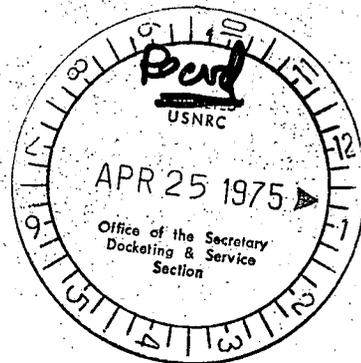


UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
 )  
CONSOLIDATED EDISON COMPANY )  
OF NEW YORK, INC. )  
(Indian Point Station, )  
Unit No. 3) )

Docket No. 50-286



APPLICATION TO AMEND OPERATING LICENSE

April, 1975

50-286  
REC'd w/HR 4/25/76  
CWT# 4658

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The Power Authority of the State of New York ("Authority") and Consolidated Edison Company of New York, Inc. ("Con Edison") hereby request that any operating license issued to Con Edison for operation of the facility known as Indian Point Unit No. 3 ("Unit No. 3") be amended to make the Authority a co-holder of the license. This amendment is sought in order to permit the Authority to purchase and acquire title to Unit No. 3. As proposed in this application, Con Edison would retain complete responsibility for operation of the facility in a safe manner and in accordance with Nuclear Regulatory Commission ("Commission") requirements. The Authority and Con Edison contemplate that this proposed arrangement will be for a very limited period. Prior to commercial operation of the plant, the Authority and Con Edison intend to apply for a further amendment to the operating license authorizing transfer

of complete operating and other associated responsibilities to the Authority.

Specifically, if it appears that a full-term operating license will be issued prior to July 1, 1975, the Authority and Con Edison request that that license be amended by that date to permit acquisition of Unit No. 3 by the Authority. If not, it is requested (1) that any interim operating license which may have been issued to Con Edison be similarly amended by that date, and (2) that any subsequently issued full-term operating license also include the Authority as a co-licensee for the same purpose.\*

In support of this application, Con Edison and the Authority state as follows:

(a) Name of the new co-applicant is Power Authority of the State of New York.

(b) Address of the Authority is 10 Columbus Circle, New York, New York 10019.

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\* If it should develop that no interim operating license is likely to be issued on or near July 1, 1975, the Authority and Con Edison may request amendment of Construction Permit No. CPPR-62 to permit acquisition.

(c) The Authority hereby attaches as Exhibit A its 1974 Annual Report, which contains a description of its business. This and Exhibits B through E referred to below are hereby incorporated in this application by reference.

(d) The Authority submits the following summary of its business and activities:

The Authority is a corporate municipal instrumentality constituting a political subdivision of the State of New York. Its office and principal place of business is at 10 Columbus Circle, New York, New York 10019.

The Authority consists of five trustees appointed by the Governor of New York for overlapping five-year terms. The present trustees and principal staff of the Authority are listed in Exhibit B, which is attached hereto. \* All of the trustees and principal staff are citizens of the United States. The Authority is not owned, controlled or dominated by an alien, foreign corporation, or foreign government.

The Authority is engaged in the generation, transmission and sale of electricity. It has constructed, owns and operates

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\* There is presently one vacancy on the Board of Trustees.

hydro-electric plants at Massena, New York and Niagara Falls, New York with a combined net dependable generating capacity of 3,200,000 kwe. It also has approximately 380 circuit miles of high voltage transmission lines.

The Authority is authorized by Article 5, Title 1 of the New York Public Authorities Law to construct pumped storage hydroelectric and baseload nuclear generating facilities to make possible optimum use of the generating capacity of the Authority's St. Lawrence and Niagara hydroelectric projects, to supply low cost power to high load factor manufacturers, and to supply the future needs of the Authority's existing municipal electric and rural electric cooperative customers. Pursuant to that authorization the Authority has constructed and is operating a pumped storage project at Gilboa, New York with a generating capacity of 1,000,000 kwe. The Authority has also constructed the James A. FitzPatrick Nuclear Power Plant at a site on the shore of Lake Ontario (NRC Docket No. 50-333, Operating License No. DPR-59). The FitzPatrick Plant, which will have a net capacity of 821,000 kwe, is now undergoing power ascension testing and is expected to begin commercial operation this year. It is being operated by Niagara Mohawk Power Corporation under contract,

with the Authority retaining certain responsibilities in areas such as quality assurance, plant modifications, technical specification changes, and environmental surveys.

