

**P U B L I C   H E A R I N G**

before

**SENATE ENERGY AND ENVIRONMENT COMMITTEE**

and

**SENATE LEGISLATIVE OVERSIGHT COMMITTEE**

on

**(Review of the Status of Hope Creek Nuclear Power Plant)**

Held:

May 10, 1984

Room 348

State House Annex

Trenton, New Jersey

**New Jersey State Library**

**MEMBERS OF SENATE ENERGY & ENVIRONMENT COMMITTEE PRESENT:**

Senator Daniel J. Dalton, Chairman

Senator Catherine A Costa, Vice Chairwoman

Senator Peter P. Garibaldi

**MEMBER OF SENATE LEGISLATIVE OVERSIGHT COMMITTEE PRESENT:**

Senator Gerald R. Stockman, Chairman

**ALSO PRESENT:**

Mark T. Connelly, Research Associate

Office of Legislative Services

Aide, Senate Energy and Environment Committee

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**SENATOR GERALD R. STOCKMAN (Cochairman):** I would like to begin this hearing. I understand the Public Advocate has a time problem, and we would like to try and accommodate him. We will, in fact, put him on first.

I will introduce myself. I am Gerry Stockman, Chairman of the Senate Legislative Oversight Committee. To my right is Senator Dalton, Chairman of the Senate Energy and Environment Committee. To my left is Senator Cathy Costa, a member of the Senate Energy and Environment Committee.

Before I read a brief statement to explain why we are here today, I would like to say that I am always pleased to sit beside Dan Dalton, who is Chairman of the Energy Committee. He has shown a great deal of interest in this area. The interest of the Oversight Committee relates back to discussion of the Cost Containment Agreement. I think this is a kind of cooperative effort between committees in the Senate, and that is the way it should work. You will hear from Senator Dalton also.

The issue of the need and the cost of the Hope Creek I Power Plant has, in different ways and at different times, been the concern of both Committees here today -- the Senate Energy and Environment Committee, and the Senate Legislative Oversight Committee.

The Senate Energy and Environment Committee dealt with Hope Creek I in the course of the deliberations concerning the Certificate of Need legislation in 1982, and the Senate Legislative Oversight Committee deals with, and has dealt with, Hope Creek I in its examination of the Cost Containment Agreement, entered into by the Department of Energy, the Public Advocate, and Public Service Electric and Gas.

The purpose of the Cost Containment Agreement was to impose a limit on the steady cost escalation, which had been a hallmark of the years during which the plant was under construction. The Committees hope to learn today how the construction of the plant is faring under the Cost Containment Agreement.

But, the Committees would also like those most involved with the construction of Hope Creek -- Public Service, the Board of Public

Utilities, the Department of Energy, and the Public Advocate -- to discuss the plant in a context that is somewhat broader than the Cost Containment Agreement.

The last year has not been kind to the nuclear power industry. In our own State, we witnessed the highly-publicized circuit breaker failure of the Salem I Plant, and the Nuclear Regulatory Commission's criticism of Public Service's management and operating procedures. In the pages of Time, the Wall Street Journal, the New York Times, and Fortune we read of plants denied operating permits because of safety and quality control problems; plants abandoned because of high costs and lack of need; impending "rate shock" on consumers as the multi-billion dollar plants are put in service; and, utility companies, with heavy nuclear construction programs, brought to the brink of bankruptcy.

The Committees are aware that each utility company's problems are, to a certain sense, unique. A virtually identical nuclear power plant could bankrupt one utility company and impose intolerable costs on its rate payers, while presenting much less of a strain on another utility company, in different financial circumstances and with a different service area profile.

We realize, in short, that Hope Creek I is not Shoreham, or the Marble Hill Plant in Indiana, or any other of the many nuclear plants now in trouble across the nation.

At the same time, however, it would be irresponsible for us to ignore the troubles that are plaguing the nuclear industry and utility companies nationwide and hope, "That it doesn't happen in New Jersey." We are looking at almost a \$4 billion investment, which we will have to contend with for the next 30 years, and the earlier we are aware of what the future holds the better.

The most obvious issue we are concerned about is this plant's effect on rates: What will it do to electricity rates in Public Service's service area? We also need to know what steps are being taken to assure quality control, in both the construction and operation of this plant. We have seen our existing nuclear plants sitting idle for long periods of time -- but these plants cost a fraction of Hope



Creek I's cost. A \$4 billion plant sitting idle would be an economic catastrophe. We also need proof that Public Service is addressing the shortcomings which the Nuclear Regulatory Commission identified as being related to the problems at the Salem I Plant.

We hope that these, as well as other issues which will surely be raised today, will be fully discussed, and will enable us to form a clearer picture of what impact Hope Creek I will have on New Jersey.

I would now like to turn to Senator Dalton, who may also want to say something further. That statement was prepared for both of us, and only one of us could read it, so I took the honor. Dan, do you want to add anything to the statement?

**SENATOR DANIEL J. DALTON (Cochairman):** I think the statement says it all, Gerry. As a result, I am looking forward to hearing the testimony from the Executive Branch, as well as from PSE&G, relative to how this plant is coming along. So, let's get to it.

**SENATOR STOCKMAN:** Okay. Joe, why don't you come join us? I would like to tell you at the outset, Joe, that I asked Bill Potter to be present and available to share some information with us on this question. I just heard that for some reason he can't be here, is that correct?

**COMMISSIONER JOSEPH H. RODRIGUEZ:** Well, I imagined that you wanted me here as the Public Advocate, as the person who states the policy for the Department; that is why I am here.

**SENATOR STOCKMAN:** That is not what I was talking about. Let me ask the question again. It is my understanding that Bill Potter has been deeply involved; and, in your behalf -- as a matter of fact, back during the time we first discussed the issue of the Cost Containment Agreement -- was a key figure in the Public Advocate's office on the policies set from the time of the Cost Containment Agreement, up to the present time. On that basis, and because of my understanding of his awareness and interest in this area, I asked -- and I believe I was joined by Senator Dalton -- if Mr. Potter could be here to participate. That was my question to you. It has nothing to do with you being here. I am delighted to see Joe Rodriguez, and I understand the buck stops with Joe Rodriguez, vis-a-vis the policies of the Public Advocate. But, I think this is a separate issue.

COMMISSIONER RODRIGUEZ: That's true, the buck stops with me, and I state the policy for the Department. I spent the last two weeks making sure that the policies we established two years ago, when we entered into the Cost Containment Agreement, were still accurate and viable, as far as my responsibility to the public is concerned. That was reaffirmed, as late as yesterday, with the experts I have talked to.

Now, I am not only stating my personal opinion, I am stating the opinion and the position of the entire Office of the Public Advocate.

SENATOR STOCKMAN: Including Mr. Potter?

COMMISSIONER RODRIGUEZ: I don't know whether it includes Mr. Potter, but let me say this to you--

SENATOR STOCKMAN: (interrupting) How can you talk about the full Public Advocate's office if it doesn't include Bill Potter?

COMMISSIONER RODRIGUEZ: Because I set the policy, Senator Stockman. Let me simply say this to you, I think I know what you are after. If you want to produce someone who finally feels that the presence of a nuclear plant is repugnant, you will find that kind of testimony.

SENATOR STOCKMAN: From Bill Potter?

COMMISSIONER RODRIGUEZ: From whomever. If you want testimony as to the balanced responsible position of the Office of the Public Advocate, one that has to deal with taxpayers' money, I am here to state that position.

SENATOR STOCKMAN: Well, if Mr. Potter isn't going to give balanced and -- I forget the other word you used -- position on the subject, certainly I don't want him here. If it is your suggestion that he wouldn't, well, that is news to me and we will have to deal with it, and the public will have to deal with it.

Joe, when you said it is the Public Advocates office's position, and the position of everyone in it, I had to ask that question. I gather that the position you are going to articulate is not Mr. Potter's position on the question.

COMMISSIONER RODRIGUEZ: My position is one that has come about as a result of consultation with all our experts, and from what I could legitimately prove if, in fact, as a lawyer with a decent responsibility to the Code of Ethics and the taxpayers' money, I was called upon to prove my case. I am simply stating the position we are taking as a result of studied effort; and, I am here to state that position.

SENATOR STOCKMAN: Again, the Code of Ethics and things of that sort-- We may be getting far afield. I won't belabor the point now. I am disappointed that Mr. Potter isn't here, and I think I can speak for Senator Dalton when I say that we both asked for his presence.

But, let's get on with some questions since you are here.

SENATOR DALTON: If I can just jump in for one second, Gerry-- I think the point that Gerry is making and that I would like to make, Commissioner -- and I have had the opportunity to work with you on many different occasions, and I have worked very well with you -- is that we would like to hear from a person with whom we have had the opportunity to hear from before in the Energy and Environment Committee, someone who has given us testimony -- and I think it was balanced testimony -- on some of the concerns we were addressing.

We, as a result, asked him to appear today in order to continue to hear from him. As a result, his not appearing today is somewhat of an affront to us, because we wanted him here. We felt that we, as the Legislative Branch, should have the opportunity to hear not only from you -- because we certainly wanted to hear from you today -- but from someone whom we have come to know as a person who has a great deal of interest, and some very strong opinions. We felt that in order to get the complete story, we also wanted to hear from him.

COMMISSIONER RODRIGUEZ: Senator, you are free to call Mr. Potter. What I am suggesting to you is, at the outset you said you wanted to hear my position, as a member of the Executive Branch -- I would assume -- and, more important than being a member of the Executive Branch, as someone who has some responsibility to the ratepayers in this area, and who will make a rational judgment

regarding independent analysis from experts. I am suggesting to you that's exactly what I have done. You are free to hear from anyone.

SENATOR DALTON: We are not debating that, Joe.

SENATOR STOCKMAN: Joe, doesn't Bill Potter have that same responsibility -- a responsibility to the ratepayers and to the public? You are confusing me more and more. The more this exchange goes on, I can frankly tell you--

COMMISSIONER RODRIGUEZ: Listen, I am the Public Advocate; I state the policy for my Department. The thing is for you to challenge the information I have, and not simply to produce someone who you think is going to challenge me.

SENATOR DALTON: We intend to do that, Joe. The thing is, we also wanted to hear from Bill Potter. We, as the Legislative Branch, think we should have the opportunity to call on any member of the Executive Branch to appear before not only this Committee, but before Senator Stockman's Committee as well, in order for us to be able to get their considered opinion.

COMMISSIONER RODRIGUEZ: And, you are free to do that; you are free to do it.

SENATOR DALTON: Then why isn't he here?

SENATOR STOCKMAN: Mr. Public Advocate, I don't think you meant to upset us by telling us what our responsibility is. Hopefully, we can grasp that. So, I want to diminish-- I think the record is clear now as to your position. Mr. Potter isn't here. We will deal with that. Let's get on with the subject at hand, but before we do, I would like to invite Senator Costa to make an observation.

SENATOR COSTA: Yes. I don't know this Mr. Potter at all, but in listening to you just now, it seems he has a different point of view insofar as nuclear power is concerned. I think it is very important that we get all points of view, so I would appreciate it if someone would call this Mr. Potter. Maybe we can also hear him today.

COMMISSIONER RODRIGUEZ: You are certainly free to hear from him.

SENATOR COSTA: You are in charge.

COMMISSIONER RODRIGUEZ: Yes.

SENATOR COSTA: You have to give him approval in order for him to be here, because he is going to listen to you. Am I correct in that assumption?

COMMISSIONER RODRIGUEZ: You are certainly free, and I indicated that to Senator Stockman, to hear from Mr. Potter.

SENATOR STOCKMAN: Joe, under the terms of the 1982 Cost Containment Agreement, agreed to by Public Service Electric and Gas, the Public Advocate, and the Department of Energy, the Public Advocate agreed not to "challenge the need for Hope Creek I before any Federal or State agencies...." The Advocate is currently challenging Public Service Electric and Gas' application for an operating permit, which is now before the Federal Atomic Safety and Licensing Board. The Advocate is challenging the permit on safety and management competency grounds. The Atomic Safety and Licensing Board is a three-member panel, from which a utility must receive 1) a construction permit; and 2) an operation permit for a nuclear power plant. The Atomic Safety and Licensing Board conducts judicial proceedings, similar to an Administrative Law Judge. My question is this:

What are the issues the Public Advocate is raising before the Atomic Safety and Licensing Board concerning Public Service Electric and Gas' application for an operating permit for Hope Creek I?

COMMISSIONER RODRIGUEZ: Do you want me to expose all the details of our litigation here? We are in litigation, so I would assume you would have to give us enough credit to suggest that we are doing something.

SENATOR STOCKMAN: Is that your answer to the question?

COMMISSIONER RODRIGUEZ: Do you want me to expose the details of the litigation?

SENATOR STOCKMAN: What I would like is an answer to this question: What are the issues the Public Advocate is now raising before the Atomic Safety and Licensing Board concerning Public Service Electric and Gas' application for an operating permit for Hope Creek I? Now, are you suggesting that is something the public isn't entitled to know?

COMMISSIONER RODRIGUEZ: We are raising the issue of the safety factors at the plant; we are raising the issue of the environmental impact of the plant; and we are raising the issue of the competency of management for the plant. They are the issues.

Incidentally, generated from the Salem outage -- where we did bring an action -- we have, as a result of our experts' opinions, arrived at certain determinations in the case. So, we certainly weren't silent when that occurred. As a result of that, questions were raised regarding Hope Creek I, and we are into those matters now; they are in litigation. So, I would assume that would suggest affirmative action.

SENATOR STOCKMAN: Can you describe for us the Public Advocate's activities in general, to date, before the Atomic Safety and Licensing Board?

COMMISSIONER RODRIGUEZ: Filing the necessary documents to get a hearing on the issues I have just mentioned.

SENATOR STOCKMAN: And those are safety issues, environmental issues -- and what was the third?

COMMISSIONER RODRIGUEZ: Management issues.

SENATOR STOCKMAN: Management issues -- Public Service management?

COMMISSIONER RODRIGUEZ: Yes.

SENATOR STOCKMAN: What does the Advocate hope to achieve by its involvement in the Atomic Safety and Licensing Board proceedings?

COMMISSIONER RODRIGUEZ: As a result of the latest conversation with all our experts, a monitoring function.

SENATOR STOCKMAN: Monitoring?

COMMISSIONER RODRIGUEZ: Monitoring, which we are doing.

SENATOR STOCKMAN: That would be true of the safety questions Hope Creek I presents to the public; that would be true of the environmental issues that are raised; and, that would be true of the question of management competency of Public Service Electric and Gas to operate a nuclear power plant?

COMMISSIONER RODRIGUEZ: Right.



SENATOR STOCKMAN: How much will the Public Advocate's involvement in the Atomic Safety and Licensing Board's proceedings cost? Is there adequate money in the Department's budget to cover this cost?

COMMISSIONER RODRIGUEZ: I just made that analysis with our experts yesterday, and to do it the way I know you would suggest we do it, the amount would be in the neighborhood of \$3 million.

SENATOR STOCKMAN: Is that already in your budget?

COMMISSIONER RODRIGUEZ: No.

SENATOR STOCKMAN: Do I take from that you will be appearing before either the Joint Appropriations Committee or the Legislature with a request for a supplement of \$3 million to accomplish this?

COMMISSIONER RODRIGUEZ: No.

SENATOR STOCKMAN: You will not?

COMMISSIONER RODRIGUEZ: I will not, because my experts have told me, as late as yesterday, that I would simply be trying to make myself the NRC. They have sufficient confidence in the NRC, as a result of recent developments, that it would be a waste of taxpayers' money for me to use \$3 million to duplicate NRC's service.

SENATOR STOCKMAN: Do I understand that to mean the Public Advocate is going to back out of the proceedings before the Atomic Safety and Licensing Board?

COMMISSIONER RODRIGUEZ: No, I am saying we are going to continue to monitor them, but we can't become the NRC.

SENATOR STOCKMAN: I misunderstood you. I didn't think you said that with \$3 million you would become the NRC. I thought I asked you what you would need to be effective in--

COMMISSIONER RODRIGUEZ: (interrupting) To monitor it?

SENATOR STOCKMAN: Let me run through this again. You said your purpose was monitoring, monitoring very important issues, namely safety, environment, and management. I thought you suggested that in order to do this you would need \$3 million, and I assumed you would be asking for that amount. You now tell us you wouldn't, because that would turn you into the NRC. How much would allow you to stop short of turning yourself into the NRC, but be effective in monitoring these major issues?

COMMISSIONER RODRIGUEZ: We have the money now to monitor it, and to react if something goes wrong.

But, if you are suggesting that I should go there and examine the plant in order to determine whether it is safe or not, I would need the capability of 23 disciplines to go into that plant and duplicate the NRC. I am suggesting to you that unless you have a total lack of confidence in the NRC, New Jersey shouldn't duplicate their work. We should monitor; we should never once yield our position to monitor in order to see that safety is taken care of.

You can't suggest, as a lawyer, what issue I raise. What issue do I raise?

SENATOR STOCKMAN: Joe, I am not a lawyer here. For the benefit of everyone who is here, Joe and I go back many years as trial lawyers. That is really kind of semi-irrelevant. Joe, make no mistake, I am not here as a lawyer. Forget me as a lawyer. I don't understand--

COMMISSIONER RODRIGUEZ: But, Senator, you can't forget that I am a lawyer. The Advocate, to make a claim, has to make a charge that he then has to prove. How do I go through there -- simply by virtue of my office? Or, do I make a charge, a complaint, an allegation, or a contention, and have them say to me, "Prove it?" Then I must produce the proof, or the contentions get dropped, as some of them already have. So, I am suggesting that what should be done in behalf of the public interest, calls for a very careful analysis. I am suggesting to you that I have been going through a two-year effort on this.

I suggested, two years ago, that if the concern was that great, the Legislature should have moved for a moratorium, because there is no legal--

SENATOR STOCKMAN: (interrupting) Some of us did, Joe, but it takes 21, 41, and 1.

COMMISSIONER RODRIGUEZ: (continuing) --forum to which I could go as a lawyer. There are preemption statutes by the Federal government. I don't know what you want me to do with the law. I certainly can't twist it to my benefit. But, there are legitimate

things I can do. We did it at Salem. We monitored. We got the agreement. We are going to be there, and the experts tell me there is nothing further to do. We then translated that, to make sure it didn't happen in Hope Creek. We are there; we are monitoring; we are looking. I don't know what else you want us to do.

SENATOR STOCKMAN: Joe, I don't think at this point I suggested anything. That is what this hearing is all about. Maybe when it is over, based on your testimony and the testimony of other witnesses, I and/or the Committee will have something very specific to suggest. But, we are not at that point yet.

COMMISSIONER RODRIGUEZ: I beg you to put up whatever funds are necessary in order to contact whatever experts are available to arrive at the determinations that will satisfy you. I beg you to do that.

SENATOR STOCKMAN: That's what we are trying to get at. As I understand it, you have enough money in the budget -- I don't know what that is yet, and I don't know whether you can tell me -- to move forward with this challenge before the Atomic Safety and Licensing Board, and, in fact, you are doing that. I gather you are doing it to monitor the safety, the environment, and the management skills of Public Service. I simply asked you, to start this whole dialogue, what that sum was, or if you needed more money. That's where we seemed to-- That's where we are.

If you have enough money -- you are telling me you have enough -- that is one thing. I am not looking to spend, and I am sure this Committee is not either, unnecessary money in that area. But, if you don't have enough money, we certainly want to know it because the stakes are high.

I gather your testimony is that you are in there, you are pressing the public interest before that Board, based on safety concerns, based on environment concerns, and based on management competency concerns; and, in your opinion, you have the funds to adequately staff that participation. Is that your testimony?

COMMISSIONER RODRIGUEZ: Yes, but I want you to completely understand it so there is no misunderstanding. To the extent we are

there monitoring within our capabilities, we are there. If you were to suggest to me, however, that you really don't know it was safe -- if they are meeting the containment agreement -- because they are cheating on safety, I think that would be an irresponsible statement and an irresponsible position for me to take, without following it up with the \$3 million it takes to look for what I don't know I'm looking for.

Now, what I am suggesting to you is, to monitor until we see there is something we can legitimately move on, with a contention and with an expert -- we are there. But, I am not going to create an issue, to then spend money in order to see if it is there, when the NRC is now doing that -- unless I can challenge the credibility of the NRC, and I am not yet prepared to do that.

SENATOR STOCKMAN: I am having a very difficult time understanding you, Joe. It may be me this morning. My difficulty revolves around the question of just what you, on behalf of New Jersey, are doing concerning this monitoring of safety, environment, and management.

On the one hand, I get the impression that you are suggesting, "Look, the NRC is competent; I have faith in them" -- and I am not here to say they are not competent or that I don't have faith in them. However, you seem to be saying they are doing it; we should respect that. Well, that is a position you certainly have a right to take, and if that is what is happening, the public should know it and we should decide whether that is what we want or not.

On the other hand, you suggest that you are in there; you are participating. In a certain sense, we are trying to get to that -- to what degree are you participating?

COMMISSIONER RODRIGUEZ: Let me be brutally frank, because I understand what you are trying to do. The question is--

SENATOR STOCKMAN: (interrupting) Tell me, what I am trying to do?

COMMISSIONER RODRIGUEZ: (continuing) --with child abuse, I move in on it; I prove it; and, I put the person in jail. I don't sit here and say, "I can't prove child abuse. Why not let me come back?" Wife beater: "Oh, I can't prove it; let me come back." What I am

suggesting to you is, when I see the problem, I will move aggressively. But, when someone says, "You know that thing isn't safe," I want to know why, how, and what do I need in order to prove it?

What I am suggesting is, if I am to simply duplicate what has been done in that statement that some people accept -- and legitimately, because there are people who have individual points of view, and I respect them-- My job is to balance the public interest. If there is something I can show, such as Salem, we are there.

Why are we in Hope Creek then? Because we are trying to carry over the problems of Salem, to be sure they don't occur. Will they occur? I don't know. Are we there? Yes, we are there. If there is a problem, I will be there again. We were there at Salem.

But, I can't have someone throw me a generic statement, that some people want to believe, and be held to prove that statement with the taxpayers' money, when there is no other reason to direct me there but that statement. That is what I am saying.

So, if I were to allege child abuse and lose; wife beater and lose; neighbor beater and lose, violent person and lose, I am mugging someone with my legal abilities. But, if a man beats his wife, I will put him in jail. You see, that is the difference. So, we are there. We are there. I am not suggesting to you that we are there for any single person's reason; we are there because of my responsibility to the taxpayers of this State, utilizing their money. That is the difference I am talking about.

SENATOR STOCKMAN: Can you tell me, or can you give me an estimate of how much of their money you are utilizing in this monitoring effort?

COMMISSIONER RODRIGUEZ: It is hard for me to say, but it is within our budget, and we use a responsible amount to represent their interest. I haven't calculated it all out, because some of it is a strain. This isn't money you can charge to the utilities. The Rate Council charges utilities for their presence before it. This would simply be the Advocate's budget, where the entire budget for the five divisions is only \$2 million.

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SENATOR STOCKMAN: I would appreciate it, and I think the Committee would also, if you could supply us hereafter with a brief statement, breaking down what the actual cost for this effort on the part of the Public Advocate is.

COMMISSIONER RODRIGUEZ: And, I would appreciate someone telling me what it is I am not doing, from a legitimate direction, concerning the problem.

SENATOR STOCKMAN: Well, I don't know how to answer that, Joe.

COMMISSIONER RODRIGUEZ: What is it you want me to find?

SENATOR STOCKMAN: I thought I asked you to get us the amount of expenses the Public Advocate is--

COMMISSIONER RODRIGUEZ: (interrupting) Okay. I will do that.

SENATOR STOCKMAN: In the 1982 Cost Containment Agreement the Public Advocate agreed not to challenge the "need" for the plant before "Federal or State agencies which may have jurisdiction." The Legislature is not a state "agency," and therefore the Public Advocate is free to discuss the "need" for the plant here today. In this light, do you believe that the Hope Creek I plant is needed to meet the electrical needs of Public Service Electric and Gas' electricity customers, or the State's customers?

COMMISSIONER RODRIGUEZ: Let me relate to a conversation with an expert, because I don't profess to know the answer myself. That is why I sometimes feel my personal credibility--

SENATOR STOCKMAN: (interrupting) That we are beating up on you, right?

COMMISSIONER RODRIGUEZ: Sure.

SENATOR STOCKMAN: We don't mean to beat up on you.

