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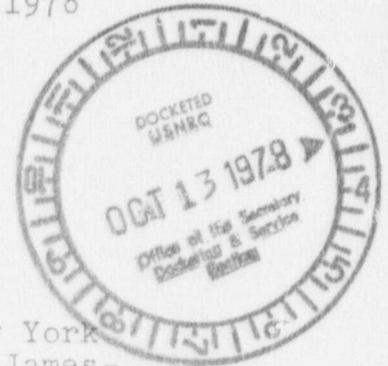
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October 6, 1978

Margaret E. DuFlo
Secretary to the Appeal Board
United States Nuclear Regulatory Commission
Washington, D.C. 20555



Re: Long Island Lighting Company and New York
State Electric and Gas Corporation (James-
port Nuclear Power Station, Units 1 and 2)
Docket Nos. 50-516 and 50-517

Dear Secretary DuFlo:

As promised I enclose herewith a copy of the comments of Commissioner James LaRocca given during a news conference held at the New York State Energy Office on July 27, 1978. These comments address Governor Carey's policy on the issue of nuclear power plant construction in the State of New York.

In my previous letter responding to the Appeal Board's inquiry of September 29, 1978, I inadvertantly omitted the date of such letter. The letter was mailed from this office on October 5, 1978 per your direction. I apologize for this error.

Very truly yours,

Irving Like (ach)

Irving Like
Special Counsel for the
County of Suffolk

IL/jg
Enc.

CC: To all parties with enclosure

7810310374

NEWS CONFERENCE

NEW YORK STATE ENERGY OFFICE

ASSEMBLY PARLOR

THE CAPITOL

ALBANY, NEW YORK

JULY 27, 1978
10:30 A.M.

COMMISSIONER JAMES LARocca: The reason for the paper that I will be referring to, is some numbers and some other matters that might help.

Now, I don't have a prepared remarks or anything like that. What I will do is talk for a few minutes and try to brief you on some developments that we have and respond to questions in discussion with you.

The matter that causes me to choose this format is the number of inquiries that we have had based on recent statements by the Governor relating to nuclear policy in the State of New York.

My purpose here today is to discuss that policy with you and to respond to any questions.

Last October, 1977, the Governor indicated his view that we would not site any more nuclear plants in New York until there is a resolution of the problem of nuclear waste.

From October until this point we have continually evaluated the problem of nuclear waste, and in particular, we have evaluated the Federal program for dealing with nuclear waste. We have said that the problem of nuclear waste is one that must be resolved by the Federal Government, and only the Federal Government is

- 2 -

capable, has the resources of dealing with nuclear waste in an adequate fashion.

That is the position that I believe has been widely acknowledged by the Federal Government, i.e. that the problem is a Federal problem.

The draft report of the Task Force headed by Dr. John Deutch in March clearly set forth the Federal responsibility that they are willing to take.

So, for all of this period, from October until now, the question has not centered on whether the Federal Government would be responsible for nuclear waste, but rather how they would act to meet that responsibility. And for states like New York, or any other state, the question then would be whether the Federal response was adequate.

In the period that the Federal Government has been talking and dealing with how to develop a program for nuclear waste, it is clear there are two dimensions to the program. One relates to technology of nuclear waste disposal. The second relates to institutional arrangements that might be made with states or with energy producers for disposal of nuclear waste.

It has become clear to date that the Federal

program for managing nuclear waste is not adequate. It has not become adequate in the period from last October until now, and in the pronouncements of the Federal Government itself, it is clear that it is very unlikely that the Federal program will become adequate in the foreseeable future, either from an institutional point of view or technological point of view.

When I say "the immediate future", I think we have to go to the dates contained in the Deutch report of last March that projects it will be no earlier than 1988 before the Federal Government would hope to have in place a waste disposal program.

I believe if you read that report you will see that even that date is considered a difficult one to reach.

