzing, Esq.
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20036

Re: Petition Pursuant to
Section 2.206 for Order to
Show Cause Why Operating
Authority for Indian Point
Nos. 1&2 and Construction
Authority for Indian Point
No. 3 Should Not Be Revoked.

Dear Mr. Muntzing,

Set out below is a list of materials delivered to the Advisory Committee on Reactor Safeguards in connection with their review of seismological considerations at the proposed site for the Seabrook Station, Units 1&2 (Docket Nos. 50-443;50-444). Altho some of the material is concerned with the Seabrook site in particular, it is directly relevant to seismological considerations for nuclear power plants in general. Accordingly, I am requesting that these documents be made a part of the record of the above captioned matter. Inasmuch as the AEC staff has access to these documents, and copying them would further strain our limited budget, I have not enclosed copies.

1. Report prepared by Dr. M. Trifunac, California Institute of Technology, regarding ground acceleration rates.

2. An article by Drs. Chinnery and Rodgers, "Earthquake Statistics in Southern New England," Earthquake Notes, Vol. XLIV, Nos. 3-4, July-Dec., 1973.

3. Comment on Site Characteristics: Geology & Seismology, by Dr. Michael Chinnery, Lincoln Laboratory, MIT, dated April 17, 1974.

Manning

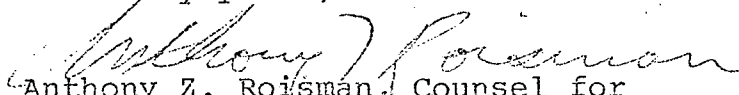
DR 7647

REC'D OFF. DIR. OF REG.
Date 11/7/74
11/15/74

Page 2
November 4, 1974

4. Statement prepared by Dr. Michael Chinnery,
Lincoln Laboratory, MIT, regarding seismological
risks at the proposed Seabrook site, dated
October 31, 1974.

Sincerely yours,


Anthony Z. Roisman, Counsel for
Citizens Committee for Protection
of the Environment

cc: All parties of record.

135
OCT 31 1974

Dockets Nos. 50-3
50-247
and 50-286

Mr. Don Ogden
Camp Rainbow
Croton-on-Hudson, New York 10520

Dear Mr. Ogden:

Your letter dated August 24, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By

K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up by PBERickson

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Mr. & Mrs. Joseph B. Noonan
1763 Stockton Street
St. Helena, California 94574

Dear Mr. & Mrs. Noonan:

Your letter dated August 8, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up by PB Erickson

SEE DOCKETS NOS. 50-3/247/286 DR-7664 FOR OGC CONCURRENCE

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OCT 31 1974

Dockets Nos. 50-3
50-247
and 50-286

Mr. Steven Plotnick
140-26 Dabs Place
Bronx, New York 10475

Dear Mr. Plotnick:

Your letter dated August 18, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up by PBERickson

SEE DOCKETS NOS. 50-3/247/286 DR-7664 FOR OGC CONCURRENCE

OFFICE >	ORB#3	ORB#3	OGC	L:AD/ORS		
SURNAME >	PBERickson:lmf	Glear	KRGoller			
DATE >	10/ /74	10/ /74	10/ /74	10/ /74		

135

Dockets Nos. 50-3
50-247
and 50-286

Mr. J. E. Falletta, Jr.
321 1/2 2nd Avenue
Chula Vista, California 92010

Dear Mr. Falletta:

Your letter dated August 27, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up by PBERickson

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SURNAME >	PBERickson:kmf	Glear <i>GL</i>		KRGoller		<i>Me</i>
DATE >	10/29 /74	10/29 /74	10/ /74	10/29 /74		

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Dockets Nos. 50-3
50-247
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Dr. Jack J. Adler
Citizens League for Education
about Nuclear-Energy Inc.
Box 1087
New Rochelle, New York 10802

Dear Dr. Adler:

Your letter dated July 26, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up by PBERickson

SEE DOCKETS NOS. 50-3/247/286 DR-7664 FOR OGC CONCURRENCE

OFFICE➤	ORB#3	ORB#3	OGC	L:AD/ORS		
SURNAME➤	PERickson:kaf	GLear		KRGoller		
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Dockets Nos. 50-3
50-247
and 50-286

OCT 31 1974

Ms. Adrienne Rueff
347 Tungsten
Henderson, Nevada 89015

Dear Ms. Rueff:

Your letter dated August 22, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up by PBERickson

SEE DOCKETS NOS. 50-3/247/286 DR-7664 FOR OGC CONCURRENCE

OFFICE	ORB#3	ORB#3	OGC	L:AD/ORS	
SURNAME	PERickson:kmf	GLear		KRGoller	
DATE	10/29/74	10/29/74	10/ /74	10/29/74	

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Dockets Nos. 50-3
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Mr. Bill Teague
1714 Robinson Avenue
San Diego, California 92103

Dear Mr. Teague:

Your letter dated August 12, 1974, to the Director of Regulation has been referred to me for my reply. In your letter you express concern about potential seismic effects on the Indian Point facility.

The staff is conducting a study of seismic conditions at the Indian Point facility, and upon issuance of the report of this study, a copy will be sent to you.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up by PBERickson

SEE DOCKETS NOS. 50-3/247/286 DR-7664 FOR OGC CONCURRENCE

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SURNAME →
DATE →

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135

OCT 1 1 1974

Dockets Nos. 50-3
50-247
and 50-286 ✓

Mrs. Frances Tyson
15 Westminster Road
Summit, New Jersey 07901

Dear Mrs. Tyson:

Your letter of September 29, 1974 to Mr. L. Manning Muntzing, Director of Regulation, has been referred to me for reply. In your letter you express concern about potential seismic effects near the Indian Point Nuclear Facility. You also discuss alternative sources of power to replace nuclear power plants.

With respect to seismic effects, we are conducting a detailed study of potential seismic effects at the Indian Point location. Included in our study is an evaluation of the Ramapo fault.

Alternate sources of energy are under consideration by the Atomic Energy Commission. The safety of nuclear power plants and the research and development of alternative sources of energy are discussed in the enclosed presentation prepared for Dr. Dixy Lee Ray.

We hope this information will answer your questions.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Enclosure:
Presentation

OFFICE ➤	ORB#3	ORB#3	L:AD/ORS		
SURNAME ➤	PBERickson:kmf	GLear	KRGoller		
DATE ➤	10/ /74	10/ /74	10/ /74		

LB

FROM

**Mrs. C. W. Frances Tyson, Asst,
H. J.**

CONTROL NUMBER

7748

FILE LOCATION

DATE OF DOCUMENT

9-29-74

ACTION COMPLETION DEADLINE

10-10-74

TO

Muntzing

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

Chairman_____
Director of Regulation**X** **Gianbusso**

DESCRIPTION

Ltr.

☒ Original☐ Copy☐ Other

**Urges reconsideration of licenses issued for the Indian
Point Plants and suggests development of other sources
of power.**

REMARKS

REFERRED TO

DATE

Gianbusso f/action

10-3-74

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Cys:

Case

Docket Files) 50-3

PDR) 50-247

LPDR) 50-286 ✓

Copy sent 10/1/74

DO NOT DETACH THIS COPY

DIRECTOR OF REGULATION
COMMUNICATIONS CONTROLForm HQ-32 (1-73)
USAEC

Sept. 29 1974
15 Westminister Rd.
Summit, N.J. 07901

L. Manning Muntzing,
Director of Regulations
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Muntzing,

It is not at all pleasant to live within 50 miles of these Indian Point Plants built adjacent to the Ramapo Fault. Even my grand daughter (8th grade, Colorado) knows the earthquake value of the Ramapo Fault. We ask that the A.E.C. revoke Con. Ed's licences for the two plants that are built, and the one that is planned. Atomic fission plants are not efficient, and besides studies show that they produce little or no NET ENERGY. There should be an immediate moratorium on all fission power plants, and a crash program to develop Professor Heronemus' wind-generators.

Professor Heronemus suggests a 150 mile string of wind-generators up the N. J. Garden State Parkway or off shore in the Atlantic to supply 60% of New Jersey's electric needs at 3.3 cents per k/h. Con. Ed. charges 3.91 cents per k/h and this on top of all the tax-payer subsidies: the processing of the Uranium, storing (How Badly!) the wastes, the insurance (Price Anderson Act), and all the research, development, promotion, advertizing costs. And it is very irritating, I assure you to have the A.E.C. answer letters saying fission-is-safe (IT IS NOT), and that the A.E.C. is developing Solar energy as well as fission - Sure! \$5 billion for fission against a half a million \$s for solar.

The minute a string of wind generators functions and the

prototype is available, the price of Arab oil will drop, in the Western States, cattle can graze under the wind mills and the land need not be stripped for low BTU coal.

We know, the giant energy companies have mistakenly invested in fission and they are breathing hard down the necks of A.E.C. But Mr. Muntzing, for their own good, for the good of our country, the faster we all drop lethal fission and crash program safe, cheaper, Wind Power, sea-thermal, and other solar sources, the better off everyone will be. Of what good are dividends, if life on earth ends? (Win-the-world-and-loose-your-soul?)

Stop telling yourselves how great fission is - stop ignoring the Ozone Belt; Think of Krypton isotope 85; you know perfectly well you do not know how to care for Plutonium. You fool yourselves.

As Dr. Dixy Lee Ray said about the loss of 115,000 gals, of lethal radio active waste "It ought not to have happened in the way that it did." Will that be the epitaph of the human race?

