William J. Cahill, Jr.
Vice President

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

REGULATORY DOCKET FILE COPY

June 1, 1976

RE: Indian Point Unit No. 3
Docket No. 50-286

RECEIVED
JUN 3 1976
U.S. NUCLEAR REGULATORY COMMISSION
Mail Section

Director of Nuclear Reactor Regulation
ATTN: Mr. D. B. Vassallo, Chief
Light Water Reactor Branch #5
Division of Project Management
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Vassallo:

Pursuant to the conditions contained in Section 2C(4) of Amendment 2 to the Indian Point Unit No. 3 Facility Operating License (DPR-64), forwarded herewith is a detailed work plan for the additional geological and seismological investigations required. The plan is in two parts, as follows:

Part I - Supplemental Geological Investigations

This on-going geological program was initiated on February 9, 1976 and will accomplish all the objectives specified under paragraphs a, b and d of Section 2C(4) of Amendment 2 to the Facility Operating License. The details of this plan are presented in Attachment 1.

Part II - Expansion of Seismic Monitoring Network

The existing 13 station seismic monitoring network will be expanded as requested under paragraph c of Section 2C(4) of Amendment 2 to the Facility Operating License. The details of this plan are presented in Attachment 2.

The geological and seismological questions, which form the basis for this program are the subject of an ongoing hearing by

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Mail Section

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RE: Indian Point Unit No. 3
Docket No. 50-286

the Atomic Safety and Licensing Appeal Board. The details are, therefore, subject to changes appropriate to the findings of that hearing.

Very truly yours,

William J. Cahill, Jr.

William J. Cahill, Jr.
Vice President

mp

Copy to: George T. Berry
General Manager and Chief Engineer
The Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

ATTACHMENT 1

Detailed Work Plan, Part I

Supplemental Geological Investigations

SCOPE

The scope of this project shall entail the definition and study of the Ramapo Fault System within the dashed area outlined in Figure A. A major effort in the study shall be a determination of the extent of the fault system within the area defined.

The investigation shall attempt to disclose whether or not there is any evidence indicative of surface displacement during the past 500,000 years, along the fault system. Additionally, available records of seismic events associated with general area will be reviewed regarding the accuracy of the determination of Intensity or Magnitude, location and depth.

In order to effectively address the scope of work, an interruptible multiple phased approach to this study will be taken, with the initiation of each phase contingent upon the evaluation of the resulted obtained from earlier phases. We have factored into the phases and tasks shown below, known literature and our recent site geologic investigation. We consider this to be a most comprehensive geotechnical program. Modification or deletion of portions of tasks or entire tasks may be dictated by field conditions. A tentative schedule for completing these investigations is provided in Figure B.

PHASE I

Phase I (initated Febrauary 9, 1976) is directed at the evaluation of those sources of information which can be studied during the winter months. The incorporation of a task into Phase I should not necessarily be interpreted to mean that a Phase I task has a higher priority than a Phase II task. In most instances, it would be extremely difficult or impossible to adequately address Phase II tasks during the winter months.

Task A - Color Aerial Photography (Scale of 1"=500')

Purpose: To provide an adequate base for the Phase II detailed geologic mapping. The area of coverage is contained within areas 1 and 2 shown in Figure A.

Task B - Low Level Aeromagnetic Survey

The existing USGS aeromagnetic survey was flown at an approximate altitude of 500 feet with a line spacing of approximately 1/2 mile. Using these parameters, the detection of possible bedrock offset or the lack thereof is significantly reduced. It is planned to fly an aeromagnetic survey ar an approximate altitude of 300 feet with a nominal 500 ft. line spacing. By performing a more detailed higher resolution survey, it is likely that a better definition can be achieved regarding the amount of apparent offset or lack thereof of various structural and/or stratigraphic units. This is particularly true in the vicinity of the Rosetown Pluton. The detailed aeromagnetic survey will also be useful in assisting to define those areas that may require an even more detailed but more limited ground magnetic survey and/or geologic mapping (Phase II). Existing 1972 vintage, black and white aerial photos at a scale of 1"=2,000' will be obtained to provide control for the aeromagnetic survey. The area of coverage is contained within areas 1 and 2 on Figure A.

Task C - In Situ Stress Measurements

Purpose: To attempt to determine the presence and/or magnitude of unrelieved stresses in the bedrock that may be associated with faults and/or the regional tectonic nature of the study area. Six inch diameter borings into sound bedrock will be required for these measurements. A smaller diameter hole drilled into the bottom of the six inch diameter hole will receive instrumentation. An overcoving technique will then be used to remove a rock plug containing the instrumentation for laboratory analysis.

Task D - Analysis and Synthesis of Remote Sensing and Other Available Data

Purpose: To analyze and synthesize new and existing information pertinent to an evaluation of the nature of the "Ramapo Fault System". Remote sensing data to be studied and analyzed may include but not necessarily be limited to: satellite imagery, side-looking airborne radar (SLAR), aeromagnetic data, gravity data, and conventional and high altitude color infrared aerial photography.

Task E - Integration of Data from Other Consolidated Edison Consultants

Information presently available to Consolidated Edison from various consultants in geology and seismology will be evaluated and incorporated if relevant into a final report.

Task F - Collection and Evaluation of Existing "Ramapo" Related Seismic Data

Purpose: To evaluate and provide proper documentation as to the significance of earthquake epicenters that have been associated with the "Ramapo Fault System".

Inventory known "Ramapo" related seismic events, evaluated the accuracy of instrumentally determined locations, and provide an adequate assessment as to the magnitude and/or intensity of seismic events that may or may not be structurally related to the "Ramapo Fault System".

Task G - Reconnaissance Mapping Along "Ramapo Fault System"

Conduct a reconnaissance program along those portions of the "Ramapo" Fault that have been identified an the literature. The prime objective would be either to identify "recent" surface rupture if present or identify and collect "vein filling" material that may be datable and provide evidence of age of last movement. The area within the dashed lines on Figure A will be covered.

Task H - Limited Age Dating

To the extent that datable material is identified in Task G a dating program would be initiated. The method(s) used would be that most appropriate to the material encountered. Wherever possible, an attempt will be made to support results obtained from one method with results obtained from another. Additionally, the fluid inclusion study initiated in the site study would be expanded if possible to provide the necessary information to aid in documenting the occurrence of a regional thermal event. It is not expected that either of these studies can be completed in their entirity in Phase I and, therefore, it is likely that dating studies will continue through all phases.