The Authority has filed an application with the Federal Power Commission for a license to construct and operate a second pumped storage power project, to be located at Breakabeen, Schoharie County, New York, and to have a capacity of 1,000,000 kwe. It has also applied to the New York Public Service Commission for authorization to construct 134 miles of 765,000 volt transmission lines and 71 miles of 230,000 volt transmission lines in northern New York State.

The Authority is authorized by State law to construct generation and transmission facilities to supply electricity for the Metropolitan Transportation Authority, its subsidiaries, and other public corporations and electric corporations in the New York metropolitan area. The Authority is in the process of making extensive environmental and engineering studies in connection with such facilities and their siting. It has announced plans to construct a nominal 700 mwe fossil fuel plant with a primary proposed site on Staten Island in New York City, and a 1200 mwe nuclear plant in Greene County, New York.

The Authority is further authorized, by legislation recently enacted in the State of New York, to carry out activities including those proposed herein. A copy of this authorizing legislation is attached as Exhibit C to this application. That legislation also authorized the Authority to purchase from Con Edison a partially completed power plant in New York City. Pursuant to such authorization the Authority has recently acquired the Astoria Unit No. 6 power plant which is designed to have a net generating capacity of approximately 800,000 kwe when completed, and which will be operated and maintained by the Authority.

The Authority sells power at wholesale to 43 municipalities and cooperatives in New York and Pennsylvania, five utility companies, three industrial concerns, the United States Air Force and the State of Vermont. It has no low voltage distribution system.

The Authority and Con Edison are members of the New York Power Pool, established in 1966 to formalize and extend state-wide coordination of planning and operation among electric utilities serving New York State. The Authority's facilities are connected into an integrated operating network and are interconnected with other systems in the Northeast.

The Authority and Con Edison are also active participants in the Northeast Power Coordinating Council, an organization which provides for coordination of the planning and operating procedures of the member systems. The members comprise all major utilities in New York and New England and The Hydro-Electric Power Commission of Ontario and New Brunswick, which supplies almost all the electricity in those provinces.

(e) Neither applicant is acting as agent or representative of another person in filing this application.

(f) Unit No. 3 is a pressurized light water nuclear reactor plant which will have an initial design net power rating of 965 mwe. It is located on a site of approximately 235 acres presently owned by Con Edison on the east bank of the Hudson River at Indian Point, in the Village of Buchanan, Westchester County, New York.

Unit No. 3 is located on the site adjacent to and to the south of Units 1 and 2, which are and will continue to be owned and operated by Con Edison. A summary description of Unit No. 3 and the Indian Point site is found in Sections 1.2 and 2.1, respectively, of the Final Safety Analysis Report (FSAR) in this docket. A complete description of the plant and the site is found in Chapters 1 through 11 of the FSAR.

Acquisition by the Authority will include a portion of the Indian Point site. Figure 1 (attached) shows generally the portion of the

site presently planned to be transferred. The Authority and Con Edison also have under consideration the acquisition by the Authority of a portion of a parcel owned by Con Edison adjoining the Indian Point site to the south.

Generally, the acquisition by the Authority will include all buildings, facilities, and equipment (including monitoring equipment and spare parts) which are required to maintain and support safe and reliable operation of Unit No. 3. However, the present design of this unit involves certain systems and facilities which will be shared between Unit No. 3 and one or both of the other two units on the site. The circulating water discharge from Unit No. 3 enters a canal which also serves Units 1 and 2. The canal flows into a discharge structure which is presently owned by the New York State Atomic and Space Development Authority and leased to Con Edison. Two covered passageways will connect Units 1 and 3. The other systems and facilities to be shared are auxiliary in nature and provide support functions for Unit No. 3.

The principal ones are:

1. Sewage treatment and transportation
2. Offsite power and switchyard
3. Auxiliary steam system and condensate returns
4. City water for: fire protection, auxiliary boiler feed and potable water
5. Demineralized water
6. Steam generator blowdown purification system

7. Integrated liquid radwaste system and solid waste disposal facilities
8. Out-of-plant radiation monitoring facilities
9. Roadways
10. CO<sub>2</sub> for main generator
11. Chlorination system for circulating water
12. Service building, administration building, and storage facilities
13. Security facilities
14. Service air

During the period prior to assumption of full operating responsibility by the Authority, Con Edison will operate Unit No. 3 under contract with the Authority. Services contracted for will include operating, engineering, maintenance and training services, health physics, water chemistry, environmental monitoring, plant and site security, construction management, and use of the shared facilities and systems listed above.\* The contract will also provide for the mutual use of the combined sites as the exclusion area and restricted area for all three units.