In the face of the current inadequacies in the Federal program and projected inadequacies of the program, it falls to us in the State of New York to determine what our response would be during this period in which the Federal program is inadequate.

The papers that I have given you, which I will be making reference to, I will explain briefly.

The [redacted] is entitled "Electric Energy

In New York". This describes the current installed capacity in the State of New York, which you will note is 29,424 megawatts.

The next column is peak demand in the State, 21,214 megawatts.

That will demonstrate there is a 39 percent reserve margin currently in the State. It is widely understood that the desirable reserve margin in the State of New York should be in the 20 to 25 percent range.

So, at the moment, we have a substantial reserve margin.

The next set of figures will show those additions to capacity that are under construction now, and those that are pending in the form of applications in the siting process; and as well we have indicated what additional contemplated applications there may be.

The next page deals with what the projected growth in demand in the State may be. In the 149-B report, the report of the Electric Utility Power Pool, for the most current year, April 1978, you will see that the projected demand for several future years is spelled out, '85, '90, and '95.

The next set of numbers shows the 149-B report for all of the previous years, the demand for -- we take the measuring as of 1990, the projected demand for 1990 has been steadily declining. You can see that the forecasts or demand for 1990 in the most recent report, is in excess of 20,000 megawatts below the forecasted demand made in 1973.

What all that translates to is the substantial reserve margin that you see that now exists in the State, and a slower than originally anticipated growth rate in electric demand.

Many people have many theories about why the growth rate in electric energy has not come up to the projections of 1973. I don't adopt any particular theory. It is the results of many things. I think that the early '73 projections were simply too high; they were wrong, as well the high price of energy, the efforts in conservation, the use of alternative fuels, and the reduced rates of economic growth in the State have all contributed to this reduced rate in electricity demand.

It is important to our discussions today to evaluate the needs that we will be trying to meet

during the next 10 to 15 years.

The next page describes the current inventory of nuclear plants in the State. You will see that we currently have 6 nuclear plants, 5 of which are operational. We spell out the size in megawatts, the capacity of the plant; the date it became operational, and we describe the spent fuel elements that are stored there, that we will get to in a moment. We describe the inventory of nuclear plants under construction and you will see there are two.

We then described the inventory of nuclear plants that are in licensing review in the Article 8 process.

We will continue on the next page, and we make reference to contemplated nuclear plants and we give you the numbers on radioactive waste, and we will talk about that later as well.

The next chart, the last one describes the projected need for electric energy which was spelled out in each of the 149-B reports since that process began. If you will, the easiest way to do that is under year, that the years are strung out along the bottom of the chart and the peak load in megawatts is on

the vertical. The uppermost curve line is the 1973 forecast, and 5.8 percent growth rate in electric demand, and the lowest line the 1978 149-B report, which is now projected in the immediate 2 point range; 2.6 percent in the growth rate.

Now, we in the State Energy Office are just commencing an energy planning process as described in recently passed legislation. We are not ready to speak in precise terms in what we see the projected electric demands of the State to be. Our preliminary analysis, however, suggests that the current 149-B report projection of a 2 to 3 percent growth rate is probably a reasonable projection at this point.

Now, it currently takes - and this is according to the Nuclear Regulatory Commission - it takes 8 years on the average from the start of construction until commercial operation of a nuclear plant.

It is also reasonable to assume that some time elapses, as much as 6 months, from the final issuing of the final license and start of construction.

Applying those time considerations to the

schedule which is the middle chart of nuclear plants now in the offing, it is clear that decisions about the nuclear plants currently in licensing and review must be reached in the following time range:

The Sterling application, in order to come on line in the time frame projected by the 149-B report, must be resolved by late 1979; Green County by late '80; Jamesport 1 and 2 by '81 and '83 respectively, and New Haven by 1984.

But what that tells us is that the current reserve margin and the projected growth rate will give us an opportunity to measure our response to the problem of nuclear waste.

We do not need in the very immediate term, to make a decision to go with these nuclear propositions while the nuclear waste problem is unsolved.