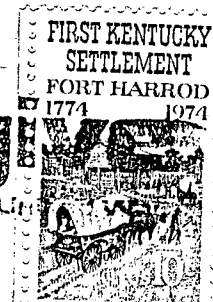
Sincerely

Frances Tyson

Frances Tyson, Mrs. C.W.

P.S. Incidentally, I'd bet the AEC office building, like all office buildings, (governmental & private) is a blaze with electric lights - One needs light & heat - but one doesn't need in hallways and reception rooms - How does one budget a bureaucratic ???
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atomic fission: the ultimate pollution
Switch to safe cheap WIND POWER



Mr. L. Manning Muntzing
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Rec'd. Div. of Reg.

Date 10/2/74

Time 2:10

FROM Capt. Robert D. Millberry, Newport Calif.	CONTROL NUMBER 7736	FILE LOCATION
TO Muntzing	DATE OF DOCUMENT postmarked 9-26-74	ACTION COMPLETION DEADLINE 10-8-74
	ACTION PROCESSING DATES Acknowledged _____ Interim Reply _____ Final _____	PREPARE FOR SIGNATURE OF: _____ Chairman _____ Director of Regulation X Giambusso

6135

DESCRIPTION Postcard <input checked="" type="checkbox"/> Original <input type="checkbox"/> Copy <input type="checkbox"/> Other		REMARKS
Urges reconsideration of licenses issued for the Indian Point plants		
REFERRED TO	DATE	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____
Giambusso f/action	10-1-74	
		Cys: Case
		Bocket Files) 50-3
		PDR) 50-247
		LPR) 50-286 ✓

Copy sent PDR

I QUESTION THE LOCATION OF THE
INDIAN POINT nuclear power plant close
TO THE RAMAPO FAULT. YOU SHOULD REVOKE
LICENSED FOR THE TWO ALREADY BUILT +
THE ONE PLANNED. IF WE MUST HAVE
NUCLEAR POWER (I MAYBE WE DO) LET IT BE
SAFE!



CAPT. ROBERT D. MILLBERRY
218488807/0302 USMC
780 4TH ST., LAKEPORT
CALIFORNIA 95453

R. White

DR 7736



L. MANWACH MONTICALLY

DIRECTOR OF REGULATION
U.S. ATOMIC ENERGY COMMISSION
WASHINGTON DC.

2545

FROM
Barbara W. McHugh
Silver Spring, Md.

CONTROL NUMBER
7664

FILE LOCATION

DATE OF DOCUMENT

COMPLETION DEADLINE

recd 9/9/74

9/17/74

TO

ACTION PROCESSING DATES

PREPARE FOR SIGNATURE OF:

Acknowledged _____

Chairman

Interim Reply _____

Director of Regulation

Final _____

X **L:RP**

DESCRIPTION **Postcard** ☒ Original ☐ Copy ☐ Other

REMARKS

Concern re location of the Indian Point plants near an earthquake fault

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE
RECOMMENDED? _____

Gianbusso f/action

9/10/74

Cys:

Case
Rocket Files) 50-3
PDR) 50-247
LPDR) 50-286

Copy sent PDR

According to authenticated records, and data
accumulated by geologists, & recorded by State N.Y.
Geologist Davis, requested by the State's
AEC Council, - Com Edison's Third Safety
Analysis Report for Indian Point III nuclear
plant is inaccurate & highly deficient,
in stating that there are no geologic faults
of magnitude near or close to the III plant.
Chambers Fault, 1 mile away & extending under
the plant, was found to be active & causing 6 to
quakes up to the year 1766 + 1767 of moderate
intensity in II, + III. Approval of the plant's prime
design as by the AEC is jeopardizing the many lives.
Baron W. McHugh, to C. Schuyler E. Silver Spring, Md.
1974



Manuel Adams

U.S. Postage 8¢

L. Manning Montyng
Dir. of Regulation
U. S. AEC

Rec'd Off. Dir. of Reg.

Date 9/9/74

Time 11:45

Washington, D.C.

20545

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 (75-0552)

135
 Docket Nos. 50-3
 50-247
 and 50-286 ✓

SEP 6 1974

Mr. Michael W. Anuskiewicz
 Principal Gas Engineer
 Public Service Commission
 State of New York
 44 Holland Avenue
 Albany, New York 12208

Dear Mr. Anuskiewicz:

We received Mr. Samuel R. Madison's letter of August 1, 1974 requesting that we advise you of any investigations of Consolidated Edison Company's management and operational practices undertaken by the Atomic Energy Commission. We are pleased to respond to Mr. Madison's request and will do so by discussing briefly the evaluations that the Regulatory staff makes in this regard during the review of applications for construction permits and operating licenses for nuclear powered generating facilities.

The Regulatory staff's investigations through the normal review process for construction permits and operating Licenses include the following:

- (1) The identity of the applicant including the identity of its directors and principal officers and whether the organization is owned or controlled by a foreign corporation or government.
- (2) The financial qualifications of the applicant to carry out the proposed activities in accordance with the Commission's regulations.
- (3) The technical qualifications of the applicant's organization to engage in the proposed activities in accordance with the Commission's regulations.
- (4) The applicant's quality assurance program (including organizational structure and degree of management participation) to assure the quality of construction, testing and operation of safety related structures, systems and components.
- (5) The applicant's organizational structure, allocations of

OFFICER

SURNAME

DATE

permit or license is sought.

Copy sent PDR

With regard to Consolidated Edison Company, the most recent evaluation of the company's qualifications as discussed above was conducted during our review of its application for a license to operate Indian Point Station Unit 3. The results of that review were reported in the Regulatory staff's Safety Evaluation Report dated September 21, 1973 which is enclosed for your information. The information supplied by Consolidated Edison Company on which our findings are based is presented in the License Application and the Final Facility Description and Safety Analysis Report for Indian Point Station Unit 3. These documents are available at the Atomic Energy Commission's Public Reference Section, 1717 H Street, N.W., Washington, D.C. and at the Hendrick Hudson Free Library, 31 Albany Post Road, Montrose, New York.

Our findings regarding financial qualifications, presented in the Safety Evaluation Report, are currently being reevaluated in the light of the recent developments in regard to Consolidated Edison Company's financial conditions. We expect to report our revised findings in a supplement to the Safety Evaluation Report this fall.

As can be seen from the discussion above and from the Safety Evaluation Report enclosed, the Regulatory staff's interest in the organization and management practices of the Consolidated Edison Company are restricted to the Company's qualifications and ability to conduct safety related activities in accordance with the Commission's regulations, and in a manner which will protect the health and safety of the public. We do not expect to conduct any other investigations of Consolidated Edison Company's organization and management practices than those stated above.

I hope that the above explanation of the review that the Regulatory staff conducts as required by the Commission's regulations will be helpful. If you desire any further clarification or information concerning the scope of our review efforts or our specific review and findings regarding Consolidated Edison Company, we will be pleased to be of further assistance.

Sincerely,

P. C. Bender

Paul C. Bender
Secretary of the Commission

Enclosure:
Safety Evaluation Report

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SEE PREVIOUS YELLOWS FOR PREVIOUS CONCURRENCES

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DATE	8/21/74	8/21/74	8/21/74	8/21/74	

Docket Nos. 50-3
50-247
and 50-286 ✓

AUG 30 1974
E129

Mr. Joshua Turner
4331 Osage Avenue
Philadelphia, Pennsylvania 19104

Dear Mr. Turner:

Your letter dated August 17, 1974 to the Director of Regulation has been referred to me for reply. In your letter, you express concern about potential seismic effects on the Indian Point nuclear facility.

Our staff has been actively reviewing seismic records with respect to the Ramapo fault and the Indian Point facility and will prepare a report on their analysis and findings. We will inform you of the results of this study when available. We expect the study will be completed this month.

Sincerely,

W
Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for followup

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DATE➤	8/ /74	8/ /74	8/ /74	8/ /74	8/ /74	8/ /74

Docket Nos. 50-3
50-247
and 50-286 ✓

AUG 29 1974

129

Stephen Q. Shafer, M. D.
285 Riverside Drive
New York City, New York 10025

Dear Dr. Shafer:

Your letter dated August 15, 1974 to the Director of Regulation has been referred to me for reply. In your letter, you express concern about potential seismic effects on the Indian Point nuclear facility.

Our staff has been actively reviewing seismic records with respect to the Ramapo fault and the Indian Point facility and will prepare a report on their analysis and findings. We will inform you of the results of this study when available. We expect the study will be completed this month.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for followup

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SURNAME >	PBERickson:knf	SATEets	Glear	CStepp		KRGoller
DATE >	8/ /74	8/ /74	8/ /74	8/ /74	8/ /74	8/ /74

Docket Nos. 50-3
50-247
and 50-286 ✓

AUG 29 1974

1129

Ms. Barbara Geary
613 West Connell
Stillwater, Oklahoma 74074

Dear Ms. Geary:

Your letter dated August 13, 1974 to the Director of Regulation has been referred to me for reply. In your letter, you express concern about potential seismic effects on the Indian Point nuclear facility.

Our staff has been actively reviewing seismic records with respect to the Ramapo fault and the Indian Point facility and will prepare a report on their analysis and findings. We will inform you of the results of this study when available. We expect the study will be completed this month.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

*for follow-up

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SURNAME ➤	PBERickson:krf	SATEets	Glear	CStepp		KRGoller
DATE ➤	8/ /74	8/ /74	8/ /74	8/ /74	8/ /74	8/ /74

FROM
J. E. Falbetta, Jr.
Chula Vista, Calif.

