

VOLUME 14

NEW JERSEY DEPARTMENT OF ENERGY  
BOARD OF PUBLIC UTILITIES

NEWARK, NEW JERSEY

THURSDAY, OCTOBER 9, 1980

In the Matter of the Petition of )	
Jersey Central Power and Light )	OAL DOCKET NO.
Company for Approval of an Increase )	PUC 3518-80
in Rates for Electrical Service and )	
for Amendment to the Levelized Energy) )	BPU DOCKET NO.
Adjustment Clause and Factor for such )	804-295
service. )	807-488
-----) )	

BEFORE: HON. STEPHEN G. MARSHALL  
ADMINISTRATIVE LAW JUDGE

A P P E A R A N C E S:

For the Petitioner, Jersey Central Power  
and Light Company, appear:

KIRSTEN, FRIEDMAN & CHERIN, ESQS.,  
BY: JACK B. KIRSTEN, ESQ., and  
DOLORES DELABAR, ESQ.,  
17 Academy Street  
Newark, New Jersey

and

WILLIAM F. HYLAND, ESQ., of Counsel  
JAMES B. LIBERMAN, ESQ., of Counsel

J. H. BUEHRER & ASSOCIATES  
24 Commerce Street  
Newark, New Jersey  
(201) 623-1974

PENGAD CO., BAYONNE, N.J. 07002 · FORM 2045

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A P P E A R A N C E S: (continued)

For the Department of Public Advocate,  
Division of Rate Counsel, appears:

ALFRED L. NARDELLI, ESQ.,  
Deputy Director  
10 Commerce Court  
Newark, New Jersey

For the Board of Public Utilities Staff,  
appears:

I. PAUL SLEVIN,  
Supervising Rate Analyst

For the Board of Chosen Freenolders of  
Ocean County, appears:

BERRY, SUMMERILL, PISCAL, KAGAN &  
PRIVETERA, ESQS.,  
34 Washington Street  
Toms River, New Jersey

POOR ORIGINAL

1 JUDGE MARSHALL: Good afternoon, gentle-  
2 men. This is the continued hearing in the mat-  
3 ter of the Petition of Jersey Central Power  
4 and Light Company, OAL Docket No. PUC 3518-80  
5 with Stephen Marshall presiding.

6 Before we go on with the cross-examina-  
7 tion of the Company's witnesses, Mr. Nardelli  
8 wishes to make a statement for the record.

9 MR. NARDELLI: Thank you, Judge Marshall.  
10 On Thursday, October 2, Mr. Kirsten put in  
11 the record beginning at Page 1153 the Company's  
12 account of its dealing with a Ms. Eva Bird,  
13 B-i-r-d. I thought I would like to put into  
14 the record at this time Ms. Bird's response to  
15 that. She does disagree with much of what was  
16 said on the record last Thursday.

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1 MR. NARDELLI: (Continuing) She repre-  
2 sents that she in fact has had no electricity  
3 since April of 1980. She also represents that  
4 JCP&L never agreed to any deferred payment  
5 schedule which is reason why she was not making  
6 payments under any such schedule. She does sug-  
7 gest that perhaps some of the confusion, if that  
8 is what it is, may arise from the fact that  
9 there was a family upstairs from her and their  
10 meter, the family upstairs, was also removed  
11 under the allegation of charges of meter tamper-  
12 ing. Both her meter and the meter of the family  
13 upstairs were removed in September of this  
14 year.

15 She adds that she has a son home sick  
16 now with a heart murmur. She is willing to  
17 come here on May 20th at our next hearing date  
18 to state under oath everything that I have  
19 just stated on her behalf and to clarify it if  
20 necessary.

21 MR. KIRSTEN: You mean October 20th as  
22 our next hearing date.

23 MR. NARDELLI: Did I say May? I don't  
24 know why. I'm sorry, you are right, on Octo-  
25 ber 20th. Finally, she does say that the im-



1 portant thing is getting her electricity turned  
2 back on. She represents that she is willing to  
3 pay \$300 now as a good faith payment to get it  
4 turned back on and she remains willing to at-  
5 tempt to work something out with the Company.

6 I would like this matter to be pursued  
7 in some form. The woman tells a rather moving  
8 story about her difficulties and health as well  
9 as financial, and I think maybe something can  
10 be worked out here.

11 JUDGE MARSHALL: Let's go off the record  
12 a moment.

13 (Whereupon, there was an off the record  
14 discussion.)  
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1 JUDGE MARSHALL: Back on the record.  
2 Let me state for the record that Ms. Bird is  
3 welcome to come down here on the 20th and we  
4 at that time could see what sort of arrangement,  
5 if any, could be worked out. The Company has  
6 also indicated they will have a witness here  
7 with the records at that time.

8 Are there any other matters the parties  
9 wish to bring up before we put Mr. Finfrock back  
10 on the stand?

11 (No response.)

12 JUDGE MARSHALL: Okay, in that case,  
13 Mr. Finfrock, could you please take the stand?  
14 I will note for the record that Mr. Finfrock  
15 has been previously sworn.

16 MR. KIRSTEN: We are considering the  
17 LEAC as part of this proceeding?

18 JUDGE MARSHALL: Off the record.

19 (Whereupon, there was an off the record  
20 discussion.)

21 JUDGE MARSHALL: Back on the record.  
22 We'll swear the witness in this manner.

23 I V A N R A Y F I N F R O C K, J R., sworn on behalf  
24 of Petitioner.

25 DIRECT EXAMINATION  
BY MR. KIRSTEN:

1 Q Mr. Finfrock, will you please state for the  
2 record your position with Jersey Central Power and Light Com-  
3 pany?

4 A Yes, I'm a Vice-President of Jersey Central  
5 Power and Light Company.

6 Q And what is the area of your responsibility?

7 A I'm responsible for the operation and mainten-  
8 ance of our Oyster Creek Nuclear Station.

9 Q Mr. Finfrock, there has been some questions  
10 raised concerning the level of O&M expenses for the Oyster  
11 Creek plant.. Are you familiar with that area?

12 A Yes, I am.

13 Q Has there been an increase in the level of  
14 O&M expenses for the Oyster Creek plant in the year 1980?

15 A Yes, there has.

16 Q Would you tell us generally the reason for  
17 that increase in the level of expenses and, in general terms,  
18 what the nature of the increases expenses were?

19 A Yes, I will. There were a number of reasons  
20 for the increases. First of all, we had to make rather ex-  
21 tensive temporary repairs to the core spray spargers in the  
22 reactor vessel. We experienced --- that by the way was not  
23 anticipated --- we experienced more than anticipated work  
24 in the areas of what we call an in-service inspection program  
25 in order to meet additional NRC requirements and in order to

1 complete the first ten year cycle of that program. We have  
 2 spent a good bit of money as a result of increasing the  
 3 radiation protection program and along with that the house-  
 4 keeping in the station. We instituted a program subsequent  
 5 to some NRC inspections that did not turn out very favorable  
 6 that greatly enhances the radiation protection program and  
 7 housekeeping that goes along with that.

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1           A           (Continuing) We also found that as a result  
2 of the extended outage we created more waste material, lower  
3 level contaminated waste material that had to be disposed of  
4 and, of course, we were seeing increases in the cost of that  
5 disposal at the various burial sites.

6                               There were in addition to that the  
7 necessity to process the chromated waters in the Torus to  
8 remove chlorides that had accumulated in it, and to some  
9 extent the Three Mile Island lessons learned activities in-  
10 creased more than we had originally anticipated.

11           Q           Is the level of O&M expenses which you have  
12 experienced for 1980 to continue into the future at that  
13 level, a greater level or lesser level in your opinion?