COMMISSIONER RODRIGUEZ: My experts tell me this: Hope Creek I is a 1,000 megawatt facility. What is a megawatt? Well, if one million people take an iron and turn it on, that is 1,000 megawatts -- one million people with an iron. Now, how many people are there with irons, televisions, and air conditioners? What does the reinvestment credit mean to Atlantic City with the influx of redevelopment? What



does casino mean to South Jersey? What is my responsibility, as an official, to prevent an emergency crisis in this State? Where do they peak? Well, very definitely, by 1993 they will need something. They will definitely need something.

If we bring this plant down now, then the taxpayer will pay billions in abandonment and billions to correct something else by 1990. You see, offhand, that doesn't sound like a very safe place to run now, because we are dealing with 1,000 megawatts. What will be the cost? Well, I am going to leave Roger Camacho here, because I think we should all realize I was asked just last week -- on Friday -- what the issues would be, and I have a schedule I have promised to some consumer groups that I have to keep. That is why I do not have a prepared statement.

They tell me that by 1993, it would be dangerous not to have something. So, now you have to see what it is you do have, and how you are going to phase it in. My experts have not said to me that it would not be needed by 1993; so, I don't know where else to go with that answer. This is what they have told me, and they have given me calculations. I know that if it only takes one million people to turn on an iron, and we are asking this State to redevelop in the South -- we are asking for commerce, we are asking for industry, we are asking to put people to work -- I could not responsibly say that with a one million iron capacity -- irons; one million irons; just turn them on -- we don't need it. I don't know how to make sense out of that in my mind, so I have to rely on others, and that is what they have told me -- that is what I have.

The question is then one of cost. Interestingly enough -- and we seem to forget that when I took office, that plant had already been surrendered in December of 1981, because it was needed at this time. We have had hearings on what "at this time" meant. The Cost Containment Agreement contained the figures they agreed upon in December of 1981. We moved responsibly, I thought. When all avenues to defeat the plant were lost-- And don't forget, out of some ten plants that were projected, there are only four, so the Advocate has a successful record. That successful record yielded to the need for Hope

Creek I in December of 1981. I came into office and made the horrendous mistake of questioning the need -- the very thing I am getting killed for now.

SENATOR STOCKMAN: Who is killing you?

COMMISSIONER RODRIGUEZ: Well, okay.

SENATOR DALTON: You are so defensive, Commissioner. We haven't said one thing about--

COMMISSIONER RODRIGUEZ: (interrupting) Okay. Please allow me to finish. So, we contained it at that price. Everything I have read, up to last night -- independent analysts, magazines that look for economy -- all look to New Jersey and say the reason New Jersey is a good buy is because they have been contained.

I feel rather comforted by that statement because then I don't feel as though I sold the soul of the public interest by arriving at that agreement. The question then is, are they on target? From everything I have been able to determine, they are. So, sitting here two years later, I can't suggest to you that they are not on target. They are within that containment, and if they are, we should be addressing how to phase it in -- which we will.

Some of your questions go to that. Number one, do we know, by all indications, that it is being built on schedule? The answer is, from everything I have -- from outside analysts, from economic markets that do this independent of me, you, and this Committee -- everyone says it is, and they applaud it.

Are we constantly present? Are we concerned with the rates? Of course we are. Now, beyond that, I don't really know where to go. I don't want to get into too much detail regarding the cases in litigation; I think I spoke enough to that issue.

SENATOR DALTON: Commissioner, our purpose today is to get information from you as to the status of the Cost Containment Agreement. Now if you feel we are beating you over the head by trying to get that information, then I would suggest you are wrong. What we are trying to do here today is to obtain your judgment, relative to this agreement. Okay? Now, we may have beaten you over the head because we asked for somebody to be here today who is not here, and I

think we have a legitimate right to hit you over the head on that. regard to this issue, we are only trying to get information.

COMMISSIONER RODRIGUEZ: And, you certainly have a right to hear from him, but only after you have heard clearly from me as to the effort I have made in order to arrive at my judgment. This is not a personal feeling I am expressing. I think it was a responsibility I had to undertake in order to arrive at some of these conclusions.

SENATOR STOCKMAN: Joe, I am not overly offended at you telling us again how this Committee should function -- that is, we must first hear from you before we ask any questions. I don't think you really mean to insult us with those comments. You seem to feel very much under pressure here today. When you say, "I'm getting killed," and when you make the suggestion that "You sold the soul of the public interest," I must tell you that I am frankly troubled by that. I am troubled by the old notion of -- and maybe I shouldn't be; maybe by the time these hearings are over and history is written the feeling will go -- "Thou doest protests too loudly." We are here to gather facts, and I don't really understand.

I do want to say something publicly that should be made clear, and that is that you are here on rather short notice, and I -- and I am sure the Committee does also -- appreciate that fact. I just wish we hadn't gotten off on the foot we are on.

Senator Costa, do you want to ask any questions?

SENATOR COSTA: Yes.

SENATOR STOCKMAN: I know you have to leave soon, Joe, and we don't want to disrupt your schedule; so, if you have to go we understand, and we will pick up with other witnesses.

SENATOR COSTA: Mr. Public Advocate, on cost containment -- it sounds great to say cost containment, but I always like to take a big number and bring it down to where most people can understand what we are talking about. I don't look at government as being any different from running my own household, only magnified many times. When you speak of cost containment, one looks at the difference between your saying a plant will cost \$300 million, and then saying you are going to contain it at \$3.8 billion. That, to me, is like -- bringing

it down to very small terms -- saying I can do it for \$10, and you saying, "Hey, you have a cost containment of \$50." That's great; I love it. What kind of monitoring do we have, and where did we get this figure of \$3.8 billion, when the plant costs \$300 million? Also, when we talk about the inflation rate in the '70's and the '80's escalating so much, we have to remember that we have also been able to contain inflation. Did we make any provisions as far as that containment is concerned, or do we have to stay at the higher level of \$3.8 billion? Where is the public being protected as far as that is concerned?

COMMISSIONER RODRIGUEZ: Because the figures--

SENATOR COSTA: (interrupting) I'm sorry, but I feel that the Public Advocate, by signing off a cost containment at that figure, really left the public in a quandary because of the other aspects of inflation rates going down, etc. That was not taken into consideration.

COMMISSIONER RODRIGUEZ: Again -- and I think this point was missed -- in 1981, before I got here, that figure was arrived at and agreed upon.

SENATOR COSTA: By whom?

COMMISSIONER RODRIGUEZ: By my predecessors, not by me. Therefore, you have to understand that once there is an agreement and the cases are lost, there is no further forum. It is just like many other cases that are decided by the Supreme Court. I know Bay Head probably wishes they could still close the beaches, but at some point the forum is closed. The forum was closed, so we seized the 1981 figure that was agreed upon by others and said, "If we, in the production date of 1986, can hold them to that figure, that will be in the public interest," because it is going off at that, whether we like it or not.

Now, the concern of other states that are not contained is that prices keep going through the roof -- but not in New Jersey. That's why all the analysts are looking to New Jersey and saying, "It is not happening there."

SENATOR COSTA: I contend it has already gone through the roof, when you have a cost containment of \$3.8 billion.

COMMISSIONER RODRIGUEZ: But, you see, that was already done.

SENATOR STOCKMAN: That issue -- and this is understandable because you were not part of the Oversight Committee -- took three days' of hearings, and there are lengthy transcripts on it. In all fairness to the Committee, I personally had a disagreement with -- and it is a matter of record -- our entering into that agreement. But, I think that is beyond us now. I think the questions really do go to what has happened since, and the major changes that have occurred throughout the country.

SENATOR COSTA: My point is, I don't believe we are beyond that point, or that we have to stay there. I think there is cause for reevaluation.

SENATOR STOCKMAN: I absolutely agree.

SENATOR COSTA: That is why you are having this meeting.

SENATOR STOCKMAN: I agree.

SENATOR COSTA: My other question relates to when you spoke about the ability of the NRC to do it: "We don't have the money to do it; why duplicate it?" I also heard you say that "we are right there." Does that mean that you have someone there monitoring, someone who is involved with the NRC in all the steps of the way toward the nuclear plant?

COMMISSIONER RODRIGUEZ: No. The only way we can do it is by monitoring the reports, and being very alert to the fact that if there is a problem, we will go in and find out what the problem is.

SENATOR COSTA: Could we not have a member of the Public Advocate's office involved in everything the NRC is doing?

COMMISSIONER RODRIGUEZ: No, Senator. I am afraid that what we would then do is-- It is like me looking at this building and telling you whether that wall is going to fall down tomorrow. The lawyers aren't capable of doing that. You would need--

SENATOR COSTA: (interrupting) I am not speaking of a lawyer. Don't you have someone -- an engineer, a nuclear engineer -- who is versed in that direction?

COMMISSIONER RODRIGUEZ: Yes, and they would have to be paid.

SENATOR COSTA: I am not an engineer, and I don't think any of us are; however, I really feel we have to have that kind of a resource.

COMMISSIONER RODRIGUEZ: Sure. And, I would suggest it would be very easy for the Legislature to determine how many people of what disciplines you need, and then put up the money to send them there.

SENATOR COSTA: Well, I think that is of utmost importance, because as we see it, what is happening is, we have no one to protect us.

COMMISSIONER RODRIGUEZ: Oh, yes.

SENATOR COSTA: Well, if you are not versed in it, if you are an attorney and you are dealing with engineering problems, especially in the nuclear field, you are certainly not protecting me.

COMMISSIONER RODRIGUEZ: Senator, I don't treat a patient when I sue a doctor for malpractice. I am there to make sure that it doesn't occur again, but I am not the doctor.

Really, the point is, if the State wants to monitor what is going on, it has to pay people who are in that discipline, and who know what it is they are looking at in order to monitor it. We are a lawyers' office. There is a big difference there. A lawyers' office means that when an allegation is made, we have to prove it. That is what our law is all about. But, monitoring should be done by someone who knows what he is seeing.

I could go myself, but I don't know what it is I am seeing.

SENATOR COSTA: That's what I am addressing, and I am surprised we don't have someone in that field. You know, I come from a county government background, and that always amazed me. I fought very hard to get someone who knew what they were doing when we were in the business of building buildings. Yet, we didn't have an engineer on our staff who was watching. I feel this is the same type of thing as far as our nuclear plants are concerned.

COMMISSIONER RODRIGUEZ: We could calculate that. Let's step back a minute. Whose function should it be? Should it be the function of a lawyer, or should the State provide that capability? I don't know everything the other departments are doing. I am saying that as a lawyer if I knock down someone's door, they will say: "Where is the search warrant?"



What I am trying to say is, there has to be a reason for me to trigger the law. I am saying that we are watching with the eyes of a hawk. That is why we are already in Salem. That is why we are already before these regulatory bodies with whatever issues we feel should be pursued.

There is a suggestion we are not doing enough, and I say that "enough" has to be something I can responsibly look at, short of hiring experts to go down there. That is why I say it comes to about \$3 million.

SENATOR COSTA: Senator, may I ask you a question?

SENATOR DALTON: I don't know if I will answer a question, but go ahead.

SENATOR COSTA: My question once again is, do we have, anywhere in State government, whether it be in the energy division or not, someone who is qualified to monitor this?

MEMBER OF AUDIENCE: I would like to answer that question, Senator. We do have a monitoring process.

SENATOR COSTA: Do we have anybody who is versed as a nuclear engineer?

MEMBER OF AUDIENCE: What we do have is a monitoring process where we are immediately notified of anything that occurs at a nuclear plant.

SENATOR COSTA: I think it is too late at that point. I think we really have to have someone on line from our State, someone who is there constantly with the NRC, monitoring it all along. That's my feeling.

COMMISSIONER RODRIGUEZ: Except that we have to again remember this -- and I don't want to get technical with this, please; I don't intend to be technical -- if we had someone monitoring and if I went down there today and said: "I don't think this is safe," I have to then go to the NRC. The NRC has preempted the question of safety in the Federal forum. It is not even in the State forum, unless the State does it for other reasons.

So, there has to be a tie-in with the Federal forum on the issue of safety. They explore whether or not you have proven your case, or whether they will proceed. That has been preempted.

Incidentally, our office, under my direction, did, in the Karen Silkwood case, as a result of punitive damages -- if, in fact, a nuclear plant does something outrageous -- put in an amicus brief before the Supreme Court of the United States for this State to have the right to impose liability, and we won. So, we are not walking away from our responsibility -- please. But, there is a limit to what a lawyer can do.

SENATOR COSTA: I think you have just shown that we are lacking in a certain direction. You cannot protect the public without a knowledgeable person working on your side -- not on the other side -- for the public. You need that. You definitely need it, whether it is in your Department or in another department.

SENATOR STOCKMAN: There is a suggestion that DEP has some participation, and Larry Schmidt has been anxiously waving his hand. We may hear from him later today, but I think the point has been made.

I think Senator Dalton has been anxiously waiting to ask at least one, or several, questions, because I know he has to leave. I would like to turn this over to him. But, before I do, I would like to welcome Senator Garibaldi, who came in moments after we got started. Things were going so hot and heavy, we didn't have time to introduce him at that time. We are delighted to have him here. He is a tireless member of the Energy and Environment Committee. Welcome, Senator.

SENATOR GARIBALDI: I have some questions also.

SENATOR STOCKMAN: All right. Why don't we yield to Senator Dalton, and then we will come back to you.

SENATOR DALTON: Thank you, Senator. Commissioner, has the Public Advocate made any studies to determine the economic impact the operation of Hope Creek I will have on Public Service customers?

COMMISSIONER RODRIGUEZ: We have made an analysis of what we call the phase-in. That is why I wanted our Director who is responsible for that here. I am going to leave him here, because my time constraints are not the same as his.

SENATOR DALTON: Okay. Mr. Camacho, what will the financial impact of Hope Creek I be on the customers in the Public Service Electric and Gas Service area?

ROGER CAMACHO: Again, Senator, I have to operate within certain assumptions and certain presuppositions as to the future, when--

SENATOR DALTON: (interrupting) I understand that.

MR. CAMACHO: (continuing) --in essence, responding to some of the things provided to us by Public Service. From what our people have indicated to me, at this preliminary stage -- and I will put many caveats on this in terms of many of the things that are going on -- one can operate within a range of-- If you assume what we are led to assume right now, that plant is coming in at 3.7 or 3.8. I think you will hear later on today, Public Service testify that it will be a range of from 10 percent to 15 percent.

SENATOR DALTON: So, there will be a 10 to 15 percent increase in rates when Hope Creek I comes on line?

MR. CAMACHO: On a discreet item basis for the unit, with several assumptions -- one being another rate case disposition -- now and then. That would have an upward pressure on rates.

Also, as you have been aware most recently, we are coping with problems of replacement power costs from the outages. That too can be decided as being another element to watch. I am placing caveats on this all along the line. I am really pointing to the pressure points which could impact on that.

SENATOR DALTON: Sure.

MR. CAMACHO: I am not saying that is acceptable on a discreet item basis either, and that it is the basis of our talking about a phase-in. We are talking about this 10 to 15 percent range?

SENATOR DALTON: Right.

MR. CAMACHO: When one looks at all the upward pressures, I believe it would be wise for us to plan on that phase-in because of the aggregate effect of all this -- that is, to soften the blow. I don't want to leave you with the impression that I consider it acceptable at that level. Many of those assumptions, again, have been provided by Public Service, insofar as what will occur in that first year of impact.

SENATOR DALTON: Okay. Believe me, I am aware of the fact, in many cases, that your estimates are just that -- they are estimates,

and they are based upon certain assumptions. To a certain extent, we refer to this as sophisticated crystal-balling; so, I understand that.

MR. CAMACHO: I specifically refer to the other case -- the intervening case along those lines -- because it requires certain assumptions as to the different elements of that case and what will happen. So, it is a very rough-gauge type of element. I think we are better off just looking at those caveats -- those upward pressures -- and try to plan as best we can.

SENATOR STOCKMAN: If I may add something here, would you say that those assumptions tend to be sort of optimistic assumptions? In other words, if things go well, there will be a 10 to 15 percent increase. If any one of these many variables don't go so well, would that be a fair categorization of where we are now?

MR. CAMACHO: Yes. In other words, I couched it in terms of bringing this plant in at the \$3.8 billion level, which, as the Commissioner has testified, is our indication at this point.

But, the other assumptions appear to be fairly reasonable in terms of that.

SENATOR STOCKMAN: And, the other assumptions are with no planned phase-in? In other words, we are talking about -- if you don't phase in, and if everything goes well -- a 10 to 15 percent jump in rates when it goes on line?

MR. CAMACHO: Yes. And again, Senator, I am not saying that is acceptable, because there are other upward pressures that we are going to have to face. Again, if we assume everything is fine, and we look at the period from July, 1985 to July, 1986 -- again, the assumption is this plant is coming on line in June, 1986 -- I will have to speculate a little bit. What will happen to the deferred fuel balance with the replacement power cost? How will it be treated? We will have to go before the BPU next June to talk about a reconciliation to the next period, where there is an under-recovery right now -- which you alluded to earlier on.

SENATOR DALTON: Now, does that 10 to 15 percent figure include the CWIP that is presently in the plant?

MR. CAMACHO: Yes.

SENATOR DALTON: That the company has received?

MR. CAMACHO: And, Senator, the reason I am couching my caveats in terms of the next case is, it assumes the inclusion of further CWIP in that next rate case.

SENATOR DALTON: What is your assumption on that next rate case?

MR. CAMACHO: The assumption, right now, is about \$1 billion, roughly -- \$908 million at this posture.

I think, from what I understand, if you assume the figure goes to about \$1.3 billion in that next case, we would wind up roughly with a figure of 12.2 to a 13 percent increase. The company -- and you know from our past discussions that we always debate with the company regarding how much should go in -- would have great aspirations in that regard. So, when you get down to the low end of that range, they would assert that they were entitled to more, in advance. That is why I am being so careful with my caveats. I have to project as to what is going to happen a year from now.

SENATOR DALTON: I understand that. Now, given that once a plant goes on line, the ratepayers experience a 10 to 15 percent increase -- once the plant is on line and is operating -- what would the experience be, and what would the rate impact be on the ratepayers? Have you looked at that?

MR. CAMACHO: Just in general. We looked at the first-year impact of that, in terms of the first-year increase. That is what I am talking about in terms of the first-year increase, the impact when this comes on line.

SENATOR DALTON: Let me ask you this, regarding the assumption you are basing this increase on: What percent of Hope Creek do you assume will be on line in that first year?

MR. CAMACHO: Entirely -- the entire plant, at the cost which is projected under the agreement, the \$3.7 or the \$3.8.

SENATOR DALTON: So, you are projecting that Hope Creek will be entirely on line that first year?

MR. CAMACHO: That is built into these figures. Senator, I can't indicate to you that anyone has done a study with regard to that. I don't want to infer any load-type study into that as to what will go into effect at this point.

SENATOR DALTON: Isn't it a fact that we are assuming that Hope Creek I will run that first year, or for many years to come, and it will be on line for a great percentage of the time? Isn't the suggestion there that it is cost efficient and that this plant will be on-line and will provide the consumers of the PSE&G service territory with cost-efficient energy?

MR. CAMACHO: Those figures I read out, Senator, would be restricted to the very first year. When you talk about a cost study, that would go far into time. But, the figures I read to you would assume the plant functioned at a 60 percent or 65 percent capacity factor during that year.

SENATOR DALTON: Now you are saying it is not 100 percent; you are saying it is 60 or 65 percent?

MR. CAMACHO: Yes, 100 percent of the cost in rate base. They never operate at 100 percent, Senator. As you know, they come down for fuel and there are always certain planned outages that would occur.

SENATOR DALTON: And, you are assuming there will be planned outages during the first year of this plan?

MR. CAMACHO: In that sometimes these things occur. I might add, Commissioner, one of the--

SENATOR DALTON: (interrupting) No, I am a Senator; your Commissioner is on your left side.

MR. CAMACHO: I'm sorry. (laughter) It is an old habit I have.

One of our arguments on the phase-in type of scenario is, it would give us some leverage to talk about what you are getting to: Assume the plant doesn't function at that rate. That would provide us with some leverage to go before the BPU and argue for some remedy on behalf of our ratepayers. So, through that phase-in technique, we would be trying to cope with the very item you are speaking about.

If the whole plant were not phased in, in terms of total dollars, and should something unforeseen happen -- or foreseen, or whatever; if the plant should go down terribly -- we would have leverage to go before the Commissioners and ask them to take some action with regard to holding back and maybe deferring that phase-in.



Also, another concept-- And, again, we just started these studies; I have nothing definitive on the specific phase-in. We talked about incentives in our cost-containment agreement as perhaps another incentive. A troublesome matter was mentioned by the entire panel: What type of incentive would keep the plant operating? Once we are paying the capital cost, we certainly don't want to bear power replacement costs for energy. We want it to run well.

SENATOR DALTON: That's right.

MR. CAMACHO: What type of incentive can one provide, or think about, to keep it running well?

SENATOR DALTON: That's right.

MR. CAMACHO: Assume you have that phase-in, and assume the phase-in was premised on the level of operation of the plant -- i.e., to operate at such and such a level, put this much in -- if it doesn't operate so well, do we say: "Sorry, we will recommend to the Commissioners that they better not put quite that much in?"

Again, the basic concept I have been trying to press is, let's put the proper incentive into the regulation.

SENATOR STOCKMAN: Shouldn't that have been in the cost containment agreement?

MR. CAMACHO: Excuse me?

SENATOR STOCKMAN: Shouldn't that have been in the cost containment agreement?

MR. CAMACHO: No, this is really the operation, Senator. Again, we are dealing at arms length with the cost containment. Once you get the plant in, once you are building the plant and you are getting it in, then you talk about how well this plant -- or any other plant -- runs. Why not, at that point, look for any item you can reach in order to get some leverage for an incentive?

SENATOR STOCKMAN: But, once this \$3.8 billion becomes a real burden to the taxpayers when it goes on line, that does not strike me as the ideal time to start talking about: "All right, now we have it; now it is going to cost dearly; let's try and figure out a way to make sure it runs well."

MR. CAMACHO: No, I separate the two, Senator, in terms of dealing with construction -- with building. They have started it already. We are constantly looking at ways to try and improve regulation with regard to incentives.

SENATOR STOCKMAN: But, you are not suggesting that it could not have been included in the cost containment agreement, are you?

MR. CAMACHO: That and many other items, perhaps. But, remember, this has to be negotiated across the table, with all due respect.

SENATOR STOCKMAN: Let's stay with that for just a minute, because I think it is tremendously important. You agree that could have been fashioned and incorporated in as part of the cost containment agreement?

MR. CAMACHO: Only if the other side is willing to do that as part of the agreement. There are two sides here.

SENATOR STOCKMAN: All right. It could have been negotiated. I gather it was not at all talked about.

MR. CAMACHO: At that posture, we were dealing with the cost. Remember, there is a LEAC -- a Levelized Energy Adjustment Clause -- in place to deal with the replacement power cost, and the purchasing and production costs.

SENATOR STOCKMAN: We are talking about the phase-in time, and I want to remind you that one of my complaints, and one of my discomforts, expressed publicly, was the seeming speed at which we went from the question of whether the plant should be built, to a "cost containment agreement," and the time frame within which the Public Advocate -- and that is in the transcript -- got into this negotiation and resolved it.

One of my concerns was whether that was too rapid a development. I must say that in listening to this question about our concern regarding this plant running well, and your strong suggestion that incentives are particularly important, I am puzzled as to why this wasn't at least attempted to be negotiated into the cost containment agreement.

COMMISSIONER RODRIGUEZ: I will answer that again, Senator, as I have attempted to over the last two years. We had stipulated that this was already put into the agreement, and we didn't dispute the three point "something" billion. Now, we are going to negotiate. If, in fact, we had done nothing, and lost the opportunity to stop the plant -- which we did -- why wouldn't we be another Shoreham? Why wouldn't we be another Marble Hill? Why should they have agreed any more to-- What happened was, that figure was there, to go wherever the figure would take it. We capped it. We capped the construction at a time when we had already yielded the figure. So, nothing was done fast.

What was fast, was to cap it. Now, what if we didn't have the cap, and the costs were experiencing that upward pressure, without the cap? Where might that \$3 billion be today? It would have been less responsible if I had left it open, and continued to pursue an avenue that had already been foreclosed. So, we capped it.

This would suggest that when you ask, "Why wasn't it in? Why didn't you do it?", you are assuming that we came to the bargaining with an upper hand. Responsibility dictated that the top cap was already surrendered, so make them build within it.

SENATOR STOCKMAN: I couldn't disagree with you more, Joe. I am talking about negotiating something. I didn't suggest it had to be in there, or should have been. Maybe Public Service wouldn't have stood still for it -- that is interesting. But, it appears that it was not, and that again raises the gnawing question about the circumstances surrounding the entry into that agreement. Now, I don't want to get bogged down with that.