Task I - High Resolution Geophysical River Survey

Purpose: To provide subbottom profiles that would resolve the significance of anomalies encountered in a previous survey conducted un the Hudson River as part of the previous site-specific investigation. Using high resolution digital reflection equipment, bottom and/or subbottom profiling of the bedrock surface will be attempted. A zig-zag pattern will be used to cross the existing northeast geologic structural grain at approximately righ angles. Sonar profiling of the river bottom will be conducted at the same time. Location will be determined by computerized electronic positioning equipment.

PHASE II

Phase II is directed toward providing the detailed documentation necessary to evaluate, if possible, the extent and location of the "Ramapo Fault System".

Task K - Detailed/Reconnaissance Mapping

Purpose: To provide the necessary documentation to demonstrate, if possible, the relationship of the mapped Ramapo Fault to those through-going northeast faults at and in the vicinity of the Indian Point site. The area of mapping is shown on Figure A.

Utilize the color aerial photos obtained in Phase I (at a scale of 1"=500') as a base for developing a structural geologic map. As indicated on Figure A, portions of areas 1 and 2 will be mapped in greater detail (1"=500') than portions of area 3 within the study zone. We anticipate that area 3 may be "control-mapped" at a scale of 1"-2,000'. Also, some exposures in all three areas may require mapping at a scale similar to that used for the site study (as large as 1"-2.5'). Approximately half of areas 1 and 2 and small selected portions of area 3 may have to be mapped in detail.

Task L - Ground Geophysical Surveys

Purpose: To provide the guidance and control needed to permit indirect confirmation of the continuity or lack thereof of the various structural and lithologic elements that will probably be encountered.

In areas where outcrops or exposures are not available, geophysical techniques may provide the only economical and timely means of defining the geometry of the various geologic elements. We propose to use primarily nondestructive geophysical equipment such as very low frequency (VLF) radio wave monitoring units, low energy refraction seismographs and hand held magnetometers. The type of equipment used will depend on the geologic conditions encountered and the responsiveness of the equipment to the conditions. In some cases, none of the techniques may produce results and other as yet unidentified procedures may be tried.

Task HH - Age Dating

This task shall be a continuation of age dating procedures established in Phase I. Additionally, an onsite sampling program will be initiated to better document those studies already performed onsite. If possible, samples will be obtained from each fault set on site.

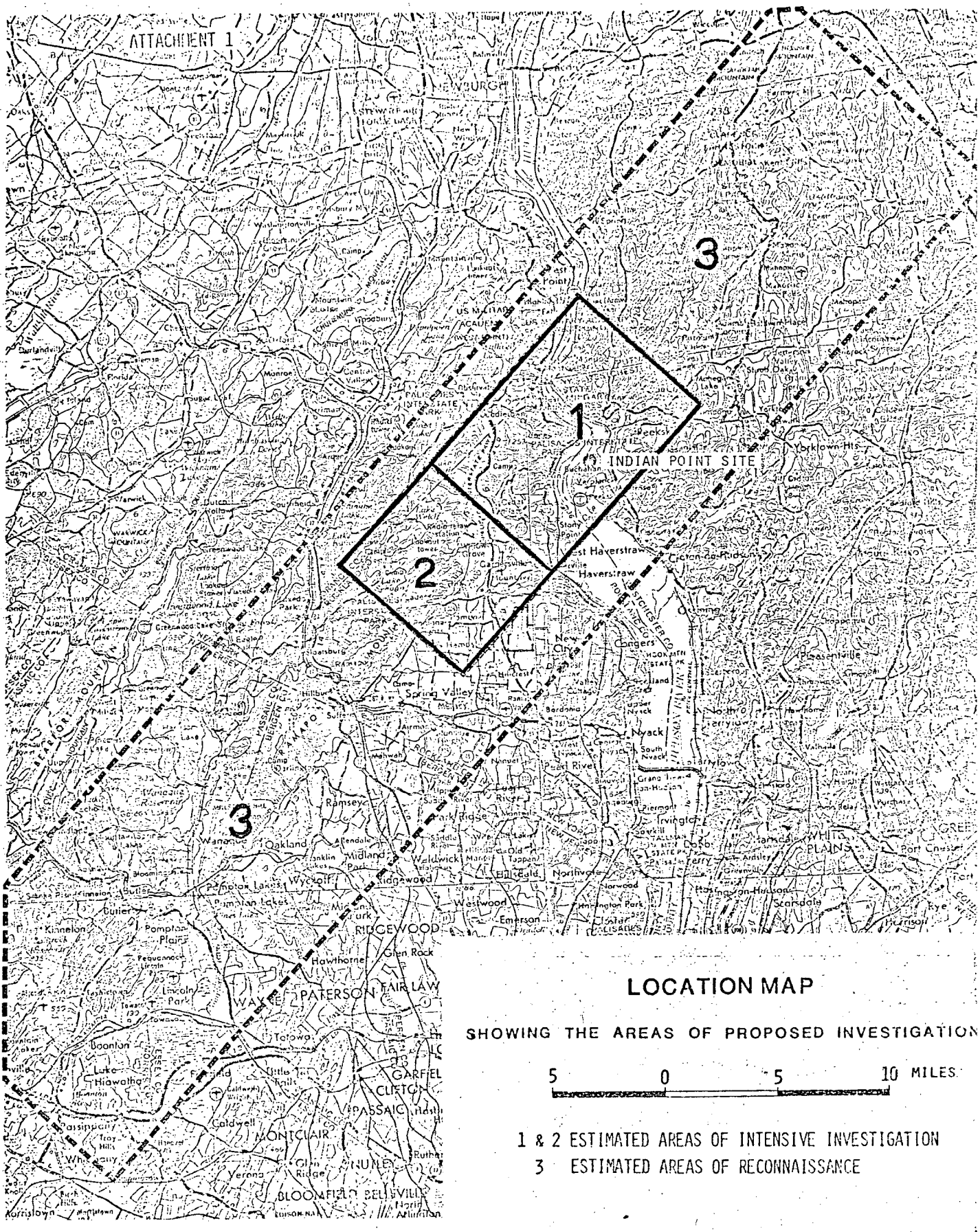
Task CC - Stress Measurements

Depending on the degree of success achieved in Phase I, stress measurements determinations may be an ongoing task in this phase.