14           A           I believe in the future the level of expendi-  
15 tures will at least be as much as we experienced in 1980.  
16 The very much enhanced radiation protection programs, house-  
17 keeping programs, the continual need to comply with somewhat  
18 escalating Federal regulations makes it such that I certainly  
19 do not foresee a reduction in what we have observed this  
20 year.

21           Q           In testimony which you gave during the LEAC  
22 proceedings in this matter, you referred to the age of the  
23 Oyster Creek facility as a factor in terms of at that time  
24 capacity. Does the age of the plant have any impact on the  
25 level of O&M expenses which you perceive for the future?



1           A           Yes, I think it does. A nuclear power plant  
2 is not considerably different than any other piece of machinery.  
3 In general, as it gets older it requires more maintenance.  
4 So, I think the age of the plant is important. The plant has  
5 been operating now nearly 11 years. I don't mean to imply  
6 we do not continue to do maintenance on it, but as it does  
7 get older, we would anticipate more and perhaps even larger  
8 pieces of machinery to be repaired than we have seen in the  
9 past.

10           Q           There was also some question raised in this  
11 proceeding in respect to the outage in the early part of  
12 1980. As I understand it, there was a scheduled outage for  
13 January of 1980 which has become extended, is that correct,  
14 Mr. Finfrock?

15           A           That's correct.

16           Q           And to some extent was that extension of the  
17 outage due to the problem that was discovered in respect to  
18 the sparger?

19           A           Yes, that is correct.

20           Q           Can you tell us, if you know, to what extent  
21 the extension of the outage was due to that problem?

22           A           Approximately two months of the extension I  
23 would contribute to the repair work that was required for  
24 the core spray sparger.

25           Q           I know this has been the subject of your testi-

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mony before, but just for the purposes of keeping the record complete, will you describe in general terms what the sparger problem was and what its status is now?

A All right. During the refueling outage that we had in 1978 as part of our in-service inspection program, we inspected the spargers. Now, perhaps I should explain these are circular pipes that go around the periphery of the reactor vessel on the inside just about a foot above the top of the reactor core.

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1           A           (Continuing) So, they need to be inspected  
2 remotely using television cameras that are extended on long  
3 poles, ropes, because from the working level on the reactor  
4 operating floor down to the spargers, it's approximately 50  
5 feet all of which is under water. During the inspection  
6 in 1978, we discovered a crack in one of the spargers. We,  
7 of course, reported that to all of the necessary agencies, in  
8 particular the Nuclear Regulatory agency. We employed out-  
9 side consultants to help us get an understanding of why the  
10 crack was there and we determined that it would appear that  
11 there had been stresses built up in the pipe, possibly but  
12 not for sure, possibly from the installation of it that had  
13 been subsequently relieved by the crack formation. And, the  
14 repair that was employed at that time was to clamp the one  
15 sparger pipe in the vicinity of the crack in order to mechan-  
16 ically restrain it.

17                           That analysis and the repair, the pro-  
18 posed repair was all reviewed and approved by the Nuclear  
19 Regulatory Commission. And, it was our conclusion at that  
20 time based on everything we knew then, that that would be the  
21 end of the problem.

22                           However, we were required as a result  
23 of that repair to reinspect the spargers at the next time  
24 that we shut down to refuel the reactor which would have  
25 been in the winter of 1980. When we performed the inspection

1 in 1980, we used a somewhat improved TV camera, a very much  
2 improved method of mounting the camera so we could get  
3 higher resolution pictures and in addition, we used some  
4 rather newly developed ultrasonic testing techniques.

5 The outcome of that inspection then was  
6 that we found a number of additional cracks which also had  
7 to be repaired. Before we did that, of course, we had to go  
8 back and reanalyze with an endeavor to figure out why we saw  
9 additional cracks. Our consultants tell us that the stresses  
10 in these pipes are very low ---.

11 MR. KIRSTEN: I'm sorry, I didn't hear  
12 that last couple of words.

13 A --- the stresses in the pipes are low and,  
14 therefore, one would not expect to find chloride stress  
15 corrosion cracking. However, the consultants all tell us  
16 that the cracks looked like that but no one to my knowledge  
17 really knows why they are there. We then proposed an exten-  
18 sion of the 1978 mechanical restraints and that repair was  
19 accepted by the Nuclear Regulatory Commission. And as a  
20 result we had to install nine additional clamps. Again, all  
21 of the clamping work is done remotely, it's all underwater.

22 In the process of manufacturing the  
23 clamps a template is made to try to match up the exact con-  
24 figuration of the piping on which the clamp is going to be  
25 installed. But when the clamps arrive at the plant, they

1 then have to be hand fitted again remotely with additional  
2 tools to hold the clamps, plus all of the lighting and the  
3 TV cameras. That activity simply takes a lot of time. In  
4 fact, I sometimes wonder why it didn't take longer due to  
5 the difficult nature of the work. We had, I might add, a  
6 very responsive work force, the best kind of productivity  
7 one could expect in that kind of situation.

8                   Now that machine is now operating and  
9 it has the clamps in place, but we are required by the Nuclear  
10 Regulatory Commission to replace the spargers at the next  
11 refueling outage which will be at the end of 1981 and will  
12 extend substantially into 1982.

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1 A (Continuing) Our present plan is to remotely  
2 remove the existing spargers. We are doing that for two rea-  
3 sons. There is a concern that the clamps might come loose,  
4 that the pipes might continue to crack and therefore create  
5 what is known as loose parts inside the reactor vessel. And,  
6 that would be a rather unfortunate event. We are also going  
7 to cut out or at least have to cut the existing spargers so  
8 we have access to the pipes that bring water into the spar-  
9 gers because we intend to use those pipes to connect a new  
10 sparger system which will be an overhead grid system on top  
11 of the reactor that can be hopefully set all in one piece and  
12 connected to the existing inlet pipes for the sparger.

13 That new system is now being designed.  
14 It needs to be tested. We need to get it licensed. We antici-  
15 pate that can be accomplished in time for the late 1981-82  
16 outage.

17 Q A sparger is a device which is designed to dis-  
18 tribute emergency cooling water into the reactor vessel?

19 A Yes, that is correct.

20 Q Is it charged with water all the time?

21 A No, it is not. It does not get charged with  
22 water until the large or small break event occurs that re-  
23 quires emergency water. And then the pumps which are called  
24 the core spray pumps automatically come on and pump water  
25 into the spargers and in turn have a showering effect, if you

1 will, over the top of the reactor core.

2 Q Have these spargers in Oyster Creek ever been  
3 in operation?

4 A Only on one occasion and that was during the  
5 start-up and testing program. Before the plant was really  
6 started, that system was tested. Since that time there has  
7 been no water pumped through the sparger although the pumps  
8 themselves are tested every other week.

9 Q Now, another area of concern was the reference  
10 that was made by you during the LEAC proceedings to an appli-  
11 cation to the NRC for delay in the schedule for the implementa-  
12 tion of the schedule B, Lessons Learned Modifications to the  
13 Oyster Creek plant. At the time I believe you testified that  
14 such an application was going to be filed the end of August.  
15 Would you tell us what has happened with respect to that,  
16 since?

17 A All right. We did not quite make our end of  
18 August date. I forgot the exact date in very early September  
19 the NRC issued what was entitled a letter about the TMI-2  
20 Lessons Learned. It was an extremely lengthy letter but the  
21 bottom line of that letter was <sup>to</sup> indicate to licensees of reac-  
22 tor plants that some of the items which had previously been  
23 designated and were required to be completed by January 1,  
24 1981 could be deferred.