COMMISSIONER RODRIGUEZ: Wait a minute. You don't get the best of both worlds from me. You don't sit here and tell me I am trying to assume something that is not occurring, when every opportunity you get to go back and suggest something sinister, you do. I am saying there was nothing sinister in this.

SENATOR STOCKMAN: What is sinister about the possibility of having--

COMMISSIONER RODRIGUEZ: The gnawing concern as to what

happened so quickly two years ago, and I am trying to suggest to you that maybe you should have the people who surrendered the plant at \$3 billion dollars here, rather than asking me why I contained it. Senator, really, I am sorry; that is another question. I am very late now, but I don't want to leave an unanswered question.

SENATOR DALTON: Let me talk about the future here -- the present and the future. I want to go back to this cost issue.

COMMISSIONER RODRIGUEZ: Excuse me, Senator. Are you going to need my presence if you are going to be addressing questions to Mr. Comacho?

SENATOR DALTON: Commissioner, we are aware of your schedule, so if you have to be on your way, please feel free to do so. Thank you for your appearance here today.

Roger, given the cost figure again of 10 to 15 percent, what I am asking you is, does 10 to 15 percent include the percentage increases in CWIP that PSE&G has already received?

MR. CAMACHO: Yes. This is an incremental piece, on top of what has already been awarded.

SENATOR DALTON: Okay. In other words, let me ask it another way. This incremental piece that you anticipate being awarded, what percentage in increase will that be?

MR. CAMACHO: I'm sorry, I don't know if we are talking about the same item, Senator. What this assumed was one more addition of about \$300 million in CWIP. Again, the company provided that. I can get into the technicalities on this. There is something called "Old AFDC" which keeps accruing between the test years, which will, by then be up at that level.

This was the incremental piece after that case. Assume that a case is decided beginning in 1976, and there is a rate award at that point in time. As part of the rate award, there is an assumption that "x" amount of additional CWIP is in. So, we are no longer dealing with \$1 billion; we are dealing with \$1.3 billion.

SENATOR DALTON: Right.

MR. CAMACHO: Then, in June of '86, suppose the plant comes in; what is the incremental rate impact at that point in time of just that June '86 portion?

SENATOR DALTON: Right.

MR. CAMACHO: So, you see, at \$1.3, if you use the 3-8, it is about one-third at that point.

SENATOR DALTON: Right.

MR. CAMACHO: So, yes. There is an assumption that one-third of the plant is already in at that posture.

SENATOR DALTON: Now, what I am asking -- and I understand what you are saying -- given all of that, given the CWIP that this plant has received, and given the cost of this plant starting up in '86, -- given all of that, what is the aggregate impact upon the ratepayers as far as percentages are concerned?

MR. CAMACHO: Again, I have that 10 to 15 percent range, assuming-- Again, the assumption is fuel savings that first year, operating at 65 percent, and this prior CWIP in.

SENATOR DALTON: So, your 10 to 15 percent includes all the CWIP that has been received--

MR. CAMACHO: (interrupting) Yes.

SENATOR DALTON: (continuing) --for this plant, and an additional amount of CWIP that you assume will be received by the company prior to the 1986 start-up -- the cost of construction and the cost of starting up the plant, all of that?

MR. CAMACHO: Right. Most of that would already be reflected in rates by then. It will then be this incremental piece.

SENATOR DALTON: I understand that.

MR. CAMACHO: Yes, under the given assumptions I have been provided with.

SENATOR DALTON: Okay. I just wanted to make that clear, because I think that is one of the points we are focusing in on: What is it going to cost the consumer? And, you are saying the aggregate cost to the consumer will raise their rates by 10 to 15 percent at that point in time?

MR. CAMACHO: At that point in time.

SENATOR DALTON: 1986?

MR. CAMACHO: Right. The rate case before-- We may be talking again about "ball parking" the 10 percent at that posture.

SENATOR DALTON: Let me ask you this: How much has it already raised rates?

MR. CAMACHO: I would say there is \$1 billion of plant in at this point. One can generally use the 20 percent rule as to the revenue requirement generated by that billion dollars. So, at this level, one could say it would be about \$200 billion per year.

SENATOR DALTON: What percentage is that? What is the percentage increase that the consumer has already received for Hope Creek?

MR. CAMACHO: You would have to relate at this point-- The \$1 billion is effective as of March -- the Board has ordered late March. In the past, there were graduated levels of this, coming up from 250, 375 -- all the way up. I just don't have that aggregate figure for you, Senator.

SENATOR DALTON: So, if you don't have that aggregate figure, how can you tell me it is only going to cost 10 percent to 15 percent when it goes on-line?

MR. CAMACHO: Assuming those figures are already in rates. They are in there already. I am not articulating this right; you are having a problem. They are in rates. That is in the current rate. All that past business is in the rate. If one more case comes by, that is reflected in the rates again.

SENATOR STOCKMAN: This 10 to 15 percent increase is totally distinct from rate increases that have already impacted on the taxpayers as a result of Hope Creek. You were not able to give us that percentage, but it has to be at least several percentage points, or more, I would think, from the numbers.

MR. CAMACHO: I would imagine that. But, I still want to make a point to Senator Dalton, because that is what I meant by my caveat. That is what we call an incremental piece. It is the addition that will come on at that point in time for everything that is already reflected in the rates.

SENATOR DALTON: Roger, I can't help but ask you this: You used the hypothetical number of 65 percent operation. What is the experience with the nuclear plant Public Service is operating now, over the last year, in terms of its operating time?

MR. CAMACHO: Again, I don't have a specific figure, but there have been difficulties at the plant you have alluded to.

SENATOR STOCKMAN: That's an artful statement, isn't it? What would we be talking about, 20 percent operating, or 30 percent? Public Service might know that quickly.

MR. CAMACHO: I guess I could defer to Public Service on that. As you know, 1983 was a difficult year for Salem II.

SENATOR STOCKMAN: Was it 48 percent? How about the last 12 months? It has been worse in the last few months, I guess, because of the shut-down. Can you give us a rough idea?

SENATOR DALTON: Wait a minute, Gerry, I still have some questions.

SENATOR STOCKMAN: I'm sorry, I thought you were finished.

SENATOR DALTON: No. You were talking about this cost increase. Let me ask you this: It is a 10 to 15 percent increase they will experience when they go on line -- right?

MR. CAMACHO: Again, with all these assumptions.

SENATOR DALTON: Okay. Now, what would be the increase to the consumer if, in fact, we didn't bring the plant on-line, and we bought off the grid in 1986?

MR. CAMACHO: Again, Senator, I don't have that information.

SENATOR DALTON: What would be the increase to the consumer if PSE&G used oil in 1986?

MR. CAMACHO: I guess you would have to assume certain costs at that time, but I don't have such a figure.

SENATOR DALTON: I guess the point I am making is, when you came on and you made this agreement, or when you came on and you wouldn't challenge the building of Hope Creek I, you made certain assumptions. You had to make certain assumptions. You had to make certain assumptions as to the cost of this plant, vis-a-vis the cost of oil, vis-a-vis the cost of buying power off the grid, and perhaps vis-a-vis Midwest coal. What were your assumptions?

MR. CAMACHO: I think Commissioner Rodriguez outlined that. At that point, the basis for the assumption was just pure pragmatism, to obtain the cost cap in order to prevent further overruns, and to try to build the incentive in at that posture.

SENATOR DALTON: So, as a result, there was never a look at those alternatives by the Public Advocate?

MR. CAMACHO: At that point in time there was not; we really had not had the opportunity at that posture.

SENATOR DALTON: Okay. I have no further questions.

SENATOR STOCKMAN: The figure of a 65 percent operating assumption for this plant is clear and understandable to me, Roger. I know you based that 10 to 15 percent estimate on that.

SENATOR GARIBALDI: Would you clear it up for me, please? I still don't know what you are talking about.

SENATOR DALTON: Why don't you let Roger do it?

SENATOR STOCKMAN: Let me try, just for my own mental exercise, and if I fall flat, especially in front of this group, then we will see where we can go from there.

Senator, I think the testimony is, based on certain assumptions -- including the completion of the plant and its beginning operation -- there will be a 10 to 15 percent increase in electric rates for Public Service's customers, which, based on present assumptions, is sometime in 1986.

SENATOR GARIBALDI: Automatically?

SENATOR STOCKMAN: Well, automatically, in a certain conceptual way.

What the witness said was that one of the assumptions in suggesting the 10 to 15 percent is, when the plant comes on, it will experience operating efficiency; it will be an operation providing electricity 65 percent of the time. Now, you have to understand that these nuclear plants don't run twenty-four hours a day, seven days a week, three hundred sixty-five days a year. For a lot of reasons, they are closed down at times. Unfortunately, they are sometimes closed down for safety or for other reasons, but they can operate for less time.

Now, if the operation of this plant -- and this is what I was suggesting -- is analogous with the existing nuclear plant down there, and its effectiveness -- which we have been told is 40 to 48 percent -- I am sure the witness would agree that the fact is the 10 to 15 percent



jump would increase to something higher. That was the point I was trying to make, because if you have a product you are paying for, you are paying that cost whether it runs or it doesn't run. To the extent it doesn't run, it aggravates the cost to the people who are bearing the burden, in this case the ratepayers of the State.

SENATOR GARIBALDI: Okay. Well, why wasn't that factored in at the outset, at the time the range of 10 to 15 percent was developed?

MR. CAMACHO: Oh, that is in there, Senator.

SENATOR GARIBALDI: Yes, but the way I understand it now, it is quite possible that it is not; it is more than likely going to be higher than 15 percent.

MR. CAMACHO: It could be, depending on other factors, yes. We would have to prognosticate on how well the plant runs. The nuclear plants are very heavy with capital construction costs. The running rates are relatively inexpensive, versus the alternatives. So, once you get by the capital cost, you want them to run as much as they possibly can, but with a safe operation.

SENATOR STOCKMAN: What is the general experience of nuclear power plants and their operating efficiency? Is there some general statistic on that?

MR. CAMACHO: Senator, I am really not conversant on that. I don't have a standard that I would--

SENATOR DALTON: (interrupting) How about PSE&G? What is PSE&G's average, relative to their running a nuclear power plant and the percentage they are on line?

MR. CAMACHO: Again, I don't have that figure. We have had problems recently, and, as you know, we investigate on an ad hoc basis.

SENATOR COSTA: Would there be a change in this 48 percent operating efficiency in the present plant? Why is it staying at that percentage?

MR. CAMACHO: Excuse me, Senator? Could you repeat that, please?

SENATOR COSTA: You spoke about the present plant as operating efficiently 48 percent of the time, is that correct?

MR. CAMACHO: That was the figure given by Public Service, but there are some outages built into that. This is a hypothetical situation into the future, prognosticating about how well the plant would run. The better the plant runs, the more fuel savings one acquires as an offset to that first year impact.

SENATOR COSTA: Are you saying that first plant is not operating that efficiently, that you expect this new one to operate a little better, which means 65 percent of the time?

MR. CAMACHO: Yes, relative to the 48 percent. The 48 percent, again, was given by Public Service. There have been recent problems with the generator; there have been problems with Salem II and Salem I.

SENATOR COSTA: What did--

SENATOR STOCKMAN: We will hear from Public Service and the Department of Energy on that.

MR. CAMACHO: I am using a hypothetical example -- out into the future. That hypothetical would always be better than 48 percent, I dare say.

SENATOR COSTA: In the future, would either one of them go beyond the figures you just gave us?

MR. CAMACHO: That is a possibility also. We have seen some plants operate at 80 or 85 percent. It actually depends on what happens. It is like operating your car in a given year. One can have a good year, and it operates well; or, it can be in the shop quite a bit. We often argue about why it is in the shop, and who caused what, but it is a bit of a prognostication as to what will happen. You see, in that first year we have to project how much it will cost to put in the rate base and also afford an opportunity for a return on the investment.

But, we are to get credit, in essence. When the plant comes in at that posture, how well will it run? How much fuel savings will it achieve in that year, relative to other higher cost items? And, we have to really make a guess as to how to net the two in order to reach a figure.

SENATOR STOCKMAN: Roger, besides this figure that we have spent some time on, in terms of operating efficiency, what other major hypotheticals are you relying on to arrive at that 10 to 15 percent jump in rates?

MR. CAMACHO: The operating and maintenance cost would be \$69 million, approximately, for the first year in order to operate the plant. It assumes approximately a \$230 million figure in fuel savings for that first year at that 65 percent. Again, it assumes more CWIP in rate base.

The impression I don't want to leave with you is that I believe that is a solid number or an acceptable number. In actuality, we would like to bring that down quite a bit to face some of these other pressures. We had hoped to hold it, perhaps, at a five to six percent range, as opposed to something like this, through the phase-in.

SENATOR STOCKMAN: At the time the Cost Containment Agreement was struck, what was that figure? By that I mean, what was the Public Advocate's impression or understanding as to the impact on the ratepayers when the plant opened?

MR. CAMACHO: At that point, please realize again, Senator, that we were dealing with capital expenditures, solely.

SENATOR STOCKMAN: That's where I get confused. At the time you sat down to negotiate the Cost Containment Agreement, I assume you were exploring all avenues -- the cost of the plant, the safety of the plant, the environmental impacts, etc. -- and you were exploring them hypothetically; that is: "Well, suppose it comes in at a higher rate, or a lower rate? Suppose it operates at 50 percent efficiency, etc?" I assume all of that was part of what was described to us as sort of a landmark, negotiated agreement, or contract. I would assume it was done with some understanding of, "Well, all right, if we strike this deal" -- put in simple terms -- "when the plant opens, the impact on the ratepayers will be 10 to 15 percent, with those hypotheticals." I am not beating you over the head by saying that is right or it is wrong, but we have to know the facts. This Committee has to know the facts.

I am saying to you, Roger, we know that as of now, based on those hypotheticals, these assumptions -- which I assume you think are reasonable -- we are talking of a 10 to 15 percent increase for the ratepayers. I am now asking you to go back to the time that agreement was struck, what was the impression, understanding, or awareness of the Public Advocate in entering into that agreement as to the impact this plant would have if the agreement was struck and if the plant were turned on?

MR. CAMACHO: Again, Senator, at that point -- as was explained by Commissioner Rodriguez -- we were dealing from a very pragmatic point of view. At that posture we really had very little opportunity to do much about this plant, except to pragmatically try to hold down those expenditures, where we possibly could. We were looking at a situation of relative runaway versus relative cost containment, a position of bargaining strength versus no bargaining strength, and it a very important question to me, and perhaps to others. Are you suggesting to me that at the time the agreement was entered into, the Public Advocate was not in a position to be able to understand the approximate percentage of increase in the rates to the ratepayers of the State of New Jersey? Is that your testimony?

MR. CAMACHO: In general, we could calculate at that point, based on the 3.8.

SENATOR STOCKMAN: Did you?

MR. CAMACHO: We looked at it in general, and at the opportunity in terms of arguing for a phase-in. We had no specific percentage figure. For example, you will find us arguing throughout, regarding the CWIP -- to hold back on the CWIP and to stress the phase-in more. You see, one of the parameters we have with this plant is -- and Public Service's own game plan calls for this -- not building much, by way of future plants, until out beyond the turn of the century. That gives us some time to deal with this phase-in aspect.

So, one can pretty much, at that posture, make an evaluation and argue for a phase-in.

SENATOR STOCKMAN: Let me state it another way. Roger, there came a time -- after negotiations between the Public Advocate on behalf

of the public, the Department of Energy, and Public Service Electric and Gas -- when there was a proposal to cap the cost of this plant at \$3.7 million, and establish certain other conditions. There came a time when you were close to that. You were back in your office alone with your people -- in the privacy of your office. Public Service wasn't there. You were debating, "Do we sign this agreement? Is it in the public interest? Is it not in the public interest? What are the issues that impel us to do this or not to do it?" I would assume that before Joe Rodriguez signed that agreement, based on those various conditions he had to have some appreciation, or understanding of, the approximate increase to the taxpayers -- to the ratepayers -- that would occur if this agreement were signed, and if the plant were constructed and turned on. That seems like just common sense logic.

We know now, as you have testified here today, that based on certain assumptions -- 65 percent operating capacity of the plant, when it is on and certain other items you have given to me -- your best estimate is it will impact to the extent of a 10 to 15 percent increase in the rates.

I am trying to bring you back to when that agreement was entered into. You must have had some idea back then. Was it 10 to 15 percent? Was it 30 percent? Was it 5 percent?

MR. CAMACHO: Again, Senator, Commissioner Rodriguez would have to speak with regard to his own evaluation at that point in time.

SENATOR STOCKMAN: My recollection, Roger--

MR. CAMACHO: As you indicated, I was part and parcel to that.

SENATOR STOCKMAN: Just a moment. My recollection is rather clear on that. As a matter of fact, there was some real heated debate over just who was in on the ground floor of this. My recollection is -- and the transcripts would have to be searched to bear this out -- that you get a great deal of whether you want to call it credit or blame, or whatever; you were right in the eye of the storm. You were a key man. I respect you, and I say publicly that my reading on you as a person with technical expertise and knowledge in this area is that you

have it. So, I would think you must have been in on that. You must know what that was.

MR. CAMACHO: I was in on certain of those meetings, as you know, Senator -- and even later on, insofar as amending those agreements at that posture. But, I cannot say anything concerning Commissioner Rodriguez's intent on this subject.

At that point, one could only look out with regard to the total, not with regard to a specific percentage, and try to cope as best one could with the plant, trying to hold it at the \$3.7 billion. There wasn't an awful lot we could do about it at that posture. But, secondly, one can assume that we at least had the opportunity to go before the Commissioners and try to phase it in, try to operate it, and try to work with it at that posture.

Now, the integral elements that went on in Commissioner Rodriguez's mind at that point, and in the minds of others who were working on it -- I don't know all of that. I was part and parcel to certain of the meetings; in fact, I had input beyond the point when it was signed, in terms of some of the amendments.

SENATOR STOCKMAN: Roger, I don't want to beat a dead horse, but let me suggest to you that one of my concerns -- and certainly one of the Committee's concerns -- is, if that figure was one number at the time and if it has increased appreciably, it just gives us more evidence to raise the question of whether we are heading in the right direction.

Your testimony, as I have interpreted it, or heard it -- others will have to judge for themselves -- seems to be that you at least are not aware of whether that was something that was even talked about. We are talking today of a 10 to 15 percent increase in rates for the ratepayers. I have to question whether there was talk amongst yourselves as you led yourselves, or were led into -- or you agreed upon -- the Cost Containment Agreement. I can't seem to get that answer, so we may have to ask Commissioner Rodriguez that question.

SENATOR DALTON: If I may, Gerry, your concern seems to be to try to provide incentives for this plant that comes on line in 1986 -- to provide an incentive for it to operate at its maximum efficiency.

MR. CAMACHO: Senator, expanding beyond that, all the plants-- In other words, when we throw this notion around, we try this at all postures. We try this during each levelized adjustment clause proceeding. Anytime we can try to improve, and work on, those incentives we do.

What peaks my attention to this are the most recent events with regard to the outages. So, I am saying there are some intervening factors.

SENATOR DALTON: Given the position of the Advocate -- yourself and the Advocate, because I think the Commissioner feels strongly about this -- what would be your reaction to a legislative initiative to tie together the rate of return with the performance of that plant? In other words: "As a company you will get a rate of return if, in fact, you meet this level of performance," and not leave it up to the regulators or the regulated -- have a statutory initiative in this area.

MR. CAMACHO: With all due respect, some input will be needed from the regulators with regard to--

SENATOR DALTON: (interrupting) I am not suggesting they wouldn't have any input.

MR. CAMACHO: (continuing) --how that has to be worked out, because there are some legal constraints on this, in terms of a reasonable rate of return. I think one would need some flexibility in such legislation to cope with those legal constraints.

SENATOR DALTON: In other words, what I am saying is, instead of making it a regulation, or a regulatory practice, make it a law.

MR. CAMACHO: Again, the strength of the law is always sought. One improvement that we would need is to make certain that we did not violate any other laws in terms of that, in terms of not infringing on the right to a reasonable rate of return, because one would then have to get into what caused those problems.

SENATOR DALTON: We have a law on the books already with regard to that.

MR. CAMACHO: But, I think that with flexibility-- You would have to build that in, with all due respect, to cope with the

requirements. But, consistent with our theory of providing incentives, we would perhaps like to have some input on that legislation.

SENATOR DALTON: Oh, you certainly would. The only thing I have to say is, I appreciate the opportunity to speak to you. I have some serious reservations about your 10 to 15 percent calculation, however.

MR. CAMACHO: Senator, this is why I put all those caveats on it.

SENATOR DALTON: Even with your caveats, I have serious reservations.

MR. CAMACHO: The point I wanted to make clear to you was the incremental piece. We are prognosticating the future, and we can be--

SENATOR DALTON: (interrupting) Well, I not so concerned about the way you prognosticated the future; I am concerned about how you viewed the past in coming up with that figure.

MR. CAMACHO: You can't just look at some of the assumptions -- the incremental piece -- and I can't leave you with the impression that I think it is acceptable. I do not.

SENATOR DALTON: Okay, Roger. Again, thank you. We are going to have the opportunity to go around on this again, I am sure.

MR. CAMACHO: Thank you, Senators.

SENATOR STOCKMAN: We have just a couple of more questions, Roger. Senator Costa?

SENATOR COSTA: Yes, thank you. What is your profession?

MR. CAMACHO: I am an attorney, Senator.

SENATOR COSTA: You are an attorney?

MR. CAMACHO: I am the Director of the Division of Rate Counsel.

SENATOR COSTA: Before anyone signed off, such as the Commissioner, on the figure of 3.8 cost containment, where did the information come from? On whose word did you base these figures? What was their expertise? Was this from attorneys, or from whom?

MR. CAMACHO: Again, I am privy to much of the information coming in. That figure I believe was part of an estimate -- a 1981 estimate -- provided by Public Service Electric and Gas at that posture, way back in '81.



Again, following through on the question -- well, I will stop at that point.

SENATOR COSTA: We get the cost containment from the people involved? That is where the information is coming from?

MR. CAMACHO: This is the pragmatics involved, Senator, because if you look at some of the other plants, you see these figures going to 4, 4.5, 5.1 -- they constantly keep escalating. It reaches a point, as the Commissioner mentioned, where, from a pragmatic point of view, you do your best to try and cap it with any type of incentive you have at that posture. In other words, we were not dealing from the high ground then; we were dealing from down here, looking uphill at that point.

SENATOR COSTA: We are not dealing from anywhere as far as I am concerned. If you don't get your information from the people who are involved in the technical aspects of the nuclear plant, you have nothing. I am sorry, that is my opinion.

MR. CAMACHO: No. You see, the utility has to go before the BPU, and it has to prove these numbers.

SENATOR COSTA: I recognize that, but--

MR. CAMACHO: (interrupting) It is a question of at some point you have to try and cap it, from a pragmatic point of view. You have seen some of the other plants. You see what is going on in the nation. It is just going up.

SENATOR COSTA: With all due respect to attorneys, you are dealing with something that is so technical -- in an area that is so technical -- yet you are dealing on a contractual basis, based on law. I am gravely concerned that we are not getting the proper input before a lawyer can do his proper job, insofar as making an agreement is concerned.

MR. CAMACHO: Beyond this cost containment itself -- and our Division deals with the rate cases themselves -- we do have the opportunity to retain these consultants, and some of them are nuclear engineers, some of them are accountants--

SENATOR COSTA: Were they hired?

MR. CAMACHO: Excuse me?

SENATOR COSTA: Were they hired?

MR. CAMACHO: In the current rate case, they were in there when we presented testimony.

SENATOR COSTA: In that Cost Containment Agreement, were they involved in that at all?

MR. CAMACHO: I don't know everyone that was involved in that. But, again, the historical basis is important for that, because at that point we had several orders against us -- we had very little, by way of a forum, to combat it. We were looking uphill. For us, it was a pragmatic position. It is difficult to explain in terms of just reaching out for that incentive, to try and cap it at what we had before us.

I think when we look at the current plants in other states, even at this point those estimates just keep on rolling up. It is not perfect. No one can ever say it is perfect. We had to reach out. We had to reach out for something.

SENATOR COSTA: The more I learn, the more concerned I get.

MR. CAMACHO: In the rate cases themselves, we do reach out for these people -- for the experts -- and you are absolutely correct; we have to respond. In our Division, we must respond to what PS says in its filings and in its case. They file testimony, and we often file as many as seven or eight witnesses in rebuttal, and the battle is on, literally. It is quite a thing.

