

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:
Louis J. Carter, Chairman
Frederick J. Shon
Dr. Oscar H. Paris

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: In the Matter of :
: :
: : Docket Nos.
CONSOLIDATED EDISON COMPANY OF NEW YORK, :
INC. (Indian Point, Unit No. 2) : 50-247 SP
: 50-286 SP
POWER AUTHORITY OF THE STATE OF NEW YORK :
(Indian Point, Unit No. 3) : June 17, 1982
: :
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POWER AUTHORITY'S RESPONSES TO INTERROGATORIES
AND DOCUMENT REQUESTS PROPOUNDED BY THE NRC STAFF

ATTORNEY FILING THIS DOCUMENT:

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INTERROGATORY 1:

(a) Provide all documents which relate to estimates of the incremental cost to the utility and its customers for the period extending over what would have been Indian Point Unit No. 3's remaining useful life, assuming that the unit was permanently shut down effective mid-1983. Include in your response to this Interrogatory documents relating to estimates assuming both availability and unavailability of Indian Point Unit No. 2 for the remainder of its useful life.

(b) In your answer to 1(a) above, provide all documents relating to the cost differential for each year impacted and identify total incremental cost on a 1983 present worth basis.

(c) In your answer to 1(a) above, provide all documents which identify the cost elements considered, e.g., differential and system production costs and differential due to changes in capacity expansion plan.

(d) Identify the assumptions, data, and documents relied upon in calculating the estimates contained in the documents called for by Interrogatory 1.

RESPONSE

The Power Authority and Con Edison have retained Energy Management Associates of Atlanta, Georgia, to conduct production cost analyses which will estimate the incremental cost penalty associated with a shutdown of Indian Point Units No. 2 and 3. The estimates and supporting documentation will be made available upon completion of the analyses.

INTERROGATORY 2

(a) Provide all documents which relate to estimates of likely outages to Indian Point Unit No. 3 and any other units (identifying such units by name) as a result of the proposed settlement agreement with EPA and NY PUC (re cooling system operations during biologically important periods).

(b) If Indian Point Unit Nos. 2 and 3 were premanently shut down, would the other impacted units (identified in 2(a), above) still be subject to the same outages? If not, explain why the outages would differ making specific reference to each generating unit involved.

RESPONSE

(a) The cooling tower settlement agreement has been approved by the New York Public Service Commission and is now in effect. The plants affected by the settlement agreement are Indian Point, Bowline Point and Roseton. Attachment A presents the estimates of likely outages to Indian Point and other impacted units.

(b) If the Indian Point units were permanently shutdown, the Bowline Point and Roseton generating station outage requirements under the settlement agreement would be alleviated by crediting forced outages at the Indian Point units against the required Bowline Point and Roseton outages. However, most of the outage requirements under the settlement agreement placed on these units would have been satisfied by selective scheduling of annual maintenance activities which

would have required outages in any event. Thus, even though the obligation under the settlement agreement to fulfill outage requirements at those stations would be alleviated were Indian Point permanently shutdown, those units would still have to be taken out of service periodically for maintenance activities.

Attachment A

Indian Point Units

As part of the Settlement Agreement, Con Edison and PASNY have agreed to remove Indian Point Units 2 and 3 from service during the May 10 - August 10 period for a total of 60 unit-weeks over the next ten years commencing in May 1981. During this period, the units can be expected to be out of service due to various reasons for the major portion of the required 60 unit-weeks. Additional outages would be required to the extent normal unit outages are insufficient to satisfy the terms of the agreement. This discussion quantifies the utilities exposure to such additional outages.

There are several methods which can be used to estimate the outages which can be expected to occur during the 10 years which will go toward satisfying the terms of the settlement agreement.

First, a purely probabilistic schedule can be considered. Assuming a "normal" 18 month refueling cycle for the Indian Point units, with refuelings occurring randomly and lasting between eight (8) and ten (10) weeks, the expected refueling outages during the window period will range from 13.3* to 16.7 weeks for each unit over the 10 year period. Other outages are also likely to occur.

$$* \frac{12 \text{ mos./yr.}}{18 \text{ mos./cycle}} \times 8 \text{ wks./cycle} \times 0.25 \frac{\text{window wks}}{\text{yearly wks}} \times 10 \text{ yrs.} = 13.3 \text{ wks.}$$

Using the New York Power Pool assumed forced outage rate for mature nuclear units, expected forced outages during the "window" periods over the ten years would range from 12.8 weeks to 12.5* weeks per unit, depending on refueling duration. For the two units expected outages over the 10 year period range from 52.2 to 58.4 weeks. The total additional outage required would therefore range from 7.8 to 1.6 unit weeks.

The second methodology, a more deterministic estimate of expected outages during the "window" period, uses planned maintenance schedules for the Indian Point plants as currently projected. Based on current refueling schedules, refuelings in the window period over the ten year time frame total 16 weeks for Indian point 2 and 12 weeks for Indian Point 3. Incorporating expected forced outages similar to above results in total outages over the ten year period of 28.5 weeks for Indian Point 2 and 25.0 weeks for Indian Point 3. Together these outages total 53.5 weeks which, when compared to the 60 week settlement requirement, yields 6.5 weeks of additional outages required over the ten year period.

A third method recognizes that both Con Edison and PASNY will exercise available control to obviate the need for additional outages. A single cycle length can be changed by one to two months with minor costs for re-design of the nuclear fuel cycle. Applying

* $[(520 \text{ weeks} \times 0.25) - 13.3 \text{ wks.}] \times \text{forced outage rate} = 12.8 \text{ wks.}$

such flexibility would increase the refueling outage for Indian Point 2 during the "window" period from 16 to 24 weeks. Adjusting any cycle of the Indian Point 3 schedule by only one month would have no effect on the 12 weeks of refueling which occurred in the "window" period. When the effects of generic forced outages are added, the expected outage figures become 35.7 weeks for Indian Pont 2, and 25 weeks for Indian Point 3 for a total of 60.7 weeks - which exceed the 60 week requirement.

A fourth methodology considers the actual forced outage data for Indian Point Units 2 and 3. Using these figures to estimate future outages, and considering adjusted refueling schedules, would result in total outages during the "window" period in excess of the 60 weeks requirement.

Table I summarizes the expected additional outages using the four methodologies.

Roseton and Bowline Point units

The Settlement Agreement requires a thirty unit-day outage at either one or both of the Bowline Point units and at either one or both of the Roseton units between May 15 and June 30 of each year. Based on present maintenance outage requirements, this provision of the agreement will result in no additional outages of either unit.

The Settlement Agreement also provides for an additional outage of one Bowline Point unit for an aggregate of 31 unit-days during the month of July in each of the first five years of the agreement. At the end of five years the utilities will have the option to continue the Bowline Point July outages for the remaining five years of the settlement or to take a total of 14 additional unit-days of outages at Indian Point 2 and/or Indian Point 3 between May 10 and August 10 in addition to the other outages at these units, increasing the 10-year total outages at these units from 420 unit-days to 434 unit-days.

It is expected that the Bowline Point July penalty outage will be in addition to the regular maintenance for these plants, thus reducing Bowline Point's overall availability by 31 days per year.

No decision has yet been made to date concerning the substitution of Indian Point outages for Bowline Point outages in the latter five years of the agreement.