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1           A           (Continuing) I don't recall all of the dates.  
2 Some of the deferral dates are due April, some to June, some  
3 a little later. So, then we had to reduce our letter and as  
4 a result of the relief, I will call it, to some extent we  
5 then ended up the necessity to ask for a deferral of about  
6 three items that still remained in the January 1, 1981 com-  
7 pletion category.

8                               We submitted that letter on September  
9 26th. Our submission as far as we know from our almost daily  
10 verbal conversations with the NRC staff people has been ac-  
11 cepted and they are in the process of reviewing it. I have  
12 nothing official at this time to indicate that we will obtain  
13 the relief that we are asking for, although I am at this  
14 time at least not discouraged in that they are reviewing the  
15 letter and it will probably be I think several weeks before  
16 we will get an answer from the NRC.

17                               I believe there are a number of other  
18 reactor operator licensees that are making similar requests  
19 and I am not aware at this point in time of whether or not  
20 the Commission has established a policy as to how they're  
21 going to handle these matters.

22           Q           Is this a copy of the letter from the NRC to  
23 which you referred?

24           A           Yes, it is.

25                               MR. KIRSTEN: This is dated September 5,

1 1980, Your Honor. I have a problem with dupli-  
2 cating only because of its size. I have made  
3 copies available to the parties and I don't  
4 know whether it is appropriate to have it marked  
5 for identification, just one copy in the record  
6 or whether we should continue with the process  
7 that we had in having copies available to any-  
8 one who wants to see it.

9 JUDGE MARSHALL: Does anyone feel that  
10 it ought to be included in the record in the  
11 form of an exhibit?

12 MR. NARDELLI: I would not insist on  
13 that. I would suggest though that when the  
14 NRC responds to the Company's request as ex-  
15 pressed in Mr. Finfrock's letter of September  
16 26th, 1980 that that response be made part of  
17 the record.

18 MR. KIRSTEN: I am not at that point,  
19 yet, Mr. Nardelli, if you will bear with me a  
20 moment.

21 So, I just want to know for the record  
22 that we do have that available, the September  
23 5, 1980 letter. I think it's important because  
24 it refers to the next exhibit which we have  
25 distributed.

1 BY MR. KIRSTEN:

2 Q Mr. Finfrock, I show you a letter dated Septem-  
3 ber 26, 1980 directed to Mr. Darrell G. Eisenhut, Director,  
4 Division of Licensing, U.S. Nuclear Regulatory Commission.  
5 Do you recognize that?

6 A Yes, I do.

7 Q Is that the letter that the Company sent to the  
8 NRC in respect to the application for delay?

9 A Yes, it is.

10 MR. KIRSTEN: May we have that marked  
11 as JC-700?

12 JUDGE MARSHALL: Okay. If there is no  
13 objection, it shall be so marked JC-700.

14 (Letter dated September 26, 1980 from  
15 JCP&L to Mr. Darrell G. Eisenhut, Director,  
16 Division of LIcensing, U. S. Nuclear Regulatory  
17 Commission, marked JC-700 for identification.)

18 MR. KIRSTEN: I would like to also repre-  
19 sent for the record in response to Mr. Nardel-  
20 li's request that when we do receive any re-  
21 sponse to that letter, we will incorporate it  
22 in the record and I would suggest that it be  
23 designated as JC-700A as a response to that re-  
24 quest. If that is satisfactory, we can reserve  
25 that number for that purpose.



1 JUDGE MARSHALL: If there is no objec-  
2 tion, that number JC-700A will be so reserved.

3 (Exhibit No. JC-700A reserved for Re-  
4 sponse from NRC to JCP&L's letter of September  
5 26, 1980.)

6 MR. KIRSTEN: I have no further questions  
7 of Mr. Finfrock.

8 CROSS EXAMINATION  
9 BY MR. NARDELLI:

10 Q Mr. Finfrock, I believe you characterized your  
11 outlook upon the request you and the Company had made in your  
12 letter of September 26th that you are not discouraged about  
13 getting some kind of deferral from the NRC?

14 A That's correct.

15 Q Am I correct in understanding your testimony  
16 so far today as being that in its letter of September 5, 1980  
17 the NRC in effect has already exceeded to the deferral of  
18 some of the items that we have been discussing?

19 A That is correct.

20 Q Are there many items left?

21 A The letter of September 26th refers to three  
22 items that we are asking to defer until the Spring of 1981.

23 Q Are those the only three items left?

24 A Those are the only three items that we are  
25 asking to have deferred. All the items are still there but

1 at later dates.

2 Q Okay, but it's the three items mentioned in  
3 your September 26th letter that would cause the plant to shut  
4 down by December 1st if the NRC does not agree to a deferral?

5 A That is correct.

6 Q Do you have the names of some of the other  
7 utilities that have filed similar requests?

8 A No, I don't.

9 Q Do you know the names of the reactors involved?

10 A No, I don't. I just have not read that infor-  
11 mation recently.

12 Q Is there any chance that there could be a deferr-  
13 al beyond April of 1981? Is your request to the NRC posed  
14 in such a way that that could be a possible response?

15 A No. We would intend to have the outage hope-  
16 fully not too long a one in April for a number of reasons.  
17 First of all, the amount of reactivity that is loaded in the  
18 reactor core will not permit it to run at full power from  
19 now until the end of November of 1981, which means that we  
20 would be in a mode of coasting down, as we call it, in the  
21 power level, possibly more than we would care to.

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1           A           (Continuing) So, an outage in April I would  
2 say would save that reactivity for use in the summertime.

3                               Furthermore, we have made some rather  
4 extensive reorganizations in the way we are going to do main-  
5 tenance work and we would like to use a short outage in the  
6 Spring to make sure we have all of the kinks worked out of  
7 that organization before we get to the major outage for the  
8 sparger replacement and refueling in the winter of 1981.

9           Q           How long of an outage do you project for April  
10 of 1981?

11           A           Well, we have not completed all the details of  
12 that planning yet. In the order I will say though of three  
13 to four weeks.

14           Q           If the NRC does not defer the three items men-  
15 tioned in your letter of September 26th, am I correct in  
16 thinking that you would shut down by December 1st because  
17 of some environmental limitation upon shut downs between  
18 September 1 and April 1 is it?

19           A           Yes.

20           Q           You are currently projecting a refueling out-  
21 age for Oyster Creek in the winter of '81-'82?

22           A           That's correct.

23           Q           How long would that outage be projected for?

24           A           We anticipate that outage to begin, again  
25 because of the environmental restrictions, November the 30th

1 or thereabouts. That outage is not yet planned in very much  
2 detail but it will be extensive in that we will need to com-  
3 pletely unload the reactor core and obviously reload it back  
4 again, and of course, we would have to cut out the spargers,  
5 we will have to install the new spargers assembly and let me  
6 give you a ballpark number, if I might, in the order of five  
7 to six months.

8 Q Now, if you do have to shut down in 1980 for  
9 three to four weeks, would that have any impact on the refuel-  
10 ing outage?

11 Would that have any impact upon this  
12 refueling schedule that you have just told us about?

13 A No, I don't think it would. I can't foresee  
14 that. We need the 1980, end of '81-'82 outage as late as  
15 we can make it in order to allow the time required to design  
16 and manufacture and test the new sparger assembly.

17 Q Even if it did not affect the beginning date  
18 of the refueling outage of November 30, 1981, would an outage  
19 this year have any effect upon the duration of the winter  
20 '81-'82 refueling outage?

21 A No. The five, six, remember that I gave you,  
22 will be critical path work related to the sparger.

23 Q What was Oyster Creek's actual operating rate  
24 during September of this year?

25 A I didn't look at that number lately. I think

1 around 80-85 percent.