(g) (1) To demonstrate the Authority's financial qualifications to carry out, in accordance with the regulations, the activities for which this operating license amendment is sought, the Authority herein references certain information contained in its 1974 Annual Report (Exhibit A). This report includes a statement of receipts and disbursements and a statement of assets and liabilities and

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\* As discussed in section (g) (2) the Authority intends, following assumption of full operating responsibility, to undertake plant modifications which will increase the independence of operation of Unit No. 3.

other financial data to show that the Authority possesses the necessary combination of funds and the ability to obtain funds to cover the cost of acquisition and operation of the unit.

(2) The Authority estimates the total capital cost to be incurred by it to be about \$550,000,000\*. This figure includes compensation to be made by the Authority to Con Edison based on costs incurred prior to the purchase and also includes other costs incurred and to be incurred by the Authority, such as administrative, engineering and financing costs and interest during construction.\*\*

The estimated total given above also includes fuel costs for the initial core and the first reload. Fuel costs are estimated by the Authority as follows:

<u>Nuclear Fuel</u>	<u>Cost</u>
First core	\$46,760,000
First reload	<u>\$21,560,000</u>
Total	\$68,320,000

Con Edison has entered into a leasing arrangement with NC Fuel, Inc. for the first core of Unit No. 3 nuclear fuel. While it has

\* In addition to this figure a bond reserve of about \$41,000,000 is required by the General Purpose Bond Resolution.

\*\* The exact purchase price has not been determined as of the date of this application.

not yet been determined whether the Authority will assume Con Edison's responsibilities under that lease, the above cost estimates are based on the premise that the lease will not be assumed and that the fuel will be acquired by purchase. If the NC Fuel lease were to be assumed there would be no capital expenditure for fuel such as is indicated in the above table, but the estimated operating costs listed in the "Fuel Expense" column of the table in subsection (g) (3) below would be increased.

Finally, the total cost estimate given above includes costs of certain plant modifications to be undertaken by the Authority following assumption of full operating responsibility. The Authority presently intends to modify each of the systems or structures listed in section (f) above (except for out-of-plant radiation monitoring facilities) in order to increase independence of operation of Unit No. 3. The total cost of such modifications is estimated by the Authority to be \$35,500,000. Other planned modifications, involving full condensate polishing and increased fuel oil storage, will cost an estimated \$3,200,000. Cost of a natural draft cooling tower is not included in the above estimates. Should one be required, the Authority estimates that such a cooling tower would cost about \$70,000,000. The Authority presently intends to accomplish all

the above modifications except for the cooling tower within approximately the first two years after assumption of full operating responsibility.

(3) The annual costs of operating Unit No. 3 for the first several years of operation are estimated by the Authority to be as follows:

Year	Operating & Maintenance (1)	Fuel Expense (2)	Amortization Charges (3)	Total Costs
1975	-0-	-0-	-0-	-0-
1976	5,810,000	21,000,000	49,140,000	75,950,000
1977	7,390,000	21,000,000	49,140,000	77,530,000
1978	7,528,000	21,000,000	49,140,000	77,668,000
1979	7,912,000	21,000,000	49,140,000	78,052,000
1980	8,410,000	21,000,000	49,140,000	78,550,000

- (1) Includes insurance costs. Payments in lieu of taxes are not included in this table. Operating and maintenance expenses for the second half of 1975 are estimated to be \$2,640,000. However, these costs are treated as capital costs; anticipated offsetting revenues for 1975 are also taken into account in estimating capital requirements.
- (2) Fuel expense for first core and first reload appears here only as part of the amortization charges, since it is included in the capital costs set forth in subsection (g) (2) above. Expense for subsequent reloads has been levelized.
- (3) Includes interest and reserve requirements in accordance with the Authority's General Purpose Bond Resolution. No return of capital is required within the time period of this table.

Since it is anticipated that operating services for the initial period will be contracted for on a cost-reimbursement basis, the

Authority does not expect the operating and maintenance costs to be materially affected by the utilization of Con Edison as operator.

(4) The Authority estimates that decommissioning of Indian Point No. 3, should it be required, would cost approximately \$5,000,000 in 1975 dollars, based on 1975 technology. The precise nature of such a shutdown process is difficult to anticipate at present, in view of the likelihood of regulatory and technological changes in the coming years. However, the process would probably involve removal of all spent fuel from the facility and shipment offsite; decontamination of the facility through appropriate chemical cleaning and flushing; treatment and disposal of any contaminated water; disposal of resins, filters, and miscellaneous radioactive materials; sealing of the containment and adjustments to alarm systems in anticipation of post-shutdown security monitoring; and completion of a final post-shutdown radiation check.