TABLE I
SETTLEMENT AGREEMENT
IMPACT OF INDIAN POINT OUTAGES
SUMMARY TABLE

| | <u>Method 1</u> | | <u>Method 2</u> | | <u>Method 3</u> | | <u>Method 4</u> | |
|---|-----------------------|------------|------------------------|------------|------------------------|------------|------------------------|------------|
| <u>Refueling Outage Model</u> | Generic Probabilistic | | Standard Deterministic | | Modified Deterministic | | Modified Deterministic | |
| <u>Forced Outage Model</u> | Generic | | Generic | | Generic | | Historical | |
| <u>Weeks of Outage During Spawning Period</u> | <u>IP2</u> | <u>IP3</u> | <u>IP2</u> | <u>IP3</u> | <u>IP2</u> | <u>IP3</u> | <u>IP2</u> | <u>IP3</u> |
| Refueling Outages | 13.3-16.7 | 13.3-16.7 | 16.0 | 12.0 | 24.0 | 12.0 | 24.0 | 12.0 |
| Forced Outages | 12.8-12.5 | 12.8-12.5 | 12.5 | 13.0 | 11.7 | 13.0 | 15.8 | 12.0 |
| Total Outages | 26.1-29.2 | 26.1-29.2 | 28.5 | 25.0 | 35.7 | 25.0 | 39.8 | 24.0 |
| Total for IP2 & IP3 | 52.2 | - 58.4 | 53.5 | | 60.7 | | 63.8 | |
| Additional Outage | 7.8 | - 1.6 | 6.5 | | 0 | | 0 | |

INTERROGATORY 3

Provide a copy of your latest submittal to Northeast Power Coordinating Council response to ERA order 411.

RESPONSE

A copy of the requested submittal will be available for review at the Power Authority offices, 10 Columbus Circle, New York, New York.

INTERROGATORY 4

Provide latest copy of "Report of Member Electric Systems of the New York Power Pool and the Empire State Electric Energy Research Corporation."

RESPONSE

A copy of the requested report will be available for review at the Power Authority offices, 10 Columbus Circle, New York, New York.

INTERROGATORY 5

Provide all documents which relate to estimates of the decommissioning cost for Indian Point Unit No. 3 assuming (a) decommissioning occurred at end of useful life, and (b) decommissioning occurred prematurely (i.e., consistent with mid-1983 shutdown). In your response to this Interrogatory identify all of the data and assumptions used in developing such cost estimates.

RESPONSE

(a) The Power Authority has, in the absence of a site-specific study, used a study performed for Atomic Industrial Forum, Inc. by Stone & Webster Engineering Corporation entitled "Analysis of Nuclear Power Reactor Decommissioning Costs," dated May 1981 as the basis for its rate treatment of decommissioning expense at the end of the plant's useful life. This study estimated a decommissioning cost for prompt removal and dismantling of \$38.64 million (in 1980 dollars) for a single model 1160 MWe pressurized water reactor. This estimate did not include consideration of site-specific or plant-specific characteristics, regional (New York area) labor costs or contingencies.

The Power Authority is reviewing the site-specific study performed for Con Edison by Nuclear Energy Services, Incorporated, particularly as it pertains to Indian Point No. 2, and may update the estimated cost of decommissioning Indian Point No. 3 if appropriate.

Each of these reports will be available for review at the Power Authority offices, 10 Columbus Circle, New York, New York.

(b) The Power Authority has not performed a specific study for premature decommissioning of Indian Point No. 3.

INTERROGATORY 6

Have any provisions or proposals, such as change in the rate base, been made by the Licensee, its agents or consultants

to recover expected decommissioning costs? If so, identify such provisions or proposals and all documents relating to such provisions and proposals.

RESPONSE

The Power Authority has made provision in the Required Reserves component of its Astoria/Indian Point Project Revenue Requirement to recover the expected decommissioning costs of Indian Point No. 3. The amount included for calendar year 1982 is \$2.373 million.

Documents relating to the expected decommissioning costs of Indian Point No. 3 are attached. Material irrelevant to Indian Point No. 3 has been deleted.

September 16, 1981

MEMORANDUM TO P. J. PELLEGRINO

FROM A. M. BELLIS

SUBJECT: Nuclear Decommissioning Revised Cost Estimates:
IP3 [REDACTED]

Since 1980, the Authority has made provision in the revenue requirements associated with its two nuclear plants for the collection of future decommissioning costs of those plants. The initial estimations of decommissioning costs were based on a National Environmental Studies Project report sponsored by Atomic Industrial Forum, Inc. (AIF) which was published in 1976. The purpose of this memorandum is to report the results of an analysis based on an updated (1981) AIF study which we have recently received.

The attached schedules show the development of the required annual decommissioning accrual for each plant. Assuming the immediate dismantling alternative, the AIF estimate for decommissioning, expressed in 1980 dollars, was escalated at eight percent per year to the anticipated retirement date of the plant to obtain estimated costs at retirement. The estimated decommissioning costs are approximately \$420 million [REDACTED] for IP3 [REDACTED].

The amounts included in the 1980 and 1981 revenue requirements for the plants were then escalated at ten percent per year to the retirement date and subtracted from the decommissioning cost estimates. The resultant figure must be collected over the estimated remaining service life of the plant. For purposes of this calculation, an interest rate of ten percent was assumed.

The required annual decommissioning accruals are approximately \$2.373 million [REDACTED] for IP3 [REDACTED]. Notwithstanding the uncertainties associated with estimates of decommissioning costs, based primarily on the lack of actual data, these figures tend to support the Budget Department's proposed provision for decommissioning in the 1982 revenue requirements for IP3 [REDACTED] of \$2.42 million for each plant. However, in anticipation of customer inquiries for supporting data, it is suggested that the figures documented herein be used for purposes of establishing the respective revenue requirement for each nuclear plant.

AMB
A. M. B.

AMB:fh
Atts.

cc: Messrs. Hiney, Sinclair, Litchfield, Becker, Clabby,
DeGraffenried & Parekh
Ms. Caligiuri

SCHEDULE I

Estimated Decommissioning Costs : IP3

Immediate dismantling alternative, PWR, NESP estimate per
1981 AIF study:

Estimated 1980 cost: \$ 38,640,000

Assume 35 year service life, exclude contingencies.

First year of commercial operation: 1976
Year of anticipated retirement: 2011

Estimated decommissioning cost in 2011
assuming escalation at 8% annually = \$419,926,747

\$1,500,000 in 1980 A/IP revenue requirement
at 10% to 2011 = 28,791,514

\$2,201,000 in 1981 A/IP revenue requirement
at 10% to 2011 = 38,406,134

Net decommissioning cost in 2011 = \$352,729,099

Estimated remaining service life of plant,
1982 - 2011 = 29 years

Required annual decommissioning
accrual; $i = 10\%$ = \$ 2,373,188

9/9/81

INTERROGATORY 7

If Indian Point Unit No. 2 or No. 3, or both, were permanently shut down in 1983, would replacement power generation be needed? If so, identify for the period extending over what would have been the Indian Point Unit(s) remaining life the specific sources (noting the power output for each source) of power generation (whether existing or new construction) that would be necessary to take the place of the Indian Point Unit(s). Provide for each identified source of such generation all documents that describe the surrounding environment. Particularly provide those documents which note the description of aquatic and terrestrial biota that might be affected by operation or construction of such replacement sources.

RESPONSE

The Power Authority and Con Edison have retained Energy Management Associates of Atlanta, Georgia to conduct production cost analyses which will estimate the incremental cost penalty associated with a shutdown of Indian Point Units No. 2 and 3. Such analyses will also determine the sources which would replace Indian Point generation. The results will be made available upon completion of the analyses.