2 Q And from where you sit today, how does it look  
3 for this month? Higher?

4 A Higher, higher. This morning it was at 95.6  
5 percent full capacity.

6 Q October has started very well in other words?

7 A Yes.

8 Q Do you have an expectation that it will continue  
9 to go well?

10 A Yes.

11 Q Now, in discussing Oyster Creek expenditures  
12 with Mr. Kirsten, am I correct in thinking that you were talk-  
13 ing about O&M expenses?

14 A Yes.

15 Q Were you making any distinction when you were  
16 discussing Oyster Creek expenditures between O&M expenses  
17 and capital expenses?

18 A Yes. I addressed O&M expenses in answer to  
19 Mr. Kirsten's question. I did not address the capital.

20 Q Thank you. I thought as much but I thought  
21 I would make sure.

22 Well, let's begin by discussing O&M  
23 expenses. I gather from your discussion with Mr. Kirsten  
24 that those expenses were more than had originally been antici-  
25 pated when, for example, the 1980 budget was made up.



- 1           A           That's correct.
- 2           Q           Do you know what was budgeted for Oyster Creek  
3 O&M? What number is in the budget for O&M expenses?
- 4           A           I am not sure I recall. I don't . ke to guess.  
5 About something in the order of 18 million dollars, I think.
- 6           Q           And do you know what the latest best estimate  
7 is for Oyster Creek O&M in 1980?
- 8           A           In the order of \$30 million.
- 9           Q           Could you tell us in a little more detail about  
10 how that \$18 million became \$30 million in terms of categories  
11 and amounts? Do you have that kind of backup available?
- 12          A           Yes, I have some. Perhaps I could mention some  
13 of the major increases rather than get into all of the little  
14 parts and pieces here.
- 15          Q           Yes, certainly.
- 16          A           One of the items was the necessity as a result  
17 of the in-service inspection program to perform more work  
18 around the reactor vessel and we lumped a lot of the reactor  
19 vessel work like the refueling work and reblading work into  
20 that category, and that is about a million and a half, \$1.6  
21 million.
- 22          Q           When you say \$1.6 million, is that an incremen-  
23 tal amount between the budget and actual for 1980?
- 24          A           That's correct.
- 25          Q           Is that the kind of expense that you would have

1 in 1981 too? Is that an ongoing expense?

2 A I think it certainly will because the inspec-  
3 tion requirements that we have now have been substantially  
4 increased and I would not expect 1981 to be any less than  
5 1980.

6 Another item that --- do you want me to  
7 go on?

8 Q Yes.

9 A Another item that involved about \$800,000 was  
10 increased turbine inspection work that was not anticipated  
11 as a result of suggestions or requests from the turbine manu-  
12 facturer to inspect things that we had not previously planned  
13 to inspect when the outage was originally planned.

14 Q Is that the kind of inspection that you would  
15 anticipate having to do in 1981?

16 A Yes. In fact, in the area of the turbine it-  
17 self, I expect to be substantially more increased than in  
18 1980.

19 Q I might add Mr. Finfrock that this is the kind  
20 of analysis which is exactly what I am looking for, so please  
21 continue.

22 JUDGE MARSHALL: Excuse me, before you  
23 continue, for the record, who is the manu-  
24 facturer of the turbine?

25 THE WITNESS: General Electric Company.

1 JUDGE MARSHALL: Okay.

2 A (Continuing) Now, I mentioned that we have  
3 really tightened up on our radiation protection program.  
4 We have decreased allowable contamination levels, decreased  
5 allowable exposure levels. That increased program accounts  
6 for --- I have got to add a few numbers together here ---  
7 about \$1.3 million, and I fully expect that to be an ongoing  
8 endeavor.

9 Now, I mentioned the sparger repair.  
10 The manufacturing<sup>of</sup>the clamps and their installation is not  
11 provided for and that's a little over a million dollars.

12 Q Now that's something you would not have in  
13 1981, correct?

14 A Well, I hope not but I don't know what there  
15 will be to take its place. I expect there will be.

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1 Q Well, when you say, what would be to take its  
2 place, are you referring to the fact that you will need a  
3 new system?

4 A No, no. What I meant is, probably that's a  
5 poor choice of words, there will be I fully expect, at least  
6 I would plan for the contingency not to have any more cracks,  
7 any more cracked spargers, but to have a major piece of equip-  
8 ment somewhere else in the plant that will need significant  
9 repair.

10 Q But that kind of thing is what you have in your  
11 budget, correct?

12 A That allowance will be in the budget for 1981  
13 and '82.

14 Q Where are you now, by the way, in the 1981 bud-  
15 get process?

16 A Not as far as I would like to have been. We  
17 hope to have the first review of the O&M budget completed  
18 by the end of this month.

19 Q How is the timing of the O&M budget compared  
20 to the timing of the capital budget?

21 A Well, there has been a lot of work done on  
22 the capital budget ahead of the O&M budget. It's further  
23 along, I would say, than the O&M budget is at this point  
24 in time.

25 Q While we are discussing capital versus O&M,

1 it would appear on first analysis that something like the  
2 sparger repair might be more of a capital expense than an  
3 O&M expense in that it's a one-time non-recurring item which  
4 is being used to improve the plant.

5 A I'm going to have to answer that by saying  
6 that I'm an engineer. We repaired the sparger as you re-  
7 pair many other things. And, I think repairs are generally  
8 capital items. When we replace the sparger, I suspect that  
9 will be another matter.

10 Q Well, you're saying when you replace the spar-  
11 ger that would clearly be a capital expense?

12 A I think so, but I do not want you to think  
13 that I am an expert in these areas.

14 Q All right. You have so far accounted for ap-  
15 proximately 4.7 million of the increment of 12 million in  
16 the Oyster Creek O&M. I gather you have some other items.

17 A Yes, I do. Part of the in-service inspection  
18 program of which we kept a separate accounting and in which  
19 we grossly underestimated comes to about \$800,000. This  
20 was the 10th year of our in-service inspection program and  
21 after the budget was made additional requirements were added  
22 to that 10 year program completion.

23 Q Is this increment of the nature that you antici-  
24 pate it continuing in 1981?

25 A Yes. Another item is the fuel oil expense



1 overrun of about \$700,000 which I believe principally occur-  
2 red because we had the plant shut down during a much longer  
3 time in the winter months than we had anticipated. When the  
4 plant is shut down, it doesn't make any of its own heat for  
5 the workers.

6 Q Now that strikes me as an expense that is a non-  
7 recurring expense and you would not anticipate it to happen  
8 next year. Is that correct?

9 A No, that is not correct. We are going to have  
10 an outage next winter. I expect it will be cold again and  
11 we will need to heat the plant.

12 Q But I mean you are budgeting for such items,  
13 aren't you?

14 A Not always in the wintertime to the extent  
15 that we are this year.

16 Q The outage you had this past winter was a plan-  
17 ned outage, was it not? I mean the one beginning January  
18 5th?

19 A Yes, but not to the extent that it went on to.

20 Q Well, the outage lasted longer than you antici-  
21 pated, correct?

22 A Yes.

23 Q But it was a planned outage for the first two  
24 months of the outage which happened to coincide with the  
25 winter from January 5th to March 15th, correct?

1           A           Yes, but the longer the outage goes on, the  
2 more wastewater is created and fuel oil is also used to pro-  
3 vide steam to run the evaporators that process the waste  
4 part of it.

5           Q           When you do your O&M budget, are you in the  
6 process of doing --- you will take into account the fact that  
7 you do have a planned outage for the winter of 1981-82, will  
8 you not?