CONTROL NUMBER
7641
DATE OF DOCUMENT
8/27/74

FILE LOCATION
ACTION COMPLETION DEADLINE
9/10/74

TO
L. Manning Huntzinger

ACTION PROCESSING DATES
Acknowledged _____
Interim Reply _____
Final _____

PREPARE FOR SIGNATURE OF:

Chairman

Director of Regulation
X Gianbusso

DESCRIPTION **Ltr** ☒ Original ☐ Copy ☐ Other

REMARKS

Urges reconsideration of licenses issued for the Indian Point plants

REFERRED TO	DATE	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____
Gianbusso f/action	9/3/74	
		Cys: Case
		Docket Files) 50-3
		PDR) 50-247
		LPDR) 50-286

Copy sent PDR

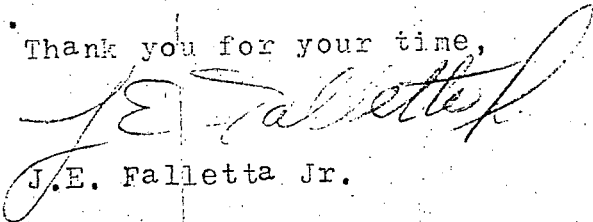
J.E. Falletta Jr.
321 $\frac{1}{2}$ 2nd Ave.
Chula Vista, Ca. 92010
August 27, 1974

L. Manning Muntzing
U.S. AEC

Mr. Muntzing,

I have just read where Con Ed is building three nuclear plants just north of New York City on the Hudson River. As if this weren't enough, this is also the site of an active earthquake fault, having a history of tremors as recently as 1966. Yet ConEd's Final Safety Analysis Reports, filed in 1955, 1965 and 1970 for each of the three plants barely mentions these faults at all and, in fact, states in one of them that "there are no geologic faults of magnitude extending through the site or close to it." State Geologist James F. Davis studied the area and states that "the seismic history of the region is inadequately reported, the structural geology is incompletely analyzed and the 1965 and 1970 reports fail to include pertinent data developed since 1955." These faults will not disappear by merely denying their existence or ignoring them, sir. It seems obvious to me that the licensing of these plants must be reconsidered and the decision must be reversed in view of the facts.

Thank you for your time,


J.E. Falletta Jr.

DR. 7841

BN

FROM
Mrs. Henry Easton
Croton-on-Hudson, N. Y.

CONTROL NUMBER

7640

FILE LOCATION

DATE OF DOCUMENT

8/26/74

ACTION COMPLETION DEADLINE

9/10/74

TO

ACTION PROCESSING DATES

PREPARE FOR SIGNATURE OF:

Acknowledged _____

Chairman

Interim Reply _____

Director of Regulation

Final _____

☒ **Giambusso**

L. Manning Muntzing

6135

DESCRIPTION ☒ Postcard ☒ Original

☐ Copy

☐ Other

REMARKS

Urges revocation of Indian Point licenses

✓
Copy sent PDR

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Giambusso f/action

9/3/74

Cys:

Case

Docket (files) 50-3

PDR) 50-247

LPDR) 50-286 ✓

DIRECTOR OF REGULATION
COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
USAEC

Aug. 26, 1974

Dear Mr. Manning

As a resident in a nearby community, I protest Con Edison's cavalier attitude toward building a nuclear plant only a very short distance from the Ramapo Fault. I urge you to rescind their licenses to build.

Very truly yours,

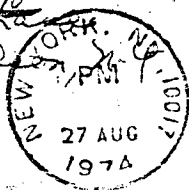
Mrs. Henry Easton
1 Woodybrook Lane
Croton-on-Hudson, N.Y.
10520

Rec'd Off. Dir. of Reg.

Date 8/30/74

Time 11:35

Easton
Woodybrook Lane
Croton-on-Hudson
10520



Samuel Adams

Patriot

U.S. Postage 8c

Mr. L. Manning Manning
Director of Regulation
U.S. Atomic Energy Comm'n.
Washington, D.C. 20545

FROM
Don Ogden
Croton-on-Hudson, N. Y.

CONTROL NUMBER
7622

FILE LOCATION

DATE OF DOCUMENT
8/24/74

ACTION COMPLETION DEADLINE
9/3/74

TO
L. Manning Huntling

6135

ACTION PROCESSING DATES

Acknowledged _____
Interim Reply _____
Final _____

PREPARE FOR SIGNATURE OF:

Chairman

Director of Regulation
X **L:RP**

DESCRIPTION **Ltr** ☒ Original ☐ Copy ☐ Other

Concern re the proximity of Indian Point 1, 2 and 3 to the
Ramapo Fault

REMARKS

REFERRED TO	DATE	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____
Giamusso f/action	8/28/74	

Cys: Case
Bucket File) 50-3
PDR) 50-247
LPDR) 50-286

Copy sent PDR

DIRECTOR OF REGULATION
COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
USAEC

August 24, 1974
Camp Rainbow
Croton-on-Hudson, N.Y.

L. Manning Muntzing
Director of Regulation,
U.S. Atomic Energy Commission
Washington, D.C.

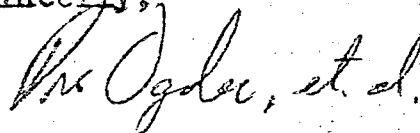
Mr. Muntzing:

My family and I are finding it increasingly difficult to understand the rationale behind the actions of your organization. It appears that your group and members of The Atomic Energy Council are underplaying the disastrous consequences involved in Indian Point's I, II, and III reactors' proximity to The Ramapo Fault (an active fault that has registered Mercalle Intensity VII). Can energy shortage and invested dollars be so much more important than the lives of millions and the devastation of the environment? Are you willing to take the risk? Have you asked over ten million people if they are?

These may sound to you like the words of an alarmist, but if you had studied all the facts (both pro and con) and if you had a family and lived in the area that I do, you might not think it so alarmist.....call it survivalist, a very human trait.

Please take our position into consideration.

Sincerely,



Don Ogden & family

DR 7622



FROM
Ms. Adrienne Smith
Washington, D.C.

CONTROL NUMBER

7620

FILE LOCATION

DATE OF DOCUMENT

4/21/74

ACTION COMPLETION DEADLINE

4/30/74

TO

L. Manning Montague

E-135

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

_____ Chairman

_____ Director of Regulation

☒ LMR

DESCRIPTION

☒ Original

☐ Copy

☐ Other

Urgent revocation of the Indian Point licenses

REMARKS

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

Ginsburg 1/action

4/25/74

RECOMMENDED? _____

Cys:

Cash

Packet (1100) 52-3

PDR

} 50-247

LMR

} 50-246

Copy sent PDR

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DIRECTOR OF REGULATION
COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
USAEC

Henderson, Nevada

89015

August 22, 1974

Dear Sir,

It has come to my attention, as a citizen concerned with the environment, that the Indian Point nuclear power plants, 24 miles north of New York City, are too near the Ramapo Fault for comfort. I am deeply concerned over the ever-diminishing prospects of safe nuclear power, and therefore I urge you to respond favorably to the Citizens' Committee for Protection of the Environment petition to revoke Con Edison's licenses for the two plants that are built and the one that is planned.

Thank you for your time.

Yours truly,

Mrs. Adrienne Rueff

DR-7820

Rg

FROM

Robert P. Rosen
Congress, N. Y.

CONTROL NUMBER

7510

FILE LOCATION

DATE OF DOCUMENT

revd 8/22/74

ACTION COMPLETION DEADLINE

9/3/74

TO

L. Manning Huntling

F135

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

_____ Chairman

_____ Director of Regulation

E. S. R.

DESCRIPTION

LEF

☒ Original☐ Copy☐ OtherUrges revocation of Can X's license for the Indian Point
plants

REMARKS

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Ginsburg 1/action

8/26/74

Cys:

Case

Rocket Files) 50-1

PDR

) 50-247

LPR

) 50-284

Copy sent PDRE

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DIRECTOR OF REGULATION
COMMUNICATIONS CONTROLForm HQ-32 (1-73)
USAEC

Robert P. Patten
17 Greenfield Terrace
Congers, New York 10920

Dear Sirs:

I am very concerned with
the ever-diminishing prospects of safe
nuclear power. Please revoke Con Edison's
licenses for their 2 plants that
are built and the 1 that is planned.

Sincerely,
Robert P. Patten

DL-7610

Ag

FROM

Steven Flatnick
Bronx, N. Y.

CONTROL NUMBER

7511

FILE LOCATION

DATE OF DOCUMENT

3/18/74

ACTION COMPLETION DEADLINE

9/13/74

TO

L. Manning Manning

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

_____ Chairman

_____ Director of Regulation

X **LMP**

DESCRIPTION

Lit

☒ Original☐ Copy☐ Other

Urges termination of Indian Police licenses

135

REMARKS

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Classroom t/section

5/26/74

Cys:

Case ✓

Becket Files) 15-3

FBI

) 50-247

(FBI

) 10-384 ✓

Copy sent PDR

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DIRECTOR OF REGULATION
 COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
 USAEC

Dear Mr. Muntzing,

I am appalled to learn that the Indian Point power plants are situated near an active fault. The operations of such plants must be terminated immediately.

Yours truly,
Steven Plotnick

FROM
Joshua Turner
Philadelphia, Pa.