INTERROGATORY 8

(a) For the year 1980 and, if available, the year 1981 provide the annual fixed charges on the capital investment

attributed to Indian Point 3 and any other fixed costs of the utility which are allocable to Indian Point 3 (giving the bases for their computation), including but not necessarily limited to the following:

- 1) bond retirement
- 2) bond interest
- 3) payments to state and local jurisdictions (in lieu of property taxes)
- 4) state and local taxes
- 5) interim replacement allowance
- 6) property insurance premium
- 7) nuclear liability insurance premium
- 8) non-nuclear liability insurance premium
- 9) general administrative costs (excluding fixed operation and maintenance cost)
- 10) other fixed costs (specify)

(b) Identify the original book cost and the present book cost of Indian Point 3.

(c) In your response to 8.A.4) identify the kinds of state and local taxes paid by PASNY.

(d) In your response to 8.A.9) explain how general administrative expense was determined.

(e) State whether PASNY conducts any nuclear related planning or research activity not specifically tied with Indian Point 3, the cost of such activity, whether that cost was included in general administrative expense, and to what extent the shutdown of Indian Point 3 could be expected to affect that cost.

RESPONSE

(a) The Power Authority's responses to this subsection are set forth below.

(1) Bond retirement and (2) Bond interest

Payments for bond retirement and bond interest are reported as Total Fixed Costs in Schedule I which is attached. These payments include: (i) Bond Service, defined under the General Purpose Resolution as, "with respect to Bonds of any series, the sum of interest accruing thereon and that portion of each principal installment for such series" and (ii) Bond Reserve, defined as "an amount equal to 15% of the amounts allocated to Bond Service."

Such payments are required by the Rate Covenant included in the General Purpose Bond Resolution as follows:

"The Authority shall at all times maintain rates, fees or charges which will produce Revenues in each year sufficient, together with other moneys available therefore, (i) to pay the costs of operation and maintenance of all projects of the Authority, (ii) to pay the Bond Service in each year on all Bonds Outstanding as the same respectively become due and payable and (iii) to meet the requirements for reserves established by the Resolution, but in no event shall Revenues available for Bond Service for a calendar year be less than 1.15 times Aggregate Bond Service for such calendar year."

"In addition, the Authority shall annually determine, and shall certify to the Trustee, that it anticipates that it can meet the foregoing covenant. If the Authority is unable to so certify it shall promptly adjust its rates, fees or charges, and take such other necessary action which will be sufficient to comply with the covenant." (Bond Res., Sec. 609; Seventh Supp. Res., Sec. 308)

The Rate Covenant also requires the Power Authority to pass all operating and financing costs to rate payers.

Schedule I also reflects the series, issue date, average interest rate and earliest redemption date of \$796,281,000 of General Purpose Bonds issued with respect to to IP-3.

1980 and 1981 Fixed Costs for bond retirement and interest were \$74,840,000 and \$77,700,000 respectively (See Schedule I).

Schedule I only takes into account bond proceeds used to pay for IP-3 Construction and Improvement costs as of December 31, 1981.

(3) Payments to state and local jurisdictions (in lieu of property taxes)-

Properties and income of the Power Authority are exempt from taxation.

However, the Power Authority, did not make any payments in lieu of property taxes to state or local jurisdictions during the years 1980 and 1981 in behalf of Indian Point 3. There is a state fund which substitutes for Power Authority payments in lieu of property taxes. See Response to Interrogatory Number 12.

The Power Authority has made a donation of \$150,000 to the Village of Buchanan for the construction of recreational facilities and \$75,000 to the Verplanck Fire Department to assist in the enlargement of its fire hall.

(4) State and local taxes - The Power Authority's property and income are exempt from taxation. See Item (3) above.

(5) Interim replacement allowance - The cost of Facility ordinary replacements is included in operating expenses and for IP-3 amounted to \$23,097 in 1980 and \$365,742 in 1981.

(6) Property insurance premium - See Schedule II attached.

(7) Nuclear liability insurance premium - See Schedule II attached.

(8) Non-nuclear liability insurance - See Schedule II attached

(9) General administrative costs (excluding fixed operation and maintenance cost) are as follows:

1981 \$12,224,000

1980 7,379,000

(10) Other fixed costs - Provision For Reserves From Operating Revenues -

Commencing in 1980, the Power Authority allocated from operating revenues, certain reserves (nonfunded reserve accounts) for its operating plants. Reserves allocable to IP-3 for: spent nuclear fuel disposal, plant decommissioning and contingent operating and improvement costs for 1980 and 1981 are as follows:

| | <u>1980</u> | <u>1981</u> |
|--|---------------------|---------------------|
| Reserve for Spent Nuclear Fuel Disposal | \$6,634,000 | \$5,998,000 |
| Reserve for Decommissioning | 2,000,000 | 2,201,000 |
| Reserve for Contingent Operating and Improvement costs | <u>3,700,000</u> | <u>10,000,000</u> |
| Totals | <u>\$12,334,000</u> | <u>\$18,199,000</u> |

(b) Cost of Indian Point 3

Original book cost - \$380,078,000

Present book cost at 12/31/81 - \$588,253,000

The present book cost stated here represents direct construction costs excluding: interest expense during construction, financing costs and income on investments. The cost includes, however, expenditures of \$17,853,000 relating to the IP-3 Improvement Fund No. 1.

(c) State and local taxes paid by the Authority. The Authority's income and its properties are exempt from taxation

(d) Determination of general administrative expense - General administrative expenses represent actual expenses for the general operation and management of Indian Point 3. Such amount includes certain administrative and managerial salaries, employee fringe benefits for all plant employees, insurance and an allocated portion (based on plant generating capacity) of the total Headquarters Office expenses (a support facility to field operations.)

(e) Nuclear-related planning or research activity not specifically tied to Indian Point 3

Research activities are conducted by the Headquarters Office. Actual expenses paid by the Headquarters Office for these activities are charged to the field-Facilities through the Headquarters Allocation (referred to in Part D above) and accordingly included in the administrative and general expenses of the field Facilities.

A shutdown of Indian Point 3 is not expected to materially affect the cost of such activity.

INTERROGATORY 9

Indicate which, if any, of the costs in the Interrogatory 8 will vary from year to year and the amount of decrease or increase, assuming Indian Point 3 continues to operate.

RESPONSE

- 1) Bond retirement - Fixed costs for bond retirement and (2) bond interest for 1980 and 1981 are \$74,840,000 and \$77,700,000 respectively. These costs increase to a peak of \$114,314,000 in 1986 when principal repayments on presently issued the bonds commence. (See Schedule I attached.)*
- 3) Payments to state and local jurisdictions (in lieu of property taxes) - N/A
- 4) State and local taxes - N/A
- 5) Interim replacements would continue.
- 6) Property insurance can be expected to increase substantially consistent with prior years experience, as the cost of additions and improvements to electric plant increase. (See Schedule II).
- 7) Nuclear liability insurance can be expected to increase substantially as consistent with prior years experience. (See Schedule II).
- 8) Non-nuclear liability insurance can be expected to increase substantially as consistent with prior years experience. (See Schedule II).
- 9) General administrative expenses can be expected to increase annually, based on allowances for inflation.

10) Other fixed costs, including the Provision For Reserves From Operating Revenues can be expected to increase annually, as consistent with prior years experience.