9           A           Yes, we will.

10          Q           All right, go ahead with the next item, if you  
11 will?

12          A           The extended outage in and of itself with a  
13 lot of men working creates a lot of low level waste. Mainly,  
14 the protective clothing that the men wear which has to be  
15 packaged and shipped and buried. That amounts to about 1.3  
16 million.

17          Q           When you say the extended outage, you mean the  
18 fact that the budget was anticipating an outage from January  
19 to March of 1980 and it wound up being from January to Febru-  
20 ary of 1980 --- January to July of 1980, I'm sorry.

21          A           Yes.

22          Q           Have you given me an amount for that yet, Mr.  
23 Finfrock?

24          A           Yes.

25          Q           Is it 1.3 million?

1 A Yes, it is.

2 Q Now, surely that is a non-recurring incremental  
3 expense in terms of, you would not anticipate it in 1981,  
4 correct?

5 A I am anticipating another extended outage dur-  
6 ing the end of 1981 into 1982 with a lot of workers and with  
7 a very highly radiation exposure job cutting out the old  
8 spargers. So, there will be much contaminated waste that  
9 will have to be disposed of. I would not in the forthcoming  
10 outage, expect to have that decreased. And again, because of  
11 our tightening up of all the radiation control procedures,  
12 that in itself creates more waste.

13 Q All right, go to the next one.

14 A Again, as a result of the extended outage we  
15 had more corrective maintenance work than we would have  
16 otherwise done in the area of preventive maintenance. And,  
17 that amounted to about a half a million dollars.

18 Q Is that likely to reoccur in 1981?

19 A Yes. We are instituting a much expanded pre-  
20 ventive maintenance program in the early part of 1981.

21 Q Why have you instituted such an expanded pro-  
22 gram?

23 A Why?

24 Q Yes.

25 A We probably should have always had the program

1 but now that the plant is getting older, it's becoming abund-  
2 antly clear that we have to do more day to day preventive  
3 maintenance work in order to endeavor to maintain the relia-  
4 bility that the plant has enjoyed for the last 10 years.

5 JUDGE MARSHALL: Excuse me, Mr. Finfrock,  
6 does the Company take care of the job of the  
7 disposal of low level waste or does it contract  
8 that job out to some other organization?

9 THE WITNESS: The Company packages it  
10 and then uses a contractor to ship it and then  
11 we have, in addition to that a contract with  
12 the burial sites where the shipper takes it.

13 JUDGE MARSHALL: Who is the contract  
14 with, the Federal Government or private organiza-  
15 tions?

16 THE WITNESS: No, no, they are private  
17 organizations licensed by the Federal Govern-  
18 ment to do what they do.

19 JUDGE MARSHALL: Are they in New Jersey  
20 or are they out of state?

21 THE WITNESS: The disposal sites are all  
22 out of state. We don't use the same contractors  
23 for everything. A couple of them, I think, are  
24 New Jersey firms though, yes.

25 JUDGE MARSHALL: Okay, thank you.

1 Q Go ahead to the next one.

2 A The licensing, the nuclear safety and licensing  
3 endeavor associated with the analysis of the sparger and  
4 perhaps a couple of other unanticipated things came to about  
5 900,000.

6 Q Is that likely to reoccur in 1981?

7 A Yes, I think so.

8 Are you ready for another one?

9 Q Yes.

10 A The modification work that we are doing on  
11 the Torus structure which is part of the containment for  
12 the plant ---

13 Q What kind of structure?

14 A Containment. That required the removal of  
15 about a half a million gallons of chromated water from the  
16 Torus. And while we had it removed we also processed that  
17 water to reduce the level of the chloride content of the  
18 water. I'll use some round numbers, about a half a million  
19 dollars for that.

20 Q You don't anticipate this expense in 1981, do  
21 you?

22 A You bet. You have to take the water out again  
23 because we are getting ready to go back in to work on it.  
24 The work that we did in 1980 is only about half completed.

25 Q All right, go ahead.



1           A       Some of the support activities like quality as-  
2           surance, quality control, security --- we lumped those toget-  
3           her to come to about a half a million dollars.

4           Q       Why did they increase?

5           A       Mainly because of increasing regulatory require-  
6           ments.

7           Q       Aren't some of those expenses a one time thing  
8           in that once you do them, you don't have to do them again?

9           A       Well, those are people expenses. I can't get  
10          rid of the people.

11          Q       Most of that 500,000 is a payroll expense?

12          A       Yes, at least half of it is payroll expense.  
13          We use some contractors for quality assurance work. Now,  
14          I think we are getting down to some smaller items. We antici-  
15          pate some of the activities of an O&M nature related to the  
16          Three Mile Island lessons learned projects and then, there  
17          were some added to that after we originally planned the budget  
18          so that's about another 120,000 worth.

19          Q       Most of the TMI lessons learned expenses were  
20          capitalized, I assume? I mean the ones other than these?

21          A       You said most, and I am not --- I think that's  
22          correct, yes.

23          Q       Well, the figure you gave for the O&M TMI les-  
24          sons learned was about 100,000. Is that correct?

25          A       A hundred thousand above whatever the original

1 number was.

2 Q You're right. It's the increment. Would you  
3 happen to have the, on this TMI lessons learned, would you  
4 happen to have what was budgeted for 1980 and what the actual  
5 was as far as O&M expenses go?

6 A I don't have that with me.

7 Q Is that the kind of information that Mr. Balda-  
8 ssari would have?

9 A I don't know.

10 JUDGE MARSHALL: Off the record.

11 (Whereupon, there was an off the record  
12 discussion.)

13 JUDGE MARSHALL: Back on the record.

14 MR. NARDELLI: Mr. Kirsten has told us  
15 off the record that he would endeavor to get  
16 that information for us.

17 Q Well, you are now up to about 10 million of  
18 the 12 million incrementals. Are there any other items of  
19 more than one or 200,000?

20 A No, I don't think so.

21 Q Of the remaining two million of the increment,  
22 O&M expenses that we have not discussed, are any of those  
23 expenditures likely to be non-recurring in 1981?

24 A No, I think not. There are things here like  
25 administrative expenses for overseeing contractors and their

1 timesheets, that is training expenses, environmental activity  
2 expenses, none of which I think are going to go away or be-  
3 come red-

4 Q Do you know what the Company is budgeting for  
5 Oyster Creek's O&M in 1981?

6 A That budget is not completed yet but it would  
7 appear that it will be at least in the order of 30 million.

8 MR. NARDELLI: Can we go off the record?

9 JUDGE MARSHALL: Surely.

10 (Whereupon, there was an off the record  
11 discussion.)

1 (After the recess.)

2 JUDGE MARSHALL: All right, back on the  
3 record.

4 FURTHER CROSS EXAMINATION  
5 BY MR. NARDELLI:

6 Q Mr. Finfrock, I know that you were giving rough  
7 numbers but on one of them I happen to have a backup paper  
8 on it, on the sparger repairs. Would you accept subject to  
9 check that a more exact number for that is \$1,014,000?

10 A Yes, subject to check.

11 Q Now, I do have some backup material and I think  
12 you might have it before you now which does analyze the Oyster  
13 Creek O&M expenses for the eight months to date in 1980 ver-  
14 sus the budget. One item that is of interest to me is the  
15 item for the outside contractors, and I note that the actual  
16 through August 31, 1980 is about \$11,070,000 while the budget  
17 was \$5,090,000.

18 Could you give me some idea what kind  
19 of outside contractors the Company was hiring and what they  
20 did, and while you are at it, what accounted for that over  
21 \$5 million difference over just eight months?

