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for construction and operation of Con Edison's facilities. I submit this affidavit in support of the Petition for a judgment and order annulling, revoking and setting aside the Decision of the Zoning Board of Appeals of the Village of Buchanan (the "Board") which denied Petitioner's appeal for a variance from the height limitations and certain use restrictions of the Zoning Ordinance of the Village of Buchanan for the purpose of building a cooling tower at Con Edison's nuclear generating station located in the Village of Buchanan known as Indian Point Unit No. 2 ("Indian Point 2").

2. Con Edison operates Indian Point 2 pursuant to License No. DPR-26 (the "License") issued by the United States Atomic Energy Commission ("AEC"). Amendment No. 6 to the License, issued on May 6, 1974 (Exhibit "C" to the Petition) provides, among other matters, that operation of Indian Point 2 with the present once-through cooling system will be permitted during an interim period the reasonable termination date of which is May 1, 1979. The effect of this provision is to require Con Edison to terminate operation of Indian Point 2 on May 1, 1979 for installation of a closed-cycle cooling system.

That date was selected as a result of my 3. testimony submitted in the hearing conducted by an Atomic Safety and Licensing Board appointed by the AEC to review Con Edison's application for an operating license. In that hearing, I was asked to submit a schedule for constructing a closed-cycle cooling system at Indian Point 2 on an "as fastas possible" basis. Based on the schedules presented in the testimony, the Atomic Safety and Licensing Board ordered termination of operation with the once-through cooling system on May 1, 1978. An Atomic Safety and Licensing Appeal Board changed that determination on the basis that the environmental consequences of cooling towers had not been adequately considered and allowed one additional year for the completion of such studies. The result of the oneyear extension was the May 1, 1979 date.

4. In accordance with my testimony at the hearing, Con Edison commenced engineering design work on a closed-cycle cooling system in 1972. In accordance with the decision of the Atomic Safety and Licensing Appeal Board and Paragraph 2.E(2) of the License, an evaluation of the economic and environmental impacts of alternative closed-cycle cooling systems was prepared and delivered to the AEC, the Village of Buchanan and others on December 2, 1974 in a three-volume document entitled "Economic and Environmental Impacts of Alternative Closed-Cycle Cooling Systems for Indian Point Unit No. 2" (the "Cooling Tower Report").

5. The Cooling Tower Report discussed the following alternate closed-cycle cooling systems:

- a. Wet (evaporative) cooling towers both mechanical draft and natural draft;
- b. Dry cooling towers, mechanical draft;
- c. Wet/dry cooling towers, mechanical draft;
- d. Natural cooling ponds; and
- e. Spray ponds or canals with either fixed

pipe or powered spray module fixtures.

The Cooling Tower Report concluded that the only feasible systems were natural draft wet, mechanical draft wet, and mechanical draft wet/dry cooling towers. The report contained detailed environmental and economic data on each of these three feasible systems and concluded that the preferred system, principally for environmental reasons, was the natural draft wet cooling tower system.

6. Mechanical draft wet cooling towers, although not as tall as natural draft (but still requiring a variance

4.

from the Buchanan Zoning Code) would violate the noise limits of the Buchanan Zoning Code, would lead to more incidents of icing and fogging than the other systems, and would have a greater potential for damage to flora from saline deposition than natural draft towers. The mechanical draft wet/dry cooling towers, slightly taller than mechanical draft wet towers but not as tall as natural draft towers, would have the same noise and saline drift phenomena, as mechanical draft wet cooling towers but would produce less fogging and icing. The natural draft wet tower, although having the greatest esthetic intrusion, would not violate the noise code and would have a minimum environmental impact from fogging, icing and saline deposition.

7. Paragraph 2.E(1)(b) of the License (see Exhibit "C" to the Petition) provides that the May 1, 1979 date is grounded on a schedule under which the applicant, acting with due diligence, obtains all governmental approvals required to proceed with the construction of the closed-cycle cooling system by December 1, 1975. One of such governmental approvals is the approval of the Zoning Board of Appeals of the Village of Buchanan. The natural draft cooling tower contravenes the Zoning Code of the Village of Buchanan in the following respects:

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Height of the proposed cooling tower is approximately 565 feet, which exceeds height limitation in the zoning district of 40 feet.

a.

b.

Operation of the cooling tower will result in production of a visible vapor plume beyond the boundaries of the immediate site contrary to Section 54-22A(1) of the Buchanan Zoning Code.

c. Operation of the cooling tower will result in the deposition of saline drift which may be harmful to certain plants indigenous to adjacent areas, contrary to Section 54-22A(2) of the Buchanan Zoning Code.