INTERROGATORY 10

Indicate which, if any, of the costs in Interrogatory 8 would cease in the event of a shutdown of Indian Point Unit No. 3 and which, if any, of the costs in Interrogatory 8 would decline, and by what amount if Indian Point Unit No. 3 ceased operation.

RESPONSE

(1) Bond retirement and (2) Bond interest - There would be no reduction in the annual fixed charges for Bond Service and Bond Reserve. These costs would be the same whether the plant continues to operate or not.

3) Payments to state and local jurisdiction (in lieu of property taxes) - N/A

4) State and local taxes - N/A

5) Ordinary replacement expenses would decline.

6-8) Property and liability insurance coverage would have to be maintained although nuclear liability insurance would decrease on a pro rata basis depending upon the term of the shutdown period.

9) General administration costs would decline but the amount of decrease is difficult to assess. After initial shutdown significant costs to maintain shutdown condition (caretaker status) would be incurred.

10) Other fixed costs - Provision For Reserves From Operating Revenues -

If Indian Point 3 is shutdown the reserve for spent nuclear fuel disposal will decline directly in proportion to the shutdown period (as such reserves are a direct function of fuel consumed) whereas reserves for plant decommissioning, and contingent operating and improvement costs would continue at a significantly reduced level.

INDIAN POINT - 3
SCHEDULE 1
 ANNUAL FIXED CHARGES FOR BOND SERVICE
 (INTEREST AND PRINCIPAL REPAYMENT) AND BOND RESERVE

General Purpose Bond proceeds used to pay a portion of Indian Point 3 Construction & Improvement costs as of December 31, 1981:

| <u>SERIES</u> | <u>DATE</u> | <u>AMOUNT ISSUED (In Thousands)</u> | <u>AVERAGE INTEREST RATE</u> | <u>EARLIEST REDEMPTION DATE PRIOR TO MATURITY</u> |
|---------------|-------------|---|--------------------------------------|---|
| C | 01/20/76 | \$465,000 | 9.50% | 01/01/86 |
| E | 09/21/76 | 55,000 | 7.20% | 10/01/86 |
| F | 01/25/77 | 21,030 | 6.50% | 02/01/87 |
| G | 04/27/78 | 90,000 | 6.55% | 01/01/88 |
| H | 10/30/79 | 51,970 | 7.89% | 01/01/89 |
| M | 11/25/81 | 113,281 | 11.45% | 01/01/92 |
| | | <u>\$796,281</u> | 9.10% | (Weighted Avg. Int. Cost) |

ANNUAL BOND SERVICE AND BOND RESERVE REQUIREMENT (in thousands)

| <u>YEAR</u> | <u>BOND SERVICE</u> | <u>15% BOND RESERVE</u> | <u>TOTAL FIXED COST</u> |
|-------------|---------------------|-----------------------------|-----------------------------|
| 1980 | \$65,078 | \$9,762 | \$74,840 |
| 1981 | 67,565 | 10,135 | 77,700 |
| 1982 | 71,459 | 10,719 | 82,178 |
| 1983 | 71,459 | 10,719 | 82,178 |
| 1984 | 71,459 | 10,719 | 82,178 |
| 1985 | 71,459 | 10,719 | 82,178 |
| 1986 | 99,404 | 14,910 | 114,314 |
| 1987 | 96,963 | 14,544 | 111,507 |
| 1988 | 94,797 | 14,220 | 109,017 |
| 1989 | 93,221 | 13,983 | 107,204 |
| 1990 | 91,211 | 13,682 | 104,893 |
| 1991 | 88,195 | 13,229 | 101,424 |
| 1992 | 86,866 | 13,030 | 99,896 |
| 1993 | 85,527 | 12,829 | 98,356 |
| 1994 | 55,603 | 8,340 | 63,943 |
| 1995 | 26,489 | 3,973 | 30,462 |
| 1996 | 26,020 | 3,903 | 29,923 |
| 1997 | 25,364 | 3,805 | 29,169 |
| 1998 | 24,660 | 3,699 | 28,359 |
| 1999 | 24,423 | 3,663 | 28,086 |
| 2000 | 25,669 | 3,850 | 29,519 |
| 2001 | 25,549 | 3,832 | 29,381 |
| 2002 | 24,982 | 3,747 | 28,729 |
| 2003 | 24,242 | 3,636 | 27,878 |
| 2004 | 23,774 | 3,566 | 27,340 |
| 2005 | 23,092 | 3,464 | 26,556 |
| 2006 | 12,930 | 1,940 | 14,870 |
| 2007 | 7,802 | 1,170 | 8,972 |
| 2008 | 3,223 | 483 | 3,706 |

INDIAN POINT - 3
SCHEDULE II
ANNUAL CHARGES FOR INSURANCE

| | <u>1980</u> | <u>1981</u> |
|---|--------------------|--------------------|
| Nuclear Property Insurance | <u>\$2,372,775</u> | <u>\$2,814,475</u> |
| Nuclear Liability Insurance | 389,334 | 453,144 |
| (Less) Shutdown credits | (16,625) | * |
| * Exclusive of any credit which may be issued by the Nuclear Liability Pools for shutdown in 1981 as such credits are undetermined at this time. | <u>372,709</u> | <u>453,144</u> |
| Non-Nuclear Liability: | | |
| Automobile liability | 2,514 | 3,100 |
| General liability | 15,770 | 26,019 |
| | <u>\$ 18,384</u> | <u>\$ 29,119</u> |

INTERROGATORY 11

Indicate for Indian Point Unit No. 3 the 1980 real property tax payments to the State and the 1980 real property tax (or in lieu) payments to the following jurisdictions: Westchester County, Town of Cortlandt, Village of Buchanan, Hendrick Hudson School District, Verplanck Water District, and the Verplanck Fire Protection District. In your response to this Interrogatory reflect the value of property exclusive of offsite transmission lines.

RESPONSE

The Power Authority made no real property tax payments to the State and no real property tax (or in lieu) payments to any of the jurisdictions listed in the question.

INTERROGATORY 12

Indicate for the Indian Point Unit No. 3 all payments to the State and to local jurisdictions, other than real property tax and in-lieu payments. In your response to this Interrogatory specifically identify the amount of each payment.

RESPONSE

Under Section 545 of the Real Property Tax Law for the Indian Point No. 3 plant the New York State Board of Equalization and Assessment estimates that State aid will be paid to the Village of Buchanan, Town of Cortlandt, County of Westchester and the Hendrick-Hudson School District. State aid would continue for at least 11 years for the Village, 8 years for the Town and County and 10 years for the School District. Payments began in 1975.

The payments made by New York State during the year 1980 are as follows:

Village of Buchanan - \$153,400

Town of Cortlandt - \$43,080

County of Westchester - \$385,600

Hendrick-Hudson School District - \$1,178,875

In addition the Power Authority made a donation of \$150,000 to the Village of Buchanan for the construction of recreational facilities and \$75,000 to the Verplanck Fire Department to assist in the enlargement of its fire hall.

INTERROGATORY 13

Indicate for Indian Point Unit No. 3 the number of employees at the site and the number of contractor personnel (security, maintenance) who are regularly stationed at the site. For the former group, also indicate the job categories of employees, the residential location of each individual and the 1981 dollar value of each contract. (County level addresses will satisfy the residential location information request.)

RESPONSE

The attached table lists the various locations of the Power Authority workers who are assigned to the Indian Point 3 site. Power Authority management personnel are responsible for plant management, administration, technical, professional and secretarial duties required in the operation of Indian Point 3. Power Authority union personnel duties include plant operation, instrumentation, mechanical and electrical technology operations as well as health physics.