22 A First of all, in that period there was a rather  
23 substantial work force at the site, about twice as long as  
24 we had originally anticipated they would be there. Now the  
25 work force did a lot of the reactor vessel work connected with

1 the sparger. They retubed some heat exchangers that we had  
2 not planned on doing. They did a great deal of plant cleanup  
3 work. And, also in that number ---

4 Q You are talking about the outside contractors?

5 A You bet, laborers to mechanics.

6 Q Go ahead.

7 A Also in that number, although I do not know the  
8 exact extent of it, would be a substantial amount of money  
9 for many contract radiation technician kind of people that  
10 were required simply because of the extent of the outage and  
11 the expanded program.

12 Q Now staying with this difference between the  
13 budget and actual for the first eight months of 1980 on out-  
14 side contractors, we are talking about more than \$5 million.  
15 Do you have any idea as to the number of people involved and  
16 whether the difference in over \$5 million was an increase in  
17 the number of people or an increase in the time spent by the  
18 same number of people or some combination of both?

19 A I don't have that break down but I think it is  
20 predominantly driven by having the people there longer than  
21 was originally planned and possibly also somewhat driven by  
22 a larger number of people than we had planned. The number  
23 of workers during the course of an outage, of course, changes  
24 and builds up to a peak during the central part of it, and  
25 this outage at Oyster Creek that was in the order of 1500



1 people.

2 Q Now you mentioned a figure of 1500 people.  
3 Exactly what does that number represent? The number of out-  
4 side contractors?

5 A That's where the number of outside contractors  
6 of all kind peaked, or close to that number.

7 Q So would you say that the actual expense of  
8 over \$11 million for the first eight months of 1980 that  
9 was run up by some 1500 employees as a maximum, --- I said  
10 employees, there was a maximum of 1300 outside contractors  
11 that ---

12 A Approximately.

13 Q Do you know how many outside contractors are  
14 involved in Oyster Creek today, approximately?

15 A I would say 100 or so. There's about 50 labor-  
16 ers that are there now and about 50 contract radiation tech-  
17 nicians. I am sure there is some miscellaneous ones but  
18 it's substantially reduced when the plant is running.

19 Q Is that figure of 100 that you just gave me,  
20 would that be the low point for 1980? You have said the  
21 high point was about 1500.

22 A That may be the low point in terms of contrac-  
23 tors but not in terms of people.

24 Q Okay. Let's stay with outside contractors  
25 just for the time being anyway.

1 A Okay.

2 Q Do you see this figure of 100 today as continu-  
3 ing for the rest of the year?

4 A Yes, either as contractors or being replaced  
5 by Jersey Central employees.

6 Q Do you see this figure of 100 continuing into  
7 1981, at least the first few months?

8 A Yes, I do. In fact, I see the total number of  
9 employees increasing as we implement new programs.

10 Q I am still just focusing on the outside con-  
11 tractors. I don't really understand your answer. I'm asking  
12 if this level of 100 outside contractors, and you have said  
13 it will continue for the rest of 1980 approximately, and then  
14 I asked you whether this level of 100 outside contractors  
15 will continue into 1981, and I believe your answer is yes,  
16 it will.

17 A Yes, and I wanted to clarify that in that the  
18 bodies are required but as we can replace them with trained  
19 Jersey Central employees, we will eliminate them. But, the  
20 payroll, the work force will continue to be at least what  
21 it is today and I fully expect it will increase over the  
22 next six months or so.

23 Q But I would assume that one reason you would  
24 replace outside contractors with Jersey Central employees  
25 is that there would be some savings involved to the Company.

1           A           I would hope so, either in terms of payroll or  
2 the productivity.

3           Q           Now, you spoke of the outside contractors build-  
4 ing up to 1500 at the peak of the 1980 Oyster Creek outage.  
5 May I assume that at no point in 1981 would the outside con-  
6 tractors build up to a peak of 1500?

7           A           It could do that toward the end of December in  
8 1981 when you get into the extended outage. I do not antici-  
9 pate that large a number for what we now hope will be an April  
10 outage.

11          Q           We have discussed, Mr. Finfrock, this differ-  
12 ence of \$5,170,000 between the Oyster Creek budget for out-  
13 side contractors in 1980 and the actual for that period.  
14 I said for 1980, I meant the budget through August 31, 1980  
15 and the actual through August 31, 1980.

16                       Given what you have said about the peak  
17 of 1500 and the current level of 100 which you anticipate  
18 to continue for the rest of the year, would it be fair to  
19 say that for the rest of the year the actual O&M for outside  
20 contractors should run close to the budget?

21          A           No, I think not, because we have a good number  
22 of contractors in the radiation protection area and in the  
23 housekeeping area, and those programs to the extent to which  
24 we are now conducting them were not anticipated when the  
25 1980 budget was originally put together. But, those same

1 programs will indeed continue, I would expect, forever.

2 Q But those programs you have just mentioned,  
3 they were part of the 100 people that we were talking about,  
4 are they not? We are talking about 100 people, outside con-  
5 tractors, from now until the end of the year?

6 A Yes.

7 Q And are you saying that the budget contained  
8 no outside contractors from now until the end of the year?

9 A I am not sure I can answer that. There were  
10 probably some outside contractors budgeted.

11 Q But a number substantially less than 100?

12 A I would think so.

13 Q Mr. Finfrock, on these work sheets there is a  
14 breakdown of the total non-outage costs for Oyster Creek O&M  
15 or production expenses. That figure happens to be \$7,864,000.  
16 But, there is a further breakdown where \$962,000 --- well,  
17 either \$962,000 or \$952,000 of those costs are referred to  
18 as non-recurring costs. Do you have that backup in front of  
19 you?

20 A Yes.

21 Q Do you have any explanation of that \$952,000  
22 or \$962,000 of non-recurring costs? Do you know what it is?

23 A No, I don't.

24 Q Is that something that you could provide for  
25 us not necessarily in person but perhaps give the information

1 to a witness that will be here on another day?

2 JUDGE MARSHALL: Off the record.

3 (Whereupon, there was an off the record  
4 discussion.)

5 JUDGE MARSHALL: Back on the record..

6 MR. NARDELLI: I understand the Company  
7 will make some effort to get a breakdown on  
8 that figure of \$962,000 for non-recurring costs.

9 BY MR. NARDELLI:

10 Q Mr. Finfrock, do you know anything about the  
11 outside services in connection with TMI-1?

12 A No, sir.

13 Q Now for these O&M expenses, there is a break-  
14 down between outage and non-outage. I assume the outage is  
15 the sparger outage.

16 A I assume --- you mean the outage when we worked  
17 on the sparger?

18 Q Yes.

19 A Yes.

20 Q There is an explanation of the expenses and  
21 they are divided between outage expenses and non-outage ex-  
22 penses and that outage refers to the sparger outage in the  
23 first part of 1980?

24 A Yes.

25



1 Q Now, I'm interested in more explanation on the  
2 non-outage expenditures that are listed there. Why don't we  
3 start with outside contractors, 2,830,000. I should note that  
4 that's a breakdown of the difference between the budget and  
5 the actual for those first eight months of 1980. Do you con-  
6 sider yourself as having described that sufficiently so far?  
7 Do you have anything more to say on that? What would be the  
8 non-outage related expenses for outside contractors?

9 A I'm not familiar with how the category of non-  
10 outage was established.

11 Q Do you know if there is anyone in the room who  
12 is familiar with that breakdown?

13 MR. KIRSTEN: I'm not so sure he under-  
14 stands. I think Mr. Finfrock's response was  
15 he wasn't familiar how you defined this, not  
16 that he wasn't familiar with the items. He  
17 just wasn't familiar with the category as you  
18 described it but he's familiar with the items.

19 MR. NARDELLI: I understood that but I  
20 was asking if there was anyone in the room who  
21 could tell us how it was determined whether  
22 something was an outage expense or a non-outage  
23 expense.