We approached the question of nuclear problem from essentially three areas of concern, all of which are intimately related. I will separate them for the moment.

The first is economics. The Sterling Board spend a good deal of time addressing itself to the economics of nuclear power, and the Public Service

Commission attempted over recent years to do a comparative analysis of nuclear power and coal as an alternative.

The Public Service Commission has not reached a definitive answer about which of the two forms is economically more attractive than the other. But it is clear throughout the history of nuclear power and the applications that are before us today, that the economics of nuclear power must take into full account the cost of nuclear waste disposal in order for that accounting to be fair and accurate.

It may be that nuclear power compared to other forms, when it does not take into account the cost of nuclear disposal, appears attractive and it may be also that when nuclear power makes the full accounting for the ultimate waste that it produces, that the economics are less attractive than they originally appear.

(Continued on the following page)

The second area of major concern is, when considering nuclear power, the question of public health and safety. In the early days of nuclear power a good deal of the dialogue and public concern addressed safety as the primary consideration. I think, as time goes on, and this is reflected in public attitudes, nuclear power has developed a record of substantial safety. The safety question is not prominent as it once was; but, nevertheless, a concern.

The health effects of nuclear power continue to be a concern, not so much in the operation of the plants themselves, but more related to the waste or the back end of the cycle. In either case we find that nuclear power, like any fuel source, brings with it substantial questions of public health and safety. They must all be addressed, and in their own right and as a matter of comparative exercise.

The third area of major concern is, of course, the waste problem, and that is where we began today. I don't intend to hold a primer on the nuclear cycle, but nuclear fuel is put into the core of the reactor in the form of fuel rods in bundles, essentially uranium. After the fuel is used in the reactor, it is removed.

Until April 1977, after removal from the reactor, fuel was subject to a process called reprocessing to extract from the fuel such fissionable elements not used the first time around. As you know, we have a reprocessing plant in West Valley, New York. The reprocessing program did not eliminate the nuclear waste, rather it reduced the volume by as much as 90 percent, and left behind a different form of nuclear waste, but far smaller volume than if the fuel is not reprocessed at all.

In April of '77 the President indicated reprocessing would no longer be done commercially in this Country because of his concern about the proliferation of fissionable products in the world. The result is that the spent fuel coming out of commercial reactors in this State and elsewhere is currently accumulating on site at nuclear reactors.

Referring back to the chart entitled "Inventory of Current Nuclear Plants", the two right columns describe the spent fuel elements that are currently stored at the plants. Those numbers are actual numbers of elements and the date upon which the storage capacity at the plant will be exhausted. The current situation is, then, that spent fuel is accumulating at plants throughout the State,

and will continue to do so until the spent fuel is either removed to a reprocessing plant, as it was in the past, or is brought to some other resolution.

The President's program is expected to provide an interim program whereby spent fuel is removed from reactors and brought to a Federal repository. Thereafter, it is to be ultimately disposed of on a permanent basis by geological disposition, by burial under the earth. The formulation of that program is the program which I described earlier as not yet having solved this institutional and technical problem, so it is currently not considered an adequate program, and the waste continued to accumulate at the reactor sites.

Over all, in the State of New York we will not begin to exhaust the capacity at our reactor sites until the mid- to late 1980s.

Now, I have mentioned the Deutch Report having described the institutional problems of creating a Federal program to acquire these wastes and to ultimately dispose of them. Recently the President's Office of Science and Technology issued a report that went to the question of the technology of burying waste and raising doubts if that will ever come to pass. We have recent substantial confirmation

of deep concern that this program is not going to be adequate in any foreseeable time frame.

Having reached a judgment that the condition for future nuclear development in New York will have to turn on the adequacy of the Federal program, we have reached the judgment that the Federal program is not adequate. The question for New York, then, is whether and at what rate we should continue to accumulate nuclear waste in the State of New York when, in fact, we don't know at this point in time what will become of those wastes.