Task M - Preparation of Formal Written Report

The investigations conducted during Phase I and II of this program will be presented in a report to the Nuclear Regulatory Commission by April 1, 1977.

FIGURE A



LOCATION MAP

SHOWING THE AREAS OF PROPOSED INVESTIGATION

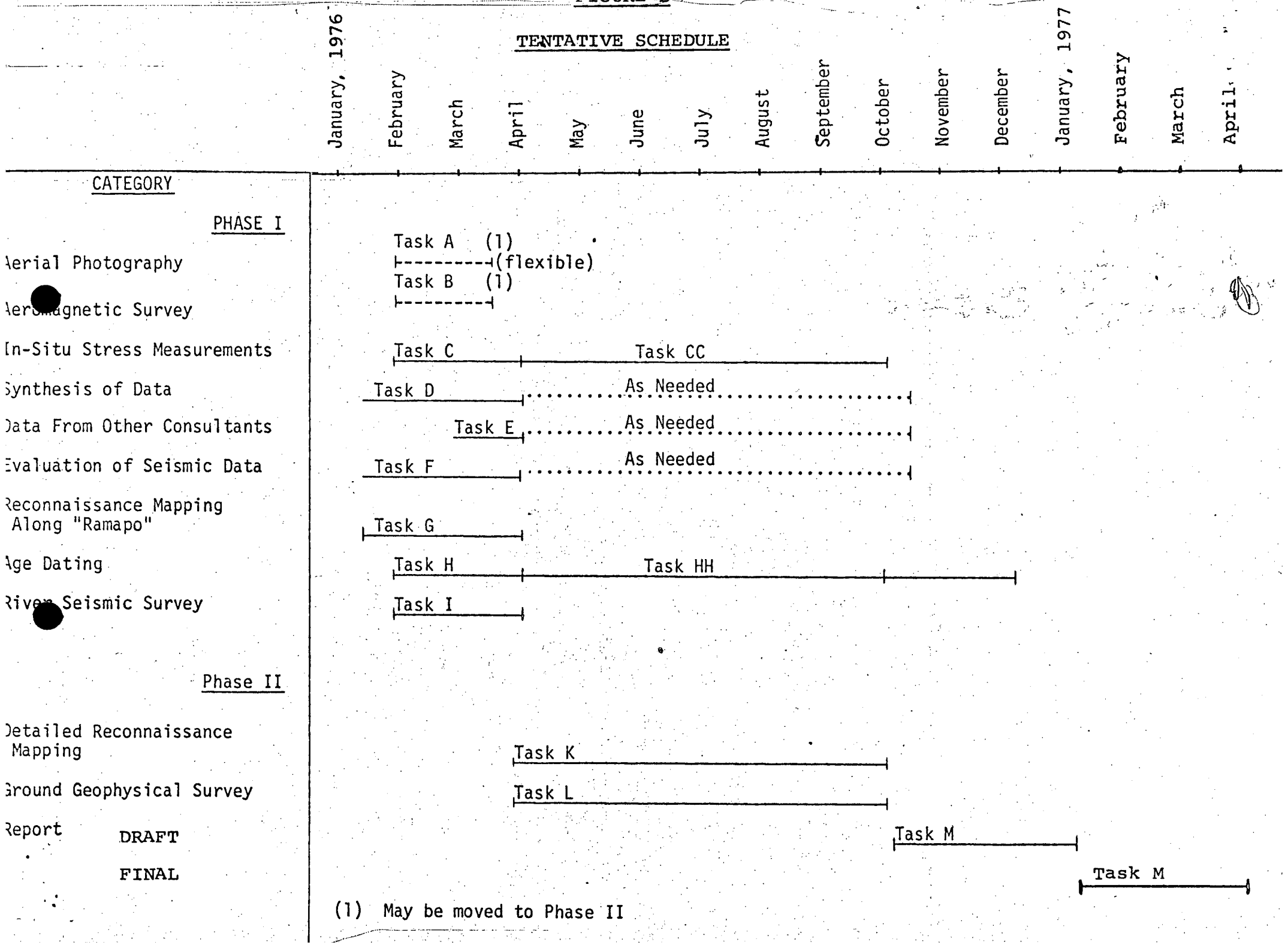
5 0 5 10 MILES

1 & 2 ESTIMATED AREAS OF INTENSIVE INVESTIGATION

3 ESTIMATED AREAS OF RECONNAISSANCE

FIGURE B

TENTATIVE SCHEDULE



ATTACHMENT 2

DETAILED WORK PLAN, PART II

EXPANSION OF SEISMIC MONITORING NETWORK

The existing seismic monitoring network will be expanded to the northeast to include the Fahnstock region and to the southwest to include the Pompton Lakes, New Jersey region. The complete expanded seismic monitoring network will be operational prior to April 5, 1977.

The network will monitor an egg-shaped area that is 90km long; 45km wide near Indian Point and 30km wide in the Pompton Lakes area. The southernmost station will be approximately 15km south of Pompton Lakes.

Within the monitored area, stations will be located with adequate density to provide sufficient data to perform fault plane solutions for earthquakes of magnitude (M_b) equal to or greater than 1.0. The selection of $M_b \geq 1.0$ is based on a statistical determination that there would be a sufficient number of earthquakes greater than M_b=1.0 occurring within the network over a two year period such that a tectonic framework could be established based on the number of fault plane solutions obtained. The network will have the added capability of determining epicentral locations for earthquakes of magnitude (M_b) greater than or equal to 0.0.

To provide uniform coverage and detection capability within the monitored area, station densities will vary to suit areas of different background noise.

Several three component stations will be uniformly spaced throughout the network to clearly distinguish the onset of shear wave arrivals.

Studies necessary to improve the crustal velocity model will be performed as required.

William J. Cahill
Vice President

Regulatory File Cy.