SENATOR COSTA: Witnesses in what direction?

MR. CAMACHO: Normally, PS is asking for what they believe is reasonable. We don't often see their figure as reasonable. We are quite often very much under their figure, and we support that, as best we can, with our experts.

SENATOR COSTA: Experts in what direction?

MR. CAMACHO: Engineering, accounting--

SENATOR COSTA: (interrupting) Aha, we are getting there.

MR. CAMACHO: (continuing) --finance. Realize, these people must take the stand, and they must undergo cross-examination by the attorneys and the experts on the other side. It is a litigation scenario. Feet are held to the fire in rate cases. It is quite common for them to go for 40 or 50 hearing days in a Public Service case.

SENATOR STOCKMAN: Senator Garibaldi, do you have any questions?

SENATOR GARIBALDI: No questions.

SENATOR STOCKMAN: One other area, briefly, Roger. This question of nuclear waste -- is there, built into your calculations, some figure, or assumption, with regard to nuclear waste produced by this plant?

MR. CAMACHO: Implicit in the numbers right now, under -- I believe it is called the Federal Waste Policy Act, there is one mil per KWH that is provided to pay for the disposal of the nuclear waste. I don't have the aggregate figure for that.

SENATOR STOCKMAN: The Federal government, under that law, is supposed to deal with and resolve this problem, but their history so far hasn't been so good. There really hasn't been an answer developed yet for dealing with this nuclear waste, has there?

MR. CAMACHO: To my knowledge, as you have indicated, I do not know if the Federal government really has the plans for the ultimate storage of the waste. To my knowledge, and again, this is Public Service's contention to me, the on-site storage there -- and I will cite some figures but they will probably have much more accurate figures than I have -- would be capable of coping out into the year 2005. The Federal government, under that law, I think in 1998, is obligated to remove that waste from the on-site storage to permanent storage. I think at that posture the Federal government must have a plan for the permanent storage.

At this posture, I don't believe they have it for this particular area.

SENATOR STOCKMAN: And, until they do, New Jersey is stuck with dealing with, or handling, this nuclear waste right here in the State, right? -- at the location of the plant, I take it?

MR. CAMACHO: Yes. You are saying stuck with it -- it is on-site. I am sure PS will have much more knowledge on this. It is stored right on the site, and their contention to me is that they can cope with this until the year 2005, with the Federal government having to act before that.

SENATOR STOCKMAN: So, if the Federal government doesn't act by 2,005, actually the plant could not continue to operate?

MR. CAMACHO: Here again, I would have to defer to Public Service regarding what plan they have, or how they would cope with that situation. You can see the lead time involved in that situation.

SENATOR STOCKMAN: You don't know, incidentally, whether the Federal government is going to think that if and when they come up with some solution, it ought to be a cost burden shared by the states. There was a popular notion that the Federal government should withdraw from certain areas of participation, economically, and if that trend continues, I suppose we could reasonably hypothecate that it would cost the ratepayers of the State of New Jersey, or the taxpayers -- or both -- added revenue in order to deal with this solid waste problem -- not solid waste; nuclear waste.

MR. CAMACHO: Perhaps so, Senator.

SENATOR STOCKMAN: No figure is in these calculations for that.

MR. CAMACHO: I don't have an aggregate figure on that.

SENATOR STOCKMAN: All right. We appreciate your coming in. We will probably communicate with your Department further. Unless the Senators have any further questions, I think that completes your testimony. Thank you very much, Mr. Camacho.

MR. CAMACHO: Thank you very much, Senator.

COMMISSIONER LEONARD S. COLEMAN, JR. : Okay. I would just like to tell Senator Costa that I am not a lawyer. (laughter)

SENATOR COSTA: Are you an engineer?

COMMISSIONER COLEMAN: I am not an engineer either. I do some engineering on Monday mornings if my favorite football team loses. (laughter)

SENATOR DALTON: Commissioner, I would like to start the questioning by asking, what is your Department's estimate as to the economic impact on PSE&G consumers as far as the operation of this plant is concerned?

COMMISSIONER COLEMAN: I think our position is similar to that of the Public Advocate. We use the figure "up to 15%," and we use the

same assumptions with regard to the questions of the rate case and other factors that could become involved in it.

SENATOR DALTON: Does that include past rate increases relative to Hope Creek I?

COMMISSIONER COLEMAN: That is correct. With regard to the question you asked before about that, Senator, right now our estimates are that the public is already paying for 7%.

SENATOR DALTON: Okay, 7%. Given our very easy and readily-available perspective of the past, what would the rate increases have been without this plant?

COMMISSIONER COLEMAN: Once again, when we say "without this plant" -- I think that by just taking history into account -- as you know, when we entered into the agreement, that plant was already \$2.5 billion down the road. In a sense, that \$2.5 billion was going in regardless of whether or not we entered into that agreement. We figured that a certain percentage was already going into customers paying out anyway.

SENATOR DALTON: That doesn't entirely answer my question. What I asked was, given the recent past, what would have been the rate increases borne by the consumers if Hope Creek I did not exist?

COMMISSIONER COLEMAN: Okay, if it didn't exist, or at the point--

SENATOR DALTON: (interrupting) Okay, I think that is probably unfair. Why don't we go from the point of when the agreement was made?

COMMISSIONER COLEMAN: We have capped at \$3.79 billion, as you know, so we are talking about an additional \$1.29 billion because we are already \$2.5 billion down the road.

SENATOR DALTON: Okay. Do you think your \$3.79 billion target is going to be reached?

COMMISSIONER COLEMAN: Presently, all the reports that have been filed indicate that the \$3.79 billion target will be reached. We not only monitor and review reports which are filed each month by the company and the independent consultant, but we also monitor various financial reports that come out from the financial firms. Two of them are in my testimony; they are Salomon Brothers and Argus.

SENATOR DALTON: I should note, Commissioner, that the \$2.5 billion you talked about as being already in at the time of the agreement-- You testified in September of 1982 that the \$2.5 billion was remaining to be charged. I just want to correct you on that. On Page 6 it reads, Joint Statement with the Department of the Public Advocate: "Clarifying certain mechanical and procedural aspects of the incentive/penalty revenue requirement agreement covering Hope Creek I, it is indicated that there is also an additional approximate \$2.5 billion remaining to be charged on this project."

COMMISSIONER COLEMAN: Okay.

SENATOR STOCKMAN: I just wanted to clarify that for the record.

Does the Department feel that the decline in oil prices during the last two years has undermined the economic premise that was used in agreeing to the \$3.79 billion as an acceptable cost for Hope Creek?

COMMISSIONER COLEMAN: No, I don't think so. You know, Senator, earlier you mentioned sophisticated "crystal-balling." For instance, if we look at the home heating oil situation that we had this year, with prices going up 25% for a six-week period, it is very difficult to gauge exactly where all the prices are going. The relative stability we have had over the past year or two could change very quickly.

There also has been a tremendous increase in the cost of purchase power over the past couple of years which could offset the stability in oil prices.

SENATOR DALTON: Didn't the Department base part of its economic analysis on the assumption that oil was costing \$32.00 per barrel, and it would increase 9% per year?

COMMISSIONER COLEMAN: We did.

SENATOR DALTON: Oil is now at \$28.00 per barrel.

COMMISSIONER COLEMAN: Yes, there is no question about that, and I agree to that. Once again, getting back to the sophisticated crystal-balling, I know that situation could change very quickly.

I would like to point out once again that the price of purchase power has risen dramatically over the past couple of years.

SENATOR DALTON: Commissioner, given all that, and given the luxury of 20/20 hindsight, is it still a good agreement?

COMMISSIONER COLEMAN: I think it is a very good agreement. Once again, I think we have to go back to the point that when we took office in the beginning of 1982 and we signed this agreement, this plant was already 40% completed. We're not talking about beginning a plant from the originating point. It was a question of, do you abandon at whatever cost or-- As Commissioner Rodriguez stated, the plant had already been approved; it had been approved several times. It was a question of, what can we best do to keep the cost down in order to keep away from that type of rate shock?

SENATOR DALTON: So, you still think, regardless of the present cost -- specifically oil and midwestern coal -- that this is a good deal?

COMMISSIONER COLEMAN: I do.

SENATOR DALTON: What are your estimates as to the cost per kilowatt-hour once this plant goes on line?

DR. BHARAT PATEL: Senator, are you referring to the average cost to the consumer?

SENATOR DALTON: That is correct.

DR. PATEL: We made a very quick calculation as of 1984. With the last rate case, the average cost was projected at about 9.17 cents per (sic) kilowatt-hour.

SENATOR DALTON: Nine point seven-nine cents per kilowatt-hour once this plant goes on line?

DR. PATEL: No, 10.5 cents.

SENATOR DALTON: Oh, 10.5 cents. That was my question. Okay, so it is 10.5 cents kilowatt-hour once this plant goes on line.

What is your assumption as to kilowatts being produced by that plant?

DR. PATEL: We have used about 5.7 million megawatt-hours for the first year of operation.

SENATOR DALTON: Five point seven million megawatt-hours. So, that is what it is going to be producing.

DR. PATEL: That is correct.

SENATOR DALTON: Is that what you based your 10.5 cent kilowatt-hour assumption on?

DR. PATEL: That is correct.

SENATOR DALTON: In May of 1982, the Department's report, Hope Creek: The Need for Review, stated that, "The uncertainty exists with respect to possible increases in nuclear plant operating and maintenance costs after a decade of operation."

Has the Department done any further investigation to determine the magnitude of how much those increases might be?

DR. PATEL: In the testimony you are talking about, we were discussing the whole issue of major retrofits that were needed after ten or fifteen years. That issue is still being studied right now, and we don't have any definitive answers yet. Obviously, we need to look at the experience of the existing reactors which are operating now. Hopefully, within the next couple of years--

SENATOR DALTON: (interrupting) Have you done that?

DR. PATEL: (continuing) No, we don't have a final study.

COMMISSIONER COLEMAN: Senator, if you don't mind my saying this, we are coming before the Committee on short notice. We have prepared 20 pages of testimony in attempting to present what we think is a profile on the case. Regarding a lot of very specific questions about particular things, if we had been notified in enough time, we could have come before the Committee prepared to present our case.

SENATOR DALTON: I can assure you that your testimony will at least be read by me. It will also be read into the record. Okay?

COMMISSIONER COLEMAN: Okay.

SENATOR DALTON: Let me ask you this: Given the Department's concern as stated in May of 1982 with regard to operating and maintenance expenses, at what point do the increases relative to these expenses offset the economic benefit that the Department sees in building a plant for \$3.79 billion? Have you looked into that?

COMMISSIONER COLEMAN: No, we haven't.

SENATOR DALTON: It would seem to me that the Department, rightly or wrongly -- I think I have had a lot to do with that -- has



been given the jurisdiction to plan for New Jersey's future. How do you meet that energy future? It would seem to me, by way of a suggestion, that as planners, it would be in your best interest to take a look at that aspect. Obviously, at some point in time when the plant goes on line -- assuming it does go on line -- there is going to be not only the operating and maintenance costs to factor in, but there is also going to be the costs of other sources of energy that the Department would have to take a long look at.

COMMISSIONER COLEMAN: Senator, we have discussed this issue. We haven't been as specific with Hope Creek as we have been with the other plants we already have on line. These others are more immediate in terms of when they will be going off.

SENATOR DALTON: Sure. The only question I have is, what type of monitoring is the Department doing at the Hope Creek plant? I'm sure that is probably contained within your testimony.

COMMISSIONER COLEMAN: Do you mean with regard to the construction?

SENATOR DALTON: Yes.

COMMISSIONER COLEMAN: We are reviewing all of the reports that come in. Dr. Patel, Assistant Commissioner Richman, and I have personally toured it. We have been talking with the company in regard to their working procedures, etc. The monitoring is done on a monthly basis.

SENATOR DALTON: What sort of reports are you getting?

COMMISSIONER COLEMAN: Well, periodically they have to file reports to the Board as to the costs and where they are. Also, under the terms of the cost containment agreement, which we signed, if there were any costs which were considered -- if you'll remember the term "reasonable costs"-- If there were any occurrences which fell outside of the agreement where the company would attempt to seek extra moneys for any extraordinary event at the plant, they would have to file immediately. We have monitored that to date, and there have been no filings with regard to extraordinary events.

SENATOR DALTON: Is it you, Commissioner, via your tours and the review of these reports, who is actually doing the monitoring?

COMMISSIONER COLEMAN: They are reviewed by both Dr. Patel and Assistant Commissioner Richmond.

SENATOR DALTON: Have you in any way taken people from your office, as was suggested by Senator Costa, to actually do your own in-house inspections? With all due respect, I'm an insurance agent, and I am certainly not qualified. But, are your people who are doing the inspections qualified?

COMMISSIONER COLEMAN: Let me say once again: Dr. Patel would certainly be one of our qualified people, but we are not monitoring the construction to that extent. As Commissioner Rodriguez testified, it is with the NRC. We are notified immediately of any type of incident whatsoever at a plant through Dr. Patel and his staff. If it warrants our concern--

For example, the major problem at Salem warranted our concern, and we were in a position to act as expeditiously as possible with regard to our feelings as a State on that.

SENATOR DALTON: Dr. Patel, what is the activity of your Department relative to its monitoring function concerning this plant?

DR. PATEL: We have been monitoring the status reports of mine storms that have been met by the company.

SENATOR DALTON: I'm sorry. I missed the word--

DR. PATEL: (interrupting) Well, the monitoring is done with respect to the major components that are being constructed and are being turned over to PSE&G.

SENATOR DALTON: The reports?

DR. PATEL: That is right.

SENATOR DALTON: Okay. Who is submitting the reports?

DR. PATEL: PSE&G.

SENATOR DALTON: So, you are taking a look at those reports on a monthly basis?

DR. PATEL: That is right.

SENATOR DALTON: Do you think, with all due respect-- This isn't meant to have any reflection on anyone in this room or their representatives, but do you think that is a situation like the fox watching the chicken coop?

What you are doing is, you are getting reports from the company. Are there any separate reports being made within your monitoring function?

COMMISSIONER COLEMAN: Senator, let me say a couple of things. With regard to the safety and quality, of course, NRC is there monitoring full-time. With regard to whether or not the costs are correct, if they just go over the "cap" guideline which has been set, then the containment penalties are triggered. The only way of getting around that was, they had to report expeditiously with regard to any type of extraordinary event for which they would seek additional costs.

SENATOR DALTON: But, the problem is, you may not get that information until the plant is already on line.

COMMISSIONER COLEMAN: Then they forfeit it under the agreement.

SENATOR DALTON: But, at the same time, don't you think it would be best to get that information out now, especially with you being the energy policy planner of this State? Don't you think it would be best for you to have that information up front?

COMMISSIONER COLEMAN: Yes, I'm sure it would. If there is any type of extraordinary event under the terms of the agreement which were approved by the Board, it must be stated immediately. To date, there have not been any extraordinary events reported.

SENATOR DALTON: Again, referring to Page 6 of your testimony in May of 1982, you indicated that such notification of extraordinary events should be within six months, not immediately. What is it -- immediately or within six months?

COMMISSIONER COLEMAN: It was amended after that.

SENATOR DALTON: This is the joint statement.

COMMISSIONER COLEMAN: Okay, I'm sorry. It is six months.

SENATOR DALTON: Okay, so it isn't immediately.

COMMISSIONER COLEMAN: No.

SENATOR DALTON: What I am suggesting is -- and it is very difficult to go back and amend this agreement-- It would seem to me that in everyone's best interest it should be done as soon as possible or immediately.

Lastly, it should be noted that in Chemical Week on March 14, 1984, it was indicated that the cost per kilowatt-hour of the Hope Creek I plant will be 15.7 cents, not 10.5 cents as was indicated by you.

DR. PATEL: The figure I gave you was for the average cost of the operation of the plant.

SENATOR DALTON: Okay.

CHARLES A. RICHMAN: That was Public Services' rates.

SENATOR DALTON: Okay. In other words, you are saying that this 15.7 cents not only includes Hope Creek I, but all the other sources of energy that PSE&G will have on line at that point.

MR. RICHMAN: That is the number we gave you. It includes the entire mix. I believe what you just quoted from Chemical Week was only the cost of producing power from Hope Creek.

SENATOR DALTON: Oh, okay. In other words, your 10.5--

MR. RICHMAN: (interrupting) When you take Hope Creek and put it in with other plants, the cost is lower.

SENATOR DALTON: But, my question was, what is going to be the cost per kilowatt-hour of this plant? I believe that was my question. If it wasn't, let me ask it again.

COMMISSIONER COLEMAN: We'll send that to the Committee, Senator.

SENATOR DALTON: I would be very interested in that. I think it is extremely important. I have no further questions.

By the way, I would like to apologize to the other Committee members. I'm sorry for taking up so much time.

SENATOR GARIBALDI: He does it all the time. (laughter)

SENATOR STOCKMAN: I have a couple of questions along the same line, Commissioner. You suggested the "up to 15%" increase, and I would like to explore the same question with you that I attempted to explore with the Public Advocate.

Before signing the agreement, what was your understanding as to the probable increase in rates for ratepayers, if you signed the \$3.7 billion or \$3.8 billion cost containment agreement?

COMMISSIONER COLEMAN: Senator, I think we essentially got it from three areas. One was our own analysis based on reports and different data we had; second was from the filings before the Board of Public Utilities; and, third was from the independent consultant's report of Theodore Barry.

SENATOR STOCKMAN: What was it?

COMMISSIONER COLEMAN: Theodore Barry said that the plant would come in between \$3.55 billion and \$3.79 billion.

SENATOR STOCKMAN: I'm sorry. I'm not talking about the cost of the plant. I'm interested in what your understanding was of the impact of approving the completion of this plant and seeing it opened at the \$3.7 billion or \$3.8 billion "cap" figure. What impact would it have on rates for the ratepayers? We know the plant isn't finished yet, but based on certain assumptions, it is estimated by the Public Advocate that that increase will be 10% to 15%. I tried to explore this with Mr. Camacho, but he suggested that he wasn't privy to all that went on in those negotiations. Apparently, he was hesitant -- and we left it at that -- to tell me what, if any, corresponding figure existed at the time the agreement was entered into. I am asking you that question.

DR. PATEL: When we did the analysis -- I think the Committee has a copy of the May report -- we looked at the scenario of cancellation of the plant versus replacing the capacity with something else. In one scenario, we found out that by canceling the Hope Creek nuclear plant and refurbishing existing facilities, the additional cost to the ratepayers during the first year of operation rose about \$482 million.

SENATOR STOCKMAN: I don't follow that scenario. Would that be with converting Hope Creek into a coal plant?

DR. PATEL: No, it was just a cancellation of the plan and replacement of the energy for Hope Creek I purchases.

SENATOR DALTON: Purchases off the grid and other types of things?

DR. PATEL: Yes. Also, we were looking at amortizing the cost of cancellation.

SENATOR STOCKMAN: Okay. Can you translate that to a percentage increase in the rate?

DR. PATEL: In the first scenario, we had about \$482 million. This year's total revenues will be roughly \$2.8 billion, so the ratio between \$482 million and \$2.8 billion-- Does anyone have a calculator? (laughter)

It would be \$482 million divided by \$2.8--

SENATOR STOCKMAN: (interrupting) It is about a one-seventh increase.

DR. PATEL: That is correct.

SENATOR STOCKMAN: What are the other options?

DR. PATEL: In the other option--

SENATOR STOCKMAN: (interrupting) How about if the plant was completed based on the cost containment agreement of \$3.8 billion? What would the increase be?

DR. PATEL: It is from this that we can deduce what it is. In the analysis, we looked at the scenario of canceling the plan and replacing the energy, which is 5.7 million megawatt-hours. We made an assumption of 60/40 purchases from--

COMMISSIONER COLEMAN: (interrupting) Senator, I think the simple answer to your question is, with the 15%, we're still right in the ballpark.

SENATOR STOCKMAN: Is that what it was when you started?

MR. RICHMAN: That is in the report which the Committee received.

SENATOR STOCKMAN: The agreement suggested, subject to certain happenings, that the figure stays at three point eight. You've been monitoring it. Is that what the plant is costing Public Service? Do you understand my question?

In other words, is that what the construction cost is?

COMMISSIONER COLEMAN: As far as the construction cost is concerned, of course, there is a range for it. Before any penalties would be triggered, you've got the range of \$3.55 billion to \$3.79 billion. With the way the reports are coming in right now, we don't expect the plant to come in at a figure over \$3.79 billion.

SENATOR STOCKMAN: What I am getting at -- and, this may be a more appropriate question for Public Service -- is, we talked about that figure as being traceable to a "cost containment agreement." Forget the cost containment agreement. Is that approximately what it is costing to build the plant?

COMMISSIONER COLEMAN: Well, remember in the cost containment agreement you also have the phrase, "reasonable costs." So, that has to go before the Board to determine exactly what are considered to be reasonable costs.

SENATOR STOCKMAN: But, what is the real cost? If you want to defer to Public Service, I'll understand that.

COMMISSIONER COLEMAN: What we would consider to be a reasonable cost would be if it came in under \$3.79 billion.

SENATOR STOCKMAN: Commissioner, it is getting late and I guess I'm getting tired. I would like to know if you know -- you may not, and we may have to explore this with Public Service -- how much it is costing Public Service to build this plant? It may be \$3.8 billion, or \$2 billion, or \$10 billion. Do you know?

MR. RICHMAN: Their filings indicate that the cost of the plant will be approximately \$2.8 billion. There is an additional carrying cost of about \$1 billion, so the total cost of construction is about \$3.8 billion.

The costs before the plant is put into rate base would be examined by the Board of Public Utilities. This brings us to the question you raised with Mr. Camacho. The plant is examined with a reasonableness of those costs. At times, the Public Advocate has challenged issues of reasonableness, just as he did with the Salem plant. They hired an independent consultant who is now examining the costs and management of this particular plant.

SENATOR STOCKMAN: Well, I think we can agree -- maybe we can't because this is a learning experience for all of us -- if the actual cost of building that plant is less than \$3.8 billion, then the Public Utility Commission would not grant a higher figure to go into the rate base. That is for sure, isn't it?

COMMISSIONER COLEMAN: Right.

SENATOR STOCKMAN: You're suggesting to me that if the cost is higher, then whatever the cost is in the final analysis, there would have to be a review of that cost, and it is the Public Utility Commission that determines what portion of that total cost goes into the rate -- 100% of it, 90%, 80%, or 70% -- right?

COMMISSIONER COLEMAN: Yes.

SENATOR STOCKMAN: I understand that. What I am asking you -- and, you may not know the answer; we may have to get it from Public Service -- is what, in fact, is the Hope Creek plant costing Public Service to build as of today? Is it on target? Is it costing them that, is it costing them less, or is it costing them more? It seems to me that it has to be one of the three.

COMMISSIONER COLEMAN: It is on target at the present time, and the expenditures are \$2.6 billion to date.

SENATOR STOCKMAN: Is that consistent with where they are? In other words, are they close to being complete?

MR. RICHMAN: It is consistent with the latest management analysis -- the independent engineer's analysis -- of being able to bring the plant on line under the \$3.8 billion.

SENATOR STOCKMAN: All right. I have one more question. Regarding the 5.7 million megawatt-hours for first-year operation, Doctor, how does that translate in terms of 65%--

DR. PATEL: (interrupting) It is 65%

SENATOR STOCKMAN: That is what I thought. Senator Costa?

SENATOR COSTA: What do you mean by additional tarrying costs of \$1 billion?

MR. RICHMAN: The Utility has to borrow money to build the plant.

COMMISSIONER COLEMAN: It is essentially interest.

SENATOR COSTA: Okay. You mentioned the consulting firm of Theodore Barry, and that he said the plant would come in at \$3.8 billion. Where did he get his information?

COMMISSIONER COLEMAN: He works just like an independent consulting firm would work. He, for one, knows the business area of it, what other plants are doing, and costs associated with various



materials. He would certainly take the filings by the company and the Board to review the billings. I should add that Theodore Barry has been our consultant, as well as the consultant for the Public Advocate and the utility companies.

SENATOR COSTA: Who hired him?

COMMISSIONER COLEMAN: In this particular case, Public Service hired him.

SENATOR COSTA: Then, is he getting his information from Public Service?

COMMISSIONER COLEMAN: Yes.

SENATOR COSTA: Dr. Patel, you said that you and the Assistant Commissioner are constantly monitoring reports, yet you are getting the data from Public Service. Is that correct?

DR. PATEL: That is correct.

SENATOR COSTA: That is what you call constantly monitoring? You're not doing anything technical at all. What is your background?