As we make that analysis, it seems there are four possible actions. The first would be to simply stop the accumulation of nuclear waste in the State of New York. That would involve shutting down the five nuclear reactors that are currently in operation. We consider that to be a substantially unacceptable proposition. The economic implications of shutting down nuclear reactors in the State is clearly unacceptable.

The next possibility would be to continue in operation those nuclear reactors that are currently in operation, and to stop any further construction of nuclear reactors in the State. We have under construction two nuclear reactors -- Nine Mile Point 2 in Lake Ontario, and Shoreham

on Long Island. The economic consequences of stopping the development of those two is substantial and clearly unacceptable.

The third possibility would be to continue our current process, which is to leave the decision as to fuel form in the siting process that now exists, and as it is redefined by the recent legislation, and leave these questions to the development of the energy master plan.

The fourth possibility is to continue the operation of the plants now in operation, permit the completion of construction of plants now under construction, but to seek alternatives to the future nuclear plants which are currently pending in the siting process and which are contemplated beyond that.

It seems clear, of all the alternatives, the one that the State is obliged to seek at this point is the alternative to any additional nuclear power construction beyond those plants now under construction. The burden of developing what that alternative future will look like will be undertaken by the State Energy Office and others as we develop the energy plan, and as we seek to deal with all of the consequences of providing a safe and dependable and economic future for the State.

Our primary judgment is that the State can

insure itself an adequate, safe and dependable supply of energy during the term of planning which we now involve ourselves in which is about 15 years without the nuclear plants that are currently proposed. To do so will not be easy. It may not necessarily be more costly than going with those nuclear plants however. That remains uncertain because of the uncertainty of the cost of waste disposal, but we believe such a future is possible.

It is possible for a combination of reasons: The one I described earlier, which is that we have excess margin and we can build on that for a period of time, and we do have the lead time that reserve time affords to reconstitute, hopefully, the fuels to be used at some of these plants, and to realize the yield that is possible from all of the other approaches to energy in which we are currently involved.

I would describe those as a substantial increase in the use of coal, not just as an alternative fuel form in a power plant, but in the areas of gasification and liquefaction which are rapidly developing and helped along by the Federal programs, and which we hope that the Regional Energy Corporation which the Governor proposed will play the major role in this region.

By the accelerated development of our resource recovery program, the small hydro program, the increasing yield from the conservation efforts -- and I will not attempt at this point to take you through any further numbers, but we have a very tentative plan in mind which is being developed which will attempt to provide and have in place before the decision point on any of the current plants are reached (the "Go" or "No Go" point in time) that such alternatives have been developed and are real and reachable and economic.

So, the burden of my message today is our judgment, that while the Federal government has been unable to provide adequate means of waste disposal, it is our judgment that we should not increase the accumulation rate for nuclear waste in the State of New York, and we are actively engaged in what we believe to be a reasonable and successful program to provide alternatives to that increased nuclear development in the years ahead. I will be happy to let you sort that with questions.

QUESTION: You are saying that you are not permitting any new construction until the Federal government --

COMMISSIONER LAROCCA: Yes, sir.

QUESTION: No more construction?

COMMISSIONER LAROCCA: Any more, any more construction beyond the construction now under way.

QUESTION: What about Sterling, they have been given an approval, but I think that is under appeal or review, continuing review. Are you saying that Sterling is not going to happen?

COMMISSIONER LAROCCA: The capacity identified as being produced by Sterling will have to be produced. I don't think there was any major quarrel about the need for the capacity of Sterling, which is 1150 Megawatts. Because of the reduction in the load forecast, the date by which we need Sterling has been delayed, has been slipped back. That leaves us adequate time to develop an alternative to Sterling.

The Article 8 process requires an alternative showing for Sterling, so there was attention to a date for an alternative to a nuclear plant to Sterling.

(Continued on the following page)

QUESTION: Was that for a coal plant?

COMMISSIONER LAROCCA: Yes, coal.