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

DOCKETED USNRC JUN 3 1976 Mail Section Docket Clerk

May 27, 1976

Re: Indian Point Unit Nos. 2&3
Docket Nos. 50-247
50-286

RECEIVED JUN 2 1976 U.S. NUCLEAR REGULATORY COMMISSION Mail Section

Director of Nuclear Reactor Regulation
ATTN: Mr. Robert W. Reid, Chief
Operating Reactors Branch # 4
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Reid,

Your letter of April 22, 1976 concerning recent changes to 10 CFR Part 50.55a of the Federal Regulations requested that Consolidated Edison identify the dates of commencement of the next 40 month inservice inspection period for Indian Point Units 2 & 3. Pursuant to 10 CFR Part 50.55a(g)(4) (V), the next applicable inservice period for Indian Point Unit 2 will begin during the unit's second refueling outage. This outage is presently scheduled for October, 1977. For Indian Point Unit 3, the applicable inservice inspection period will begin November 1979 based on an anticipated start of commercial operation in July, 1976.

Pursuant to 10 CFR Part 50.55a(g) (5) of the Federal Regulations, an application to amend the technical specifications and information to support any determinations that conformance with certain ASME Boiler and Pressure Vessel Code requirements is not warranted will be filed with the Commission six months before the start of the above referenced inspection periods. Based on the present schedules for these inspection periods, these documents will be filed by April, 1977 for Unit 2 and by May, 1979 for Unit 3.

Very truly yours,

William J. Cahill, Jr.

William J. Cahill, Jr.
Vice President

WJC:nvg

5192

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* RESIDENT PARTNERS WASHINGTON OFFICE
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ADRIAN C. LEIBY 1952-1976

OF COUNSEL
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May 5, 1976

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MAY 5 1976
U.S. NUCLEAR REGULATORY COMMISSION
Mail Section

DOCKETED
USNRC
5
U.S. NUCLEAR REGULATORY COMMISSION
Mail Section

Mr. Benard C. Rusche
Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Consolidated Edison Company of New York, Inc.
(Indian Point Station, Unit Nos. 1 and 2)
Docket Nos. 50-3, 50-247
Consolidated Edison Company of New York, Inc.
and Power Authority of the State of New York
(Indian Point Station, Unit No. 3)
Docket No. 50-286

Dear Mr. Rusche:

Pursuant to Section 50.12(a) of the regulations of the Nuclear Regulatory Commission, as counsel for Consolidated Edison Company of New York, Inc. and Power Authority of the State of New York, we hereby transmit a Request for Exemption from certain portions of Appendix I to Part 50 of the Commission's regulations. This request is based upon conversations with the Commission's Regulatory Staff in which the Staff indicated that it was preparing a generic cost-benefit analysis which would relieve licensees of the burden of preparing individual such analyses under Section II.D of Appendix I and that in addition the Staff would not insist upon full submittal of information, plans and proposed

technical specifications under Section V.B by June 4, 1976.

An original and twenty (20) copies of these documents are transmitted.

Very truly yours,

Le Boeuf, Lamb, Leiby & MacRae

BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. (Indian Point Station, Unit Nos. 1 and 2)	)	Docket Nos. 50-3 50-247
and		
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. and POWER AUTHORITY OF THE STATE OF NEW YORK (Indian Point Station, Unit No. 3)	)	Docket No. 50-286

REQUEST FOR EXEMPTION

Pursuant to Section 50.12(a) of the regulations of the Nuclear Regulatory Commission ("the Commission"), Consolidated Edison Company of New York, Inc. ("Con Edison"), as holder of Provisional Facility Operating License No. DPR-5 and Facility Operating License No. DPR-26, and on its own behalf and as agent for Power Authority of the State of New York as co-holders of Facility Operating License No. DPR-64, hereby requests that an exemption be granted from certain portions of Appendix I to Part 50 of the Commission's regulations.

More specifically, Con Edison requests relief from preparation of a cost-benefit analysis of radwaste systems prescribed by Section II.D of Appendix I since Con Edison understands that such an analysis is being prepared by the Regulatory Staff on a generic basis. Con Edison also requests relief from that portion of Section V.B of Appendix I which requires licensees to submit information, plans and proposed

technical specifications to the Commission by June 4, 1976. Should such relief be granted, Con Edison will submit to the Commission, by June 4, 1976, that portion of the information required by Section V.B which is available at that time and a schedule for submittal of the remaining information. The Regulatory Staff has indicated that such an approach is acceptable. Furthermore, following the recommendations of the Regulatory Staff, Con Edison plans to defer submittal of proposals to modify technical specifications related to Appendix I pending receipt of additional guidance from the Staff.

Attachment A to this request is a safety evaluation which demonstrates that the proposed relief will not endanger life or property or the common defense and security and is otherwise in the public interest. The proposed exemption would not authorize any change or increase in the amounts of normal plant effluents or any change in the authorized power levels of the facilities.

Respectfully submitted,

Carl L. Newman

Carl L. Newman, Vice President
Consolidated Edison Company
of New York, Inc.

Sworn to before me this
4th day of May, 1976.

Angela Roberti
Notary Public

ANGELA ROBERTI
Notary Public, State of New York
No. 41-8503813
Qualified in Queens County
Commission Expires March 30, 1978

ATTACHMENT A

SAFETY EVALUATION

Appendix I to 10 CFR 50 sets forth numerical guides for design objectives and limiting conditions for operation to meet the criterion "as low as practicable" (or more recently, "as low as is reasonably achievable") regarding releases of radioactive materials in effluents from light-water-cooled nuclear reactors. Section V.B of Appendix I requires holders of permits or licenses authorizing operation of light-water-cooled reactors for which application was filed prior to January 2, 1971, to file certain information, plans, and proposed technical specifications with the Commission by June 4, 1976. Section II.D of Appendix I deals with performance of a cost-benefit analysis of radwaste systems.

By letter dated June 26, 1975, the Regulatory Staff informed Con Edison of the submittal requirements of Section V.B of Appendix I. The letter advised that the Staff was in the process of developing specific procedures which would include consideration of the Appendix I guidelines and that such specific guidance was expected to be available by September 1975. Staff guidance, however, was not provided to Con Edison and the Power Authority of the State of New York until February 1976, contained within letters dated February 18, 1976 (Indian Point Unit 1 and 2) and February 20, 1976 (Indian Point Unit 3).

In addition to providing guidance on the filing of information required by Appendix I, the February 1976 letters stated that the Staff was preparing additional guidance regarding the formulation of Technical Specifications to implement Appendix I and that such guidance would be forwarded in the near future. The Staff recommended that proposals to modify technical specifications related to Appendix I be deferred pending the completion of this guidance in order to obtain

a consistent format for radiological effluent release technical specifications. Regarding the cost-benefit analysis required by Section II.D of Appendix I, the February 1976 letters state that the Staff was in the process of determining whether plants for which application was filed prior to January 2, 1971 could be treated in a manner similar to the treatment given to later plants in the Commission's September 4, 1975 Amendment to Appendix I.