Following the shutdown process, the Authority would conduct a security and radiological monitoring program. This would involve a round-the-clock guard to insure against intruders. An alarm system, telephone communications, locked doors and windows, a lighting system, and a perimeter fence would be maintained for this purpose. In addition, periodic monitoring of radioactivity in the vicinity of the facility would be performed. The Authority

estimates the annual cost of such a program, in 1975 dollars and using 1975 technology, to be approximately \$200,000.

(5) The Authority has adopted, on November 26, 1974 a General Purpose Bond Resolution, under which bonds or notes will be issued to finance acquisition and completion of the Astoria 6 and Indian Point Unit No. 3 facilities. A copy of that Resolution is attached as Exhibit D to this application. An Internal Revenue Service ruling dated October 24, 1974 together with an Internal Revenue Service ruling dated February 5, 1973 as amended by a supplemental ruling dated October 13, 1973 provide that interest on the bonds or notes issued for the Authority's future programs (including Unit No. 3) totalling \$2.5 billion is exempt from Federal income taxation. On January 30, 1975 the Authority successfully marketed the first series of \$150,000,000 bonds under the resolution following the issuance of \$150,000,000 promissory notes and \$125,000,000 bond anticipation notes late in 1974. The promissory notes are due in June 1975 and the bond anticipation notes are due in December 1975. These bonds and notes were issued to pay a portion of the costs of the acquisition and completion of Astoria 6, the first project to be financed under the General Purpose Bond Resolution. The managing underwriters reported excellent market acceptance of the above \$150,000,000 bonds. The lead commercial bank handling the sale of the notes advised the

Authority that there was excellent market acceptance of the \$275,000,000 in notes. The bond ratings are Moody - A (Con) and Standard & Poor - A. Moody rates the notes MIG-1 which is the highest rating possible for municipal notes.

The official statement issued in connection with the above bonds indicated that acquisition of Unit No. 3 was expected, and the power marketing data included consideration of the sales of the output from this project. A copy of this official statement is attached as Exhibit E.

Completion of the official statements for the bonds to be issued for Unit No. 3 will follow the receipt of (i) an evaluation from the Authority's engineering consultants of the Unit No. 3 facilities and their licensability, (ii) a final evaluation of costs incurred and to be incurred prior to completion and other financial data from the Authority's accounting consultants, (iii) a legal analysis of claims of contractors and suppliers, and (iv) the New York State Comptroller's approval of the price the Authority agrees to pay for the facilities.

Upon completion of these steps the bonds or notes for acquisition and completion of Unit No. 3 (including associated transmission, and the first core and first reload of nuclear fuel) will be marketed, probably in two or more offerings over a period of several months as with the Astoria 6 financing. The bonds or notes are expected to be sold within about two weeks of offering depending on market conditions.

Normally proceeds of such a sale are available to the Authority approximately two weeks after the sale.

(6) Funds to cover operating costs set forth in subsection (g) (3) above will be provided by the Authority through operating revenues available for that purpose. Prior to the retirement date of the bonds issued to finance the St. Lawrence and Niagara projects, which is required, by covenants with bond owners, to be not later than January 1, 1985, such operating costs will be financed, to the extent necessary, through the issuance of notes. Following such retirement, a portion of the revenues from the St. Lawrence and Niagara projects and reserve funds established from such revenues will be available to cover Unit No. 3 operating costs. Decommissioning costs, should they occur, would be financed in a manner similar to operating costs.

(h) There will be no change in the environmental effects of Unit No. 3 as a result of the activities authorized by the requested license amendment.

(i) The Authority agrees that it will not permit any individual to have access to Restricted Data until the Civil Service Commission

shall have made an investigation and report to the Commission on the character, association, and loyalty of such individual, and the Commission shall have determined that permitting such person to have access to Restricted Data will not endanger the common defense and security.

(j) Communications with respect to this application should be sent to:

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

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

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

POWER AUTHORITY OF THE  
STATE OF NEW YORK

By George T. Berry  
George T. Berry  
General Manager and  
Chief Engineer

Subscribed and sworn to before  
me this 23 day of April, 1975.