CONTROL NUMBER
7592
DATE OF DOCUMENT
8/17/74

FILE LOCATION
ACTION COMPLETION DEADLINE
8/27/74

TO
L. Manning Muntzing

ACTION PROCESSING DATES
Acknowledged _____
Interim Reply _____
Final _____

PREPARE FOR SIGNATURE OF:

Chairman

Director of Regulation
X Giambusso

DESCRIPTION **Ltr** ☒ Original ☐ Copy ☐ Other

REMARKS

Urges revocation of operating license for Indian Point 1 & 2 and construction permit for Indian Point 3

F 135

REFERRED TO	DATE
Giambusso f/action	8/20/74

IS NOTIFICATION TO THE JCAE
RECOMMENDED? _____
Cys: **Case**
Boeker File) 50-3
PDR) 50-247
LPDR) 50-286 ✓

Copy sent PDR

4331 Osage Ave.
Philadelphia, Pa. 19104
August 17, 1974

L. Manning Muntzing
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

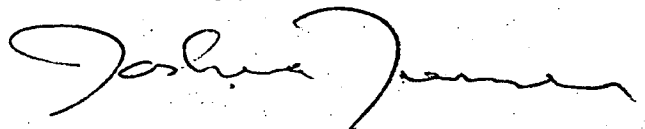
Dear Mr. Muntzing;

I am writing to urge you to revoke Con Edison's licenses for its two completed reactors at Indian Point and to revoke its construction permit for the third.

The report of New York State Geologist James Davis clearly indicates that the Ramapo seismic fault is a much greater threat to safety at Indian Point than Con Edison has mentioned in its Final Safety Analysis Reports for the three plants. The possibility of a major rupture at Indian Head, inadequately considered and allowed for by Con Edison, poses a serious threat to residents of New York City.

Out of concern for human safety I urge you to close these three plants.

Sincerely,

A handwritten signature in dark ink, appearing to read "Joshua Turner", written in a cursive style.

Joshua Turner

FROM
Stephen G. Shafer, MD
New York City

CONTROL NUMBER
7588
DATE OF DOCUMENT
8/15/74

FILE LOCATION
ACTION COMPLETION DEADLINE
8/27/74

TO
L. Manning Montzring

ACTION PROCESSING DATES
Acknowledged _____
Interim Reply _____
Final _____

PREPARE FOR SIGNATURE OF:

Chairman

Director of Regulation
X **Gianbusso**

DESCRIPTION **Ltr** ☒ Original ☐ Copy ☐ Other

REMARKS

Asks how the AEC can justify the construction and operation of the Indian Point plants in a fault zone

6135

REFERRED TO	DATE
Gianbusso f/action	8/20/74

IS NOTIFICATION TO THE JCAE
RECOMMENDED? _____
Cys:
Case
Docket Files) 50-3
PDR) 50-247
LPDR) 50-286

Copy sent PDR

August 15 1974

Mr L. Manning Muntzing
Director of Regulation
U.S. A. E. C.
Washington, D.C. 20545

Dear Mr Muntzing,

I am greatly alarmed that the Indian Point power reactors are operating in a fault zone that has had major activity in the past century. It seems to me that an earthquake might cause dangerous disruption in, for example, control rod shape or coolant piping.

How can the AEC justify this situation, which adds to the many technical problems of reactor operation the threat of earthquake stress? Please let me know your answer.

Sincerely,

Stephen Q. Shafer MD
285 Riverside Dr
New York City
10025

DR 7588

Rg

FROM
Barbara Geary
Stillwater, Ohio.

CONTROL NUMBER
7587
DATE OF DOCUMENT
8/13/74

FILE LOCATION
ACTION COMPLETION DEADLINE
8/23/74

TO
L. Manning Munzring

ACTION PROCESSING DATES
Acknowledged _____
Interim Reply _____
Final _____

PREPARE FOR SIGNATURE OF:

Chairman

Director of Regulation
X Giambusso

DESCRIPTION **Ltr** ☒ Original ☐ Copy ☐ Other

REMARKS

**Concern re the seismic history of the Indian Point area
and urges action be taken to revoke the licenses for all
three Indian Point plants**

435

REFERRED TO	DATE	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____
Giambusso f/action	8/20/74	
		Cys: Case Bocket Files) 50-3 FDA) 50-247 LPDR) 50-286 ✓

Copy sent PDR

B. GEARY
613 West Connell
Stillwater, Okla. 74074

August 13, 1974

Mr. L. Manning Muntzing
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Muntzing:

I have read in several places of the many problems that have beset Con Edison and its nuclear power plants at 'Indian Point'. But I have only now learned of the seismic history of the area. In the interest of public safety, a concern which has to be paramount, I urge you to take action to have the licenses revoked for the three Indian Point plants.

Yours truly,

DR-7587 Barbara Geary

Bg

FROM Bill Teague San Diego, Calif.	CONTROL NUMBER 7575 DATE OF DOCUMENT 8/12/74	FILE LOCATION ACTION COMPLETION DEADLINE 8/22/74
TO Muntzing	ACTION PROCESSING DATES Acknowledged _____ Interim Reply _____ Final _____	PREPARE FOR SIGNATURE OF: _____ Chairman _____ Director of Regulation X OCC

DESCRIPTION Ltr <input checked="" type="checkbox"/> Original <input type="checkbox"/> Copy <input type="checkbox"/> Other	REMARKS																											
<p> Concerned re Indian Point reactors and Ramapo Fault, and supports CCPE petition for show cause order </p> <p style="text-align: right; font-size: 2em;"><i>F-135</i></p> <table border="1" style="width: 100%;"> <thead> <tr> <th>REFERRED TO</th> <th>DATE</th> <th>IS NOTIFICATION TO THE JCAE RECOMMENDED? _____</th> </tr> </thead> <tbody> <tr> <td>Shaper f/action</td> <td>8/15/74</td> <td></td> </tr> <tr> <td> </td> <td> </td> <td>Cys:</td> </tr> <tr> <td> </td> <td> </td> <td>Gianbusso</td> </tr> <tr> <td> </td> <td> </td> <td>Docket Files) 50-3</td> </tr> <tr> <td> </td> <td> </td> <td>PDR) 50-247</td> </tr> <tr> <td> </td> <td> </td> <td>LPDR) 50-286</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REFERRED TO	DATE	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____	Shaper f/action	8/15/74				Cys:			Gianbusso			Docket Files) 50-3			PDR) 50-247			LPDR) 50-286							
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 DIRECTOR OF REGULATION
 COMMUNICATIONS CONTROL

 Form HQ-32 (1-73)
 USAEC

San Diego, California
August 12, 1974

L. Manning Muntzing
Director of Regulation
U. S. Atomic Energy Commission
Washington, D.C. 20545

Dear Director Muntzing:

It would appear that safety standards for nuclear power plants are treated as amenities which utilities may be excused from observing. A case in point involves Consolidated Edison's three nuclear plants at Indian Point (24 miles north of New York City).

New York State's Atomic Energy Council requested a study of the Ramapo Fault in order to review Con Edison's Final Safety Analysis Report (FSAR) for the Indian Point III plant. #

The study, by State Geologist James F. Davis, found Con Ed's FSAR to be inaccurate: "the seismic history of the region is inadequately reported, the structural geology is incompletely analyzed and the 1965 and 1970 reports [FSARs] fail to include pertinent data developed since 1955." (As reported in Lorna Salzman, "New York Report," Not Man Apart, 5, No. 11 [Mid-August 1974], pp. 12-13.)

The crux of the matter (of which you might be aware) is that the Indian Point plants are built a mile away from the Ramapo Fault, a fault which slants directly under the plants, which is active (with tremors recorded as late as 1966), and which in the past has created tremors of Mercalle intensity VI or VII.

Yet Con Ed's ^{reports variously} ~~reports~~ said that either there were no faults of magnitude extending through or close ~~to~~ their site, or that the faults in the area have been inactive for 10,000 years.

But what is finally most discouraging is that having been presented this new information, the AEC has made a preliminary finding that approves the plants' seismic designs as they are now,-- built on specifications based on inaccurate or # inadequate data!

Thus I am in complete sympathy with and lend my support to Citizen's Committee for Protection of the Environment's petition to the AEC for a show-cause order to revoke licences for Indian Point I and II and the construction permit for III.

Sincerely,

Bill Teague

c.: CCPE,
Ossining, NY

Bill Teague
1714 Robinson Ave.

Rec'd Off. Dir. of Reg. San Diego, CA 92103

Date 8/14/74

DR-7575

Time 11:40

[Handwritten signature]

[Handwritten mark]

FROM

Ursula Noonan
Joseph B. Noonan
St. Helena, Calif.

CONTROL NUMBER

FILE LOCATION

DATE OF DOCUMENT

8/8/74

ACTION COMPLETION DEADLINE

8/21/74

TO

Mentoring

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

_____ Chairman

_____ Director of Regulation

1 OGC

DESCRIPTION

Ltr☒ Original☐ Copy☐ Other**Support CCPE petition re Indian Point nuclear plants***F 135*

REMARKS

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Shapar f/action**8/14/74**

Cys:

Giamusso**Docket Files) 50-3****PDR) 50-247****LPDR) 50-286***COPY SENT*

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DIRECTOR OF REGULATION
 COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
 USAEC

Aug 8/74

Mr. L. Manning Montz, Jr.,
Director of Regulation,
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Sir:

We, the undersigned are in support of The Citizens' Committee for Protection of the Environment petition in re to Indian Point nuclear power plants.

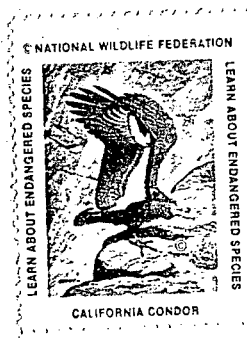
The results of the study by State Geologist James F. Davis should substantiate said petition and we therefore hope you will revoke licenses for plant I and II and also stop construction permit of plant III.

We live thousands of miles away from your location - but we are concerned - concerned for survival of all living things.