Finally, the February 1976 letters state that if the staff require further information to satisfy a plant specific assessment under Section II.D of Appendix I, the licensee will be so informed at a later time.

On April 8, 1976, the Regulatory Staff hosted a meeting at the Region 1 Office in King of Prussia, Pennsylvania to provide additional guidance on submittal of information required by Appendix I. At this meeting, the Staff reiterated that it was in the process of developing a generic cost-benefit analysis for plants for which application was filed prior to January 2, 1971 and that further guidance related to technical specification modifications was still under development. The Staff also stated that if all the information required by Appendix I could not be furnished by June 4, 1976, then, the licensee/applicant should provide, by that date, the information that is available and a schedule for submitting the remaining information.

Con Edison has determined that the proposed relief will not cause the health and safety of the public to be adversely affected. This determination is based on the existence of technical specifications and monitoring programs which have been specifically designed to assure that effluent releases from the Indian Point site are kept as low as practicable (1,2,3). Granting of the requested extension of time for filing of information, plans, and proposed technical specifications required by Appendix I would therefore be of no consequence as controls

are currently in effect which assure that effluent releases from the Indian Point site are as low as practicable.

In addition, the Regulatory Staff previously analyzed the radwaste systems of all Indian Point units and determined that releases from the units would meet the Commission's "as low as practicable" guidelines if certain plant modifications were effected (4). These required modifications have been completed. Also, the determination by the Staff that releases would be as low as practicable was based upon plant power levels which are not expected to be achieved during the proposed extended period for submittal of information required by Appendix I. Specifically, Indian Point Unit No. 1 is currently shut down in accordance with Appendix K to 10 CFR 50 and is expected to remain shutdown during the proposed extended period. Indian Point Unit No. 2 is currently shut down for refueling, and Indian Point Unit No. 3 is in the process of plant start-up. Although the authorized power levels for Units 2 and 3 are 2758 MWt and 2760 MWt, respectively, the power level for these units assumed by the Staff in its evaluation was 3216 MWt (5). Effluent releases from the Indian Point site are therefore expected to be somewhat less than those calculated by the Staff in reaching its conclusion that releases would be within "as low as practicable" guidelines.

Finally, relief from the requirement to perform a cost-benefit analysis would be of no consequence to the health and safety of the public since Con Edison understands that such an analysis is being performed by the Regulatory Staff on a generic basis for plants docketed prior to January 2, 1971 (6,7,8). The objective of the cost-benefit analysis being performed by the Staff is to show that if such plants meet the design objectives set forth in the Annex to Appendix I, then further modifications to the radwaste systems would not be required. The design objectives set forth in the Annex to Appendix I are the same as

those used by the Staff as a basis for determining that effluent releases from the Indian Point site meet the "as low as practicable" guidelines (4). The Staff's determination that effluent releases from the Indian Point site are in compliance with the design objectives of the Annex to Appendix I provides additional assurance that the proposed relief will not adversely affect the health and safety of the public.

References

1. Appendix B to Facility Operating License DPR-26, Indian Point Nuclear Generating Units Numbers 1 and 2, Environmental Technical Specification Requirements, Sections 2.4, 3.4 and 4.2.

2. Appendix A to Facility Operating License DPR-26, Indian Point Nuclear Generating Plant Unit No. 2, Sections 3.9 and 4.11.

3. Appendix B to Facility Operating License, Indian Point Nuclear Generating Units Numbers 1,2, and 3, Environmental Technical Specification Requirements, December 12, 1975, Sections 2.4, 3.4, and 4.2.

4. Final Environmental Statement related to operation of Indian Point Nuclear Generating Plant Unit No. 3, NUREG-75/002, February 1975, pages V-229 and V-239.

5. Reference 4, Table V-30, page V-229.

6. Letter dated February 18, 1976, Robert W. Reid (NRC) to William J. Cahill, Jr. (Con Edison).

7. Letter dated February 20, 1976, R.C. De Young (NRC) to George T. Berry (Power Authority of the State of New York) and William J. Cahill, Jr. (Con Edison).

8. NRC Meeting on Appendix I, April 8, 1976, King of Prussia, Pennsylvania.

Reactor Facilities
Br.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

F121

APR 20 1976

Consolidated Edison Company of New York, Inc.
Attention: Mr. W. J. Cahill, Jr.
Vice President
4 Irving Place
New York, New York 10003

License Nos. DPR-5
DDR-26
DPR-64
Inspection Nos. 76-06
76-10
76-12
Docket Nos. 50-03
50-247
50-286

Gentlemen:

This refers to the corporate management meeting held at our request at the NRC Region I Office on April 14, 1976, on matters relating to activities authorized by NRC License Nos. DPR-5, DPR-26, and DPR-64. This meeting was attended by me and members of my staff along with you and Messrs. Kessig, Stein, Salay, and Van Wyck of your staff.

The subjects discussed during this meeting are included in the Office of Inspection and Enforcement Meeting Summary which is enclosed with this letter.

It is our view that these discussions were helpful and improved our understanding of your operations and your understanding of our concerns. We understand that corrective actions have either been completed or are in progress in the areas discussed.

Information contained within the enclosed meeting summary has been discussed with Mr. Stein of your staff by telephone on April 15, 1976. During this discussion, it was concluded that the meeting summary contained no information that you considered proprietary; therefore, a copy of this letter and its enclosures are being place in the NRC's Public Document Room.

9

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

No reply to this letter is required; however, if you should have any questions concerning this meeting, we will be pleased to discuss them with you.