Harold F. Mason  
Notary Public

HAROLD F. MASON  
Notary Public, State of New York  
No. 24-7752250  
Qualified in Kings County  
Commission Expires March 30, 1976

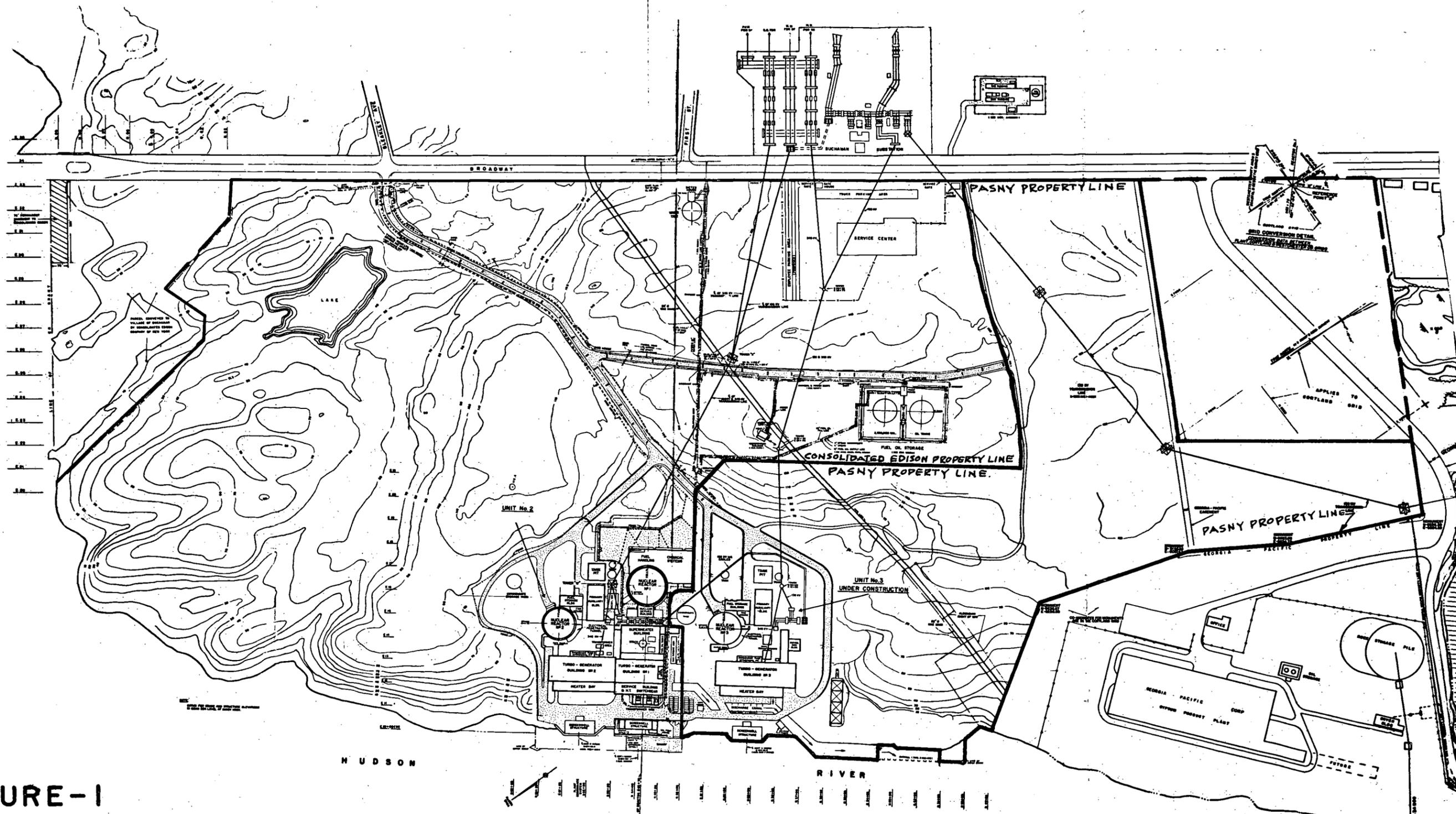
CONSOLIDATED EDISON COMPANY  
OF NEW YORK, INC.

By William J. Cahill, Jr.  
William J. Cahill, Jr.  
Vice President

Subscribed and sworn to before  
me this 24 day of April, 1975.

Thomas Love  
Notary Public

THOMAS LOVE  
Notary Public State of New York  
No. 31-2409638  
Qualified in New York County  
Commission Expires March 30, 1977



**FIGURE-1**

- PROPOSED PASNY PORTION OF INDIAN POINT SITE
- - - OTHER PROPERTY PROPOSED FOR ACQUISITION BY PASNY

1974 ANNUAL REPORT