Sincerely,

Mrs. La. Noonan
Joseph B. Noonan

1763 Stockton St.
St. Helena, Ca. 94574



Docket Nos. 50-3
50-247
and 50-286 ✓

AUG 6 1974

Elise Jerard, M.P.H., Ph.D.
Chairman, Independent Phi Beta Kappa
Environmental Study Group
115 Central Park West
New York, New York 10023

Dear Dr. Jerard:

Your letter dated July 17, 1974 to the Director of Regulation has been referred to me for reply. In your letter, you express concern about potential seismic effects on the Indian Point nuclear facility.

Our staff has been actively reviewing seismic records with respect to the Ramapo fault and the Indian Point facility and will prepare a report on their analysis and findings. We will inform you of the results of this study when available. We expect the study will be completed during the month of August 1974.

Sincerely,

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

DISTRIBUTION:
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Dockets (3)
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MGroff
EHughes
EPeyton
CStepp
DBudge
WGammill
SATEets
Glear

*for followup

SEE PREVIOUS YELLOW FOR CONCURRENCE CHAIN

OFFICE ➤	ORB#3	ORB#3	ORB#3	L:TR	OGC	L:AD/ORS
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DATE ➤	7/ /74	7/ /74	7/ /74	7/ /74	7/ /74	7/ /74

FROM

Dorothy Cairns, Co-ordinator
 Springville Radiation Study Group
 Springville, N. Y.

CONTROL NUMBER

7506

FILE LOCATION

DATE OF DOCUMENT

7/25/74

ACTION COMPLETION DEADLINE

8/9/74

TO

L. Manning Manning

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

Chairman_____
Director of Regulation

K DOE

DESCRIPTION

lit

☒ Original☐ Copy☐ Other

Supports petition of the Citizens Committee for Protection
 of the Environment for a class action order to revoke operating
 licenses for Indian Point 1 and 2 and the class permit for
 Indian Point 3

6 135

REMARKS

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Shaper

1/action

8/2/74

Cys:

~~Electric~~

Nuclear (File) 30-3

FRA

) 10-247

LRR

) 30-284 ✓

Copy sent PDR

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DIRECTOR OF REGULATION
 COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
 USAEC

July 28, 1974

Mill Street RD 1
Springville
New York 14141

L. Manning Muntzing
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Muntzing,

The Springville Radiation Study Group wishes to add its support for the petition of the Citizens Committee for Protection of the Environment, Ossining, New York, in the matter of a Show Cause Order to have the operating licenses for Indian Point #1 and #2 and the Construction Permit for #3 revoked.

Our group is concerned locally with questions about possible hazards of the nuclear fuel reprocessing plant near our homes, but we also have a deep concern for possible hazards arising from what appears to be a too hasty pursuit of increased electrical power elsewhere in our state. Many of our families have members living or staying in the Indian Point area. We understand the extent to which a catastrophic accident there could affect our state as a whole.

The Springville Radiation Study Group has over 2000 signatures at present on its petition to oppose licensing of the plant near our homes and to encourage development of non-nuclear sources of energy. We represent a large number of citizens who believe that the hazards of this industry need to be questioned more carefully and more publicly than has been done to date. What has been done with much care may still have been done without enough care. In the case of nuclear power, there is no precedent, no comparisons to be made. From reading accounts of the present issue, one concludes that the FSAR for Indian Point Unit No. 3 may lack that ingenuous quality that a resident of the area has the right to expect.

Sincerely,

Dorothy Cairns

Dorothy Cairns,
Co-ordinator

Springville Radiation Study Group

DR - 7506

FROM

Jack J. Adler
Citizens League for Education Trust
Executive Energy Inc. (CLEAR)
New Rochelle, N. Y.

CONTROL NUMBER

FILE LOCATION

DATE OF DOCUMENT

7/26/74

ACTION COMPLETION DEADLINE

8/12/74

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

Chairman_____
Director of Regulation

Z EDE

TO

L. Manning Manning

DESCRIPTION

1/2

☐ Original☐ Copy☐ Other

REMARKS

Supports petition of the Citizens for Protection
of the Environment for a show cause order to revoke all of
Gen Ed's licenses

K135

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Shaper 1/Action

8/5/74

Cys:

Gibson

Gibson File 10-1

10-1

10-247

10-1

10-124

COMM. CONT. PDR

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DIRECTOR OF REGULATION
COMMUNICATIONS CONTROLForm HQ-32 (1-73)
USAEC

CLEAN

CITIZENS LEAGUE FOR EDUCATION ABOUT NUCLEAR-ENERGY INC. BOX 1037, NEW ROCHELLE, N.Y. 10802

July 26, 1974

L. Manning Muntzing
Director of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Muntzing:

CLEAN, Citizens League for Education of Nuclear-Energy strongly supports the petition of the Citizens Committee for Protection of the Environment for a show cause order to have all of Consolidated Edison's Indian Point licenses revoked. In particular, the operating licenses for Indian Point Plants #1 and #2 and the construction permit for Plant #3 should be revoked. The recently publicized Geologic Surveys of the Indian Point area indicate once more the threat that these nuclear power plants pose to the New York Metropolitan Area. The fact that this information was either not obtained previously or not publicized previously again indicates that the public has not been properly informed about the real problems posed by the construction of nuclear power plants in the Indian Point Area.

I know the CCPE has submitted to you detailed information on their petition. We can only second their petition and add our voice to the growing concern over the operation of existing plants and the planned construction of new facilities in the New York Metropolitan Area.

Sincerely yours,

Jack J. Adler
Jack J. Adler, M.D., F.A.C.P.
for CLEAN

JJA/ms
cc: CCPE

DE-7513

PEOPLES CENTER FOR PEACE AND JUSTICE

169 MAIN STREET ROSSINI, N.Y. telephone: 941-9779

135
July 23, 1974

Frank W. Karas, Chief:
Public Proceedings Staff
Office of the Secretary of the Commission
U.S. Atomic Energy Commission
Washington, D. C.

Acknowledged

7-29-74, cwa

Dear Mr. Karas:

I wish to inform you that the Steering Committee of the People's Center for Peace and Justice has conducted two months of intensive study and research in the areas adjacent to Indian Point Reactor #3. We have also made an exhaustive review of the information contained in a document entitled STATEMENT: GEOLOGICAL SURVEY--NEW YORK STATE MUSEUM AND SCIENCE SERVICE REGARDING LICENSING OF INDIAN POINT REACTOR #3, AND DISCUSSION OF THE FINAL SAFETY ANALYSIS REPORT SECTIONS 2.7 (GEOLOGY) AND 2.8 (SEISMOLOGY), dated April 19, 1974, signed by the State Geologist of New York State Mr. James F. Davis and two members of his staff. As a result of the above studies we have decided to join the petition of the Citizens Committee for the Protection of the Environment, pursuant to Section 2.206 for order to show cause why operating authority for Indian Point Nos. 1 and 2, and construction authority for Indian Point #3 should not be revoked. This was decided unanimously by resolution of our meeting of July 16, 1974.

Our Center is a coalition of 19 organizations based in northern and central Westchester, dealing with community problems of an economic, social and legislative character. It has become apparent to us that there are many important questions dealing with seismicity, and its relevance to critical safety factors, that have been left unanswered. We feel that the entire public interest in general, and that of the immediate locale in particular, has not been served well by the granting of operating licenses and construction permits for the three units at Indian Point.

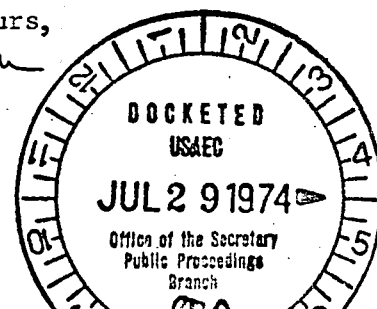
It is our profound opinion that in view of the material presented by Mr. James F. Davis and the findings of our local efforts, it is vital that the Atomic Energy Commission should sponsor much more exhaustive inquiries in this matter.

We thank you for any and all efforts in this direction.

Very truly yours,

Al Warren
Al Warren

cc: Mr. L. Manning Muntzing, Esq.
Mr. Arvin Upton, Esq.
Mr. Anthony Reisman
Mrs. Irene P. Dickinson



docket

JUL 16 1974

Docket Nos. 50-3
50-247
and 50-286 ✓

F135

Mr. Walter H. Schwane, President
Hudson River Sloop Restoration, Inc.
88 Market Street
Poughkeepsie, New York 12601

Dear Mr. Schwane:

Your letter dated June 21, 1974 to the Chairman of the Commission has been referred to me for reply. In your letter, you express concern about the quantity and quality of seismic information pertaining to the area near the Indian Point nuclear facility and, in particular, the Ramapo fault zone. Your concerns regarding the seismic data have been considered by the Regulatory staff. We are indeed involved in the matters you have addressed and are aware of the report issued by the State Geologist of the State of New York.

We have reviewed the State of New York Report and the geological and seismological literature which it cites. Much of the literature cited as evidence in their report is of an ambiguous nature. The New York State study is not based on direct field observations. Accordingly we consider our original evaluation of the Indian Point site to be valid. This evaluation concluded that the site was an acceptable location for a nuclear facility and was performed by our advisors, namely, the U.S. Geological Survey, and the National Oceanic and Atmospheric Administration. These agencies did not restrict themselves to the information provided in the applicant's Preliminary Safety Analysis Report (PSAR), but drew heavily on their own knowledge of the area and the geology and seismology of the eastern U. S. Their study and reports found the site adequate for construction and operation of the nuclear facility.