8. Indian Point 2 is located in an area zoned for industrial use (Zone M-D). Immediately north of Indian Point is a yeast plant and to the south is a gypsum wallboard factory. The Indian Point site includes several structures which exceed the height restrictions of the Buchanan Zoning Code. The principal structures are the two domed containment buildings of Indian Point 2 and 3 which are 219 feet high and a stack for the Indian Point 1 superheater building

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which is 375 feet high. Construction of these facilities was commenced prior to adoption of the Buchanan Zoning Code and they are pre-existing uses. After adoption of the Buchanan Zoning Code, Con Edison erected a 400-foot meteorological tower in order to conduct the studies required for the Cooling Tower Report and obtained a temporary variance for such construction.

9. Con Edison filed with the Village of Buchanan on February 21, 1975 an application for a building permit to construct a natural draft cooling tower. The application was denied by the Building Inspector of the Village of Buchanan on March 4, 1975. An appeal for a variance was filed with the Village of Buchanan on March 21, 1975. Thereafter pursuant to the provisions of Section 54-44 of the Buchanan Zoning Code, a public hearing was held before the Board on May 6, 1975 at which statements of Con Edison's witnesses, Edward J. Sack, Salvatore A. Dambra, Lester A. Cohen, and John J. Szeligowski, were entered into the record of the hearing, along with statements of others.

10. On June 19, 1975 the Board issued its decision, attached to the Petition as Exhibit "B", denying Con Edison's request for a variance. The basis for the denial was that

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Con Edison had not shown sufficient practical difficulties to justify its requested variance.

11. The practical difficulties derive from the implementation of the conditions of the License and were explained in detail at the public hearing conducted by the Board on May 6, 1975 in the statements of Mr. John J. Szeligowski. The imposition of the May 1, 1979 date for termination of operations with the once-through cooling system constitutes a direction and order to Con Edison to proceed with the procurement and construction schedule for a cooling tower system as rapidly as possible after completion of the Cooling Tower Report on December 2, 1974.

12. Con Edison has been pursuing that procurement and construction program diligently. Detailed engineering designs are in process, and Con Edison is soon to commence discussions with vendors. After receipt of regulatory approvals on December 1, 1975, Con Edison must finalize designs to incorporate comments of regulatory agencies, finalize site preparation specifications and drawings, and obtain and evaluate bids for site preparation and cooling tower fabrication and erection. By the spring of 1976, Con Edison must enter into binding contracts for site preparation

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and cooling tower procurement (assuming denial of the application referred to in paragraph 15 below).

13. The proposed site for the cooling tower is a heavily wooded area north of the Indian Point 2 plant. If the cooling tower is to be constructed on a schedule consistent with the May 1, 1979 date, clearing of the land and excavation must commence in the summer of 1976. Con Edison estimates that excavation would take approximately 12 months and construction to the point of taking the plant out of service for cutover to the new cooling system would take approximately an additional 22 months.

14. Without the variance, Con Edison cannot proceed in good faith with the negotiations with the suppliers and cannot enter into contractual arrangements without in all likelihood incurring liability for substantial cancellation charges if the requested variance should not be obtained.

15. The Board appears to be influenced by the fact that a Con Edison representative stated at the hearing that Con Edison intended to file an application to the Nuclear Regulatory Commission ("NRC"), the successor agency to the regulatory functions of the AEC, to amend the License. Such an application was filed on June 6, 1975 and requested

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amendment of the License to change "May 1, 1979" to "May 1, 1981". Con Edison has been advised by its special nuclear counsel that the laws and regulations applicable to the NRC's review of this application make it unlikely that the NRC will reach a decision before June 1, 1976. The NRC has already indicated to Con Edison that it considers the application for an amendment as a "major Federal action" requiring environmental review pursuant to the National Environmental Policy Act as implemented in NRC Regulations 10 C.F.R. Part 51. Those regulations require the preparation of a draft environmental statement, circulation of the draft to cognizant Federal and State agencies and the public, receipt and analysis of comments and preparation of a final environmental statement. NRC regulations provide the opportunity for anyone adversely affected by the decision to request a hearing. Although it is not possible to know the time required for such activities, Con Edison believes it is prudent to consider that at least one year will be required before the NRG reaches a final decision, which is subject to judicial review.

16. In view of the uncertainty concerning the outcome of Con Edison's application to amend the License, Con

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Edison must proceed on the basis of the schedule described above which allows sufficient time to minimize plant unavailability after May 1, 1979. If the requested variance is not obtained from the Village of Buchanan before December 1, 1975, Con Edison will not be able to proceed without incurring substantial economic costs.