DR. PATEL: My background is in electrical engineering.

SENATOR COSTA: You are an engineer?

DR. PATEL: Yes.

SENATOR COSTA: Good. Mr. Richmond, how about your background?

MR. RICHMAN: Mine is in public administration.

SENATOR COSTA: Okay. So, we have one person who knows the technical field.

Is there any monitoring other than the reports you receive from Public Service?

DR. PATEL: When you monitor, obviously, you have to rely on the costs and moneys that have been expended by the company.

SENATOR COSTA: Why do I keep getting the feeling-- The insurance companies were being audited and it was because the insurance companies gave their reports and--

SENATOR DALTON: (interrupting) To the Insurance Department.

SENATOR COSTA: (continuing) The Insurance Department was getting its reports from the insurance companies in order to make its rates.

MR. RICHMAN: Senator, at least that is--

SENATOR COSTA: (interrupting) I become very concerned about that because, with all due respect to Public Service -- I think they are marvelous; they give me electricity all the time -- the fact is that you have to have another point of view.

MR. RICHMAN: Senator, I think--

SENATOR COSTA: (interrupting) I'm not getting it here.

MR. RICHMAN: Well, I think that is the reason. If you go back to when Salem was constructed, there were serious allegations of overruns there. There was an investigation and at the behest of the Public Advocate, Theodore Barry Associates were hired to do an independent analysis.

SENATOR COSTA: But, Theodore Barry also works for the very people that you are--

MR. RICHMAN: (interrupting) At some point, I think you have to trust the integrity of some group. NRC is looking at these costs and Theodore Barry is looking at these costs. I just can't believe that--

COMMISSIONER COLEMAN: (interrupting) The other thing I would like to say, Senator--

SENATOR COSTA: (interrupting) Dr. Patel, you are an electrical engineer. Do you have a background in nuclear engineering?

DR. PATEL: No, I don't.

SENATOR COSTA: Do you have anyone on your staff who has that kind of background?

COMMISSIONER COLEMAN: No, but once again, Senator, let me say that Dr. Patel said he is an engineer. The responsibility, for example, lies with the NRC with regard to--

SENATOR COSTA: (interrupting) Are you saying that the NRC is protecting us in that instance because they have nuclear engineers on the spot?

COMMISSIONER COLEMAN: That is correct, and they have a staff of--

SENATOR COSTA: (interrupting) How assured are we? I thought all along that the State had nuclear engineers, and now I'm finding out--

COMMISSIONER COLEMAN: (interrupting) Of course, they preempt us with regard to that. NRC regulators are on the site of every nuclear plant in the country 24 hours a day.

SENATOR DALTON: Do they regulate this cost containment agreement?

COMMISSIONER COLEMAN: No, they are not involved in that.

SENATOR DALTON: I think what the Senator is saying is that their concern is in a different area. That doesn't give us any great comfort in this agreement.

MR. RICHMAN: But, Senator, wouldn't you want it that way -- that the NRC is there to ensure the safety and integrity of that plant? They don't care about the price. Someone else is going to have to measure the price to bring the plant on line. The NRC is there to make sure that the plant is constructed to meet every quality assurance--

SENATOR DALTON: (interrupting) That is their job.

MR. RICHMAN: (interrupting) They are not going to allow--

SENATOR DALTON: (interrupting) That is irrelevant.

MR. RICHMAN: That is the question you asked me.

SENATOR DALTON: The question that was asked was relative to the cost containment agreement. I want to know who is down there making sure that the cost containment agreement is being adhered to. I feel very comforted that the NRC is down there with regard to protecting the safety of the people in the area.

(Confusion amongst Committee)

SENATOR STOCKMAN: Excuse me, my colleagues. Someone has to run this meeting. I am running it. Now, I have no objection to you speaking one at a time. But, in fairness to the witness, let's take it one at a time. I gather my colleagues to my left would both like to speak, and I am going to take the privilege of deferring to Senator Costa. Do you have a question?

SENATOR COSTA: I just have one.

SENATOR STOCKMAN: Then we will hear from Senator Garibaldi.

SENATOR COSTA: I would like to know who, if anyone, is monitoring. We have this cost containment agreement. They have to come in at \$3.8 billion; they can't go over that. Who is monitoring the direction in which the money is being spent? Fail-safe operation greatly concerns me.

COMMISSIONER COLEMAN: Once again, the NRC--

SENATOR COSTA: (interrupting) Excuse me. Is it because they may come in at that point? I am concerned that after it is in operation, they may find they haven't got a fail-safe operation. That means that money is going to have to be spent in order to take care of that problem, so the rates will go up again.

COMMISSIONER COLEMAN: In terms of the quality of the products being put in right now, once again, you've got NRC doing the monitoring. Under the terms of the agreement with regard to reasonable costs, when Public Service goes in to put Hope Creek further into the rate base, they have to prove reasonable costs. If they put in anything that takes it over the \$3.8 billion, and they aren't able to prove they are reasonable costs, then the company is going to be penalized.

With regard to something going wrong down the road, once again, they still have to go to the Board for additional costs, and the Board could disallow them.

SENATOR COSTA: But, aren't we ensuring though that this is a fail-safe operation?

COMMISSIONER COLEMAN: Yes, as reasonably as we can.

SENATOR COSTA: Via whom? The NRC?

COMMISSIONER COLEMAN: Yes, NRC.

SENATOR COSTA: Thank you.

SENATOR STOCKMAN: Senator Garibaldi?

SENATOR GARIBALDI: Commissioner, I gather your Department has developed a plan whereby this project could continue--

COMMISSIONER COLEMAN: (interrupting) That is right.

SENATOR GARIBALDI: (continuing) --under strict cost controls.

COMMISSIONER COLEMAN: That is correct.

SENATOR GARIBALDI: And, you've been following that procedure?

COMMISSIONER COLEMAN: We have been following that procedure. I would also note, Senator, that it is the first plan of its type in this country with regard to nuclear plant construction. As was stated earlier, other plants at this point seem to be involved in plant overruns; but, the evidence that we have at this time indicates that our costs have been brought under control and are in the boundaries of that agreement.

SENATOR GARIBALDI: Okay. My basic question is, at any time -- either prior to the development of your plan and the position of your strategy, or at the present time -- has your Department or you ever felt that the costs have run away in connection with the project?

COMMISSIONER COLEMAN: Well, once again, from the time we took office in 1982 and became involved in the development of the plan, I think we have effectively brought costs under control with regard to this project.

SENATOR GARIBALDI: Do you feel that at any time the costs were in a run-away circumstance?

COMMISSIONER COLEMAN: I do feel that previously-- We're talking about a plant that was originally being brought on line for a few hundred million dollars, and I believe the original cost was \$499 million for two units. We're now at \$3.79 billion for one unit.

Once again, I want to reflect back to the stage at which we entered and developed the cost containment agreement. From that point on, there haven't been any increases in the overall cost of the plant.

SENATOR GARIBALDI: I have one other question, Mr. Chairman. At any time did you, your Department, or anyone in connection with this project ever feel it should be cancelled or abandoned because of these problems?

COMMISSIONER COLEMAN: Yes, we testified a year and one-half ago--

SENATOR GARIBALDI: (interrupting) I'm not suggesting that that should be, but--

COMMISSIONER COLEMAN: (continuing) We did a report with regard to abandonment scenarios and with regard to continuing the plant. In that report, we developed the idea of cost containment, which is the option that we chose and were able to implement through negotiations.

SENATOR GARIBALDI: So, that is how it came about.

COMMISSIONER COLEMAN: That is right.

SENATOR GARIBALDI: Okay, thank you, Commissioner.

SENATOR STOCKMAN: Commissioner, I wonder if you could sum up your testimony by sharing with us -- because I think it is the essence of your statement -- your conclusions on Page 20, which are really what I think you wanted to make clear. In fairness, I think you should express this situation to the public.

COMMISSIONER COLEMAN: I would be glad to. I think we listed five points, and they are as follows:

(1) Abandonment of the plant at this point will cost ratepayers nearly as much as its completion under the current budget. It is 85% down the road with regard to plant construction.

(2) Abandonment of the plant will force New Jersey to purchase large amounts of power out of state, thereby subjecting it to the political and economic vagaries associated with being an energy importer.

SENATOR STOCKMAN: When you use the word "abandonment," for all of our sakes, are you talking about burning it, or are you talking about converting it to an alternate energy producing source?

COMMISSIONER COLEMAN: In order to convert it, we would get into a tremendous expense. I can assure you that if we followed that scenario, we would be back before you, and you would say that we wouldn't be able to push forward with it.

SENATOR STOCKMAN: I'm sorry. Go ahead.

COMMISSIONER COLEMAN: Okay.

(3) As a result of the cost containment agreement, the Hope Creek project is on schedule and within budget for the first time in its history.

(4) Substantial differences exist between the owners and builders of Hope Creek and the owners and builders of nuclear plants elsewhere in the nation experiencing financial or safety-related problems. I know of the problems with other plants, and I think we have to look at each of these situations individually. Through cost containment, we have been able to bring those costs under control.

SENATOR STOCKMAN: How about Salem? How about the experience there?

COMMISSIONER COLEMAN: Well, I was happy to discuss it with Senator Dalton. One of the things I'm not so happy with is -- and I think perhaps we are thinking along the same lines -- you can use a figure of 65%. We would like to see those plants in operation in terms of keeping consumers' costs down.

I am not pleased at all with the fact that Salem ran at 48% with regard to consumer costs. That, of course, dictated that the outside purchase of power would be necessary. I think perhaps we are thinking along the same lines.

With regard to the cost containment agreement, I would like to point out that for the first time, it brought in an element of true management ability. If the company says it is going to bring a plant on line at "X" cost, then it had better come on line at "X" cost; otherwise, the company is going to be penalized. In the regulatory arena of what has occurred in the past, if you were in a private company -- a private business -- and you experienced any type of overrun, your stockholders ended up eating it.

Of course, companies go bankrupt and have other difficulties such as changes in management, etc. As we go along, and plants increase, the general public is the one who is paying for it. What we wanted to do was to add the dimension of management accountability. If cost overruns went too high, I think the shareholders in Public Service would be upset enough that they would put management's heels to the fire.

As I discussed with Senator Dalton, we will look at that type of management accountability and set up a program with regard to the efficiency levels of the operation of plants.



SENATOR STOCKMAN: I think that would be a good result, among others, to come out of this hearing.

COMMISSIONER COLEMAN: My final point is--

SENATOR STOCKMAN: (interrupting) Wall Street looks favorably upon this, right?

COMMISSIONER COLEMAN: Yes, Wall Street looks favorably upon this. Once again, I would like to point out that when we went into the cost containment agreement, it was considered by many to be a Bolshevik idea, one that would ruin the utility industry, and one that would set an unwarranted precedent around the country. We were continually attacked for it. I've given evidence in my testimony that now the situation has changed, and it is being looked at as an agreement which is bringing costs under control.

Public Service is the only utility that is involved in nuclear construction today. It has a Double A bond rating, which of course, keeps the interest costs down in terms of their borrowing capacity. As a result, it will reflect better consumer rates.

SENATOR DALTON: Additionally, it is a reflection of the Board of Public Utilities' function of providing them with rate increases. Is that correct?

COMMISSIONER COLEMAN: Sure.

SENATOR DALTON: That obviously reflects on the financial condition of the company, which in turn--

COMMISSIONER COLEMAN: (interrupting) That is right.

SENATOR STOCKMAN: All right, thank you very much, Commissioner.

COMMISSIONER COLEMAN: Thank you.

SENATOR STOCKMAN: I want to speak with the Committee members for just a moment.

Excuse me, we are going to recess until two o'clock. At two o'clock we will return to hear further testimony. I can't promise you how long we will continue, but I hope we will at least be able to have a statement from Public Service and a statement from Commissioner Hynes.

(RECESS)



## AFTER RECESS

SENATOR STOCKMAN: We are going to have to recess this hearing at 2:30. I have consulted with Dan Dalton, and now we will hear from Commissioner Hynes. Hopefully, we can hear briefly from Public Service. If Public Service has a prepared statement, they are certainly welcome to submit it for the record.

We expect to have another hearing, and the date of that hearing will have to be set by the Committee members. We can't announce the date right now. Frankly, I thought we would be further along than we are, but these things are not predictable. I apologize to anyone else who had hoped to testify, particularly to Public Service and the Commissioner. I assure you that you are perfectly free to place into the record any statements you have. We'll study them, and we'll probably ask you to come back.

With that introduction, let's get started. Commissioner Hynes, welcome.

COMMISSIONER EDWARD H. HYNES: Thank you, Senators. Having heard the good idea proposed by Senator Dalton, I would like to incorporate both my statement and our Board order, which accepted the cost containment package in August. The final order was drafted for the Board meeting of July 15, 1983 and was certified as an official copy of the Board on August 12, 1983. This answered a lot of the concerns raised by the Senators.

"The Board has accepted this plant as needed based on prior Public Service Electric & Gas Company's rate cases, as well as the stipulation entered into by the Department of Energy, the Public Advocate, and the petitioner of Public Service Electric & Gas."

The major issue that this Board is now concerned with is the question of rate shock. I have heard many statistics proposed by different parties here -- 18%, 13%. The Board knows it is difficult to be precise about numbers which are beyond the control of any of the parties proposing these percentages. However, the Board is very well-aware that this number, even if Hope Creek alone enters at 13% --

using that as a number propounded by the parties -- can be viewed by many people as a question of rate shock.

SENATOR DALTON: Do you feel comfortable with that, Ed?

COMMISSIONER HYNES: No.

SENATOR DALTON: What number do you feel comfortable with?

COMMISSIONER HYNES: I have made a practice over these past six years to wait and see what the exact number is. I have found out that every time I have tried to predict the future, I've wound up eating crow, and it tastes horrible.

SENATOR DALTON: You wouldn't even want to go as far as to provide us with some of the parameters -- whether it would be ten to fifteen, or whatever?

COMMISSIONER HYNES: No. I've come to regret those kinds of numbers. I can assure you of the following though:

One of the concerns expressed by Senator Stockman was, are they going to receive the full cost containment maximum? Absolutely not. Whatever they spend will be the number granted to them in rate base.

Two, as a result of our Board order, although we have accepted an agreement, the Board has been explicit in the final order by saying, "We have not relinquished any jurisdiction which the Legislature has given us to review those numbers."

Let's suppose the number was 3.5, which is below the cost containment. The company has the burden, as they do in every case that comes in, to go over those numbers. At that time, it is not a stipulation procedure. You then have to bring in your expert witnesses, and you have to be cross-examined, which makes the Board Commissioners more secure.

Another area of concern is, who looks at all these numbers? Obviously, we must have trust in people. We rely on management audits, which are audits funded by the company, as well as the Public Advocate. We have positions, thanks to an appropriation by the Legislature, to increase the Board's staff. We have two titles for nuclear engineers, so we have one in place and one who now being hired. We have two other people who are knowledgeable about nuclear

engineering, but they are not qualified for the titles because the Board only has two Civil Service classifications.

Rate shock is the biggest concern of the Board. Senator Dalton, the reason why I hesitate to speak about any number is, this will not be viewed in isolation. The putting in of this plant will be in the context of a rate case where the company is asking for increases in operating and maintenance expenses for the rest of the system, as well as the persistent problem of nuclear downtime, which creates tremendous pressure on the "Under Recovery of the Fuel Adjustment" clause. No matter who the Commissioners are in 1987, this will not be viewed in isolation.

As a result of our order, the Board's staff is presently reviewing mechanisms for phase-in, if necessary, in case all the worst scenarios come into play: under-recovery of fuel; high inflationary costs for operating and maintenance at present to run the entire system; and, the Hope Creek costs going into rate base. So, we are very concerned about rate shock.

SENATOR STOCKMAN: We have a series of questions for the Board of Public Utilities. We hoped to explore them a little more publicly and openly at this hearing, but time will not permit that, Commissioner. What I would like to do is to give you a copy of these questions and request that you respond to them in writing. I will distribute them to all of the Committee members as soon as I receive them. If you don't mind, it might be easier if you sent them to all of the Committee members who are here. That will expedite some of our time.

I suggested a few modifications or changes in the cost containment agreement. I gather that the BPU decided against any changes. Is that correct?

COMMISSIONER HYNES: Senator, not only did you make that suggestion, but in fact, we included your name in our final written report and that you had made a suggestion, especially in the extraordinary events clause. Based on the input of all the parties, we decided that your concern was legitimate, but we also decided for the clear functioning of getting the plant built, that if they were at

fault in an extraordinary clause, the Board always has the power to look at that and make an appropriate adjustment in the money that the ratepayers pay for this plant. So, your concern was on target, and it was shared by the public interest research group. But, we thought that for the clear functioning of the system, it should be heard in a less emotional nature. Because we were trying to get the plant on line, we opted to do it afterwards, but to give the Board full authority to adjust the rates.

SENATOR STOCKMAN: All right. Subject to filing your statement, and subject to your answering those questions, I would suggest-- We have decided that because of the time constraints, we are going to give the questions to them, and the Commissioner is going to respond in writing.

SENATOR COSTA: Very good. Thank you.

SENATOR STOCKMAN: I think that is the way we'll proceed. Thank you very much, Commissioner.

COMMISSIONER HYNES: Thank you very much, Senators.

SENATOR STOCKMAN: Next we have two representatives from Public Service, and it appears they have a presentation that will take a while. Do you have a slide presentation? (affirmative reply)

All right. You've been patient, and as a Committee, we are not happy that we're under a little time constraint.

**WILLIAM SALLER:** Senator Dalton, Senator Stockman, and Senator Costa, we appreciate the opportunity to be here. My name is Bill Saller, and I represent PSE&G. With me is Steve Mallard, who is the Senior Vice President of Planning and Research for PSE&G.

SENATOR STOCKMAN: I see that your statement says "Good morning." You are a real optimist. (laughter)

MR. SALLER: We were optimistic. Your letter to me a week or so ago outlined about five or six different areas and issues that you would like us to cover today. In addition, there were many questions which were raised this morning to the other Departments, and perhaps we can respond to them.

SENATOR STOCKMAN: Let me interrupt you. We have a set of questions here which I would like to ask you. We will submit these

to you within the next several days; there are some changes and additions we would like to make, partly as a result of testimony here today. We have your statement, and it will certainly be made part of the record. I think the Committee agrees that for the next 20 minutes, if you have some further things you would like--

MR. SALLER: (interrupting) Senator, our request is that if we can take the 20 minutes to make our presentation, we have a number of slides to show you of the Hope Creek generating station. Much of the information we have to give you in the report will respond to questions that were raised earlier today, and I think it will provide you with a lot of information. Depending upon your time, we will be more than happy to respond to any questions you may have.

SENATOR STOCKMAN: Fine.

MR. SALLER: At this time, I'll turn the microphone over to Steve.

STEPHEN A. MALLARD: Thank you. I'm going to move fairly quickly and it is going to be a whirlwind experience. I'm naturally a fast talker and I usually have to hold myself back, but this time, I will not restrain myself.

This afternoon I'm going to focus on the following issues that you raised in your letter:

the current status of the Hope Creek project and our ability to meet our targeted costs;

the economic impact on Hope Creek as we see it -- the impact on the ratepayers;

our current and long-range plans for storage and disposal of high level nuclear waste; and,

the results of several independent audits on both Public Service's management competence and the competence of our nuclear construction program at Hope Creek.

The Hope Creek generating station project is currently within budget and on schedule for operation no later than December 1986. Two point six three five billion dollars, including \$481 million of allowance for funds used during construction, has been spent through March 31, 1984. The cost containment agreement signed in 1982 by

PSE&G, Atlantic City Electric, the New Jersey Department of Energy, and the Public Advocate -- and approved by the Board of Public Utilities last year -- established a cost "cap" of \$3.795 billion for the project.

Construction progress and cost are tracking right on the forecasts established almost two years ago. This is a profound curve. (referring to chart) There are two curves here. One shows the cost of tracking over the months, and the other shows the percentage completion tracking. These have been subject to rigorous outside review by the Nuclear Regulatory Commission, Theodore Barry & Associates, the Institute of Nuclear Power Operations, and our own people -- quality assurance people and top management people. Our Board of Directors receives a report on the status of the Hope Creek construction every quarter. Our top management people receive a report every month. So, this has our complete attention. You get a dog's attention by hitting him on the head with a two by four, as you well know.

Eighty-five percent of the physical construction has been completed. Ten percent of the start-up operations are now complete, and major construction will be essentially completed by the middle of 1985. After that, it will be the start-up and phasing in of operations.

Significant progress has been made over the last two years. These slides show the cooling tower erection during 1983. The tower is 512 feet high, and it is something that rivals the pyramids in terms of South Jersey. While driving along the Turnpike in South Jersey, you can see it on the horizon if you look carefully.

The turbine-generator erection was completed in 1983 on schedule, as you can see in these pictures.

The next group of slides shows the completion of the reactor containment building. The dome was fabricated on the ground and then lifted into place. It weighs 440 tons. This construction technique had to be done on a day when there wasn't too much wind, and that contributed to the building being completed ahead of schedule.

The engineering design is essentially complete. In order to better communicate the status of the plant, I would now like to show you some pictures of various parts of the plant.

Here is the administrative area of the plant which will be complete for permanent occupancy next month. People have been undergoing training and licensing, and are poised to start up and operate the plant.

As we leave the administrative area, we have the plant itself. We see that the plant storeroom has begun stocking supplies and spare parts to support the operation.

The laboratories are getting ready for operation, and instrument and maintenance shops are currently supporting the start-up and calibration of systems and equipment.

Several plant systems have already been completed, tested, and checked out, and are awaiting operation. Other systems are currently undergoing testing and calibration prior to start-up, or are essentially complete and awaiting their turn in the start-up sequence.

The plant computers are operational and are undergoing final program checks, and the control room complex is complete. Here is the control room; it is a "beaut." Over 90% of its circuitry has been successfully tested. The control room, of course, is the heart of the station. Turnover for start-up testing -- one of the key project milestones -- was completed on December 15, 1983, two months ahead of the original schedule.

Outside the plant, the switchyard shown here is complete. In fact, we did that in September of 1983. It is energized and ready for services as soon as the plant is ready to send out the output.

In addition to the plant itself, in 1983, Public Service completed our Nuclear Training Center. This isn't a very good picture of it, but if you ever get down there, it is a great place. We have had many educators there, and they have been impressed by the facilities and the programs. We have complete mock-ups of the control rooms of both Salem and Hope Creek where all of the equipment is working. The operators are trained there to become plant simulators. There are computers which drive it to make them think they are actually operating the nuclear power plant. They are much like the simulators that airports use for their pilots. This Center contains a complete training facility for our nuclear operations.



Licensing is on schedule. We submitted our Final Safety Analysis Report three weeks ahead of schedule to the NRC. The NRC has reviewed our report and has issued their draft Safety Evaluation Report. The NRC final report will be issued this fall; it will support our schedule to receive an operating license by January 1986. That is when we hope to begin fuel loading.

We have only one intervenor in our licensing proceedings, and so far, seven out of the ten contentions submitted by the intervenor have been rejected or withdrawn by the Atomic Safety and Licensing Board.

There are many nuclear construction projects that are in serious trouble. Why then is Hope Creek different? The first reason is because of the nuclear power plant construction experience of Bechtel and Public Service. Bechtel is the nation's leader in nuclear power plant construction, and Public Service has gained valuable experience in the engineering, design, and construction operations of our Salem units. Bechtel has been involved with the construction of over 56 nuclear plants. Some of them have been on the small side, but there have been 56 plants. A second and equally important element is the establishment of a program to bring craft labor on, with their wealth of experience, as active participants in the project. Finally, the establishment of the cost "cap" agreement, which has been discussed here this morning, has had a cohesive effect on Public Service, Bechtel management personnel, and the craft labor people. This has resulted in a renewed dedication to bring the project in on-budget and on-schedule.

It is clear that any serious threat to the timely completion of the project would likely dampen this high morale, resulting in a significant loss of productivity. The project is now at a critical stage where we cannot afford the luxury of lost time. Our current estimate is that every month of delay in the commercial operation of the project will result in increased costs of approximately \$40 million per month. We must do everything within our power to assure that the project is brought to a successful, timely completion so that our ratepayers are not saddled with any additional costs.



I would now like to comment on our estimate of the impact of Hope Creek on our customers' rates. Our estimate of the net impact in 1987, associated with the introduction of Hope Creek into rate base, is that the rate increase could be as low as 10%. This estimate includes the impact of the very substantial fuel savings associated with Hope Creek, but it does not include other possible future circumstances, such as renewed runaway inflation.