Although we maintain that our earlier position remains valid, we are interested in additional information. We expect such information to be confirmatory. We are therefore doing the following:

HEARNE
Ng

- 1) The Regulatory staff has been actively reviewing seismic records related to the Ramapo fault. Data from seismic instrumentation of the capability required for accurate sensing were not available until the 1960's. 2) New investigations, which will supplement the available data, have been initiated by Consolidated Edison and will be subject to our review. These new studies of seismic activity in the area around Indian Point will employ investigators who are well qualified to evaluate accumulated information. The data will be acquired by the use of a microseismic instrumentation network to be procured and installed, within three months, by Consolidated Edison. 3) In the fall of this year, a detailed seismic-related field mapping program will also be prepared for the Ramapo and related faults in the area.

We believe that the results of the studies of the Ramapo fault that have been undertaken by Consolidated Edison will unambiguously resolve the questions raised in the New York state report.

While we continue to acquire more information through study, reports from the utility, and geological reconnaissances along the Ramapo fault system, we have not found reason to alter our former evaluation of the site.

Sincerely,

Original Signed By
K. R. Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

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DATE >	7/12/74	7/12/74	7/12/74	7/12/74	

Docket File 50-3 ✓
50-247
50-2862

July 16, 1974

F-135

Anthony Z. Roisman, Esq.
Berlin, Roisman and Kessler
1712 N Street, N. W.
Washington, D. C. 20036

RE: Consolidated Edison Company of New York, Inc.
(Indian Point Nos. 1, 2 and 3)

Dear Mr. Roisman:

This is in response to your letter of June 13, 1974 to Mr. John F. O'Leary, Directorate of Licensing, U. S. Atomic Energy Commission. In that letter you indicated you would like to meet with members of the Regulatory Staff to determine the nature of the Staff review, documents being examined and the persons being contacted with respect to seismic issues at Indian Point Nos. 1, 2 and 3.

As I indicated to you in our telephone conversation last month and yesterday, Staff has provided me with a list of persons contacted and documents being examined. That list is as follows:

Persons contacted:

- Dr. Marc L. Sbar, Lamont-Dougherty Geological Observatory
- Dr. James Davis, State Geologist, N. Y. Geological Survey
- Dr. Robert Fakundiny, New York Geological Survey
- Dr. Paul Pomeroy, New York Geological Survey
- Mr. Sanford Holdahl, National Geodetic Survey
- Dr. Nicholas Rattcliffe, City College of City University of New York
- Mr. Charles Ellis, Resident of Mahwah, New Jersey
- Dr. Kemble Widmer, State Geologist, N. J. Bureau of Geology and Topography
- Dr. John Dombroski, N. J. Bureau of Geology and Topography
- Mr. Robert Morris, USGS

Documents examined:

1. Statement prepared by New York Geological Survey
2. Presently evaluating literature from a list of 222 citations generated by GEOREF.

OFFICE➤						
SURNAME➤						
DATE➤						

HKM:mg
13

Contacts with applicant:

Meeting April 26, 1974, Bethesda, Maryland

Meeting May 2, 1974, Palisades, New York

Telephone conversation June 18, 1974 re: site visits 1 and 2 July, 1974

As I also indicated to you in our telephone conversation yesterday, July 15, Staff expects to complete its report sometime either the week of the 22nd or 29th of July, 1974. I have asked Myron Karman to set up a meeting between you and the Staff prior to issuance of the Staff reports.

If I may be of further service to you, please feel free to contact me.

Sincerely,

/s/
James R. Tourtellotte
Acting Assistant Chief Hearing Counsel

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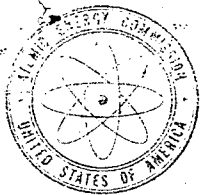
P. Erickson-LPM

M. Aycock-L

Denton
Gammill

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OFFICE	OGC				
SURNAME	JTourtellotte/fmr				
DATE	7/16/74				



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

6135

Docket File

Docket Nos. 50-3,
50-247,
and 50-286

JUL 1 1974

Mr. William R. Coleman
Assistant Corporation Counsel
New York City Law Department
1620 Municipal Building
New York, New York 10007

Dear Mr. Coleman:

This letter is in response to your letter of June 10, 1974, concerning the Indian Point Nuclear Plants. We have, as you noted, initiated a reevaluation of Consolidated Edison Company's financial qualifications to carry out the activities authorized under the licenses and permits we have granted with respect to the operation of Indian Point Units 1 and 2 and the construction of Unit 3. Our review is presently ongoing.

I am sure you are aware of the fact that Consolidated Edison Company and the Power Authority of the State of New York (PASNY) are negotiating the sale of two of Consolidated Edison Company's power plants (one nuclear and one oil fired) to PASNY under the authority of recently enacted New York legislation. We have been contacted recently by Consolidated Edison Company and PASNY with regard to the transfer of ownership of Indian Point Unit 3 to PASNY. Accordingly, we will review PASNY's technical and financial qualifications to act as owner of the Indian Point Unit 3 facility when applications are filed for transfer or amendment of the appropriate licenses and permits.

These two sales, when consummated, should provide Consolidated Edison Company with some financial relief from its current situation and will be a consideration in our review of Consolidated Edison Company's financial qualifications.

We cannot predict what repairs or modifications may be required at the Indian Point facility in the future with the exception that it is the Regulatory staff position that Consolidated Edison Company is required to install cooling towers for Units 2 and 3. Also, in accordance with the AEC's Interim Policy Statement concerning "Interim Acceptance

HEARINGS

Rg

Mr. William R. Coleman

- 2 -

Criteria for the Performance of Emergency Core Cooling Systems" issued June 29, 1971, Consolidated Edison Company is required to improve the emergency core cooling system (ECCS) at Unit 1. We have also required that the Unit 1 reactor protection system be modified to meet the single failure criterion of IEEE Standard 279-1968.

I hope that this letter provides the required information. I will, however, be happy to provide any additional information that you may need.

Sincerely,

Original Signed by
Karl Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

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SATEets, OR-1
GERTter, DR (DR#7195)
MGroff, DL
NHughes, RP
EPeyton, OR
MAYcock
DVRsello

6/25/ 2:35 PM checked work Gallo; OGC he
said that Cooling towers are still
required at Units 2 & 3 per the staff.
PHE

OFFICE>	L:OR-1- <i>PHE</i>	<i>MA</i> <i>MA</i> <i>MA</i>	L:LR1-1 <i>MA</i>	OGC	L:OR-1 <i>MA</i>	L:OR <i>KRG</i>
SURNAME>	PBERickson:dc	<i>MA</i> <i>MA</i> <i>MA</i>	<i>MA</i> <i>MA</i> <i>MA</i>		RAPurple	KRGoller
DATE>	6/28/74	6/28/74	6/28/74	6/28/74	6/28/74	6/28/74

FROM Hudson River Sloop Restoration, Inc. Walter H. Schwane Poughkeepsie, N. Y.		CONTROL NUMBER 7275	FILE LOCATION
TO		DATE OF DOCUMENT 6/21/74	ACTION COMPLETION DEADLINE 7/9/74
Chairman		ACTION PROCESSING DATES Acknowledged _____ Interim Reply _____ Final _____	PREPARE FOR SIGNATURE OF: _____ Chairman _____ Director of Regulation X Giambusso
DESCRIPTION Ltr <input checked="" type="checkbox"/> Original <input type="checkbox"/> Copy <input type="checkbox"/> Other F135		REMARKS	
<p>Opposes any further operation & construction of the Indian Point complex, req. an investigation of safety data submitted by Con Ed and an immediate study of the seismic activity in the Indian Point area</p> <p style="text-align: right;">SECY 74-6236</p>			
REFERRED TO Giambusso f/action	DATE 6/28/74	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____	
		Cys Muntzing O'Leary Hendrie Docket Files) 50-3 FDR) 50-247 LPDR) 50-286	

DIRECTOR OF REGULATION
COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
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HEARING

Copy sent PDH

NO. 74-6230 LOGGING DATE June 27, 1974

AEC SECRETARIAT

TO: ☐ COMMISSIONER ☐ GEN. MANAGER ☒ DIR. REGULATION ☐ GEN. COUNSEL ☐ PLAN. & ANAL. ☐ INFO. SERVICES ☐ SECRETARY

DATE: 6/27

INCOMING FROM: Walter H. Schwane, President To: Dr. Ray
Hudson River Sloop Restoration Inc.
Poughkeepsie, New York

DATE: June 21, 1974

SUBJECT: Licensing Proceedings concerning Indian Point.

☐ PREPARE REPLY FOR SIGNATURE OF:

- ☐ CHAIRMAN
- ☐ COMMISSIONER
- ☐ GM, DR, GC, PA, IS, SECY
- ☐ SIGNATURE BLOCK OMITTED

☐ PLEASE RETURN ORIGINAL WITH RESPONSE

☒ FOR DIRECT REPLY

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- ☐ COMMISSIONERS
- ☐ SECRETARY

- ☐ FOR APPROPRIATE ACTION
- ☐ FOR INFORMATION
- ☐ FOR RECOMMENDATION

REMARKS: _____

FOR THE COMMISSION: *[Signature]*

WHEN SEPARATED FROM ENCLOSURES
HANDLE THIS DOCUMENT AS

DR-7275

GPO 870-868

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[Handwritten mark]

Hudson River Sloop Restoration Inc.

88 Market Street, Poughkeepsie, N.Y. 12601

RECEIVED

'74 JUN 25 PM 2:00

OFFICE OF THE SECRETARY

June 21, 1974

Chairman, Dixie Lee Ray
Atomic Energy Commission
Washington, D.C.