Since 80% of the Crouse (contractor) payroll is paid to the Westchester Building Trades Council and because workers for Crouse are not assigned permanently to the IP-3 site, it was not practical to assign locations to individuals. However, in order to respond as completely as possible, Crouse has provided an estimate as to the geographical location in which salaries were paid.

Indian Point Unit No. 3

| <u>Number of Employees</u> | <u>IP-3 Site Power Authority</u> | <u>Contractor (Crouse)</u> |
|----------------------------|--------------------------------------|--------------------------------|
| Total | 362 | 150 |
| Mgmt | 105 | |
| Union | 182 | |
| Security | 75 | |

| <u>Annual Salary (1980)</u> | | |
|---------------------------------|--------------|--|
| Total | \$10,147,861 | |
| Mgmt/Security | \$ 5,259,672 | |
| Union | \$ 4,888,789 | |

| | |
|-----------------|-------------|
| <u>Contract</u> | \$4,576,000 |
|-----------------|-------------|

Residence

New York State

| | |
|---------------|-----|
| Dutchess | 138 |
| New York City | 9 |
| Orange | 25 |
| Putnam | 44 |
| Rockland | 7 |
| Sullivan | 1 |
| Ulster | 1 |
| Westchester | 132 |
| Other | 2 |

| | |
|-------------|---|
| Connecticut | 0 |
|-------------|---|

| | |
|------------|---|
| New Jersey | 3 |
|------------|---|

| | | |
|-------|-----|-----|
| Total | 362 | 150 |
|-------|-----|-----|

INTERROGATORY 14

Indicate with respect to operation of Indian Point Unit No. 3 the kind and value of materials and services purchased in Westchester and Rockland Counties and New York City during 1981.

RESPONSE

Expenditures in 1980 for materials and services purchased in Westchester County, Rockland County and New York City (including New York, Kings, Queens, Bronx and Richmond Counties) are listed below for Indian Point 3. Included are expenditures for equipment, professional and general services, repair, and maintenance, construction, automotive, office supplies, mechanical and electrical material, spare parts, EDP equipment, etc. Not included are expenditures for fuel, legal services, financial services and personal purchases by Power Authority employees, i.e. lunches, gas.

| | |
|--------------------|----------------|
| Westchester County | \$2.9 million |
| Rockland County | \$174 thousand |
| New York City | \$11.4 million |

INTERROGATORY 15

(a) Is it physically possible to construct at the Indian Point site one or more coal-fueled facilities generating a total of 1800 MW.

(b) If it would not be possible to locate such coal-fired generating capacity at Indian Point, state whether they are any sites available within a 10-mile radius of the Indian Point Units that could be used for construction of such coal-fired capacity. In addition, identify the location of such sites.

RESPONSE

(a) Based on a qualitative assessment of the Indian Point site area constraints, it appears that it would not be physically possible to construct one or more coal-fueled facilities generating a total of 1800 MW. Additional engineering and environmental studies would be required to more accurately respond to this interrogatory.

(b) There are no new sites, available that could be used for construction of coal-fueled facilities generating a total of 1800 MW within the 10-mile radius of Indian Point. Sites for such construction must only have physical attributes required by such generating facilities, but also offer reasonable likelihood of being licensable by the appropriate local, state and federal authorities.

INTERROGATORY 16

Using the most recent "capability period," provide the current operating reserve requirement for the NYPP, and indicate the magnitude of each member's share of this requirement.

RESPONSE

Attached is a copy of the New York Power Pool operating reserve schedules for the summer, 1982 capability period.

Issued 4/12/82
Effective 4/25/82

NEW YORK POWER POOL - OPERATING RESERVE TABLE DP-2-A
SUMMER 1982 CAPABILITY PERIOD

FIRST

| CONTINGENCY | LILCO | CON ED | DRU | CHG&E | NMP | NYSEG | RG&E | NYPP TOT |
|----------------|-------|--------|-----|-------|-----|-------|------|----------|
| 1400 MIN SYNCH | 99 | 237 | 21 | 24 | 199 | 85 | 38 | 703 |
| MAX NON SYNCH | 98 | 236 | 20 | 24 | 198 | 84 | 37 | 697 |
| 10 MINUTE RES | 197 | 473 | 41 | 48 | 397 | 169 | 75 | 1400 |
| 30 MINUTE RES | 98 | 237 | 21 | 25 | 198 | 84 | 37 | 706 |
| TOT OPER RES | 295 | 710 | 62 | 73 | 595 | 253 | 112 | 2100 |
| 1300 MIN SYNCH | 92 | 220 | 20 | 23 | 184 | 79 | 35 | 653 |
| MAX NON SYNCH | 91 | 219 | 19 | 22 | 184 | 78 | 34 | 647 |
| 10 MINUTE RES | 183 | 439 | 39 | 45 | 368 | 157 | 69 | 1300 |
| 30 MINUTE RES | 98 | 237 | 20 | 24 | 199 | 84 | 38 | 700 |
| TOT OPER RES | 281 | 676 | 59 | 69 | 567 | 241 | 107 | 2000 |
| 1200 MIN SYNCH | 85 | 203 | 18 | 21 | 170 | 73 | 32 | 602 |
| MAX NON SYNCH | 84 | 202 | 18 | 20 | 170 | 72 | 32 | 598 |
| 10 MINUTE RES | 169 | 405 | 36 | 41 | 340 | 145 | 64 | 1200 |
| 30 MINUTE RES | 84 | 203 | 18 | 21 | 170 | 72 | 32 | 606 |
| TOT OPER RES | 253 | 608 | 54 | 62 | 510 | 217 | 96 | 1800 |
| 1100 MIN SYNCH | 77 | 186 | 17 | 19 | 156 | 66 | 30 | 551 |
| MAX NON SYNCH | 77 | 186 | 16 | 19 | 156 | 66 | 29 | 549 |
| 10 MINUTE RES | 154 | 372 | 33 | 38 | 312 | 132 | 59 | 1100 |
| 30 MINUTE RES | 85 | 202 | 17 | 21 | 170 | 73 | 32 | 600 |
| TOT OPER RES | 239 | 574 | 50 | 59 | 482 | 205 | 91 | 1700 |
| 1000 MIN SYNCH | 70 | 169 | 15 | 18 | 142 | 61 | 27 | 502 |
| MAX NON SYNCH | 70 | 169 | 15 | 17 | 141 | 60 | 26 | 498 |
| 10 MINUTE RES | 140 | 338 | 30 | 35 | 283 | 121 | 53 | 1000 |
| 30 MINUTE RES | 71 | 169 | 14 | 17 | 142 | 60 | 27 | 506 |
| TOT OPER RES | 211 | 507 | 44 | 52 | 425 | 181 | 80 | 1500 |
| 900 MIN SYNCH | 63 | 152 | 14 | 16 | 128 | 55 | 24 | 452 |
| MAX NON SYNCH | 63 | 152 | 13 | 15 | 127 | 54 | 24 | 448 |
| 10 MINUTE RES | 126 | 304 | 27 | 31 | 255 | 109 | 48 | 900 |
| 30 MINUTE RES | 71 | 169 | 14 | 17 | 142 | 60 | 27 | 500 |
| TOT OPER RES | 197 | 473 | 41 | 48 | 397 | 169 | 75 | 1400 |
| 800 MIN SYNCH | 56 | 135 | 12 | 14 | 114 | 48 | 22 | 401 |
| MAX NON SYNCH | 56 | 135 | 12 | 14 | 113 | 48 | 21 | 399 |
| 10 MINUTE RES | 112 | 270 | 24 | 28 | 227 | 96 | 43 | 800 |
| 30 MINUTE RES | 57 | 135 | 12 | 13 | 113 | 49 | 21 | 400 |
| TOT OPER RES | 169 | 405 | 36 | 41 | 340 | 145 | 64 | 1200 |
| 700 MIN SYNCH | 49 | 119 | 11 | 12 | 99 | 42 | 19 | 351 |
| MAX NON SYNCH | 49 | 118 | 10 | 12 | 99 | 42 | 19 | 349 |
| 10 MINUTE RES | 98 | 237 | 21 | 24 | 198 | 84 | 38 | 700 |
| 30 MINUTE RES | 56 | 135 | 12 | 14 | 114 | 48 | 21 | 400 |
| TOT OPER RES | 154 | 372 | 33 | 38 | 312 | 132 | 59 | 1100 |
| 600 MIN SYNCH | 42 | 102 | 9 | 11 | 85 | 36 | 16 | 301 |
| MAX NON SYNCH | 42 | 101 | 9 | 10 | 85 | 36 | 16 | 299 |
| 10 MINUTE RES | 84 | 203 | 18 | 21 | 170 | 72 | 32 | 600 |
| 30 MINUTE RES | 42 | 101 | 9 | 10 | 85 | 37 | 16 | 300 |
| TOT OPER RES | 126 | 304 | 27 | 31 | 255 | 109 | 48 | 900 |
| 500 MIN SYNCH | 35 | 85 | 8 | 9 | 71 | 30 | 14 | 252 |
| MAX NON SYNCH | 35 | 84 | 7 | 8 | 71 | 30 | 13 | 248 |
| 10 MINUTE RES | 70 | 169 | 15 | 17 | 142 | 60 | 27 | 500 |
| 30 MINUTE RES | 42 | 101 | 9 | 11 | 85 | 36 | 16 | 300 |
| TOT OPER RES | 112 | 270 | 24 | 28 | 227 | 96 | 43 | 800 |