24 JUDGE MARSHALL: Off the record.

25 (Whereupon, there was an off the record

1 discussion.)

2 JUDGE MARSHALL: Back on the record.

3 Q For the category of Material, Labor and Supply  
4 only 437,000 of the difference was termed outage while some  
5 2,343,000 was termed non-outage. Can you add anything to  
6 clarify that 2.3 million of expenses on Oyster Creek for non-  
7 outage?

8 A I think I need to say again I'm not sure how  
9 the category was developed. The 2.3 million you referred to  
10 is certainly included into all of the numbers I gave you  
11 that make up the \$12 million.

12 Q There is a category here of, Other, for Oyster  
13 Creek and it shows that it was budgeted for the first eight  
14 months of 1980 at 695,000 and the actual through August of  
15 1980 was 2,507,000, a difference of more than 1.8 million.  
16 Do you know what that other category is and what accounts  
17 for the difference between actual and budget?

18 A Well, there are a lot of items that appear to  
19 make that up. I guess I can say that if it isn't payroll,  
20 M&S or contract, it's other. I don't have the details to  
21 break down all of those others into smaller pieces for you,  
22 though.

23 Q Now, there is a number for total Oyster Creek  
24 budget for the eight months through August of 1980 of  
25 15,540,000. Does that compare to the 18 million that you

1 estimated for the total of 1980?

2 A Yes, I believe it does.

3 Q And the actual for the first eight months total  
4 Oyster Creek O&M is 27,678,000. Am I correct in saying  
5 though that your best estimate for the entire 1980 period  
6 would be about 30 million?

7 A That's right.

8 Q That was not a trick question, but have you  
9 seen JC-301B, page 1 of 2 where it shows the actual projected  
10 for Oyster Creek as 31 million 78 thousand? Will you accept  
11 that figure as being the Company's best estimate?

12 A It's pretty close to my 30.

13 Q It certainly is. I did not mean to imply other-  
14 wise.

15 MR. WARDELLI: Could we go off the record,  
16 Judge Marshall?

17 JUDGE MARSHALL: Certainly.

18 (Whereupon, there was an off the record  
19 discussion.)

20 JUDGE MARSHALL: Back on the record.

21 Q Mr. Finfrock, do you see the line for Oyster  
22 Creek's construction expenditures?

23 Mr. Finfrock, we are talking about two  
24 different things here, aren't we? When you gave a figure of  
25 30 million for your O&M, that's something different than this

1 31 million on JC-301B, isn't it?

2 A Yes.

3 MR. KIRSTEN: That's exactly why I ques-  
4 tion if that's the exhibit you want to look at.

5 Q But I still would like to discuss JC-301B. Do  
6 you see the figure budgeted for August? I shouldn't say  
7 budgeted, projected for August of 2,527,000?

8 A Yes.

9 Q Now will you accept subject to check --- excuse  
10 me --- will you accept subject to check that the actual figure  
11 was \$1,023,000?

12 A Yes.

13 Q Will you accept subject to check that JC-301B  
14 was prepared in late July or at least July of 1980?

15 A I don't know, but I'll accept that.

16 Q So apparently there was a substantial reduction  
17 in August in what was projected to be spent on Oyster Creek's  
18 construction and what was actually spent on such construction?  
19 Do you know how that came about?

20 A Probably not in its entirety but as a result  
21 of the commitment of manpower to the extended outage including  
22 a lot of our engineering manpower we did not get a lot of  
23 projects engineered and sent to the field for construction  
24 as early/as we thought we would. I don't know the details of  
25 that number. It could also reflect not obtaining, therefore,

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1 not paying for new equipment that was purchased.

2 Q Is there a possibility that this phenomenon  
3 will continue or did continue, excuse me, into September of  
4 1980 where some 2,350,000 was budgeted for Oyster Creek?  
5 Would you anticipate that the actual for September might also  
6 be in the vicinity of one million?

7 A No, I don't know that. I haven't looked at  
8 September separately. I anticipate that the total for the  
9 year is going to be very close to what we said it was.

10 Q Which is 31 million 79 thousand?

11 A Yes.

12 Q Do you recall what was budgeted for construc-  
13 tion on Oyster Creek?

14 A For 1980?

15 Q Yes.

16 A I don't think I have those details with me.  
17 I certainly don't recall. There are a large number of items  
18 that comprise this 30 million dollar figure.

19 MR. KIRSTEN: \$31 million.

20 THE WITNESS: \$31 million.

21 Some of them are related to items that  
22 are regulatory required, some are categorized  
23 as other environmental matters, other items are  
24 categorized in the area of performance or im-  
25 proving performance. There are a number of



1 items that are regulatory required from the  
2 standpoint of a nuclear regulatory commission.  
3 There are a large number of items here.

4 BY MR. NARDELLI:

5 Q Do you recall --- I'm not asking for an exact  
6 number, but do you recall whether the number budgeted for  
7 Oyster Creek construction was less than the 31 million that  
8 is now projected for Oyster Creek in 1980?

9 A I think it was.

10 Q Would you care to make an estimate as to how  
11 much lower than 31 million it was?

12 A I think a few million.

13 Q Do you know what accounted for the increase  
14 between the construction budget and the 31 million that the  
15 Company is now projecting?

16 A I think a number of those items would fall  
17 into the category of the Lessons Learned activities that were  
18 added since the capital budget was originally prepared. Some  
19 other items go into the category of improving some of our  
20 processing systems.

21 Q Turning to page 2 of 2 of JC-301B, is that the  
22 Oyster Creek capital budget for 1981, the 26,320,000 that is  
23 shown?

24 A It was, when this information was prepared,  
25 yes. I'm quite confident the final number is going to be

I7 Finfrock - cross

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1 higher.

2 Q Is that connected with Lessons Learned, also?

3 A Part of it.

4 Q Mr. Finfrock, how many employees, and I am  
5 saying employees not, not outside contractors, were budgeted  
6 for Oyster Creek in 1980?

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1 A Initially about 350.

2 Q And what level have you been running at?

3 A I would think that now we are around 400. I  
4 would anticipate by the end of the year that number will be  
5 closer to 500.

6 Q Now, you have put on the record today some rea-  
7 son for this increase. Do you have anything else to add for  
8 the reason for the increase in the budget of 350 employees  
9 for Oyster Creek as to what you anticipate might be a year-  
10 end level of 500 employees?

11 A There is at least one item I think that I neg-  
12 lected to mention. We are going to be embarking --- at least  
13 we plan to embark on an extensive training program that in  
14 itself provides two areas of increased personnel. One is  
15 in the trainers, if you will, teachers, and then the other  
16 one is increasing the numbers of people on the operating  
17 shifts or perhaps increasing the numbers of shifts so that  
18 we have men available to be trained while the plant is run-  
19 ning, while the others are running the plant.

20 Q To some extent, this increase from 350 to  
21 500 employees at Oyster Creek, did it consist of a replace-  
22 ment of outside contractors?

23 A Yes. That number would replace all of the  
24 laborers, all of the radiation technicians which is a sub-  
25 stantial fraction of the current outside contractors.

1 Q So to some degree then the increase in employees  
2 at Oyster Creek might actually result in a reduction of ex-  
3 penses in connection with Oyster Creek to the extent that  
4 the employee expenses are less than the outside contractors  
5 expenses?

6 A I think there will be cases when our outside  
7 contractors replaced by a Jersey Central employee, the cost  
8 per hour may go down. I think there are cases where it  
9 will certainly go up.