QUESTION: Is it an environmental group or is it the Energy Department which appealed the decision or is continuing to require a review on this plant because of the lack of need?

COMMISSIONER LAROCCA: It was not the Energy Office. I am not sure who the party was. I don't know if there is anybody here that would know. It is based upon the revised 149-B Report.

QUESTION: Under what power do you have that enables you to stop the construction of plants? How would you actually do this?

COMMISSIONER LAROCCA: In the future?

The way the law is set up in New York, the Governor does not have plenary power in this area. The basic decision under existing law resides with the Siting Board as to the form of fuel to be used. And, we are mindful of that limitation in the Executive Branch. We believe however that the expression that the waste problem is a major problem and has not been solved should be persuasive on the Siting Board.

QUESTION: You cannot, this is a decision by the Siting Board?

COMMISSIONER LAROCCA: We cannot compel. The law is not set up so that the Governor can compel legally a decision by the Siting Board.

QUESTION: What about the energy plan? It was my understanding that the new energy plan, you would have an oversight, not oversight power, but would enable you to tell them we do not need anymore nuclear energy, so that restricts or that limits their ability to approve the plan.

COMMISSIONER LAROCCA: There is a great deal that the plan will do and can do with regard to fuel, various fuel forms, but it cannot direct what fuel is acceptable for this Siting Board.

QUESTION: You are saying you do not have the power to order them or overrule them?

COMMISSIONER LAROCCA: I am describing a judgment that we reached, that the current waste program is inadequate, and it is our view that while it is inadequate, there is to be no further development of nuclear power in the State. If it appears, and I described the timetable that shows the first point in time in which there has to be an up or down decision in the Sterling case by the end of 1979,

if it appears that the continuing inadequacy of the federal program does not appear to be changing, and our ability to be persuasive on this is not achieving the net result, we would then seek legislation or other remedies. But, we feel at this point it is our obligation to express that the accumulation rate for nuclear waste should not increase when, in fact, nobody knows where the waste will go or for how long.

QUESTION: The majority of the members on the Power Siting Board on any given time are appointed by the Governor, do you --

COMMISSIONER LAROCCA: Pardon me?

QUESTION: The Power Siting Board consists of whom? The PSC Chairman, the EnCon Commissioner, local representatives?

COMMISSIONER LAROCCA: And the Commerce Commissioner. Now, there is a slight change under the old law, the Commissioner of Health was a member, but under the new law he is substituted by the Energy Commissioner.

QUESTION: So, what you are saying in the next 15 years the only two plants you foresee at this time are the two under construction at Shoreham and Nine Mile Point?

COMMISSIONER LAROCCA: That is all we can see.

QUESTION: What is your reaction to this request by Niagara Mohawk for a rate increase simply because their projects were or the demand for their electricity has fallen short, there is not enough demand, and they want a \$29 million rate hike, something like that?

COMMISSIONER LARocca: Well, I hesitate to comment on any rate case that is before the Public Service Commission.

QUESTION: It sounds like it is the same kind of thing you are talking about for projections in demand.

COMMISSIONER LARocca: If projections are too far ahead of the actual demand, the people in the service area where that power is produced will in effect pay for more power than they need under the existing rate structure, and, that is to be avoided. The projection is a difficult process, you have to project rates of economic growth, population shifts and a wide variety of thing.. We have currently and are supporting a reserve margin in the State that is substantially higher than the demand. That is not a desirable situation.

QUESTION: You expect it will lead to similar kinds of requests for rate hikes from other utilities then?

COMMISSIONER LAROCCA: I could not answer that question. I don't know. There has been an element in all of the recent cases that the purveyor of that energy has to seek coverage for his cost and to the extent that he has got a bigger capacity than he needs at the moment, the rate payers do pay for it.

QUESTION: You said having a capacity substantially higher than demand is not a desirable situation.

COMMISSIONER LAROCCA: Yes.