INTERROGATORY 17

Provide all documents which relate to the NYPP policy regarding distribution of operating reserve.

RESPONSE

Attached is the latest version of the New York Power Pool operating reserve policy, dated December 22, 1981.

NEW YORK POWER POOLOPERATING POLICY #2-13

SUBJECT: Operating Reserve Policy

APPROVED BY: the Operating Committee on December 17, 1981
to become effective December 22, 1981

SUPERSEDES: Operating Policy #2-12

REFERENCES: NERC-OC Operating Manual

MINIMUM OPERATING RESERVE REQUIREMENT

The Minimum Operating Reserve Requirement of the New York Power Pool shall be the sum of:

1. Sufficient Ten-Minute Reserve to replace the operating capability loss caused by the most severe single contingency within the Pool. A single contingency is considered to be a forced outage of generation due to the loss of a generator, bus section, transmission line or transformer.
2. Sufficient Thirty-Minute Reserve equal to one-half of the Ten-Minute Reserve.

AVAILABILITY AND CATEGORY

1. The Ten-Minute Reserve portion of the Pool's Minimum Operating Reserve Requirement shall be fully available within ten minutes and shall be in the following categories:
 - a) Synchronized Reserve - At least one-half of the Ten-Minute Reserve will consist of unused generating capability which is synchronized and ready to pick up load or generating capability which can be made available by curtailing pumping hydro units.
 - b) Non-Synchronized Reserve - The remainder of the Ten-Minute Reserve may be composed of non-synchronized capability such as hydro, pumped storage hydro and quick start combustion generation which can be synchronized and loaded to claimed capability in ten minutes or less.

2. The Thirty-Minute Reserve portion of the Pool's Operating Reserve Requirement is that portion of unused generating capability which can and will be made fully available as promptly as possible, but in no more than thirty minutes.
3. Generating capability associated with the delivery of interruptible sales to adjacent pools may be included as Operating Reserve in the category agreed upon by the purchaser.

ADVANCED PLANNING, SCHEDULING AND COMPUTING RESERVE

1. Each member shall notify the Pool of its forecasted Operating Capability, load, firm transactions and capability loss associated with its worst single contingency.
2. The Pool shall notify each member of the Pool's Minimum Reserve Requirement.
3. Each member shall make every effort to provide its share, as determined from table OP 2-A, of the Pool Minimum Operating Reserve Requirement.
4. Each member shall schedule the operation of surplus capability, which is available but not scheduled to run, when called upon to do so by the Pool in order to meet Pool Minimum Operating Capability Requirements.
5. The Pool shall be responsible for scheduling or purchasing sufficient operating capability from neighboring Pools to meet the Pool load and minimum Operating Reserve Requirements.
6. Generating capability which is not available in the prescribed time limits for Ten-Minute and Thirty-Minute Reserve because of response rates or transmission system limitations shall not be credited in meeting the Pool Minimum Operating Reserve Requirement.
7. The distribution of both Ten-Minute and Thirty-Minute Reserve on units within the Pool must be such that it can be delivered within the guidelines specified in the NYPP Design Standards for Long Range Planning and Studies of Short Range Operating Limits.
8. Generating Capability which is restricted for a member's own use shall not be included as part of the Pool's Operating Reserve and not be included in that member's surplus Operating Capability.

OPERATIONS

1. The Pool shall monitor the Operating Reserve to assure that it meets or exceeds the minimum criteria in this policy. Each member shall keep the Pool informed at all times as to the status and operating limits associated with its generating equipment.

2. When the Pool Operating Reserve is equal to or exceeds the Pool Minimum Operating Reserve Requirement, and when a member or members are deficient, the deficiency will be supplied from Pool excess capability.
3. When the Pool becomes deficient in meeting the TEN-MINUTE RESERVE portion of the Minimum Operating Reserve Requirement, the SPD shall immediately direct the conversion of sufficient THIRTY-MINUTE RESERVE to the TEN-MINUTE RESERVE category to reestablish the required level of TEN-MINUTE RESERVE while insuring that the required THIRTY-MINUTE RESERVE is maintained.
4. When the Pool becomes deficient in meeting the THIRTY-MINUTE RESERVE portion of the Minimum Operating Reserve Requirement, the SPD shall immediately direct conversion of sufficient OPERATING CAPABILITY to the THIRTY-MINUTE RESERVE category utilizing only that capability which can be converted within Thirty Minutes.
5. As soon as it is determined that (i) the conversion to any portion of the MINIMUM OPERATING RESERVE REQUIREMENT cannot be completed in the designated time, (ii) the available OPERATING CAPABILITY is less than required to re-establish the minimum OPERATING RESERVE, or (iii) the remaining OPERATING CAPABILITY is energy limited and should be withheld if possible, the SPD shall immediately attempt to purchase the required OPERATING RESERVE.
6. During the shortages of OPERATING RESERVE, the Senior Pool Dispatcher has the authority to depart from economic dispatch, to utilize reserve pickup, full unit OPERATING CAPABILITY or member directed dispatch, as required.
7. Emergency Transfer Limit criteria may be invoked to provide transmission capability to deliver Operating Reserve to an area deficient in Operating Reserve. The Senior Pool Dispatcher shall notify all members that Emergency Transfer Limit criteria have been invoked and members in the deficient area should be prepared to take all measures up to and including load shedding to return facilities to appropriate ratings within fifteen minutes should such ratings be exceeded.
8. When, after Emergency Transfer Limit criteria have been invoked and all available capability, including purchases from neighboring pools or companies has been utilized, load relief attainable by quick response voltage reduction shall be classified as Ten-Minute Reserve.
9. If, after the above action, a shortage of Ten-Minute Reserve still exists, the Senior Pool Dispatcher shall direct that load relief procedures be implemented in accordance with NYPP Operating Policy No. 3 - Voltage Reduction Policy.