I know these Committees are concerned about the "rate shock" associated with some nuclear plants around the country, such as LILCO's Shoreham, Public Service of Indiana's Marble Hill, and Public Service of New Hampshire's Seabrook. Hence, I think it is appropriate for me to comment on the reasons why Hope Creek should not produce rate shock.

First, Hope Creek is a smaller percentage of Public Service's capacity and investment than is the case for some of the other companies. For example, Hope Creek represents about 11% of Public Service's existing generation capacity. Comparable numbers for the companies I mentioned earlier range from 22% for Shoreham to 66% for Seabrook. Similarly, Hope Creek's final cost represents about 88% of our existing utility plants in service. Comparable numbers for others range from 279% for LILCO to 730% for Public Service of New Hampshire.

In addition to our size, appropriate regulation by New Jersey's BPU has protected consumers from so-called "rate shock." The Board has consistently recognized the need for and benefits of Hope Creek, and it has provided the necessary cash revenue increases during Hope Creek's construction to maintain Public Service's financial integrity. This has not always been the case for utilities in other jurisdictions. We continue to enjoy a Double A rating from the rating agencies, and that is important. The companies that are in trouble don't have Double A ratings.

In New Jersey, when reduction in future load demand was recognized, excess planned capacity was cancelled. Hope Creek II and the Atlantic generating station are examples. On the other hand, needed capacity -- Hope Creek I -- has been supported, and this ultimately lowers consumer bills.

*New Jersey State Library*

In your letter to the Company, Senators, you asked that we explain our plans for avoiding rate shock. My response is that such plans are simply not necessary because the modest increase we expect cannot be classified as rate shock. My feeling is that 10% cannot be considered rate shock.

Your next question is related to the storage and disposal of high level nuclear waste produced at our nuclear plants. The Company's spent fuel pools, which are already in place at the stations, will take Salem I to the year 2002, Salem II to the year 2006, and Hope Creek to the year 2006.

For the longer term, the Company has signed contracts for both Salem and Hope Creek with the U. S. Department of Energy for the transportation and permanent disposal of spent nuclear fuel. The Company is presently paying the government quarterly for these services. These contracts are a result of the Nuclear Waste Policy Act of 1982, and were signed into law by President Reagan on January 7, 1983. The law requires the United States Department of Energy to start receiving spent nuclear fuel by 1998. The Company expects that our short-term program will carry us into the long-range plan time frame.

In your letter requesting us to participate in this hearing, you also asked for an update of the management issues relating to Salem I and Salem II and their relationship to the licensing of Hope Creek. The Salem management issues were resolved with the NRC in May 1983 by way of our implementation of an action plan designed to strengthen our nuclear operations. We have had numerous meetings with the NRC staff to update them on the status of this action plan since that time, and in April 1984, we made a presentation on this matter to the NRC Commissioners themselves. We feel that this successful resolution of the management issues relating to Salem has strengthened our overall nuclear operations, and that we are, therefore, better equipped now to provide for the successful operation of Hope Creek. Management capacity is one of many issues involved in obtaining any NRC operating licence, and we fully expect to be able to satisfy the NRC's requirements in this regard with respect to Hope Creek. This conclusion is supported by a number of outside audits.

Theodore Barry & Associates is a recognized national management consultant firm which has performed management audits on numerous nuclear projects. Theodore Barry has been engaged by utilities, regulatory commissions, and consumer advocates. We first came across them in the late 1970's when they were engaged by the Public Advocate in a case we had with the BPU on the Salem generating station.

In November 1981, Theodore Barry & Associates completed an independent assessment of the management of the Hope Creek generating station for Public Service. The assessment was part of Public Service's emphasis on effective and efficient management of the Hope Creek project. Theodore Barry concluded in their report that "Public Service's and Bechtel's perspective, capabilities, and experience have developed a well-managed project," and that "cost and schedule management is extremely effective." Theodore Barry & Associates also made recommendations in areas where improvements could be made.

In July of 1982, the Institute of Nuclear Power Operations -- INPO -- initiated an audit program of three nuclear power plants, Hope Creek being one of them. The results of this audit provided several minor findings, all of which were implemented by mid 1983.

Numerous audits have been conducted by the Nuclear Regulatory Commission, the NRC. The most intensive and recent NRC audit was the NRC Construction Team Inspection, CTI, conducted from September 19, 1983 to September 30, 1983. The CTI reviewed all aspects of nuclear plant construction of Hope Creek. The NRC brought in a multidisciplined team of specialists to review the quality, construction techniques, and status of the project. The NRC stated in their report, "It is concluded that the licensee's construction, quality assurance, and on-site design control programs are effective in assuring conformance to regulatory requirements and Public Service commitments."

In November of 1982, Public Service requested Theodore Barry & Associates to update its initial management study of the Hope Creek project. The intent of the update was to review the previous assessment of the management of Hope Creek, to gauge progress on the

initial recommendations, and to identify and examine changes in the project and Public Service's response to them. Theodore Barry issued their report earlier this week, and there are copies available in the room for the members of the Committees. In summarizing their findings, TB&A stated, "TB&A finds that the management of Hope Creek continues to be well-managed and to compare favorably with other nuclear projects in our experience." They have concluded that "Based on these reviews and on the presumption that PSE&G will take aggressive action on the recommendations in this review, as they have on earlier recommendations, we believe that attainment of the cost and schedule estimate is reasonably achievable."

In conclusion, the outside audits of our management and nuclear program have been generally favorable, and some have been laudatory. Such consistent, positive reviews from a variety of outside organizations -- they aren't the foxes watching the chicken coop -- confirm our assessment that the Hope Creek project is well-managed and supports our high degree of confidence in its being completed on schedule and within budget.

Continuation of the Hope Creek project is overwhelmingly in the best interests of the State of New Jersey. If the project were to be cancelled in 1984, Public Service would have spent about \$2.3 billion in cash -- that doesn't include the interest on the money -- leaving approximately \$500 million remaining to be spent to complete the plant. However, the cost to cancel the project at this time is estimated to be approximately \$500 million. Therefore, the cost is approximately the same to have either a working nuclear plant producing energy for our ratepayers for 30 years, or nothing.

Based on the information supplied in our operating license evaluation, the fuel savings expected to be derived from Hope Creek in its first five years of operation is \$1.9 billion, and the estimated lifetime fuel savings will be approximately \$55 billion. To deny the people of the State of New Jersey these enormous benefits is clearly not in the public interest.

In addition to these expected fuel savings, without the capacity provided by Hope Creek, Public Service's reserve levels would

drop below any reasonable criteria, increasing the chances of brownouts and blackouts to the State of New Jersey. Also, more energy production would be required from our aging fossil plants and from out-of-state resources, resulting in additional environmental problems. Though our current capacity forecast takes into account the effects of 1500 megawatt-hours of conservation and load management, in addition to 250 megawatt-hours of non-utility generation, there are no guarantees that these estimates will be attained in the future. Undue reliance on out-of-state resources is unwise, since it is uncertain how long other states will be able to continue massive exports of electrical energy to New Jersey due to the potential for tightened environmental regulations and improvements in their own economies. In other words, their own loads would increase, and they wouldn't have as much surplus to sell us. Similarly, undue reliance on oil-fired generation within the State subjects us to foreign sources of supply -- Iran, Iraq, and a whole cast of characters. The associated uncertainties to such a strategy are obvious, and I feel they are unwise.

In summary, the Hope Creek generating station project is on schedule and within budget. Both Public Service and an independent outside auditor, Theodore Barry & Associates, agree that the completion of this project within our stated estimates is attainable. Any delay in bringing Hope Creek into service will increase the cost of the plant and will result in higher rates for our customers.

We are now at the stage of construction -- 85% complete -- where we are close to realizing the benefits of the related fuel savings from the unit for our customers, where construction delays of any significant duration -- for whatever reason -- will severely increase the costs to our customers, and where cancellation costs would be roughly equal to the cost of completing the plant. Public interest caused Public Service, Atlantic City Electric Company, the Department of Energy, and the Public Advocate to decide to enter into the Cost Containment Agreement and caused BPU to ratify this Agreement in an effort to assure the economic completion of the plant. The current status and consequences of cancelling the plant clearly demonstrate the soundness of their decision.

Thank you for your patience. I wasn't looking at my watch. Did I do it in 20 minutes?

SENATOR STOCKMAN: Right under the wire. We obviously have some questions about your statement, Mr. Mallard. We will send you those questions, and we look forward to your responses.

It is obvious that Public Service feels strongly that Hope Creek is in the public interest, that you are on course, and that it will work out to be a wise move. I hope for everyone's sake you are right.

MR. SALLER: Senator Stockman, may I make one statement? Because a lot of questions were raised earlier, I think it might be beneficial, if the Committee so desires-- We would like to invite both Committees and their aides to tour the Salem and Hope Creek generating stations. I think within a few hours you will see the stations -- one in maintenance, one in operation, and one under construction. You can see the control room turbine generator and the spent fuel pool -- how it is handled and stored. You can ask all of the questions you want of the people who are down there.

SENATOR DALTON: That would be very difficult. I have been invited down there, and the other Committee members are certainly welcome to go down there. If they desire to do so, they should. But, for people of our background to ask questions and to walk away with all legitimate concerns addressed -- even going in there and taking an objective view -- assumes a certain amount of technical expertise. I know I don't have that expertise, and that is the reason why I haven't taken the opportunity. I certainly rely not only on you, but on other people too who have the expertise to provide me with that type of information.

Additionally, I should note that I appreciate Mr. Mallard's testimony and his enthusiasm for the reports of these consultants. In 1982, we wanted to establish a Blue Ribbon Committee that would also be independent. At that time, PSE&G didn't share our enthusiasm for a Blue Ribbon Committee to take a look at Hope Creek I. We're glad that since that time, you have changed your attitude.

You have gone on record now as saying that when Hope Creek I goes on line, the cost increase is going to be 10%. Is that correct?

MR. MALLARD: It could be as low as 10%

SENATOR DALTON: It could be as low as 10%. What could it be as high as?

MR. MALLARD: Based on a reasonable set of assumptions, it could vary a lot, as Mr. Camacho mentioned this morning. Based on what I've seen and what I know, it could be lower than 10%, even if some of the variables worked out better. I would say it could reasonably be 13% -- 10% to 13%.

SENATOR DALTON: How much of that percentage is already in rate base?

MR. MALLARD: None of that.

SENATOR DALTON: None of that? Is it because you have received no money from the Board of Public Utilities for Hope Creek I?

MR. MALLARD: I'm talking about the 1987 increase.

SENATOR DALTON: I'm talking about what the total increase of Hope Creek I is going to be to the ratepayers.

MR. MALLARD: I don't have that figure.

SENATOR DALTON: Is it 10%?

MR. MALLARD: It is more than 10%.

SENATOR DALTON: Yes. What would you say roughly?

MR. MALLARD: I don't have that figure because it is buried back in accounting. We can respond to that question if you put it on the list.

SENATOR DALTON: That is a question, I think, which is important.

MR. MALLARD: May I amplify that a bit?

SENATOR DALTON: You surely can.

MR. MALLARD: Without Hope Creek, God help us, because after 30 years without Hope Creek, we'll be burning fossil, with all that is involved. You mentioned the price of oil going from \$40.00 to \$30.00 to \$28.00. It can go right back up again if we are dependent upon fossil. If we want to have economic growth in the State, we also have to worry about old plants that are going to retire. They aren't going to last forever. Hope Creek is a wonderful insurance policy for the State of New Jersey. There was this "bump" in the beginning in order



to cover the investment, but as time goes on, the depreciation expense goes down each year. Depending on what happens to the cost of alternate fuels, Hope Creek can look better and better.

Salem, even with all of its problems, is beautiful. It had made money, it is making money, and it will continue to make money. The same is true of Peach Bottom, the other unit we own in Pennsylvania.

It is a question of getting through 1987. It is like paying a kid's tuition, but once you've done that, if the kid goes to the right school and works, you get a nice payout.

I think Hope Creek is a good bet for the State of New Jersey.

SENATOR DALTON: Two years ago, I certainly wanted to explore with the Electric Generating Facility Needs Assessment Act whether or not it was a good bet. Unfortunately, due to the lobbying of your company and a lot of other people, that part of the bill was amended; that was the Blue Ribbon Committee which I proposed.

I wanted to have people share that type of enthusiasm with us. You can be assured that if, in fact, they had that opportunity, I probably wouldn't be sitting here today.

SENATOR STOCKMAN: Mr. Mallard, you are an impressive salesman. That would be my comment about you.

MR. MALLARD: Please don't call me that. (laughter)

SENATOR STOCKMAN: There are a lot of questions we are concerned about, and I don't want anyone to leave this hearing thinking we aren't concerned about them. I repeat that I hope Hope Creek will always prove to be an insurance policy, rather than a nightmare for the citizens of New Jersey.

Senator Costa has something to say, and then we'll have to recess this hearing.

SENATOR COSTA: To pursue what you just talked about regarding the analogy of how you get a return when a child goes to work, I don't know if that is the same in this instance. You're speaking of a nuclear plant, and it sounds like once it is completed and is on line, we're going to live happily ever after. But, you and I know that isn't so. You have a lot of problems. You have the problem,



again, regarding the plants, and of course, you also have the problem of the spent fuel.

I heard you say that you are presently paying the Federal government for the disposal of your spent fuel. Is that correct?

MR. MALLARD: Yes, that is correct.

SENATOR COSTA: How often do you take your spent fuel out of the pool? Where do you take it?

MR. MALLARD: We're not doing anything yet. We're paying the government, and the government is taking our money. Therefore, we're buying rights from the government.

SENATOR COSTA: Do you know where they will put it?

MR. MALLARD: That hasn't been decided yet. The government is obliged--

SENATOR COSTA: (interrupting) The safety routes as far as spent fuel is concerned--

MR. MALLARD: (interrupting) That is all part of it. Transportation is part of it, and that is all being done.

SENATOR COSTA: None of it is being decided--

MR. MALLARD: (interrupting) It is all being worked on by the U. S. Department of Energy. There will probably be two or three such sites in various parts of the United States for high-level radiation storage.

SENATOR COSTA: You mentioned that if we didn't have Hope Creek I-- Obviously, I believe we have reached the point of no return now. Is that correct?

MR. MALLARD: Eighty-five percent.

SENATOR COSTA: So, there is no such thing as abandoning it at this point.

Regarding the incentives of the Cost Containment Agreement, is there any chance that you will come in below the \$3.8 billion?

MR. MALLARD: Yes, there is some. We hope so.

SENATOR COSTA: How much?

MR. MALLARD: It depends on timing. Since we're running about \$40 million per month, once we get to the point where it is

completed and we're ready to go, the cost at that time-- The \$40 million has three components: the interest on the money; the fuel savings; and, the so-called fixed costs associated with the engineers and workers at the plant. The sooner we can get it in, the better the chances are that we will, in fact, come in under the target.

SENATOR COSTA: Okay, then you are aiming for that incentive?

MR. MALLARD: Yes, that is why we're trying for fuel loading in January 1986. The target is based upon commercial operation in December 1986. If we can get January 1986 fuel loading, we'll be commercial by the summer of 1986, so we'll have perhaps a half a year's advantage.

SENATOR COSTA: Regarding Hope Creek II where the consumer is paying for the abandonment, there is about a billion dollars-- What is that figure?

MR. MALLARD: I don't recall the figure, but I think it is some \$300 million.

SENATOR COSTA: Three hundred million dollars. I don't know at what stage that was stopped.

MR. MALLARD: That has totally stopped.

SENATOR COSTA: I know, but I don't know at which stage you've gotten to. My question is, in any way -- I'm throwing this out because I have no idea what it is like -- is there any chance that something can be done so that the cost to the consumers can be lowered?

MR. MALLARD: We have done as much as we could in that we sold surplus equipment, and we cannibalized portions of Hope Creek II to use as spare parts for Hope Creek I. All of these things have contributed to holding prices down.

SENATOR COSTA: All right. I have just one more question. What is New Jersey's dependence on nuclear energy at the present time?

MR. MALLARD: In 1982, 34% of Public Service's energy came by way of nuclear energy -- 34%. In 1983, the number was lower; it was 17%. In 1984, I estimate it will be 20% to 25%.

SENATOR COSTA: And what will Hope Creek I give us?

MR. MALLARD: It will give us another 10% to 15%.

SENATOR COSTA: Thank you.

MR. MALLARD: Thank you.

SENATOR STOCKMAN: Thank you very much. The hearing is now adjourned.

**(Hearing concluded)**



## **APPENDIX**





AGENDA DATE: 7/15/83

State of New Jersey

BOARD OF PUBLIC UTILITIES

1100 RAYMOND BLVD.  
NEWARK, NEW JERSEY 07102

IN THE MATTER OF UTILITY  
CONSTRUCTION PLANS;  
HOPE CREEK INQUIRY

)  
)  
)

DECISION AND ORDER

Docket No. 8012-914-IPRRA

Claude E. Solomon, Deputy Attorney General, on behalf  
of the Department of Energy (Irwin I. Kimmelman,  
Attorney General)

Lawrence R. Codey, Esq., and Francis E. Delany, Jr.,  
Esq., on behalf of the Public Service Electric and  
Gas Company

Daniel P. Duthie, Esq., on behalf of the Atlantic  
Electric Company (LeBoeuf, Lamb, Leiby and  
MacRae, attorneys)

Joseph H. Rodriguez, Public Advocate and Roger L. Camacho,  
Director, Division of Rate Counsel, on behalf of the  
Department of the Public Advocate

Carla V. Bello, Deputy Attorney General, on behalf  
of the Board of Public Utilities

Edward L. Lloyd, Esq., on behalf of the Public Interest  
Research Group and the New Jersey Federation of  
Senior Citizens, Intervenors

BY THE BOARD:

On August 11, 1982, the Department of Energy (DOE), the Public Advocate (Advocate), the Public Service Electric and Gas Company (PSE&G) and the Atlantic Electric Company filed a motion with the Board requesting approval of an agreement into which they had entered. The agreement, described by the signatories as the "Incentive/Penalty Revenue Requirement Adjustment Plan", calls for implementation of an incentive or penalty mechanism upon the completion of the Hope Creek Unit I (HCI) nuclear generating station being constructed by PSE&G on Artificial Island in Lower Alloways Creek, New Jersey. The Agreement, as supplemented by joint statements of the parties filed September 24, 1982, February 25, 1983 and July 12, 1983 (the last having been joined by Intervenor Public Interest Research Group (PIRG)) provides that one of the below formulas will be applied to costs above \$3.7952 billion, when found by the Board to be reasonable, so as to effect a revenue requirement

adjustment thereto as follows:

for reasonable costs up to 10% over the targeted amount, (\$3.7952 billion) revenue requirements associated with rate base should be adjusted to reflect 80% of such net cost above the targeted plant cost;

should plant cost exceed the targeted amount (\$3.7952 billion) by more than 10%, only 70% of the reasonable plant cost above said 10% would be included as part of the rate base in the revenue requirement calculation, and 80% of the reasonable plant costs up to 10% over the targeted amount would be included in the rate base revenue requirement calculation.

The agreement further provides that the signatories will accept actual costs between \$3.55 billion and \$3.7952 billion and that:

for costs below \$3.55 billion, rate base revenue requirements would be calculated at the actual cost plus 20% of the difference between the \$3.55 billion plant cost and the actual cost. This 20% will be reduced in subsequent rate proceedings as if depreciation were being accumulated on said 70%.

The parties also agreed that:

Any incentive or penalty change implemented pursuant to this agreement shall be adjusted in base rate proceedings to reflect changes in the accumulated depreciation.

Finally, the agreement provides that the targeted cost of HCI should be adjusted to reflect changes in the Board's treatment of Construction Work in Progress (CWIP) associated with the unit or changes in the rate at which Allowance for Funds Used During Construction (AFUDC) is set prior to commercial operation of the unit. Such costs may be further modified to reflect increases or decreases resulting from extraordinary events. The costs upon which adjustments agreed to by the signatories will be effected are those costs which the Board adjudges to have been reasonably and prudently incurred in order to place HCI into commercial operation.

After a prehearing conference on August 24, 1982, and appropriate notice, public and evidentiary hearings were held on September 28, 1982, January 21, 1983, February 24, 1983 and February 25, 1983. The scheduling of the foregoing hearings was calculated to afford due deference to legislative hearings concurrently being held on the subject before this Board for consideration.

A number of interested members of the public appeared to give testimony against the instant agreement. Additionally, three legislators advanced positions in support of and against the agreement. Senator Gerald Stockman, appearing to give testimony both on September 28, 1982 and January 21, 1983, generally opposed Board approval of the agreement and voiced particular concern over the extraordinary events clause of the agreement through which he believed unit costs could be inflated. Assemblyman Thomas Cowan and Assemblyman Thomas Pankok submitted position papers to be made part of the record of this proceeding which were generally supportive of the agreement. The Board has considered the various positions advanced by the public witnesses who have participated in this proceeding and acknowledges with appreciation the effort expended on their part.



The signatories, after making opening statements expounding upon the merits of the agreement, supported their positions through witnesses sponsored by PSE&G and DOE. The sole witness to proffer testimony in any way contravening the merits of the agreement (a position paper of Allen Goldberg, a pro se intervenor in many PSE&G rate cases was also received by the Board on June 23, 1982) was Mr. Elliot Taubman, sponsored by Intervenor PIRG and the New Jersey Federation of Senior Citizens. The purpose for which this testimony was presented was to support alternative assumptions to those used by PSE&G. (Reply brief of Intervenor dated July 5, 1983 at p. 4). A review of his suggested alternatives reveals that many have been implemented by this Board in previous proceedings. For example, this Board has recognized the beneficial effect that increased conservation, load management and cogeneration efforts on the part of the utilities under our jurisdiction would have on this State, and has ordered implementation of such programs by all utilities. (Dockets 8012-914-C and 8211-1032). The possible importation of Canadian Hydroelectric power to offset increased fuel costs has also previously been investigated by this Board in Docket No. 8111-952. This project was eventually abandoned by the company involved, the Jersey Central Power and Light Company. The Board, however, is of the opinion that such alternatives are complimentary to, and do not negate the overwhelming evidence adduced in this and other proceedings that added capacity will be needed by PSE&G to meet customer requirements and thereby to enable it to continue to provide safe, adequate and proper service pursuant to N.J.S.A. 48:2-23.

The Board has had occasion to address the above issue in previous proceedings. In Docket No. 794-310, the Board permitted the continuance of \$250 million of CWIP in the company's rate base so as to help fund the construction of HCI. In Docket No. 812-76, after this issued had been joined by PSE&G through pre-filed testimonial evidence that:

an issue of overriding importance in this (rate) case is the completion of Hope Creek Units[.] In the Matter of the Petition of Public Service, Docket No. 812-76, Exhibit No. P-2 at 1 (April 20, 1982),

this Board permitted an additional \$125 million in PSE&G's rate base without AFDC offset based upon the fact, inter alia, that the:

...record reveal(ed) that the Company must bring the Hope Creek I nuclear generating station to timely completion for capacity purposes as well as for additional fuel cost savings. Id, Decision and Order at 11.

Additionally, in affixing an appropriate amortization schedule through which costs associated with PSE&G's abandonment of Hope Creek Unit II were to be recovered, the Board, after analysis of a voluminous record developed in that proceeding, opined:

...that the schedule set forth...will enable the Company to fund the construction of Hope Creek I on a timely basis... In the Matter of Utility Construction Plans, Docket No. 8012-914, Interim Decision, at 7, (April 1, 1982).

Both the DOE and the Advocate, through either participation in or separate analysis of these proceedings have obviously reached similar conclusions as evidenced by the submission of the subject agreement for Board approval. An analysis of Exhibit No. SCC-2, submitted in this Docket by DOE in response to staff request S-12, reveals that DOE believed that HCI should be brought to timely completion and that an

effort should be made to contain the costs of constructing the project. Counsel to the Department of the Public Advocate, Division of Rate Counsel, speaking in support of an amortization schedule for the recovery of Hope Creek II abandonment costs at a December 15, 1982 hearing in Docket 8012-914, indicated that the schedule proposed by the Advocate was calculated to enable PSE&G to help finance HCI in a cost efficient manner. (Docket No. 8012-914 supra, T-91 and T-161). Based upon the above, the Board must conclude that the submission of the subject agreement is predicated upon the need for HCI. This is further demonstrated by the Advocate's agreement therein not to challenge the need for this facility. The signatory parties, having concluded that this facility is needed, have fashioned an agreement through which they believe HCI can be expeditiously completed in a cost efficient manner. Thus, the issue before the Board is whether the instant agreement achieves this purpose and is therefore in the public interest.