QUESTION: In this case you are saying it is because it gives us leetime.

COMMISSIONER LAROCCA: The current margin gives us the ability to deal with the nuclear issue in a time frame that gives us time to fully explore alternatives. But as a general matter, the reserve margin should be no bigger than that necessary to assure service under the foreseeable circumstances. Anybody who looked at this point considers the reserve margin that we currently have is more than we need.

QUESTION: When will the waste problem really become serious in New York State?

COMMISSIONER LAROCCA: The chart shows the date upon which the various plants will exhaust their capacity and store the fuel on site. It is conceivable that by the

The dates I am describing take into account what is expected to increase in the capacity for individual storage sites. Under all scenarios, the best that can be done is increase the storage capacity of individual pools, but that will eventually be exhausted as well.

QUESTION: Is this a case of the Governor saying, "I don't want to build any nuclear plant.", or is this a case of looking at the statistics and then stating "The statistics show we don't need to build anymore plants."?

COMMISSIONER LAROCCA: I think it is fair to say the question of nuclear waste is addressed on every level of government right now. I spent yesterday in Washington with John Deutch of the Department of Energy and nobody needs to go out and find statistics to support any point of view. What we are dealing with here is a rate of accumulation, that is clear and demonstrable by looking at the physical properties of the pools that will be exhausted. And, the concern about what we will do with the pools that we are exhausting, and we have looked; as has every other State, to the federal government to provide for an adequate program. While they have not yet done so, we are attempting to keep the nuclear option alive. We are at a point, where it seems clear for the next 10 to 15 years there will not

be an adequate federal program. We are now dealing with the costs of everything, how to react to that.

QUESTION: Have you informed the federal government about your decision to stop nuclear energy plant construction?

COMMISSIONER LAROCCA: Yes.

QUESTION: What was their reaction?

COMMISSIONER LAROCCA: In the form of Dr. Deutch, I told them of the judgment we reached, and we talked at great length about the reasons and the ways in which the federal program is now inadequate, and they are essentially institutional. We don't have any institutional arrangement whereby the federal government takes ownership of nuclear waste. They do not have the places to store them and the mechanisms worked out for how to pay for the long-term problem. From a technological point of view, the federal program is proceeding with only one technology, that is the burial of nuclear waste in canisters in salt formations, which has never been successfully demonstrated. They are attempting to do that in New Mexico. When and if they succeed to do this in New Mexico, one must ask the question, if they managed to put a quantity of fuel in the salt formations, how long must it be left there? What is the measuring

time before you decide if that is acceptable technology? Assume five years, well, this waste is going to be active for thousands of years. So, is five years an adequate measure of time as to whether or not this is a safe method of disposal? If it is, probably it would be until 1988 before we can try this, and then we have to determine how long can we leave it there before we decide this is a safe thing to do with it.

It is clear to the federal government that they have not given us an answer that we can work with. I have been concerned that the only federal effort has been in terms of long-term disposal. There were efforts made in the '50's to seek alternatives to disposal, to seek technological solutions to neutralize this, and they have not been successful. I expressed the view to Dr. Deutch that while geological disposal is uncertain, that it would be clearly in all of our interests to seek alternative methods as well.

QUESTION: Is New York acting in concert with any other states?

COMMISSIONER LARocca: I have not discussed this with any other state.

QUESTION: Do you know of any other states

that have said no?

COMMISSIONER LAROCCA: I believe California has enacted legislation that is the equivalent of what we are doing.

QUESTION: The current reserve margin is 39 percent. By the time we get through with the building of those two other plants already under construction, and given the projected rate of increase and demand, how much above the reserve or how much reserve margin would we have then?

COMMISSIONER LAROCCA: The desirable reserve margin is generally agreed to be 23 percent.

QUESTION: My question is when you get through building these two new plants that are under construction, how much of those need -- will it continue to hover around 39 percent, or considering the growth and demand?