ACTIVATION OF RESERVE

Ten-Minute Reserve shall be maintained or re-established as rapidly as possible subsequent to a disturbance which has initiated a reserve pickup. Sufficient Thirty-Minute Reserve shall be converted to the Ten-Minute Reserve category so that as the pickup proceeds, the Pool

will not become deficient in Ten-Minute Reserve. This may involve initiating the conversion of Thirty-Minute Reserve to the Ten-Minute Reserve status at the same time the original Ten-Minute Reserve is picked up. This will insure that the Ten-Minute Reserve will be fully re-established not later than thirty minutes after the initial incident.

When the loss of generation causes the NYPP control error to exceed $3L_d^*$ it is the responsibility of the Senior Pool Dispatcher to initiate action promptly, taking whatever actions are necessary, to insure that the NPCC reserve pickup requirements are achieved. When NYPP reserve pickup is required, one of the following methods will be used:

1. WITH NYPP COMPUTER DIRECTED DISPATCH

The Senior Pool Dispatcher will terminate Economic Dispatch and execute the computer programs which determine new basepoints for selected dispatchable units to return the NYPP interchange to schedule. The Senior Pool Dispatchers will notify all members, via the hot-line, that a reserve pickup has been initiated. He will also indicate the required reserve pickup for each member and direct them to move their generation at emergency response rates to achieve the desired pickup. It is the responsibility of the Senior Pool Dispatcher to initiate action to maintain, if possible, or to quickly re-establish Ten-Minute Reserve during and following the reserve pickup.

Economic Dispatch will be re-initiated as expeditiously as possible.

2. WITHOUT NYPP COMPUTER DIRECTED DISPATCH

The Senior Pool Dispatcher shall direct each member to pick up his portion of the generation deficiency in accordance with Reserve Pickup Table 2-B.

It is the responsibility of the individual members to initiate action to maintain or quickly re-establish Ten-Minute Reserve whenever they are or will likely become deficient in Ten-Minute Reserve and to notify the Senior Pool Dispatcher of any resulting deficiencies.

To insure that the Pool Minimum Operating Reserve Requirement is maintained during Economy Energy transactions, the buyer must maintain Operating Capability that he is buying against in the same reserve category as that from which the seller is selling. The seller must inform the Senior Pool Dispatcher of any reserve category changes so that all categories of Operating Reserve are maintained.

Upon the pickup of reserve, the Senior Pool Dispatcher will monitor the NYPP Operating Reserve and take whatever actions are necessary, as set forth in the Operations section of this policy, in order to re-establish the Minimum Operating Reserve Requirement.

AUDITS OF RESERVE RESPONSE

The Senior Pool Dispatcher, when he deems it necessary, may direct the

* As defined in NERC-OC (NAPSIC) Control Performance Criteria

following types of Reserve demonstrations:

1. Selected Unit Response - A Ten-Minute Reserve pickup, a demonstration of claimed Operating Capability, or both, may be directed on any unit synchronized or non-synchronized claimed for Daily Operating Capability. Should the selected unit be unable to demonstrate the amount of capability claimed, the Senior Pool Dispatcher shall direct the owning member to derate the unit as required.
2. Synchronized Reserve Response - A member may be directed to demonstrate its Synchronized Reserve.

If a member fails to demonstrate the ability to pickup his portion of Synchronized Reserve, the Senior Pool Dispatcher will do one of the following:

- a) Instruct the member to transfer capability from the Non-Synchronized or Thirty-Minute category to the Synchronized category. A member transferring capability from one category to another is still obligated to maintain his portion of the Pool Minimum Operating Reserve Requirement.
 - b) If a member fails to demonstrate his Synchronized Reserve and is deficient, and capability is available from other sources, arrangements will be made to purchase capability to cover the deficiency. The deficient member will be obligated to take the assigned purchase.
3. Actual Response - For purposes of measuring NYPP performance and the response of individual members to a required reserve pickup, selected audits of actual response to a unit loss will be conducted.

RESERVE REQUIREMENTS WHEN COMMISSIONING NEW GENERATING UNITS

Pool Ten-Minute Reserve may be used to cover the loss of test generation on a non-commercial unit, making it unnecessary for the Installing Company(ies) to carry additional Ten-Minute Reserve above their normal Pool Requirement. The Operating Capability of a unit on test shall not be included in the Operating Reserve of the Installing Company(ies) and, therefore, the Installing Company(ies) will be required to carry additional Thirty-Minute Reserve equal to the generation of the unit undergoing test.

When size and output of a non-commercial unit on test increases the Pool's Ten-Minute or Thirty-Minute Reserve Requirement, the Installing Company(ies) will be obligated to provide the additional required reserve.

ALLOCATION

The allocation of the Pool Minimum Operating Reserve Obligation is contained in Appendix 2-C.

NYPP RESERVE OBLIGATION TO NEIGHBORING POOLS

1. NYPP will transfer capability from its Thirty-Minute Reserve to the Ten-Minute Reserve category in order to re-establish the reserve of another NPCC Area in a similar category to the NYPP Ten-Minute. Such Operating Reserve, once established in the Ten-Minute Reserve category, will be made available upon request in ten minutes.
2. NYPP will provide Emergency Energy from its Operating Reserve to other NPCC Area to avoid interruption of service in the deficient areas.
3. When an NPCC Area experiences contingencies in excess of its initial Reserve response, the Operating Reserve of NYPP may be used to return the loading of the NPCC ties to adjacent Pools to normal within a ten-minute period.
4. When a shortage of Operating Reserve exists throughout NPCC, available energy may be transferred between areas to provide for a proper distribution of the remaining Operating Reserve.
5. The NYPP Control Center has administrative responsibility for the NPCC Operating Reserve Policy.

AUTHORITY

The New York Power Pool Control Center has the responsibility for administering this Operating Reserve Policy and the Senior Pool Dispatcher has the authority to direct the actions required as set forth above.

OPERATING POLICY #2-13

Approved by:

| | | | |
|------------------------|--------------------|----------------------------|----------------------------|
| Central Hudson | <u>Humphreys</u> | Niagara Mohawk | <u>McDonald</u> |
| Con Edison | <u>Studen</u> | O & R | <u>Wright</u> |
| LILCO | <u>Johnson</u> | PASNY | Not Required |
| NYSE&G | <u>W. H. H. H.</u> | Rochester | <u>Richard E. Phillips</u> |
| NYPP Operating Manager | | <u>Richard E. Phillips</u> | |

INTERROGATORY 18

Provide all documents which relate to the PASNY policy regarding distribution of operating reserve.

RESPONSE

With the exception of Astoria #6, all Power Authority units are hydro or nuclear which are either operated to maximize use of available water, or are base loaded at full output to minimize fuel costs, and therefore are not normally utilized for operating reserve purposes. Astoria #6, as normally dispatched, usually runs at less than full load for economic reasons. Con Edison can utilize the available output from Astoria #6 to meet its operating reserve obligations. Because the Power Authority coordinates the operation of its system with the other member utilities of NYPP, the Power Authority will operate the Blenheim-Gilboa pumped storage units to help meet rapid statewide load changes and to help compensate for the loss of generation and/or transmission facilities within NYPP. The Power Authority will also deviate from optimum operation at its Niagara, St. Lawrence, and Blenheim-Gilboa projects in order to assist operation of the NYPP statewide system during system emergency conditions.