Sincerely,

for James P. O'Reilly
Director

Enclosure:
Region I Meeting Summary Nos.
50-003/76-06, 56-247/76-10, and 50-286/76-12

cc: A. Kohler, Resident Construction Manager
W. Stein, Manager, Nuclear Power Generation Department
S. Salay, Plant Manager
J. M. Makepeace, Director, Technical Engineering
E. F. Kessig, Assistant V.P., Power Generation Operations
A. E. Upton, Esquire
George T. Berry, General Manager and Chief Engineer
Z. E. Chilazi, Manager of Projects, Thermal Power Generation
A. Z. Roisman, Counsel for Citizens Committee for Protection of the Environment

bcc:
IE Mail & Files (For Appropriate Distribution)
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TIC
REG:I Reading Room
Region Directors (II, III, IV) (Report Only)
State of New York

IE:I Form 12
(Jan 75) (Rev)

NOTICE
AS OF APR 20 1976
REGION 1 HAS NOT OBTAINED PROPRIETARY
CLEARANCE IN ACCORDANCE WITH 10 CFR 2790

U. S. NUCLEAR REGULATORY COMMISSION

OFFICE OF INSPECTION AND ENFORCEMENT

REGION I

IE Inspection Report No: 50-003/76-06
50-247/76-10
50-286/76-12

Docket No: 50-286
DPR-5

Licensee: Consolidated Edison Company of New York, Inc.

License No: DPR-26
DPR-64

4 Irving Place

Priority: C

New York, New York 10003

Category: C
B

Safeguards Group:

Location: Buchanan, New York

Type of Licensee: PWR, 615 MWt (B&W)
PWR, 2758 MWt (W)
PWR, 3025 MWt (W)

Type of Inspection: Management Meeting

Dates of Inspection: April 14, 1976

Dates of Previous Inspection: Unit 1 April 6-9, 1976
Unit 2 April 6-9, 1976
Unit 3 April 5-7, 1976

Reporting Inspector: A B Davis 4/20/76
for J. F. Streeter, Reactor Inspector DATE

Accompanying Inspectors: Region I inspectors and management personnel participating in this meeting are indicated in the attached Summary of Findings DATE

DATE

DATE

DATE

Other Accompanying Personnel: None DATE

Reviewed By: A B Davis 4/20/76
A. B. Davis, Section Chief, Reactor Project Section No. 1
Reactor Operations and Nuclear Support Branch DATE

SUMMARY OF FINDINGS

Enforcement Action

No enforcement action was taken as a direct result of this meeting; however, items discussed are related to concerns identified during Region I Inspections 50-003/76-02, 50-003/76-05, 50-247/76-04, 50-247/76-08, and 50-286/76-07. Any enforcement action taken as a result of those concerns will be documented in the associated inspection reports.

Other Significant Findings

Management Meeting

The management meeting requested by Region I was conducted at the NRC Region I Office on April 14, 1976. The following personnel were in attendance:

Consolidated Edison Company of New York, Incorporated

Mr. W. J. Cahill, Vice President - Quality Assurance, Reliability, and Special Assistant Nuclear Licensing
Mr. E. F. Kessig, Assistant Vice President - Power Generation Operations
Mr. S. Salay, Plant Manager
Mr. W. Stein, Manager - Nuclear Power Generation Department
Mr. R. W. Van Wyck, Nuclear Services Manager

Region I, Office of Inspection and Enforcement, USNRC

Mr. E. J. Brunner, Chief - Reactor Operations and Nuclear Support Branch
Mr. J. W. Devlin, Section Chief - Security and Investigation Section
Mr. P. J. Knapp, Section Chief - Radiation Support Section
Mr. D. R. Neely, Radiation Specialist - Radiation Support Section
Mr. J. P. O'Reilly, Regional Director
Mr. J. F. Streeter, Reactor Inspector - Reactor Projects Section No. 1
Mr. W. J. Tobin, Physical Security Inspector - Security and Investigation Section

Purpose and Scope

The meeting with Consolidated Edison Company of New York, Incorporated, management was held to discuss Region I concerns related to the licensee's Health Physics Program and Physical Protection Program.

Discussion Items

The Regional Director stated the purpose of the meeting was to discuss with corporate and plant management certain areas of concern to Region I to assure that (1) the licensee was aware of the nature and extent of these concerns, and (2) the licensee had either completed or initiated associated corrective action. Specific topics discussed were as follows:

1. Summary discussion of inspection findings during recent inspections in the areas of Health Physics and Physical Protection.

2. Overexposure (10 Rem) of an individual at Unit 2 on April 5, 1976.

3. Adherence to health physics procedures and management of the Health Physics Program.

4. Management of the Physical Protection Program.

Copy to H. Denton

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

Regulatory File Cy.

OFFICE OF THE DIRECTOR

DOCKETED USNRC APR 16 1976

APR 20 1976 Mail Section Docket Clerk

RECEIVED 4-20-76 U.S. NUCLEAR REGULATORY COMMISSION Mail Section

Mr. Ed G. Case
Deputy Director
Directorate of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20545

Dear Mr. Case:

In response to your request, this letter is to clarify the background of my letter of October 30, 1975, relative to USGS participation in a review of the geology and seismology of the Indian Point site.

As you are aware, the present Memorandum of Understanding between USGS and NRC calls for USGS review by mutual agreement of selected Safety Analysis Reports submitted to NRC by applicants.

Because in your letter of August 20, 1975, you requested review of certain issues not addressed in the applicants SAR and because the NRC hearing schedule would not accommodate development of an SAR amendment considering these issues and its subsequent review by USGS, we concluded that the review of Indian Point by USGS as requested was inappropriate.

Sincerely,

Henry W. Coulter

Henry W. Coulter
Assistant Director--Environmental Conservation

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

4237

William J. Cahill, Jr.
Vice President

Consclidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

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Regulatory File Cy.

April 12, 1976

Director of Nuclear Reactor Regulation
ATTN: Mr. D.B. Vassallo, Chief
Light Water Reactor Branch No. 5
Division of Reactor Project Management
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

50-3
50-247
50-286

Dear Mr. Vassallo

In accordance with your April 11, 1975 letter, the Third Quarterly Report for the Seismic Monitoring Program for Indian Point covering the months of December, 1975 through February 1976 is forwarded herewith for your information.

Very truly yours

William J. Cahill, Jr.

Enc.
mrb

William J. Cahill, Jr.
Vice President

Copy to Mr. George T. Berry
General Manager and Chief Engineer
The Power Authority of the
State of New York
10 Columbus Circle
New York, New York 10019

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3594

THIRD QUARTERLY REPORT

Con Edison Seismic
Monitoring Network
(December 1975 Through February 1976)

The third quarterly report of the Con Edison Seismic Monitoring Network (CESMN) provides a complete listing of all seismic events recorded by the CESMN since the initiation of the network in June 1975 to the end of February 1976. Because of the recent interest in regional seismicity, this report also includes the series of naturally occurring seismic events at Wappingers Falls and the two early March 1976 naturally occurring seismic events.