COMMISSIONER LAROCCA: Going back to the chart, the point at which those plants come on line, other plants are retired. So, at no point in the 50 year projections does it go above 39 percent, and it is gradually reduced to the 20's.

QUESTION: In , or by when?

COMMISSIONER LAROCCA: By the late '80's we are back at 23 percent.

QUESTION: How does this affect the present status of the Greene County hearings which are presently about half-way through?

COMMISSIONER LAROCCA: I cannot answer that question at this time.

Thank you.

(Whereupon the news conference was ended.)

ELECTRIC ENERGY IN NEW YORK STATE

1977 GENERATING CAPACITY AND PEAK DEMAND (Summer Season)

| <u>Company</u> | <u>Installed Capacity (MW)</u> | <u>Peak Demand (MW)</u> |
|-------------------------------|--------------------------------|-------------------------|
| Central Hudson Gas & Electric | 820 | 622 |
| Consolidated Edison | 9659 | 7193 |
| Long Island Lighting | 3652 | 3107 |
| Niagara Mohawk | 5116 | 4878 |
| New York State Electric & Gas | 1590 | 1700 |
| Orange and Rockland | 1020 | 706 |
| Rochester Gas & Electric | 919 | 987 |
| Power Authority | 6648 | 2257 |
| Total | 29424 | 21214 |
| Current Reserve Margin | | 39% |

MAJOR PROPOSED ADDITIONS TO CAPACITY

| <u>Under Construction</u> | <u>TYPE</u> | <u>CAPACITY (MW)</u> | <u>TARGET DATE</u> |
|--|-------------|----------------------|--------------------|
| Oswego 6 | Oil | 850 | 11/80 |
| Shoreham | Nuclear | 820 | 5/81 |
| Nine Mile Point 2 | Nuclear | 1080 | 11/84 |
| 765KV Trans Line for Canadian Hydro | Hydro | 800 | 5/79 |
| <u>Applications Pending</u> | | | |
| Somerset | Coal | 850 | 11/85 |
| Arthur Kill | Coal/Refuse | 700 | 11/86 |
| Sterling | Nuclear | 1150 | 5/88 |
| Greene County | Nuclear | 1200 | 7/88 |
| Lake Erie 1 | Coal | 850 | 11/89 |
| Jamesport 1 | Nuclear | 1150 | 5/90 |
| Prattsville | PS Hydro | 1000 | 6/90 |
| Lake Erie 2 | Coal | 850 | 11/91 |
| Jamesport 2 | Nuclear | 1150 | 5/92 |

CONTEMPLATED APPLICATIONS

| <u>Name</u> | <u>Proponent</u> | <u>Size (MW)</u> | <u>Projected Operational</u> |
|--------------------------------|------------------|------------------|----------------------------------|
| Red Hook* (alt. Livingston) | Con Ed | 1200 | 1991 |

* Con Edison has stated that it is seeking suitable locations for four nuclear or six coal burning units, with the first unit planned for 1991.

PROJECTED GROWTH IN DEMAND

| | <u>YEAR</u> | <u>DEMAND (MW)</u> |
|--------------------------------------|-------------|--------------------|
| As of the April 1, 1978 149-b Report | 1980 | 22,200 |
| | 1985 | 25,510 |
| | 1990 | 29,580 |
| | 1995 | 33,760 |

This is slightly less than 3% per year growth rate.

Previous 149-b Reports have forecasted demand for 1990 as follows:

| <u>149-b REPORT OF</u> | <u>1990 DEMAND (MW)</u> |
|------------------------|-------------------------|
| 1977 | 34,360 |
| 1976 | 35,700 |
| 1975 | 38,770 |
| 1974 | 46,600 |
| 1973 | 49,750 |

The forecasted demand for 1990 contained in the most recent 149-b Report is over 20,000MW less than that forecasted in 1973.