A review of the agreement reveals that approval and adoption thereof will not hinder this Board's ability to carry out its statutory responsibility to determine the reasonableness and prudence of costs expended in the construction of HCI. Because this determination must necessarily occur at a time when the unit becomes commercially operable and PSE&G seeks to include its HCI investment in rate base, it will be made even prior to the operation of any of the incentive or penalty mechanisms proposed by the parties. Moreover, approval of the subject agreement will not affect the Board's ability to carefully weigh all financial ramifications as mandated by statute. Its adoption will provide an added inducement for the completion of HCI on schedule, at projected targeted costs. Thus, its application in conjunction with procedures heretofore established by the Board to monitor HCI construction costs on a month to month basis (Interim Decision, supra at 8) coupled with our ability to disallow imprudent costs upon completion of HCI, will act as an ancillary incentive to the already existing tools which this Board will continue to employ to ensure the timely and economic completion of this project.

In order to fund this or similar major projects, it is essential that a utility be able to attract outside investment at the lowest possible cost to its ratepayers. In order to accomplish this, it is important that, where permissible, regulatory actions enhance the financial community's perception of the utilities which we regulate. This is well demonstrated in regard to PSE&G, the only major utility subject to our jurisdiction which is presently in the process of constructing a major generating facility (see generally Interim Decision, supra; Decision and Order, Docket No. 812-76 supra, and specifically Decision and Order Docket No. 831-25 at 3 (February 24, 1983); and Order Suspending Increase, Changes or Alterations in Rates for Service, Docket 837-620 at 1 and 2, (July 18, 1983)). Thus, it is incumbent upon this Board to determine the reasonableness of the incentive or penalty mechanisms proposed by the signatories and the impact of this agreement on PSE&G's ability to attract outside capital financing. We believe for the following reasons, that the proposed mechanisms will not negatively impact upon PSE&G's ability to attract such financing and that the operation of the agreement will be in the public interest.

First, the penalty and incentive provisions were agreed to by the companies which will have to access such outside markets if necessary.

Secondly, in exchange for agreeing to the potential imposition of penalties upon costs which would otherwise be fully recoverable after the Board determined the same to be reasonable, a major obstacle to PSE&G's ability to attract outside funding during the construction phase of this facility has been removed. As related above, not only has the Advocate conceded need for this facility by agreeing not to challenge it in any forum,

the parties to the agreement have stipulated that they will accept actual costs between \$3.55 billion and \$3.7952 billion. We view this as an indication by the parties that the appropriate time for them to examine the costs for this facility will be when PSE&G seeks recovery of these costs through rate base treatment thereof, upon commercial operation of HCI. Thus, a major impediment to the constructing company's ability to obtain timely rate relief during the construction phase of this facility has been removed.

Finally, the Board is in a position at this time, when the plant is 70% complete, as a result of our continuing scrutiny of project costs to assess PSE&G's progress and to determine the probability of this facility coming on line at or below the target cost. Our present and continuing assessment reveals that absent unforeseen events, PSE&G will complete the plant at or near its projected costs.

As related hereinabove, several of the active participants in this proceeding suggested that that portion of the agreement relating to extraordinary events be modified to identify certain events that the Board deemed to be extraordinary. After careful consideration of the record developed on this singular issue, the Board must conclude that it would be inappropriate to endeavor to define or describe what may constitute an extraordinary event before a declaration by any party that one has occurred. As recognized by the signatories, such a determination falls strictly within the purview of this Board's continuing oversight of the construction of the project. It is the Board's belief that an untimely definition or description would delimit its ability to carefully review and analyze the circumstances surrounding such a declaration when and if it occurs, to the detriment of the ratepayer. Accordingly, as agreed to by the parties, litigation of what constitutes an extraordinary event will occur, at the Board's discretion, at the time such an event has been declared, or when PSE&G seeks to recover costs associated with the construction of this plant through rates.

Therefore, based upon the above, the Board HEREBY FINDS:

1. That approval of the "Incentive/Penalty Revenue Requirement Adjustment Plan" will not impair the Board's ability to carry out its statutory functions, nor is it to be construed as an act by which the Board has relinquished any of its authority or jurisdiction;
2. That the submission by the parties of the instant agreement to the Board constituted an endorsement of this Board's findings in Dockets 8012-914 and 812-76, which we reaffirm herein, that HCI is needed and should be brought to timely completion at the lowest possible cost;
3. That approval and adoption thereof will provide an added incentive to PSE&G to bring HCI to completion in a timely and cost efficient manner;
4. That the incentive and penalty mechanisms are appropriate and will not adversely affect PSE&G's ability to attract outside financing at reasonable rates, if it is required; and
5. That litigation of what may constitute an extraordinary event should occur after such an event has been declared to have occurred, as agreed to by the parties and Intervenor PIRG in their joint position filed herewith July 12, 1983.

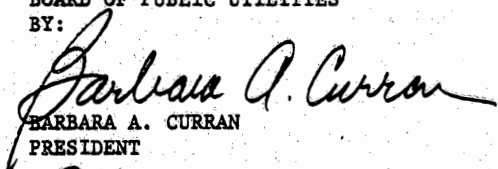
Accordingly the Board, after review of the incentive/penalty procedure set forth in the AGREEMENT OF THE PARTIES, submitted as Attachment A to the Joint Notice of Motion and Motion dated August 10, 1982, and filed August 11, 1982 in the above docket, FINDS that it is reasonable regulatory procedure and mechanism and HEREBY APPROVES the agreement as being in accordance with the public interest.


As stated hereinabove, this Board will continue to closely monitor the construction costs of this project in accordance with procedures developed pursuant to our directive in the Board's Interim Order of April 1, 1982 in Docket 8012-914. We reiterate our belief that the agreement of the parties provides an added inducement to cost efficient and timely construction of the HCI project and commend the signatories for the initiatives they have taken in this area. At the same time this Board must take steps to ensure that when PSE&G seeks rate treatment of HCI, such treatment will have as minimal impact upon its ratepayers as is practicable. All too often when utilities complete construction of base load projects the initial rate impact of placing such projects in service obfuscates the long term economic benefits that ultimately will inure to the ratepayers. We therefore DIRECT staff to undertake a review of appropriate mechanisms through which this impact can be minimized when the facility is completed and PSE&G seeks rate treatment thereof.

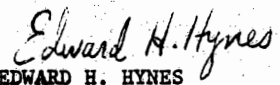
DATED: August 12, 1983

BOARD OF PUBLIC UTILITIES


BY:

  
BARBARA A. CURRAN  
PRESIDENT

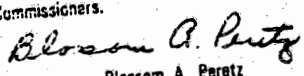
  
GEORGE H. HARBOUR  
COMMISSIONER

  
EDWARD H. HYNES  
COMMISSIONER

ATTEST:

  
BLOSSOM A. PERETZ  
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utility Commissioners.

  
Blossom A. Peretz  
Secretary

TESTIMONY OF  
LEONARD S. COLEMAN, JR.  
COMMISSIONER  
NEW JERSEY DEPARTMENT OF ENERGY

PRESENTED BEFORE THE  
SENATE LEGISLATIVE OVERSIGHT  
AND THE  
SENATE ENERGY AND ENVIRONMENT  
COMMITTEES

TRENTON, NEW JERSEY  
MAY 10, 1984



I AM PLEASED TO ACCEPT THE INVITATION OF THESE TWO COMMITTEES TO APPEAR TODAY TO PRESENT FACTS ABOUT THE HOPE CREEK NUCLEAR GENERATING STATION. SPECIFICALLY, I WILL BE RESPONDING TO THE FIVE ISSUES RAISED IN THE COMMITTEES' MAY 3 LETTER: THE STATUS OF THE PLANT'S CONSTRUCTION; THE PLANT'S IMPACT ON UTILITY RATES; THE STORAGE AND DISPOSAL OF NUCLEAR WASTE; THE COMPETENCE OF THE PLANT'S OWNERS AND BUILDERS; AND THE LIKELIHOOD OF THE PLANT'S COMPLETION WITHIN BUDGET AND ON SCHEDULE.

IF THERE IS A CENTRAL THEME TO THE DEPARTMENT OF ENERGY'S POSITION ON HOPE CREEK, IT CAN BE SUMMED UP IN THE PHRASE, "PRUDENT DECISION-MAKING". AS MY TESTIMONY WILL SHOW, THE JUDGMENTS WE HAVE MADE ON HOPE CREEK HAVE BEEN AND WILL CONTINUE TO BE IN THE BEST INTERESTS OF NEW JERSEY'S ENERGY, AND CONSUMER WELL-BEING.

IN ORDER TO PLACE THE CURRENT STATUS OF HOPE CREEK IN ITS PROPER PERSPECTIVE, LET ME OFFER A BRIEF HISTORY OF THE PROJECT. HOPE CREEK WAS ORIGINALLY CONCEIVED IN THE EARLY 1970'S AS A TWIN REACTOR COMPLEX

WITH A TOTAL GENERATING CAPACITY OF OVER 2,000 MEGAWATTS. IN THOSE PRE-ENERGY CRISIS DAYS OF RAPID LOAD GROWTH, HOPE CREEK WAS SEEN AS THE PRINCIPAL MEANS OF MEETING WHAT WAS THEN PROJECTED TO BE THE ELECTRICITY DEMAND OF THE 1980'S. AS ENERGY PRICES SKYROCKETED IN THE MID AND LATE 1970'S AND A NEW CONSERVATION ETHIC TOOK HOLD, PROJECTIONS FOR SIGNIFICANT FUTURE ENERGY GROWTH DROPPED SHARPLY. MEANWHILE, RISING CONSTRUCTION COSTS AND INTEREST RATES RAPIDLY PUSHED UP THE PRICE OF THE PROJECT.

IN 1981, PUBLIC SERVICE ELECTRIC & GAS COMPANY -- WHICH OWNS 95 PERCENT OF HOPE CREEK -- DECIDED TO CANCEL ITS PLANS FOR THE SECOND GENERATING UNIT, CITING THE RISING COSTS AND SLOWING DEMAND. AT THAT JUNCTURE, ESTIMATES ON THE COST OF COMPLETING THE SINGLE REMAINING UNIT RAN AS HIGH AS \$5 BILLION, AND CALLS CAME FROM SEVERAL QUARTERS FOR THAT UNIT'S ABANDONMENT AS WELL.

THREE YEARS LATER, THE WORD "ABANDONMENT" IS STILL BEING TOSSED AROUND LIKE A FOOTBALL. I MUST ASK IF CAREFUL CONSIDERATION HAS BEEN GIVEN TO ALL THE RAMIFICATIONS OF SUCH AN ACTION, AND WHETHER IT IS



NOT MERELY A SIMPLISTIC AND "EASY" ANSWER TO A COMPLEX, MULTI-FACETED ISSUE.

THE OPTION OF ABANDONMENT WAS STUDIED IN GREAT DETAIL -- ALONG WITH EVERY OTHER POSSIBLE OPTION -- IN A COMPREHENSIVE REPORT ISSUED BY THE DEPARTMENT OF ENERGY IN MAY, 1982. AT THAT TIME, THE DEPARTMENT BELIEVED -- AS IT STILL DOES TODAY -- THAT THE CANCELLATION OPTION WOULD BE COSTLY AND NON-PRODUCTIVE. I COMMISSIONED THAT REPORT AS ONE OF MY FIRST ACTIONS AFTER TAKING OFFICE. AT THE TIME, HOPE CREEK WAS 40 PERCENT FINISHED; HAD ALREADY COST \$1.6 BILLION; HAD JUST BEEN SEVERED FROM ITS NOW DEFUNCT TWIN; AND WAS ONE OF THE MOST CONTROVERSIAL ENERGY ISSUES TO FACE NEW JERSEY IN RECENT MEMORY. DESPITE A WIDE ARRAY OF OPPONENTS, THE PLANT HAD RECEIVED THE NECESSARY ENVIRONMENTAL APPROVALS FROM THE STATE AND THE SUPPORT OF THE BOARD OF PUBLIC UTILITIES ON THE BASIS OF THE NEED FOR THE PLANT'S GENERATING CAPACITY. CAUGHT BETWEEN THE JUGGERNAUT OF A STATE-APPROVED PLANT WELL ON ITS WAY TOWARD COMPLETION AND THE POSSIBILITY OF SHARPLY ESCALATING COSTS, WAS THERE A WAY IN WHICH NEW

JERSEY'S ENERGY AND CONSUMER INTERESTS COULD BOTH BE SERVED WITHOUT SACRIFICING ONE FOR THE OTHER? WORKING CLOSELY WITH THE PUBLIC ADVOCATE AND PSE&G, THE DEPARTMENT DEVELOPED A PLAN WHICH WOULD ALLOW CONSTRUCTION ON THE PLANT TO CONTINUE UNDER STRICT COST CONTROLS. SUCH A SOLUTION WOULD SATISFY THOSE WHO SUPPORTED THE PLANT'S COMPLETION, AS WELL AS THOSE WHO OPPOSED IT ON THE BASIS OF RUNAWAY COSTS. A COST CONTAINMENT AGREEMENT, HOWEVER, HAD NEVER BEEN APPLIED TO THE CONSTRUCTION OF A NUCLEAR PLANT, AND DOUBTS WERE RAISED -- PARTICULARLY WITHIN THE WALL STREET COMMUNITY -- CONCERNING THE IMPACT OF SUCH AN AGREEMENT ON PSE&G'S FINANCIAL POSITION. NEVERTHELESS, THE COMPLETION OF CONSTRUCTION WITH COST CONTAINMENT APPEARED TO BE THE MOST REASONABLE, LOGICAL -- AND PRUDENT -- OPTION UNDER THE CIRCUMSTANCES. WITHOUT OVER-DRAMATIZING ITS IMPORTANCE, I CAN FIRMLY STATE THAT THE DEVELOPMENT OF THIS COST CONTAINMENT AGREEMENT WILL BE VIEWED YEARS FROM NOW BY THE ENERGY, FINANCIAL AND GOVERNMENT COMMUNITIES AS A MILESTONE IN REGULATORY HISTORY.

THROUGH MARCH OF THIS YEAR, CONSTRUCTION COSTS ON THE HOPE CREEK PROJECT TOTALLED APPROXIMATELY \$2.6 BILLION. IF THE PROJECT IS ABANDONED AT THAT POINT -- AND CANCELLATION COSTS OF APPROXIMATELY \$420 MILLION ARE ADDED TO THE AMOUNT ALREADY SPENT -- THE TOTAL COST OF THE PROJECT WILL BE APPROXIMATELY \$3 BILLION. LET ME REPEAT THAT NUMBER: \$3 BILLION...WITHOUT ONE SINGLE KILOWATT OF ELECTRICITY TO SHOW FOR IT.

ON THE OTHER HAND, THE TOTAL COST OF COMPLETING THE PLANT WILL BE LESS THAN \$3.8 BILLION. COMPARING THESE TWO FIGURES, IT BECOMES APPARENT THAT THE COST OF COMPLETING THE PLANT -- AND PRODUCING ITS CAPACITY OF 1,067 MEGAWATTS -- IS AT THIS POINT ONLY SLIGHTLY MORE THAN ABANDONING IT AND PRODUCING ZERO MEGAWATTS.

THE MONETARY COMPARISON IS ONLY PART OF THE STORY. SOME WHO OPPOSE THE COMPLETION OF HOPE CREEK SAY THAT NEW JERSEY CAN REPLACE THE CAPACITY OF THAT PLANT THROUGH PURCHASED POWER. AGAIN, IS THIS NOT A SIMPLISTIC ANSWER TO A COMPLEX ISSUE? IS THERE A GUARANTEE THAT NEW JERSEY WILL BE ABLE TO BUY SUFFICIENT SUPPLIES OF ELECTRICITY OVER WHAT WOULD HAVE BEEN THE 30-YEAR LIFE OF THE PLANT?

ONE WOULD THINK THAT IF PURCHASING ELECTRICITY WAS SUPERIOR TO GENERATING IT ONESELF, THE BUYERS IN THIS MARKET WOULD GREATLY OUTNUMBER THE SELLERS. THE FACT IS THAT PURCHASING ELECTRICITY CAN BE BOTH COSTLY AND RISKY. IT IS COSTLY BECAUSE THE PRICE OF PURCHASED POWER IS BASED ON THE MOST EXPENSIVE FORM OF GENERATION USED BY THE SELLER. IT IS RISKY BECAUSE UTILITIES AND POWER POOLS ARE ONLY ABLE TO SELL POWER WHICH THEIR OWN CUSTOMERS ARE NOT USING. THE AVAILABILITY OF PURCHASED POWER THEREFORE TENDS TO DRY UP DURING PERIODS OF HEAVY DEMAND -- THE TIMES WHEN A "CAPTIVE" PURCHASER WOULD NEED IT THE MOST.

ANOTHER ARGUMENT AGAINST BEING A "CAPTIVE" PURCHASER CAN BE MADE SPECIFIC TO NEW JERSEY. AS YOU KNOW, NEW JERSEY PRODUCES NO OIL, NO COAL AND NO NATURAL GAS. THESE FUELS ARE ALL IMPORTED FROM PRODUCING STATES AND FOREIGN COUNTRIES -- A SITUATION WHICH, AS THE ENERGY SHORTAGES OF THE 1970'S CLEARLY DEMONSTRATED, LEAVES NEW JERSEY IN AN EXTREMELY VULNERABLE SUPPLY POSITION. ELECTRICITY IS THE ONLY MAJOR SOURCE OF ENERGY ACTUALLY PRODUCED WITHIN NEW JERSEY AND IS THEREFORE THE ONLY ONE OVER WHICH WE HAVE DIRECT SUPPLY CONTROL. BY ABANDONING

HOPE CREEK, WE WILL BE TAKING A GIANT STEP BACKWARD IN THE AREA OF ENERGY SELF-SUFFICIENCY AND WILL BE PLACING EVEN GREATER CONTROL OF OUR OWN DESTINY INTO THE HANDS OF OTHERS.

IN ORDER TO EVALUATE PROPERLY THE NEED FOR HOPE CREEK, IT IS IMPORTANT TO LOOK BOTH AT THE SITUATIONS OF BOTH PSE&G AND THE STATE AS A WHOLE. IN 1983 -- OUR LAST FULL YEAR FOR DATA -- PSE&G PURCHASED 26 PERCENT OF THE ELECTRICITY IT SOLD. FOR THE STATE AS A WHOLE, 37 PERCENT OF ALL ELECTRICITY SOLD WAS PURCHASED -- A FIGURE INFLATED BY THE FACT THAT JERSEY CENTRAL POWER & LIGHT COMPANY HAD TO BUY 70 PERCENT OF ALL THE POWER IT SOLD. THESE PERCENTAGES OF PURCHASED POWER ARE CLEARLY UNACCEPTABLE WHEN ONE REALIZES THAT THE COST OF PURCHASES INCREASED BY 180 PERCENT BETWEEN 1978 AND 1983 WHILE ELECTRICITY RATES AS A WHOLE ROSE 75 PERCENT.

IN ADDITION TO THE POWER IT PURCHASED IN 1983, PSE&G GENERATED 27 PERCENT OF ITS ELECTRICITY WITH OIL OR NATURAL GAS. IN OTHER WORDS, MORE THAN HALF THE ELECTRICITY WHICH PSE&G SOLD ITS CUSTOMERS LAST YEAR WAS DERIVED FROM SOURCES WHICH ARE UNDESIRABLE IN TERMS OF ECONOMICS OR THE TYPE OF FUEL USED. NEARLY ONE-THIRD OF PSE&G'S

CURRENT CAPACITY CONSISTS OF "PEAKING" UNITS, WHICH SHOULD IDEALLY BE UTILIZED LESS THAN TEN PERCENT OF THE TIME. EVEN WITH HOPE CREEK IN OPERATION BY 1987, PSE&G WILL HAVE TO RELY ON PURCHASED POWER FOR OVER 20 PERCENT OF ITS ENERGY REQUIREMENTS. WHEN ONE CONSIDERS THAT HOPE CREEK REPRESENTS PSE&G'S ONLY PLANS FOR MAJOR ADDITIONS TO ITS CAPACITY BETWEEN NOW AND THE YEAR 2003, THE PLANT'S IMPORTANCE IN MEETING THE DEMAND GROWTH THROUGH THE REMAINDER OF THIS CENTURY IS GREATLY MAGNIFIED. LOOKING AT THE STATE AS A WHOLE, THE NEED FOR HOPE CREEK'S CAPACITY BECOMES EVEN MORE CRITICAL WHEN ONE EXAMINES THE CONSTRUCTION PLANS OF NEW JERSEY'S TWO OTHER UTILITIES OVER THE NEXT TWENTY YEARS. ATLANTIC ELECTRIC IS PLANNING TO ADD ONLY 470 MEGAWATTS OF CAPACITY, WHILE JCP&L IS PLANNING TO ADD 1,939 MEGAWATTS -- A FIGURE THAT CAN BE CONSIDERED TENTATIVE AT BEST WHEN ONE LOOKS AT THAT UTILITY'S FRAGILE FINANCIAL CONDITION. WHILE ALL THESE PLANNED ADDITIONS WILL BE CLOSELY SCRUTINIZED UNDER THE DEPARTMENT OF ENERGY'S "NEEDS DETERMINATION" AUTHORITY, THE ISSUE OF THE NEED FOR HOPE CREEK'S CAPACITY BY BOTH PSE&G AND THE STATE HAS BEEN CAREFULLY STUDIED AND CLEARLY ESTABLISHED.



THIS BRINGS ME BACK TO THE THEME OF MY TESTIMONY: PRUDENT DECISION-MAKING. THIS COMMITTEE IS HEARING THE COMMISSIONERS OF THREE CABINET-LEVEL AGENCIES TODAY STATE THAT THE COMPLETION OF HOPE CREEK UNDER THE EXISTING COST CONTAINMENT AGREEMENT IS IN THE BEST INTERESTS OF NEW JERSEY. IT IS IMPORTANT TO EMPHASIZE THAT OUR SUPPORT OF HOPE CREEK IS NOT PART OF ANY BLANKET POLICY ON NUCLEAR PLANT CONSTRUCTION IN PARTICULAR OR POWER PLANT CONSTRUCTION IN GENERAL. RATHER, THIS SUPPORT WAS REACHED ON THE INDIVIDUAL MERITS OF THIS SPECIFIC CASE.

ASIDE FROM THE COST AND NEED FACTORS, THERE ARE SUBSTANTIAL DIFFERENCES BETWEEN THE HOPE CREEK PLANT AND OTHER PLANTS AROUND THE COUNTRY -- SUCH AS SEABROOK, SHOREHAM AND ZIMMER. ONE SIGNIFICANT DIFFERENCE IS THAT HOPE CREEK IS BEING CONSTRUCTED BY BECHTEL CORPORATION, WHICH HAS A STRONG RECORD IN NUCLEAR PLANT CONSTRUCTION. BECHTEL IS NOT INVOLVED IN THE CONSTRUCTION OF ANY OF THE TROUBLED PLANTS I JUST MENTIONED. IN FACT, BECHTEL'S REPUTATION IN THE FIELD OF NUCLEAR POWER IS DEMONSTRATED BY THE FACT THAT BECHTEL WAS THE PRIME CONTRACTOR FOR 35 OF THE 82 NUCLEAR PLANTS CURRENTLY IN

OPERATION IN THIS COUNTRY. IN ALL, BECHTEL IS RESPONSIBLE FOR 25 PERCENT OF THE 148 NUCLEAR POWER PLANTS CURRENTLY IN OPERATION, UNDER CONSTRUCTION OR ON ORDER.

ANOTHER IMPORTANT CONTRAST IS THAT NONE OF THE ELECTRIC UTILITIES FINANCING THE CONSTRUCTION OF THOSE OTHER PLANTS IS OF THE SIZE OR FINANCIAL SOUNDNESS OF PSE&G. IN FACT, PSE&G IS ONE OF THE FEW -- IF NOT THE ONLY -- ELECTRIC UTILITY CURRENTLY BUILDING A NUCLEAR PLANT THAT STILL RECEIVES A "DOUBLE-A" RATING FROM THE WALL STREET BOND RATING SERVICES. A UTILITY OF LESSER FINANCIAL STATURE MAY NOT HAVE BEEN ABLE TO WITHSTAND THE FINANCIAL PRESSURES WHICH A PROJECT SUCH AS HOPE CREEK CAN IMPOSE, PARTICULARLY ON THE HEELS OF THE ATLANTIC 1 & 2 AND HOPE CREEK 2 ABANDONMENTS.