17. If Con Edison proceeds on the schedule after December 1, 1975 and the Board's Decision is not set aside, losses would result from cancellation charges on contracts entered into in the spring of 1976 and in unnecessary clearing of land and unnecessary excavation. If Con Edison were to suspend the schedule, economic costs would be incurred because of the time required to construct the cooling tower, approximately 34 months after commencement of excavation. Such a course of action would mean that Indian Point 2 would be removed from service for a longer period after May 1, 1979 than would otherwise be required for completion of construction. As stated at the Board's public hearing, this delay would cost our customers an additional fuel cost of approximately \$650 per megawatt per day. If the plant operated at maximum power at 873 MW, this would result in an additional consumption of approximately 2,100,000 gallons of

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fuel oil per day, at a cost of \$567,000 per day. Con Edison would also incur substantial additional costs by reason of inability to utilize Indian Point 2, the capital cost of which is in excess of \$204,000,000.

If the NRC should deny Con Edison's application 18. to amend the License or if Con Edison should be required by action of any other regulatory body to terminate operation of the once-through cooling system and if the Board's decision should not be set aside, then very serious practical difficulties and hardships would be imposed not only on Con Edison but on the millions of people who receive the energy generated by Indian Point 2. Con Edison would lose its investment in the plant which, as noted above, is in excess of \$204,000,000. Con Edison would have to replace the lost power with other generation which, as noted above, is estimated to cost \$567,000 per day at full power operation. Con Edison through the New York Power Pool is interconnected with utilities in New England and in New Jersey and Pennsylvania and the supply of energy to this interstate area would be adversely affected.

19. The Board's decision of June 19, 1975 indicated concern as to Con Edison's judgment as to the preferred

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closed-cycle cooling system. In order to meet the schedule mandated by the May 1, 1979 date, Con Edison was required to select a closed-cycle cooling system for detailed engineering design and commencement of procurement activities. In the Cooling Tower Report filed with the Village of Buchanan and other regulatory agencies on December 2, 1974, Con Edison described the advantages and disadvantages of all feasible alternate closed-cycle cooling systems. The NRC has not yet advised Con Edison whether it concurs in Con Edison's judgment. The NRC has advised Con Edison that it is preparing an environmental impact statement on the Cooling Tower Report, and NRC regulations provide an opportunity for the Village of Buchanan to request a hearing before the NRC on the question of the preferred closed-cycle cooling system.

20. If it is determined by the NRC or any other regulatory body having jurisdiction that a closed-cycle cooling system other than a natural draft wet system should be constructed, then it will not be possible for Con Edison to complete construction of such an alternative system on a schedule consistent with the May 1, 1979 date because of the advanced state of work completed to date on a natural draft

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system.

21. Operation of Indian Point 2 requires a permit from the United States Environmental Protection Agency ("EPA") pursuant to the Federal Water Pollution Control Act. On February 24, 1975, EPA issued a permit for Indian Point 2 which required termination of operation with the once-through cooling system by May 1, 1979. On April 7, 1975 Con Edison filed with EPA a request for an adjudicatory hearing on that issue, among others, and a request for alternative thermal limitations which would permit continued operation with the once-through cooling system. By public notice dated May 16, 1975, EPA granted Con Edison's request for an adjudicatory hearing. Con Edison does not know when such hearing will be held.

Sworn to before me this  $17^{\frac{tt}{2}}$  day of July 1975.

Notary Public

ANGELA ROBERTI Notary Public, State of New York No. 03-8593813 Qualified in Bronx County Commission Expires March 30, 1976

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### Sir(s):

Please take notice that the within is a true copy of

duly entered in the office of the Clerk of the within named Court on

Dated, New York,\_\_\_\_\_\_19\_\_\_\_

Yours, etc.

WILLIAMS & O'NEILL Attorneys for

Consolidated Edison Company of New York, Inc.

То

Esq(s).

Attorney(s) for

### Sir(a):

Please take notice that an Order of which the within is a true copy will be presented for settlement and entry herein to Hon.

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Eeq(s).

## at

To

of this court at

on the day of at 9:30 o'clock in the forencon. Dated, New York......

Yours, etc. WILLIAMS & O'NEILL Attorneys for Consolidated Edison Company of New York, Inc. Index No.

SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF WESTCHESTER

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In the Matter of the Application of CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.,

Petitioner.

To review a determination of, and for an Order and Judgment pursuant to Article 78 of the CPLR to annul the determination denying a variance,

# - against -

WALTER HOFFMAN, GERALD MARALLO, JOHN MORAITIS, WILLIAM MURRAY, and JOHN KOBIEROWSKI, as the Zoning Board of Appeals of the Village of Buchanan, New York, Respondents.

# VERIFIED PETITION

WILLIAMS & O'NEILL Attorneys for Consolidated Edison Company of New York, Inc.

> 130 EAST 15th STREET NEW YORK, N. Y. 10003 TEL. NO. (212) 460-647

Litorney(s) for