The seismic events recorded by the network can be characterized by one of the four following categories: naturally occurring seismic events, probable naturally occurring seismic events, quarry blasts and probable quarry blasts or other man-made seismic events.

The complete listing of seismic events is presented in the following tables:

Table I	Naturally Occurring Seismic Events
Table II	Probable Naturally Occurred Seismic Events
Table IIIA	Clinton Point Quarry Blasts
Table IIIB	Haverstraw Quarry Blasts
Table IIIC	Plaza Materials Quarry Blasts
Table IIID	West Nyack Quarry Blasts
Table IV	Probable Quarry Blasts or Other Man-made Seismic Events

A continuing effort is in progress to determine the nature of all the probable events listed on Tables II and IV. However, most of these events are small; their phases are not well recorded and obtaining locations will be very difficult.

The Round Island event of October 8, 1975 which was previously reported as a naturally occurring seismic event is presently considered a probable naturally occurring seismic event for the following two reasons:

1. Another event of similar character occurred the next day at nearly the same time and

2. The New York State Department of Transportation had been blasting on Round Island. However, the size of the shots claimed are too small (on the order of 1 to 2 pounds) to have produced the traces recorded by the network.

During the third quarter, a 13th station, located on the Indian Point site, was added to the network.

TABLE I

NATURALLY OCCURRING SEISMIC EVENTS

Date		Origin Time (CUT)**	Location	Depth	Magnitude
1975	June 15*	08:08	Wappingers Fall, N.Y. 41°34.80'N 73°50.63'W	5 km	2.0
1975	July 19	20:59	Fahnstock State Park 41°25.80'N 73°47.25'W	3 km	2.3
1975	Aug. 22	17:49	Valley Cottage, N.Y. 41°06.62'N 73°56.45'W	6 km	---
1975	Oct. 24*	07:04	Wappingers Falls, N.Y. sambe as below	----	---
1975	Oct. 24*	07:08	Wappingers Falls, N.Y. 41°37.32'N 73°58.54'W	5 km	2.0
1975	Oct. 24*	07:43	Wappingers Falls, N.Y. 41°35.55'N 73°55.99'W	3 km	2.2
1975	Nov. 2*	04:09	Wappingers Falls, N.Y. insufficient data to locate		
1975	Nov. 10*	03:02	Greenwood Lake, N.Y. 41°10.71'N 74°22.70'W	5 km	1.8
1976	Mar. 6	04:14	Near Montrose, N.Y. 41°15.79'N 73°56.01'W	0 km	1.0
1976	Mar. 11*	21:07	Near Pompton Lakes, N.J.	5 km	2.5

**Coordinated Universal Time (Subtract 4 hours to obtain Eastern Daylight Time).

*As explained in the Second Quarterly Report (transmitted by Con Ed letter dated December 29, 1975) the network is designed to locate and report on a quarterly basis seismic events within a 30 km radius of Indian Point. Although the seismic events so designated occurred beyond the 30 km radius, they are reported herein because of the interest in the reginal seismicity.

TABLE II

PROBABLE NATURALLY OCCURRING SEISMIC EVENTS

Date	Origin Time (CUT)	Location	Depth	Mag.	S-P (seconds) at Nearest Station*		Remarks
1975 July 16	06:43	Insufficient data			1.5	N	Only one station
1975 Aug. 19	15:56	Insufficient data			-	OSB	Similar in appearance to Clinton Point Quarry but time does not match
1975 Sept. 5	14:27	Insufficient data			1.2-1.5	SNP	-
1975 Oct. 2	20:27	Insufficient data			-	WGL	Similar in character to Clinton Point Quarry but not listed by them and unusual time
1975 Oct. 5	14:31	Insufficient data			-	CHR	Sunday
1975 Oct. 8	15:46	Insufficient data			-	SRM	Clinton Point Characteristics but from South
1975 Oct. 8	19:02	Round Island in Hudson River 40°17.84'N 73°58.17'W	0 km		0.16	DBM	-
1975 Oct. 9	19:22	same as above event at 19:02			0.16	DBM	Suspicious because of same time as above event
1976 Feb. 12	14:47	Brewster-Carmel, N.Y. area 41°20.63'N 73°52.94'W		1.5	-	WGL	-

* See Figure 1 of Second Quarterly Report for station location

TABLE III A

CLINTON POINT QUARRY BLASTS

Date 1975	Time (CUT)	Date 1975	Time (CUT)
6/17	19:46	10/27	19:48
6/20	19:48	10/29	20:48
6/25	19:45	10/31	20:41
6/27	19:45	11/3	20:47
7/1	19:52	11/7	20:39
7/2	19:56	11/18	20:42
7/8	19:50	11/21	17:26
7/17	19:50	11/26	20:56
8/12	19:50	12/1	20:56
8/13	19:48	12/2	20:17
8/15	19:51	12/3	20:38
8/18	19:56	12/5	20:48
8/20	19:53	12/11	20:46
8/22	19:40	12/12	20:41
8/29	19:53	12/16	20:45
9/3	19:46	12/17	20:45
9/5	19:44	12/19	20:37
9/8	19:52		
9/9	19:45	1976	
9/10	20:01		
9/11	19:52	1/7	20:41
9/16	19:51	1/29	19:01
9/18	19:44	2/9	18:46
9/19	16:10	2/10	18:04
9/22	19:46	2/11	18:46
9/24	17:10'	2/14	18:47
9/26	16:12	2/16	18:16
10/13	19:46	2/19	17:17
10/14	19:06	2/21	18:14
10/16	19:48	2/26	17:00
10/17	19:43		
10/21	19:15		
10/24	19:45		