Dear Chairman Ray,

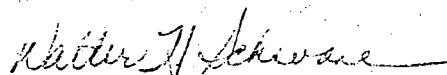
The State Geologist of the State of New York has issued a report which casts severe doubt on the licensing procedures of the Atomic Energy Commission, and especially on the data submitted by Consolidated Edison to substantiate safe operation of the nuclear reactors at Indian Point.

It is unconscionable that such readily available seismic data and information on the area surrounding Indian Point, and in particular on the Ramapo fault never made its way into the record, a record that has been in existence for almost twenty years.

As a result of these potentially catastrophic omissions, it is the position of the Hudson River Sloop Restoration to oppose any further operation and construction on the nuclear power plant complex at Indian Point, and furthermore to join the Petition filed by the Citizen's Committee for the Protection of the Environment to revoke such licenses.

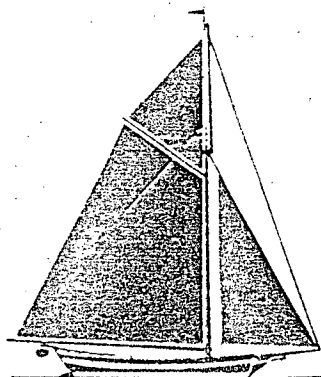
Regardless of whatever other arguments exist for or against nuclear power plants, the safety information in this case was obviously so deficient as to void any deliberations based upon them. We call upon you to use your office to initiate a non-biased, systematic investigation into the safety data submitted by Consolidated Edison, and begin immediately to structure a study of the seismic activity in the Indian Point area/Ramapo fault zone. We do not feel that Consolidated Edison should be required or trusted to carry out this study, nor do we feel that this study should be carried out by one individual.

Sincerely,



Walter H. Schwane
President
Hudson River Sloop Restoration, Inc.

WHS/caw



DR- 7275

Rec'd Off. Dir. of Reg.
Date 6/28/74
Time 2:10

FROM

William J. Holmes
Washington, D. C.

CONTROL NUMBER

7201

FILE LOCATION

DATE OF DOCUMENT

4/12/74

ACTION COMPLETION DEADLINE

4/30/74

TO

John P. G'Leary

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

_____ Chairman

_____ Director of Regulation

_____ G'Leary

DESCRIPTION

☒ Original☐ Copy☐ Other

F 135

See with Reg Staff prior to their completion of review of the certificate problem at Indian Point 1. E & J believe Applicant, PDR & members of the public should be allowed to attend. See eye of all documents & copies exchanged between the Staff & Applicant, as well as minutes of all mtg. conference & mgtg.

REMARKS

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Headline 1/10/74 6/17/74

Cys: ~~Working~~

G'Leary

Clenahan

Decker, (Steele) 50-3

PDR 10-147

10/14 10-146

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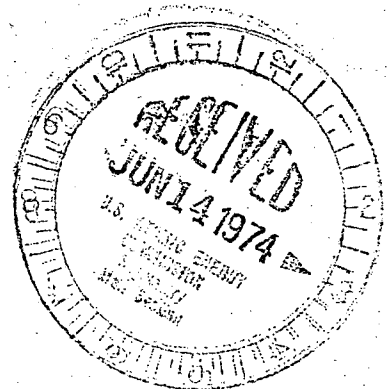
DAVID R. CASHDAN

KARIN P. SHELDON

STUART M. BLUESTONE

CLIFTON E. CURTIS

June 13, 1974



Mr. John F. O'Leary
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Re: Consolidated Edison Company
(Indian Point No. 1, 2 and 3)


Dear Mr. O'Leary:

With reference to your letter of June 11, 1974, I would appreciate it if you would arrange for me to meet as soon as possible with the members of the Regulatory Staff who are conducting the review of the earthquake problems. I would like to meet with them prior to the completion of their review. The purpose of such meeting would be to determine the nature of the Staff review, the documents being examined and the persons being contacted. I believe consistent with current practice that the Applicant, PASNY and members of the public should be allowed to attend the meeting but not to participate in the discussions.

Would you also please inform me of all contacts between the Staff and Applicant on this matter and provide me copies of all documents and correspondence exchanged as well as minutes of all telephone conversations and meetings.

I would appreciate an early reply to this letter.

Sincerely,


Anthony Z. Roisman
Counsel for Citizens Committee for
Protection of the Environment

AZR/pq

CC: Frank Karas
Arvin Upton, Esq.

DR 7201



5372

JUN 11 1974

E135

Anthony Z. Roisman, Esq.
Berlin, Roisman and Kessler
1712 N. Street, N. W.
Washington, D. C. 20036

Dear Mr. Roisman:

Receipt is acknowledged of the "Petition Pursuant to Section 2.206 For Order To Show Cause Why Operating Authority For Indian Point Nos. 1 and 2 and Construction Authority For Indian Point No. 3 Should Not Be Revoked," filed by you on behalf of the Citizens Committee for Protection of the Environment on May 22, 1974.

This matter is presently under review by the Regulatory Staff. Pursuant to the provisions of 10 CFR 2.206, you will be appropriately informed as to the disposition of the petition when our review is completed.

Sincerely,

for Original Signed By
E. G. Case

John F. O'Leary
Director of Licensing

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SURNAME	Karman/Th Tourtellotte	JGallo	TFEngelhardt	HDenton <i>[Signature]</i>	RAPurple	JF O'Leary
DATE	6/7/74	6/7/74	6/7/74	6/10/74	6/10/74	6/16/74

FROM The City of New York Law Department William E. Coleman	CONTROL NUMBER 7195	FILE LOCATION
TO S. Manning Manning	DATE OF DOCUMENT 6/20/74 ACTION PROCESSING DATES Acknowledged _____ Interim Reply _____ Final _____	ACTION COMPLETION DEADLINE 6/20/74 PREPARE FOR SIGNATURE OF: _____ Chairman _____ Director of Regulation 6/20/74

DESCRIPTION <input checked="" type="checkbox"/> Original <input type="checkbox"/> Copy <input type="checkbox"/> Other Req to be informed of status of investigation whether or not one is in sufficient funds to continue to operate Indian Point 1 and 2, what repairs or modifications are required to make at Indian Point 1, 2 and 3 & what further repairs might be required in the future	REMARKS														
<table border="1"> <thead> <tr> <th>REFERRED TO</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>Classroom Session</td> <td>6/18/74</td> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	REFERRED TO	DATE	Classroom Session	6/18/74											IS NOTIFICATION TO THE JCAE RECOMMENDED? _____ Cys: Manning O'Leary Boeker #31-443 50-3 WMA 50-267 WMA 50-284
REFERRED TO	DATE														
Classroom Session	6/18/74														



LAW DEPARTMENT
MUNICIPAL BUILDING
NEW YORK, N. Y. 10007

ADRIAN P. BURKE, *Corporation Counsel*

June 10, 1974

L. Manning Muntzing
Director of Regulation
Atomic Energy Commission
Washington, D.C. 20545

Sir:

The New York Times on June 5, 1974 reported that your agency commenced an investigation last month concerning whether or not Consolidated Edison has sufficient funds to continue to operate its Indian Point 1 and 2 units safely. The news story also questioned whether there would be sufficient funds to make necessary repairs or modifications as required by the A.E.C.

Would you please inform this office of the status of the investigation, what repairs or modifications the A.E.C. presently requires be made at Indian Point Units 1, 2 and 3 and what further repairs or modifications might be required in the future.

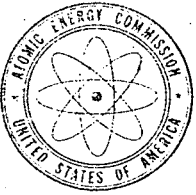
The City as the largest customer of the Consolidated Edison Company and as the representative of its residents, commerce and industry is deeply concerned about both the safety of Indian Point and the reliability and cost of service provided by the Indian Point Plants.

Very truly yours,

WILLIAM R. COLEMAN
Assistant Corporation Counsel
New York City Law Department
1620 Municipal Building
New York, N.Y. 10007

DE-7195

Ry



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

135
MAY 15 1974

Mrs. Jean Mulcahy
Pond Road
Crompond, New York 10517

Dear Mrs. Mulcahy:

This is in response to your letter of April 15, 1974, to Chairman Ray in which you expressed concern with respect to the potential effect of tornadoes on the safe operation of the Indian Point Nuclear Power Plants and the existence of emergency plans for citizens near the plants.

The Atomic Energy Commission is concerned with the safe operation of all nuclear power plants with respect to all natural phenomena, including tornadoes. We specifically require that tornadoes be considered in the design, construction, and analysis of nuclear power plants. We have received and have completed our review of Consolidated Edison Company's analysis of the effect of tornadoes on the Indian Point 2 facility and have concluded that it is adequately designed and constructed with respect to tornadoes. I am enclosing for your information a copy of our Safety Evaluation for Indian Point 2. We are now reviewing the Consolidated Edison Company's analysis of Indian Point 1 with respect to present tornado protection requirements. While this review is not yet complete, it should be noted that nuclear plants like the Indian Point 1 plant have considerable inherent protection against the effects of tornadoes due to the massive, reinforced concrete structure of the containment building.

Copies of all correspondence on this and other matters between Consolidated Edison Company and the Commission are available for your inspection at the Hendrick Hudson Free Library, 31 Albany Post Road, Montrose, New York.

To provide for the unlikely event of an incident happening at a nuclear power plant site that could affect the health and safety of the public, we require all applicants to develop and maintain an emergency plan. Consolidated Edison Company has such a plan, which was developed in coordination with the State of New York and local agencies. The emergency plans for the area around the Indian Point plants are, therefore, included as a section in the New York State Emergency Plan. Detailed

Copy sent PDR

12
HEADING

Mrs. Jean Mulcahy

- 2 -

plans for emergency measures such as notification, relocation, and medical service for the communities adjacent to Indian Point plants, including persons such as yourself and your family, are provided for in the State Emergency Plan. A copy of the entire New York State Plan (as revised August 1972) is enclosed for your information.