Inventory of Current Nuclear Plants

| <u>Name</u> | <u>Owner</u> | <u>Size (MW)</u> | <u>Date Operational</u> | <u>Spent Fuel Elements Currently Stored</u> | <u>Date Present Storage Capacity Exceeded</u> |
|-------------------|--------------|------------------|-------------------------|---|---|
| Indian Point 1* | Con Ed | 265 | 10/62 | 160 | Unknown |
| Nine Mile Point 1 | NMPC | 610 | 12/69 | 660 | 1990 |
| Ginna | RG&E | 470 | 3/70 | 156 | 1991 |
| Indian Point 2 | Con Ed | 864 | 8/73 | 132 | 1985** |
| Fitzpatrick | PASNY | 821 | 7/75 | 132 | 1981** |
| Indian Point 3 | PASNY | 873 | 8/76 | 64 | 1993 |

* Shut down indefinitely.

** Some of Indian Point 1 unused capacity may be converted for Indian Point 2 use.

*** Planned expansion would extend pool capacity to 1993 (licensing proposal not yet submitted).

Inventory of Nuclear Plants Under Construction

| <u>Name</u> | <u>Owner</u> | <u>%</u> | <u>Size (MW)</u> | <u>Projected Operational*</u> | <u>Spent Fuel Element Capacity</u> | <u>Date Capacity Exceeded</u> |
|-------------------|--------------|----------|------------------|-------------------------------|------------------------------------|-------------------------------|
| Shoreham | LILCO | 100 | 820 | 5/81 | 2184 | 1997 |
| Nine Mile Point 2 | NMPC | 41 | 1080 | 11/84 | 983 | 1991 |
| | LILCO | 18 | | | | |
| | NYSEG | 18 | | | | |
| | RG&E | 14 | | | | |
| | CHE&G | 9 | | | | |

* Delayed service date

Inventory of Nuclear Plants in Licensing Review

| <u>Name</u> | <u>Owner</u> | <u>%</u> | <u>Size (MW)</u> | <u>Projected Operational*</u> | <u>Design Spent Fuel Element Capacity</u> |
|---------------|--------------|----------|------------------|-------------------------------|---|
| Sterling | O&R | 33 | 1150 | 5/88 | 350 |
| | RG&E | 28 | | | |
| | NMPC | 22 | | | |
| | CHE&G | 17 | | | |
| Greene County | PASNY | 100 | 1200 | 7/88 | 955 |
| Jamesport 1 | LILCO | 50 | 1150 | 5/90 | 280 |
| | NYSEG | 50 | | | |
| Jamesport 2 | LILCO | 50 | 1150 | 5/92 | 280 |
| | NYSEG | 50 | | | |

* Delayed service date

(Inventory of Nuclear Plants in Licensing Review Continued)

| <u>Name</u> | <u>Owner</u> | <u>%</u> | <u>Size (MW)</u> | <u>Projected Operational**</u> |
|--------------|--------------|----------|------------------|--------------------------------|
| New Haven* 1 | NYSEG | 50 | 1250 | 5/93 |
| | LILCO | 50 | | |
| New Haven 2 | NYSEG | 50 | 1250 | 5/95 |
| | LICLO | 50 | | |

* Partial application filed with NRC, Article VIII application planned for filing in October.

** Delayed service date

Contemplated Nuclear Plants

| <u>Name</u> | <u>Proponent</u> | <u>Size (MW)</u> | <u>Projected Operational</u> |
|--------------------------------|------------------|------------------|------------------------------|
| Red Hook* (alt. Livingston) | Con Ed | 1200 | 1991 |

* Con Edison has stated that it is seeking suitable locations for four nuclear or six coal burning units, with the first unit planned for 1991.

High Level Radioactive Waste at West Valley

| | |
|-------------------------|-----------------|
| High level liquid waste | 612,000 gallons |
| Spent fuel elements | 650,000 gallons |

Projections of Future Need for Electric Power

- . Trend of peak load projections has been consistently downward. The most recent projected growth rate is less than 3% per year.

PEAK LOAD GROWTH RATES