TABLE III B

HAVERSTRAW QUARRY BLASTS

Date 1975	Time (CUT)	Date 1975	Time (CUT)
6/13	16:14	9/4	16:13
6/17	20:14	9/10	16:11
6/20	16:14	9/11	20:12
6/24	----	9/15	20:10
6/25	16:14	9/18	16:11
7/1	16:18	9/26	16:26
7/8	16:11	9/30	16:18
7/9	20:11	10/1	16:16
7/11	20:10	10/3	16:12
7/16	16:17	10/7	20:10
7/22	20:12	10/14	16:12
7/24	20:12	10/15	20:12
7/29	20:12	10/16	16:10
7/31	20:10	10/22	20:11
8/5	20:10	10/24	16:14
8/6	20:11	10/29	17:12
8/8	16:10	10/30	21:11
8/13	20:11	11/12	17:11
8/14	20:11	11/13	17:37
8/15	16:13	11/26	17:33
8/20	20:10	12/5	17:45
8/21	20:13	12/17	17:28
8/25	16:14		
8/26	20:10	1976	
9/2	16:10		
9/3	20:13	1/14	21:10

TABLE III C

PLAZA MATERIALS QUARRY BLASTS

DATE	TIME
1975	(CUT)
11/19	16:00
11/14	19:30
1976	
1/1	20:49
1/2	15:30
1/5	20:39
1/6	16:44
1/8	15:27
1/9	18:32
1/15	20:00
1/19	17:56
1/22	16:16
2/5	16:52
2/8	15:20
2/13	15:13

TABLE III D

West Nyack Quarry Blasts

DATE 1975	TIME (GMT)
9/ 2	16:20
9/30	16:21
10/ 1	16:20

TABLE IV

PROBABLE QUARRY BLASTS OR OTHER MAN-MADE SEISMIC EVENTS

DATE 1975	TIME (CUT)	S-P (SECONDS) AT NEAREST STATION
6/20	15:14	1.5 GSC & SNP
6/20	17:48	0.3 BLM
6/23	19:50	- OSB
6/23	20:46	1? SNP
6/24	14:47	1.5 OSB
6/24	14:55	3.5 SNP
6/24	15:57	0.5 BLM
6/24	16:17	<0.5 BLM
6/24	19:21	1 SNP, OSB
6/25	19:56	1.5 SNP
6/25	20:22	<0.5 BLM
6/26	15:04	1.3 SNP
6/26	20:41	0.5 BLM
6/27	19:31	<0.5 BLM
7/1	14:40	2.6 GSC
7/3	16:57	-
7/3	19:15	0.5 BLM
7/8	19:17	0.5 GSC
7/9	14:05	2.0 STL
7/9	16:21	1.8 STL
7/11	12:48	<0.5 SNP
7/11	19:19	1.0 SNP
7/15	15:00	<0.2 SNP
7/15	18:31	<0.2 SNP
7/15	19:00	<0.2 SNP
7/16	14:41	- SNP
7/16	18:48	1.0 SNP
7/16	18:20	6.0 SNP
7/16	19:23	- SNP
7/17	16:53	1.0 SNP
7/17	17:08	1.2 SNP
7/17	19:50	4.5 SNP
7/21	16:29	2.5 SNP
7/23	16:01	1.0 SNP
7/23	19:43	- GSC
7/29	14:43	1.0+STL
7/29	14:56	- SNP & OSB
7/31	14:28	1.5 STL
8/5	12:58	1.7 STL
8/5	16:23	4.5 OSB
8/6	13:29	1.5 STL
8/8	14:43	-
8/14	14:16	1.5 STL
8/18	13:16	SNP
8/18	16:58	1.5 STL
8/20	15:43	1.3 STL
8/21	15:32	-

DATE 1975	TIME (CUT)	S-P (SECONDS) AT NEAREST STATION
8/26	12:58	SNP
8/26	20:05	SNP
8/28	20:19	SNP
8/30	20:52	OSB
9/3	14:14	3 SNP
9/5	13:58	- SNP
9/9	16:45	4 SNP
9/13	13:18	< 0.5 DPL
9/13	13:30	< 0.5 DPL
9/13	15:45	< 0.5 DPL
9/16	15:28	3 SNP
9/22	19:34	2.5 WGL
9/24	13:07	-
9/29	22:37	3 DBM
10/1	13:16	1.5-2 SRM
10/1	20:12	WGL Small
10/3	13:32	1.5 CHR
10/6	14:00	1.5 CHR
10/6	14:06	0.5 DPL
10/6	15:55	<0.5 DPL
10/6	17:12	<0.5 DPL
10/6	18:17	
10/6	19:15	
10/6	19:44	
10/7	13:12	
10/7	13:41	
10/10	15:42	1.1 OSB
10/13	16:54	0.3 OSB
10/14	19:36	1.0 OSB
10/14	19:49	0.4 DPL
10/14	21:02	4.0 OSB
10/15	16:26	SPS
10/18	19:09	1.3 SPS
10/20	15:46	0.3 - 0.4 SPS
10/20	17:19	SPS
10/20	19:31	1.0 DPL
10/21	13:00	1.6 STL
10/21	16:47	-
10/21	18:30	1.5 STL
10/23	16:34	STL
10/24	14:45	<0.5 DPL
10/24	18:23	DPL
10/28	15:31	2.0 STL
10/28	17:15	5.0 WGL
10/28	21:45	3.9 WGL
10/30	16:45	1.5 CHR
10/31	15:45	1.5 CHR
11/3	16:00	1.5 CHR
11/3	17:17	1.5 WGL
11/5	16:00	1.5 CHR

DATE 1975	TIME CUT	S-P (SECONDS) AT NEAREST STATION
11/14	14:30	2.0 STL
11/19	16:33	
11/19	18:12	
11/19	19:11	
11/19	19:14	
11/19	19:19	
11/19	19:24	
11/19	19:35	
11/19	20:24	
11/20	18:27	
11/20	19:08	
11/20	19:24	
11/20	20:00	
11/24	15:57	SPS
11/25	18:01	
11/27	16:43	SPS
11/28	16:12	
12/4	16:42	
12/4	17:46	
12/4	17:26	
12/9	17:15	
12/9	17:53	
12/9	19:12	
12/11	17:11	WGL
12/11	20:54	2.0 CHR
12/12	19:17	SPS
12/12	19:34	SPS BLM
12/12	19:27	
12/15	20:26	BLM
12/15	21:31	SNP
12/16	17:21	WGL
12/18	15:06	SNP
12/20	11:05	BLM
12/24	16:41	BLM
1976		
1/1	20:35	SPS
1/3	10:06	SPS
1/15	17:11	3.5 DPL
2/1	16:36	SPS
2/12	18:08	SRM
2/17	14:23	OSB
2/17	23:44	SPS
2/17	23:58	CHR
2/21	18:14	3.0 CHR