I hope this information will help to allay your concerns. Please feel free to contact me if you desire additional information.

Sincerely,

Original Signed by
Karl Goller

Karl R. Goller, Assistant Director
for Operating Reactors
Directorate of Licensing

Enclosures:

1. Safety Evaluation of Indian Point 2 Nuclear Generating Station
2. New York State Emergency Plan

DISTRIBUTION

Docket Files (50-3, 50-247 & 50-286)
AEC PDR (50-3, 50-247 & 50-286)
Local PDR (50-3, 50-247 & 50-286)
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PBErickson, L:OR-1
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SURNAME >	PBErickson:dc	RAPurple	KRGoller		
DATE >	5/13/74	5/13/74	5/14/74		

DM

Anthony Z. Roisman
Counsel for Citizens Committee for
Protection of the Environment

.. Manning Muntzing

CONTROL NUMBER
7018

DATE OF DOCUMENT
5/3/74

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

FILE LOCATION

ACTION COMPLETION DEADLINE

5/16/74

PREPARE FOR SIGNATURE OF:

Chairman

☒ Director of Regulation

DESCRIPTION Ltr ☒ Original ☐ Copy ☐ Other

req a thorough investigation of the financial qualifications
of Consolidated Edison to continue to operate Indian Point
1 and 2 and to continue to construct Indian Point 3 - req
answer within 15 days

REMARKS

REFERRED TO	DATE	IS NOTIFICATION TO THE JCAE RECOMMENDED?
Diambusso f/action	5/2/74	
		Cys: Muntzing Shapar
		Gossick
		O'Leary
		Knuth
		Docket Files) 50-3
		PDR) 50-247
		LPDR) 50-286

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ANTHONY Z. ROISMAN
ELADYS KESSLER
DAVID R. CASHDAN
MARIN P. SHELDON
STUART M. BLUESTONE
CLIFTON E. CURTIS

May 3, 1974

Mr. L. Manning Muntzing
Director of Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545

Re: Consolidated Edison Company
of New York (Indian Point,
Unit Nos. 1, 2, and 3)

Dear Mr. Muntzing:

As you are undoubtedly aware the Consolidated Edison Company of New York is facing a serious financial crisis. The extent of the financial problem is not fully known but it is common knowledge that Con Ed is actively seeking a purchaser for two of its yet to be completed power plants one of which is Indian Point #3. The apparent reason for this offer to sell is the lack of current operating funds and the risk of bankruptcy unless such a sale is consummated.

The Atomic Energy Act requires that prior to issuance of a construction permit or operating license for a reactor the Commission must determine that an applicant is financially qualified to build and operate the reactor - i.e. that it has sufficient funds to fulfill all of its safety responsibilities and to be free from economic pressures to cut corners. Pursuant to 10 CFR § 50.100 of the Commission regulations, if any facts become known subsequent to licensing which, if they had been known at the time the license was issued, would have altered the decision reached, then the license should be amended, modified or revoked as appropriate.

Rec'd Off. Dir. of Reg.

Date 5/2/74

Time 2:15

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Rg

Mr. L. Manning Muntzing
May 3, 1974
Page two

At the time Con Ed received its approvals for Indian Point #1, #2 and #3, it met the financial responsibility requirements. Clearly its financial position has changed since that time. Citizens Committee for Protection of the Environment is not a party to any proceeding involving Con Ed and therefore does not have access to Con Ed's financial data. In addition, Citizens Committee for Protection of the Environment lacks the resources to gather and investigate the Con Ed data.

The purpose of this letter is to request the Staff to immediately begin a thorough reanalysis of the financial qualifications of Con Ed to continue to operate Indian Point #1 and #2, to continue to construct Indian Point #3 and to operate Indian Point #3. The reanalysis we request should include special attention to Con Ed's current financial crisis including:

1. Statements made by its officers to New York State officials regarding the need for purchase of Con Ed plants;
2. Con Ed's likelihood of obtaining rate increases to the extent it deems essential from the New York Public Utilities Commission;
3. Con Ed's ability to collect bills from its customers;
4. The extent to which the proposed sale of two of its plants to New York for \$500 million represents such a reduced price that it will incur possible legal liability to secured creditors;
5. The problems associated with transfer of Con Ed's construction permit to New York State and the affect of that on early consummation of the New York State sale;


Mr. L. Manning Muntzing
May 3, 1974
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6. Even assuming a successful sale of Con Ed's two plants, will Con Ed be able to raise money through new bond issues to meet rising operating costs for its plants; and
7. Can Con Ed afford to build the cooling towers required for Units 2 and 3 and if not whether operation of those units can be allowed under the National Environmental Policy Act?

This request is not a petition under § 2.202 of 10 CFR but rather a request for an investigation to determine whether a show cause order should be issued. It is the request of an active citizen organization to the Staff to utilize its resources with respect to this serious problem. Citizens Committee for Protection of the Environment is acting as a "complaining witness" (Office of Comm. of the United Church of Christ v. FCC, 425 F.2d 543, 547 (CA DC, 1969)) and believes it is the Staff's duty to conduct a special investigation of these matters.

We would appreciate an answer within fifteen days regarding this request and believe it warrants your earliest and most careful attention.

Sincerely,


Anthony Z. Roisman
Counsel for Citizens Committee
for Protection of the Environment

AZR/pq

CC: Atomic Safety & Licensing Board
Atomic Safety & Licensing Appeal Board
Arvin E. Upton, Esq.
Honorable Louis Lefkowitz
J. Bruce MacDonald, Esq.
Angus MacBeth, Esq.

FROM

Jean Maloney
Cropond, N. Y.

CONTROL NUMBER

6969

FILE LOCATION

DATE OF DOCUMENT

4/15/74

ACTION COMPLETION DEADLINE

5/7/74

TO

ACTION PROCESSING DATES

Acknowledged _____

Interim Reply _____

Final _____

PREPARE FOR SIGNATURE OF:

_____ Chairman

_____ Director of Regulation

_____ **X** **Glambuso**

Chairman

135

DESCRIPTION **Ltr**☐ Original☒ Copy☐ Other

REMARKS

Asks what emergency plans are available to citizens should a tornado hit New York, and re apparent lack of concern shown by Con Ed and the Commission at hearings on Indian Point

SECY 74-4953

REFERRED TO

DATE

IS NOTIFICATION TO THE JCAE

RECOMMENDED? _____

Glambuso f/action**4/24/74**

Cys:

O'Leary**Shapar****Docket Files) 50-3****PDR****50-247****LPDR****50-286**

Copy sent PDR

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DIRECTOR OF REGULATION
 COMMUNICATIONS CONTROL

Form HQ-32 (1-73)
 USAEC

NO. 74-4953 LOGGING DATE April 19, 1974**AEC SECRETARIAT**TO: ☐ COMMISSIONERDATE: 4/19☒ GEN. MANAGER☐ GEN. COUNSEL☐ INFO. SERVICES☒ DIR. REGULATION☐ PLAN. & ANAL.☐ SECRETARYINCOMING FROM: Jean MulcahyPond RoadCrompond, N. Y. 10517DATE: April 15, 1974SUBJECT: Would like to know what emergency plans
are available should a tornado hit New York☐ PREPARE REPLY FOR SIGNATURE OF:☐ CHAIRMAN☐ COMMISSIONER☐ GM, DR, GC, PA, IS, SECY☐ SIGNATURE BLOCK OMITTED☐ PLEASE RETURN ORIGINAL WITH RESPONSE☒ FOR DIRECT REPLY☒ SEND COPY OF REPLY TO:☒ SECY MAIL FACILITY (3)☐ CHAIRMAN☐ COMMISSIONERS☐ SECRETARY☐ FOR APPROPRIATE ACTION☐ FOR INFORMATION☐ FOR RECOMMENDATION

REMARKS:

FOR THE COMMISSION: *Meng*WHEN SEPARATED FROM ENCLOSURES
HANDLE THIS DOCUMENT ASDR-6969

GPO 870-868

ACTION SLIP

Herring
Rg

Pond Road
Crômpond, New York 10517
April 15, 1974

Dixie Lee Ray, Chairman
Atomic Energy Commission
Washington, D.C. 20545

Dear Commissioner Ray,

Last evening's thunder, lightning, and accompanying radio bulletins of a tornado watch for New York, including the Hudson Valley, drowned out the assuring words of a Con Edison spokesman, who testified that concern about tornadoes was unnecessary since they do not or probably will not occur in this area. I heard this remark at a recent Atomic Energy Commission licensing hearing in Springvale, New York, when Con Edison was challenged in a series of safety questions raised by environmentalist attorney, Anthony Roisman.

Since the testimony, tornadoes have become the concern of not only mid-westerners, but of people in the northeast. Last year, a tornado tore through the community of Mahopac, New York, just several miles from Indian Point, leaving parts of the town in a shambles. The destruction left behind is a familiar scene to all. That scene was illuminated in my mind last night, but even more frightening was the picture of possible impending consequences should a tornado or any act of god play havoc at Indian Point, where two nuclear power plants are in operation.

What emergency plans are available to citizens should something like this happen? My family and I live just a few miles from Indian Point. What do we do? Who do we turn to? Con Edison's spokesman at the hearing didn't seem concerned? The AEC commissioners on the panel didn't seem concerned. Am I the only one?

Sincerely yours,

Jean Mulcahy
Jean Mulcahy
OFFICE OF THE SECRETARY

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County Legislator Ed Gibbs
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Time 2:30