THE LETTER SENT BY CHAIRMEN STOCKMAN AND DALTON ANNOUNCING THIS HEARING REQUESTED WITNESSES TO ADDRESS "SAFETY AND MANAGEMENT COMPETENCE ISSUES WHICH HAVE BEEN RAISED BY THE NUCLEAR REGULATORY COMMISSION CONCERNING PUBLIC SERVICE'S OPERATION OF THE SALEM 1 AND 2 PLANTS, AND THEIR RELEVANCE TO THE OPERATION OF HOPE CREEK."



ON THE ISSUE OF PLANT SAFETY, THE STATE WILL NOT HESITATE TO TAKE ACTION IN SITUATIONS WHERE REAL PUBLIC SAFETY ISSUES ARE APPARENT. AN EXAMPLE OF THIS ACTION WAS A DEMAND BY GOVERNOR KEAN TO THE N.R.C. FOLLOWING AN INCIDENT AT SALEM LAST YEAR. THE GOVERNOR INSISTED THAT THE N.R.C. KEEP SALEM CLOSED UNTIL HE COULD BE COMPLETELY ASSURED OF THE PLANT'S SAFETY.

AS YOU ARE AWARE, THE N.R.C. BEARS THE PRIMARY RESPONSIBILITY FOR THE SAFETY OF THIS COUNTRY'S COMMERCIAL NUCLEAR PLANTS. THE N.R.C. HAS THE PERSONNEL, EXPERTISE AND FINANCIAL RESOURCES TO HANDLE ITS RESPONSIBILITY. IT WOULD THEREFORE BE INAPPROPRIATE FOR ME TO ATTEMPT TO USURP THE N.R.C.'S AUTHORITY IN THE AREA OF PLANT SAFETY. LET ME RE-EMPHASIZE THAT THE STATE WILL TAKE WHATEVER ACTIONS ARE NECESSARY TO PROTECT THE HEALTH AND SAFETY OF ITS RESIDENTS. THIS DEPARTMENT IS NOTIFIED BY THE N.R.C. OF ANY INCIDENT OR OCCURRENCE AT ANY NUCLEAR PLANT IN NEW JERSEY. THIS ALLOWS US TO MONITOR THE ACTIONS OF THE STATE'S NUCLEAR PLANTS, AND TO ACT APPROPRIATELY IN EACH INSTANCE.

OUR SUPPORT OF HOPE CREEK'S COMPLETION IS NOT WITHOUT ITS CONDITIONS. IN THE DEPARTMENT'S 1982 REPORT ON HOPE CREEK, THE OPTIONS THAT WERE EXAMINED INCLUDED ONE WHICH WOULD ALLOW COMPLETION OF THE PLANT UNDER A COST CONTAINMENT AGREEMENT. IN OTHER WORDS, PSE&G WOULD BE REQUIRED TO FINISH THE PLANT WITHIN A SPECIFIED BUDGET AND TIME SCHEDULE -- OR FACE FINANCIAL PENALTIES FOR FAILING TO DO SO. THE UTILITIES ALSO STAND TO GAIN FINANCIALLY IF HOPE CREEK CAN BE FINISHED UNDER BUDGET OR AHEAD OF SCHEDULE. THIS TYPE OF ARRANGEMENT HAD NEVER BEEN ATTEMPTED BEFORE IN THE CONSTRUCTION OF A NUCLEAR PLANT, AND WE FACED DIRE PREDICTIONS FROM WALL STREET ANALYSTS THAT SUCH A REVOLUTIONARY IDEA WOULD NOT SIT WELL WITH THE CONSERVATIVE FINANCIAL COMMUNITY.

NEVERTHELESS, WE BELIEVED THAT A COST CONTAINMENT AGREEMENT WAS -- TO RETURN AGAIN TO MY THEME -- THE PRUDENT DECISION TO MAKE IN THIS INSTANCE. OUR PLAN WOULD PERMIT THE COMPLETION OF THE PLANT INTO WHICH OVER \$2 BILLION HAD ALREADY BEEN POURED, BUT IN A MANNER THAT

WOULD PROTECT CONSUMERS FROM FURTHER COST OVERRUNS. THE BEST INTEREST OF CONSUMERS IS THEREFORE SERVED BY PROVIDING THEM WITH THE ELECTRICITY THEY NEED AT THE MOST REASONABLE PRICE.

UNDER THE AGREEMENT, THE BUDGET FOR THE PLANT IS SET AT \$3.79 BILLION. PSE&G, WHICH OWNS 95 PERCENT OF HOPE CREEK, AND ATLANTIC ELECTRIC, WHICH OWNS THE REMAINING FIVE PERCENT, CAN RECOVER ONLY A PERCENTAGE OF ANY COSTS EXCEEDING THE TARGET. SPECIFICALLY, THE UTILITIES CAN RECOVER ONLY 80 PERCENT OF ANY REASONABLE COSTS UP TO 10 PERCENT OVER THE TARGET FIGURE, AND ONLY 70 PERCENT OF ANY REASONABLE COSTS BEYOND THAT. THIS ARRANGEMENT PROTECTS CONSUMERS FROM UNREASONABLE RATE INCREASES CAUSED BY COST OVERRUNS AND PROVIDES FOR A MUCH GREATER DEGREE OF MANAGEMENT AND STOCKHOLDER ACCOUNTABILITY IN THE CONSTRUCTION OF THE PLANT.

THE SIGNING OF A COST-CONTAINMENT AGREEMENT BY PSE&G AND ATLANTIC ELECTRIC HAD A "DOMINO EFFECT" IN THAT IT MOTIVATED THOSE UTILITIES TO IMPOSE SIMILAR RESTRAINTS ON THEIR CONTRACTORS. BECHTEL SIGNED A NEW

CONTRACT WITH PSE&G AND ATLANTIC ELECTRIC CONTAINING COST AND SCHEDULE TARGETS SIMILAR TO THOSE TO WHICH THE TWO UTILITIES ARE BOUND. THE CONTRACT CALLS FOR FINANCIAL PENALTIES AGAINST BECHTEL IF IT FAILS TO COMPLETE HOPE CREEK ON TIME OR WITHIN BUDGET. IT REQUIRES BECHTEL TO EXPERIENCE THE SAME TIME RELATED COST PRESSURES AS THE UTILITIES, AND THUS CARRIES THE IDEA OF MANAGEMENT ACCOUNTABILITY ONE LOGICAL STEP FURTHER.

CONTRARY TO THE INITIAL OPINIONS OF MANY WALL STREET ANALYSTS, THE CONCEPT OF A COST-CONTAINMENT AGREEMENT HAD AN EXTREMELY POSITIVE EFFECT ON THE INVESTMENT COMMUNITY. THE FAVORABLE IMPACT MAY BEST BE DEMONSTRATED BY THE FOLLOWING QUOTE FROM THE REPORT, "ELECTRIC UTILITIES: PROFITS AMID PROBLEMS" WHICH WAS ISSUED ON APRIL 12, 1984, BY THE PRESTIGIOUS ARGUS RESEARCH CORPORATION:

"(PSE&G) SHARES ARE OUR ONLY 'BUY' RECOMMENDATION FOR A COMPANY THAT HAS A NUCLEAR UNIT SCHEDULED FOR COMPLETION BEYOND 1984. WE BELIEVE THAT A COST-CONTAINMENT PROVISION SHOULD GIVE COMFORT TO THE

INVESTOR RESPECTING THE ULTIMATE RATE BASE TREATMENT OF THIS PLANT AND THAT IT PROVIDES AN INCENTIVE TO THE COMPANY TO FINISH IT IN A TIMELY MANNER."

ANOTHER PROMINENT WALL STREET FIRM -- SALOMON BROTHERS -- HIGHLIGHTED THE COST CONTAINMENT AGREEMENT IN A RECENT REPORT ENTITLED, "NUCLEAR POWER PLANTS UNDER CONSTRUCTION: QUANTIFYING THE RISK". THE REPORT STATED, "THE NEWLY-IMPLEMENTED INCENTIVE/PENALTY PLAN SHOULD HELP HOLD DOWN COSTS." THE CONSENSUS ON WALL STREET APPEARS TO BE THAT AGREEMENTS WHICH SUCCESSFULLY CONTROL THE COSTS OF BUILDING NEW POWER PLANTS WILL HELP UTILITIES GAIN MORE FAVORABLE TERMS ON THE FINANCING OF THOSE PLANTS.

PRESENTLY, THE CONSTRUCTION ON THE HOPE CREEK PLANT IS PROCEEDING ON SCHEDULE AND WITHIN BUDGET. AS OF MARCH 31, 1984, EIGHTY-FIVE PERCENT OF THE CONSTRUCTION ON THE PROJECT HAS BEEN COMPLETED. IN TERMS OF EXPENSES, THE TWO UTILITIES BUILDING THE PLANT HAVE SPENT \$2.59 BILLION, OR 68 PERCENT OF THEIR \$3.79 BILLION BUDGET.

THERE ARE SEVERAL KEY MILESTONES WHICH MUST BE REACHED ON THE WAY TO THE SUCCESSFUL OPENING OF HOPE CREEK. THE AGREEMENT BETWEEN BECHTEL AND THE UTILITIES IDENTIFIES 12 SCHEDULED MILESTONES WHICH REPRESENT SIGNIFICANT ACCOMPLISHMENTS IN THE CONSTRUCTION OF THE PLANT. BECHTEL SUCCESSFULLY MET ALL SIX OF THE MILESTONES WHICH HAD BEEN SCHEDULED TO DATE, INCLUDING A KEY ONE LAST DECEMBER WHEN IT TURNED THE PLANT'S CONTROL ROOM COMPLEX OVER TO PSE&G, AND APPEARS TO BE CAPABLE OF MEETING THE REMAINING SIX.

LET ME NOW TURN MY ATTENTION TO AN ISSUE WHICH HAS EVOKED SERIOUS EXPRESSIONS OF CONCERN FROM LEGISLATORS AND CONSUMERS. THAT ISSUE IS THE IMPACT WHICH HOPE CREEK WILL HAVE ON PSE&G'S RATES. THE TERM "RATE SHOCK" HAS GAINED POPULARITY RECENTLY IN DESCRIBING THE EFFECT ON ELECTRIC RATES OF THE INCLUSION OF AN EXPENSIVE NEW PLANT IN A UTILITY'S RATE BASE. ONCE AGAIN, HOWEVER, PRUDENT DECISION-MAKING COMES INTO PLAY AS A MEANS OF PREVENTING "RATE SHOCK" FOR PSE&G CUSTOMERS. IN THIS CASE, THE BOARD OF PUBLIC UTILITIES HAS ALLOWED

PSE&G TO RECOVER PART OF HOPE CREEK'S COST PRIOR TO THE ACTUAL COMPLETION OF THE PLANT. THROUGH VARIOUS RATEMAKING PROCEDURES, INCLUDING A MECHANISM KNOWN IN REGULATORY PARLANCE AS "AN ALLOWANCE FOR CONSTRUCTION WORK IN PROGRESS WITH AN A.F.D.C. OFFSET", THE BOARD IS GRADUALLY PHASING THE VALUE OF HOPE CREEK INTO PSE&G'S RATES.

THIS GRADUAL APPROACH AFFORDS AN EASIER TRANSITION FOR THE CONSUMER FROM PRE-HOPE CREEK RATES TO POST-HOPE CREEK RATES. ALTHOUGH SOME MAY ARGUE THAT UTILITIES SHOULD NOT BE ENTITLED TO COLLECT ON INVESTMENTS THAT ARE NOT "USED AND USEFUL IN THE PUBLIC SERVICE", I BELIEVE THE "RATE SHOCK" ALTERNATIVE IS UNACCEPTABLE. IN SAYING THIS, HOWEVER, I DO NOT WANT TO IMPLY ANY BLANKET APPROVAL ON MY PART FOR THE USE OF CONSTRUCTION WORK IN PROGRESS AS A MEANS OF SOFTENING THE IMPACT OF RATE INCREASES CAUSED BY POWER PLANT CONSTRUCTION. I BELIEVE EACH CASE MUST BE JUDGED ON ITS OWN MERITS, AND THAT SUCH REGULATORY MECHANISMS SHOULD BE UTILIZED ONLY IN CASES WHERE IT IS CLEARLY IN THE BEST INTERESTS OF THE UTILITY AND ITS CUSTOMERS. I ALSO BELIEVE THAT EVERY ALTERNATIVE TO POWER PLANT CONSTRUCTION --



INCLUDING ENERGY CONSERVATION, COGENERATION, AND RENEWABLE RESOURCES -- BE CAREFULLY CONSIDERED BEFORE A FINAL DECISION IS MADE TO BUILD THE PLANT.

ACCORDING TO OUR DEPARTMENT'S ANALYSIS, THE AS-YET-UNRECOVERED PORTION OF HOPE CREEK'S EXPENSES WILL RESULT IN A RATE INCREASE OF UP TO 15 PERCENT IN 1987 DOLLARS. SUCH AN INCREASE WOULD RAISE THE 500 KILOWATTHOUR PER MONTH BILL OF THE AVERAGE RESIDENTIAL CUSTOMER FROM \$54 IN 1984 TO \$62 IN 1987. THESE NUMBERS REFLECT THE SUBTRACTION OF FUEL SAVINGS WHICH PSE&G MUST PASS ALONG TO ITS CUSTOMERS AS THE RESULT OF USING LOWER COST NUCLEAR FUEL. THE IMPACT OF THE INCREASE MAY BE FURTHER MITIGATED BY OTHER FACTORS, SUCH AS THE TIMING OF THE RATE CASES OR THE NUMBER OF STEPS OVER WHICH THE INCREASE IS IMPLEMENTED.

WITH RESPECT TO THE ISSUE OF NUCLEAR WASTE, THE ENACTMENT OF THE NUCLEAR WASTE POLICY ACT OF 1983 ESTABLISHES A SYSTEM FOR THE DISPOSAL OF HIGH-LEVEL WASTES AND ENDS 25 YEARS OF POLITICAL INDECISION ON HOW TO SOLVE THE PROBLEM. THE LEGISLATION REQUIRES THE U.S. DEPARTMENT OF



ENERGY TO RECOMMEND THREE SITES BY JANUARY 1, 1985 FOR THE NATION'S FIRST PERMANENT NUCLEAR WASTE REPOSITORY. THE PRESIDENT MUST SELECT ONE OF THOSE THREE SITES BY MARCH 31, 1987, AND THE NUCLEAR REGULATORY COMMISSION MUST ISSUE A CONSTRUCTION APPLICATION FOR THE REPOSITORY BY JANUARY, 1989. UNTIL THIS REPOSITORY IS ACTUALLY IN OPERATION, THE OWNERS AND OPERATORS OF CIVILIAN NUCLEAR PLANTS ARE RESPONSIBLE FOR THE ON-SITE STORAGE OF HIGH-LEVEL WASTES. THIS RESPONSIBILITY DOES NOT POSE A PROBLEM FOR HOPE CREEK, WHICH HAS ON-SITE FACILITIES CAPABLE OF STORING THE PLANT'S SPENT FUEL THROUGH THE YEAR 2001. INSOFAR AS THE COST OF DISPOSAL IS CONCERNED, IT SHOULD BE POINTED OUT THAT PSE&G'S RATES ALREADY INCLUDE A NUCLEAR WASTE DISPOSAL COST OF APPROXIMATELY ONE MIL -- OR TENTH OF A CENT -- PER KILOWATTHOUR. IN ADDITION, PSE&G HAS ALREADY SIGNED AN AGREEMENT WITH THE FEDERAL GOVERNMENT THAT GIVES THE GOVERNMENT OWNERSHIP OF THE UTILITY'S SPENT FUEL.

IN CLOSING, LET ME SUMMARIZE THE POINTS I HAVE MADE WITH REGARD TO OUR SUPPORT FOR THE COST-CONTAINED CONSTRUCTION OF HOPE CREEK:

1) ABANDONMENT OF THE PLANT AT THIS POINT WILL COST RATEPAYERS NEARLY AS MUCH AS ITS COMPLETION UNDER THE CURRENT BUDGET.

2) ABANDONMENT OF THE PLANT WILL FORCE NEW JERSEY TO PURCHASE LARGE AMOUNTS OF POWER FROM OUT OF STATE, THEREBY SUBJECTING IT TO THE POLITICAL AND ECONOMIC VAGARIES ASSOCIATED WITH BEING AN ENERGY IMPORTER.

3) AS A RESULT OF THE COST CONTAINMENT AGREEMENT, THE HOPE CREEK PROJECT IS ON SCHEDULE AND WITHIN BUDGET FOR THE FIRST TIME IN ITS HISTORY.

4) SUBSTANTIAL DIFFERENCES EXIST BETWEEN THE OWNERS AND BUILDERS OF HOPE CREEK AND THE OWNERS AND BUILDERS OF NUCLEAR PLANTS ELSEWHERE IN THE NATION EXPERIENCING FINANCIAL OR SAFETY RELATED PROBLEMS.

5) THE COST CONTAINMENT AGREEMENT HAS BEEN RECEIVED FAVORABLY BY THE WALL STREET COMMUNITY AS A MECHANISM FOR ACHIEVING MORE FAVORABLE FINANCING TERMS THROUGH LOWER CONSTRUCTION COSTS. THIS WILL TRANSLATE INTO LOWER RATES FOR CONSUMERS.

**TESTIMONY OF EDWARD H. HYNES, COMMISSIONER**  
**BOARD OF PUBLIC UTILITIES**

I am pleased to have the opportunity to discuss, on behalf of the Board, our actions taken with respect to the efficient construction of Hope Creek I and its ratemaking treatment. To date, our decisions have been made with the intent of providing the electric consumers of New Jersey with reliable, economic electricity into the twenty-first century. All analyses to date shows that Public Service will need the additional capacity of Hope Creek I to meet the needs of its customers. Today, I will summarize several issues:

- 1) Status of Hope Creek construction and Board oversight activities.
- 2) The Incentive/Penalty Revenue Requirement Agreement
- 3) "Rate Shock" issues

**STATUS OF HOPE CREEK CONSTRUCTION AND BOARD OVERSIGHT ACTIVITIES**

Hope Creek I construction is proceeding satisfactory and is currently on schedule, within budget and within the Penalty/Incentive cost limitations. All critical path milestones (CPM) are being completed within projected target dates. As of March 31, 1984 the Hope Creek project is approximately 85% complete and \$2.154 billion has been expended (less AFDC).

Tabulated below are actual versus target-construction goals for the Hope Creek I project.

	<u>Actual</u>	<u>Target</u>
%Complete	84.64	84.7
Expenditures	\$2.154 Billion	\$2.157 Billion

The progress of the Hope Creek project is closely monitored through staff's review of the quarterly reports submitted by Public Service, as well as ongoing communication between staff and Public Service management. Further, the Board now has a Nuclear Engineer on-board its Staff, with another to be added shortly, so that our review is thorough and perceptive.

The information provided in this report gives a clear view of the status of construction, cost status, procurement calendar, any physical, labor or regulatory difficulties that have developed and the intensity of work at the project.

#### **THE INCENTIVE PENALTY REVENUE REQUIREMENT AGREEMENT**

The "Incentive/Penalty Revenue Requirement Adjustment Plan" is a joint agreement among the Department of Energy, the Public Advocate, Public Service Electric and Gas Company, and Atlantic City Electric Company. The agreement was designed to help contain the costs of Hope Creek I and to continue to assure the provision of safe, adequate and proper service at reasonable cost to the consumer in the future. This agreement is a reasonable regulatory procedure which provides an inducement to cost efficiency and timely construction of the Hope Creek project. The terms of the agreement provide that the target in-service date for Hope Creek I is December, 1986, with a target cost for commercial operation of \$3.8 billion. The heart of the agreement provides for an incentive or penalty if the final cost of the plant does not match the targeted amount.

A penalty will be assessed for reasonable costs up to 10% over the targeted amount by disallowing 20% of the excess from rate base. In the event that plant costs are greater than the targeted amount by more than 10%, then 30% of reasonable plant costs above 10% will be disallowed from rate base. Should the final cost fall between \$3.5 billion and \$3.8 billion, the actual

prudent cost will be used for determining the revenue requirement. However, if the costs are less than \$3.5 billion, the rate base will be based upon actual cost plus an additional 20% of the difference between \$3.5 billion and actual cost.

This agreement will become effective upon completion of Hope Creek I and shall be implemented when PSE&G seeks rate treatment for this project. The Board by adopting this agreement has provided an added incentive for completion on schedule and at the projected targeted cost. Furthermore, this agreement and the Board's procedures for monitoring the construction costs on an ongoing basis should prevent the problems that are being experienced in other parts of the country by placing a firm incentive on PSE&G to complete the plant efficiently.

#### **"RATE SHOCK" ISSUES**

Given the large investment by Public Service in Hope Creek, the Board has made known its concern that the impact on rates when this plant goes into service not be such that it negatively impact the economy of our state. That is, given that this plant is part of an overall strategy, along with conservation and cogeneration, to reduce our reliance on imported fuels and stabilize electric rates over the long term, we do not want any short-term costs to outweigh these long-term benefits. As such, the Board has directed its staff to undertake a full economic and financial evaluation of the short and long term rate implications of Hope Creek I. I can state that this Board will take whatever steps are necessary to make sure that the rate impact of placing this plant in service will be minimal and will not be disruptive to the state's growing economy.

We are all aware of the monumental rate shock that could occur out on Long Island due to the Shoreham nuclear plant. I can assure you that the increases in the Public Service territory will be nowhere near that magnitude

when the Hope Creek plant goes into service. The relative magnitude of rate relief necessary to cover the construction costs of each plant can be gauged by the ratio of plant capacity to the total existing capacity for each utility. The Shoreham plant will comprise 22% of Lilco's capacity, while Hope Creek will be only 11% of PSE&G's capacity. This differential is amplified by the cost per kilowatt for each plant -- \$5,100/kw for Shoreham compared to \$3,600/kw for Hope Creek. These differences in the two plants, and the utilities building them, are the principal reasons why Salomon Brothers recently calculated that the Gross Rate Impact (which assumes traditional regulatory treatment of new plant placing the entire cost in rate base without fuel savings when operation begins) would be nearly twice as great for Shoreham than for Hope Creek.

There has been a wide range of projections put forth for the actual rate impact of Hope Creek when it comes on line. I refrain from making such a projection myself, because the ultimate impact will depend in large part on policy decisions the Board must make in the time between now and plant completion. We must determine how much, if any, additional funds for Construction Work in Progress in rate base should be granted in any rate cases before 1987. As is our present policy, this determination will be based on our assessment of the financial situation facing the company - how much money it needs to preserve its access to the financial markets, to finish the plant, without unduly burdening present consumers. We must also decide what general rate relief for increased costs of providing service, such as labor and materials, will be necessary in the interim. Fuel costs will also be almost certainly adjusted between now and 1987, although to what extent cannot be determined in May of 1984. In short, the rate impact of Hope Creek in 1987 will depend on what rates are in 1986. This simply cannot be projected accurately at this time.

The Board's staff is assessing the merits of numerous proposals to mitigate the rate impact of placing a \$3.9 billion plant into rates. Essentially, the issue is one of changing the schedule by which a utility will recoup its investment in plant. Traditional regulation would require higher revenues in the initial years, decreasing thereafter. The Board can, however, as circumstances dictate, change this revenue stream so that the initial rate increases are not nearly as large and is certainly prepared to do so, if necessary, in the case of Hope Creek. We have, in fact, taken these steps in a rate decision on Atlantic Electric's purchase of power from the Susquehanna Nuclear Station of Pennsylvania Power & Light. We reduced the payment schedule from \$18 to \$12 million by building a levelized rate structure rather than a traditional rate base/rate of return structure. In addition, in our recent decision regarding resource recovery development in the state, we ordered that rates for resource recovery be set in a way which will start with lower rates rather than the traditional higher rates. The same flexibility in ratemaking which will ease the rate impact of resource recovery can be applied to the Hope Creek plant. I would also note that various rate shock solutions have been adopted by Public Utility Commissions around the nation. The Board's staff is assessing these solutions to determine their effectiveness in protecting the long term interest of consumers.

In closing, it is important to point out that figures which have been developed around the nation, as well as some here in New Jersey, which estimate the rate impact of nuclear plants in service, all assume that standard rate base/rate of return regulation will be used. That is, the estimates assume that the entire plant cost will be placed in rate base with a full return. This Board is not constrained by this tradition and will use its authority to insure that rate shock does not occur. I would reiterate that the Board of Public Utilities is ready, willing and able to take any ratemaking steps to protect the economy of this state when Hope Creek I goes into service. Thank you.