POWER AUTHORITY OF THE STATE OF NEW YORK

10 COLUMBUS CIRCLE New York, N. Y. 10019

(212) 397-6200

TRUSTEES

JOHN S. DYSON
CHAIRMAN

GEORGE L. INGALLS
VICE CHAIRMAN

RICHARD M. FLYNN

ROBERT I. MILLONZI

FREDERICK R. CLARK



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LEROY W. SINCLAIR
SENIOR VICE PRESIDENT
& CHIEF FINANCIAL
OFFICER

THOMAS R. FREY
SENIOR VICE PRESIDENT
& GENERAL COUNSEL

March 26, 1982

Mr. Lester Stuzin
Executive Deputy to the
Chairman
New York State Public
Service Commission
3 Rockefeller State Plaza
Albany, New York 12223

Dear Les:

Last summer Chairman Gloia sent Chairman Dyson a memorandum prepared by his staff summarizing the results of a Reliability Study performed by a consultant to the Department of Public Service, Power Technologies, Inc. (PTI). Our staff has carefully reviewed the PTI report and participated in the preparation of the comments which were sent to you last fall by the New York Power Pool (NYPP) member companies.

With respect to the Power Authority, PTI mentions in its report the fact that the Power Authority is not a full participant in all of the transactions which occur under the NYPP agreement, noting in particular the operating reserve policy. PTI addresses the issues of policies, procedures, and practices which the Authority will follow in implementation of the planning and operating criteria set forth by the NYPP member systems in compliance with the directives of the PSC.

The Power Authority buys and sells power under separate contracts with its utility customers and through these contracts we are able to provide available capacity for use both in normal operations and in response to requests for operating reserve. For example, through the use of an alarm device in the control room in our Astoria No.6 unit, we are able to increase generation at the request of Con Ed's power dispatcher in the same manner as Con Ed does at its own generating plants.

Mr. Lester Stuzin
Executive Deputy to the
Chairman
New York State Public
Service Commission

- 2 -

We recognize the importance of maintaining adequate operating reserve, particularly with the planned increase in imports of energy from Hydro Quebec over our 765 KV interconnection. As you know, the Power Authority has been seeking a license from the Federal Energy Regulatory Commission to construct a pumped storage hydroelectric plant at Prattsville, which among other things would enhance our ability to absorb large quantities of energy from Hydro Quebec and provide increased operating flexibility.

We will continue to work with the other utilities to ensure that our plants continue to be operated in a manner which maximizes the reliability of the power supply and makes the best use of these valuable resources.

The subject of the Power Authority's power contracts is a complex one and I would be happy to set up a meeting with you or other appropriate individuals at the PSC to discuss this matter in detail.

Sincerely,

Robert A. Hiney
Senior Vice President
Planning & Marketing

RAH:jb

bcc: Messrs. Kicinski, English, Haase

INTERROGATORY 19

PASNY indicates no installed reserve criterion for its hydro units and indicates special reserve policies associated with thermal facilities (see footnote to Exhibit 3, page 36, Volume 2 of the NYPP Report of Member Electric System, 1981). In the absence of a specific overall reserve policy:

- (a) How does PASNY characterize its level of reliability?
- (b) How does PASNY plan for the installation of additional facilities?
- (c) How does the lack of a firm policy impact PASNY's relationship with other members of NYPP?

RESPONSE

(a) Installed reserve requirements of the member utilities in NYPP are determined on a Pool basis by reliability studies which include the Authority's generating units and load. Because of its large amount of hydro capacity, the Power Authority's generation capability is generally more reliable than that of other member systems within NYPP, and provides the effect of reducing the reserve requirements of the other member utility systems in NYPP from what they will be in the absence of the Power Authority's hydro capacity. Therefore the Power Authority characterizes its level of reliability as at least equal to that of the member systems of NYPP.

(b) As stated in the referenced NYPP 5-112 report, the Authority will provide installed reserves of approximately 18% for each new thermal unit by restricting firm contract sales

from the unit to about 85% of its net installed capability. In this manner, the Power Authority is planning to provide for the installation of adequate installed reserves in conjunction with the installation of additional generating capacity.

(c) The New York Power Pool Agreement clearly defines how the member company purchases firm capability from the Authority and how the member will treat such capability for the purpose of implementing the installed reserve policy defined in the agreement. The structure of its contracts provide the Authority with a firm policy on installed reserves which is consistent with that of other member systems.

INTERROGATORY 20

Provide copies of all agreements between PASNY and Con Ed related to providing backup support in the event that either utility cannot meet its customer's requirements.

RESPONSE

The following voluminous documents will be available for review at the New York Office of the Power Authority, 10 Columbus Circle, New York, New York: The "Contract for the Sale of Power and Energy to Consolidated Edison Company of New York, Inc. from Astoria 6 Unit and Indian Point 3 Unit," dated December 30, 1975. Article III of this document addresses the backup support Con Edison is required to provide to serve Authority customers when either or both of these units are out of service.

Contract UD-2 "For the Sale, Transmission and Distribution of Power to Consolidated Edison Company of New York, Inc.". This contract which provides for the sale of power to Con Edison from the Authority's J.A. FitzPatrick Nuclear Power Plant, includes an agreement which provides for backup support to the Authority during outages of this plant.

"Contract For the Sale of Imported Power and Energy to Consolidated Edison Company of New York, Inc.". This contract which provides for the sale to Con Edison of power purchased by the Authority from Hydro Quebec includes arrangements for emergency assistance of either party (Special Provision A).

Respectfully submitted,

Charles M. Pratt/jt.

CHARLES M. PRATT
Assistant General Counsel
POWER AUTHORITY OF THE
STATE OF NEW YORK
10 Columbus Circle
New York, New York 10019
(212) 397-6200

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Louis J. Carter, Chairman

Dr. Oscar H. Paris

Frederick J. Shon

-----x

| | | | |
|---------------------------------|---|-------------|-----------|
| CONSOLIDATED EDISON COMPANY OF | : | Docket Nos. | 50-247-SP |
| NEW YORK, INC. (Indian Point, | : | | 50-286-SP |
| Unit No. 2) | : | | |
| POWER AUTHORITY OF THE STATE OF | : | | |
| NEW YORK, (Indian Point, | : | | |
| Unit No. 3) | : | | |

-----x

CERTIFICATE OF SERVICE

I certify that I have served copies of the "Power Authority's Responses to Interrogatories and Document Requests Propounded by the NRC Staff" on the following parties by deposit in the United States mail, postage prepaid, this 17th day of June, 1982.

Docketing and Service Branch
Office of the Secretary
U.S. Nuclear Regulatory
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Washington, D. C. 20555

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Atomic Safety and Licensing
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Atomic Safety and Licensing
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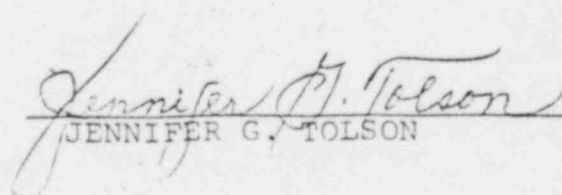
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Dated: June 17, 1982
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