10 Q Now, do you have a sense of where the employee  
11 level is going for Oyster Creek in 1981? I gather that in  
12 the beginning of '81 ---

13 A That the number will ---

14 Q Let me add something else and then you can  
15 elaborate at will. I gather at the beginning of 1981 you  
16 are anticipating an employee level of perhaps 500 for Oyster  
17 Creek.

18 A Yes.

19 Q Now, I interrupted you. If you have anything  
20 to add about 1981, please do so.

21 A If we can find them fast enough, I think we  
22 will get to 500. I might regard that somewhat as an optimis-  
23 tic number. I believe the number, if you add everybody you  
24 wanted operating Oyster Creek by the end of 1981 would  
25 then only go to around 520, but I should clarify that number

1 for you. In the process of forming our GPU nuclear group as  
2 it stands today, there will be a substantial number of support  
3 people at the site that are not counted in my 520 number and  
4 that additional support increment is currently in the order  
5 of 200 more.

6 Q Are those people in the 1981 budget for Oyster  
7 Creek?

8 A They will be when we get finished with it.

9 MR. KIRSTEN: This might be a convenient  
10 time to respond. You were trying to nail down  
11 what the 1980 Oyster Creek capital requirements  
12 were in the original budget. The figure that I  
13 have just been advised is \$22,559,000.

14 Q To pick up on that just for a second, Mr. Fin-  
15 frock, how much of the increase between 22 million dollars  
16 in the 1980 budget, the capital budget for Oyster Creek, and  
17 the \$31 million that is the Company's best estimate now, how  
18 much is accounted for by the lessons learned from TMI, that  
19 \$9 million increment?

20 A I'm afraid I don't have that number either.

21 Q Would you care to make a percentage estimate?  
22 Do you think it's more than 50 percent, less than 50 percent?

23 A We are going from 26 million/dollar to \$30 million?

24 Q From \$22 million to \$31 million.

25 A From \$22 million to \$31 million. I would say



1 the lessons learned item is about three to \$4 million.

2 Q Associated with TMI-1 lessons learned?

3 A Yes.

4 Q But of the increase in the O&M budget from  
5 \$18 million to the \$30 million actual that is now projected,  
6 only some \$100,000 was connected with TMI-1 lessons learned?

7 A I think so, yes. That's \$100,000 of the over-  
8 run.

9 Q Yes.

10 Now, are you familiar with Jersey Cen-  
11 tral's transmission system around Oyster Creek?

12 A I am familiar with the two 230 KV lines that  
13 leave the plant and go to Larrabee.

14 Q And is that system adequate?

15 A I am not sure I know how to answer that.

16 Q Is the transmission system in existence now  
17 with Oyster Creek sufficient to meet the needs?

18 MR. KIRSTEN: Which needs?

19 MR. NARDELLI: The present needs let's  
20 begin with.

21 MR. KIRSTEN: Of Oyster Creek?

22 MR. NARDELLI: Yes.

23 THE WITNESS: Yes, to the extent that  
24 one applies to Oyster Creek the electrical  
25 supply criteria that existed in 1965 or '66.

1 To the extent one would apply that criteria  
2 to --- apply the system to the 1980's criteria,  
3 perhaps not.

4 Q You are inferring that the criteria has changed?

5 A Oh, yes, mainly in the area of separate backup  
6 power supplies to get power into the plant. The transmission  
7 lines that exist now are adequate to get all of the power  
8 out of the plant and have been for some time.

9 Q So the transmission into the plant is very ade-  
10 quate --- excuse me, is it the other way? The transmission  
11 out of the plant is very adequate but you can envision a  
12 need to improve the transmission into the plant?

13 A That might be necessary some day. It may be-  
14 come a Federal requirement, but we do not know that yet.  
15 I should perhaps comment a little bit on the differences in  
16 the criteria.

17 Q That's fine.

18 A Oyster Creek is more dependent on diesel gene-  
19 rators for backup power supplies for emergency systems than  
20 other plants would be. In other words, a more modern new  
21 plant would have perhaps another transmission line coming  
22 from some place else.

23 Q Into the plant?

24 A Into the plant. It could be used both ways,  
25 if you wanted it in for some emergency in the event that one

1 of the transmission lines was damaged by an airplane or some-  
2 thing and you could get power into the plant on another line  
3 or maybe even out if the plant was still running.

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1 Q Now what form would this other line be? Would  
2 it be another 230 line?

3 A I am not a transmission engineer, I'm sorry.

4 MR. KIRSTEN: I didn't mean to interrupt  
5 your questioning. I think you and Mr. Finfrock  
6 are talking about two different things. You  
7 meant adequacy and he meant adequacy as far  
8 as backup supply of power for the plant. I  
9 think you were relating it to adequacy as far  
10 as customer needs. I think you were talking  
11 about two different things.

12 Q Well, following up on Mr. Kirsten's point, what  
13 about adequacy for customer needs? Well, okay, I think I  
14 know your answer.

15 A That's not my responsibility.

16 Q You are interested in generating it.

17 A That's correct.

18 Q Are you at all familiar with the Forked River  
19 nuclear project?

20 A I know where it is.

21 Q It's right next door, as a matter of fact,  
22 isn't it?

23 A Yes.

24 Q Are you familiar with some of the equipment  
25 there?

1 A I have seen the equipment that is stored there.

2 Q Do you think there might be a market for it  
3 some place if the Company decided to sell it?

4 A I don't know.

5 MR. NARDELLI: I have no further ques-  
6 tions for Mr. Finfrock.

7 JUDGE MARSHALL: Okay. Mr. Sahradnik,  
8 do you have any questions?

9 MR. SAHRADNIK: Yes, I do.

10 JUDGE MARSHALL: Would you want a few  
11 moments to prepare that?

12 MR. SAHRADNIK: No, I think we can go  
13 ahead.

14 CROSS EXAMINATION

15 BY MR. SAHRADNIK:

16 Q Mr. Finfrock, when we were talking about the  
17 O&M expenses or when you were talking about the O&M expenses  
18 with Mr. Nardelli, you made reference to the fact that you  
19 are in the budgetary process for 1981 in determining what the  
20 projected O&M expenses for Oyster Creek will be. When do you  
21 expect the budget to be in its final form?

22 A I believe we are targeted for the end of this  
23 month. I am not sure that will be its final form, but we  
24 soon hope to begin the review process.

25 Q Is there any revision later than the \$30 million



1 figure that you are aware of?

2 A For 1981?

3 Q For 1981.

4 MR. NARDELLI: For clarification, can I  
5 ask, are we talking about the \$30 million O&M  
6 budget number or the \$31 million capital number?

7 MR. SAHRADNIK: I was talking about the  
8 O&M budget.

9 THE WITNESS: I believe I testified pre-  
10 viously I anticipate it would be in the order  
11 of \$30 million or more.

12 Q Is that testimony based on a draft of something  
13 that you have seen?

14 A No. It is based on my verbal discussions with  
15 people that are working on the budget.

16 Q Have you sat down and calculated any figures  
17 on a piece of paper which led you to come up with this \$30  
18 million figure?

19 A That much has been done.

20 Q Is there anything available that the parties  
21 can  
22 /in this proceeding review concerning how that figure was  
23 arrived at?

24 A Not that I am aware of at this time.

25 Q When will that be available?

A Well, if the review process goes as scheduled,

1 perhaps by the end of the month. But, I am perhaps not the  
2 one to answer that.

3 Q Now at the present time then, there is no definite  
4 figure with respect to what the O&M expenses will be then of  
5 Oyster Creek for 1981.

6 A That's correct.

7 Q Now, Mr. Finfrock, with respect to the sparger  
8 outage, is there any possibility of pursuing warranty plans  
9 or insurance recoveries to offset any of these expenditures?

10 A I do not know.

11 Q Who would know something about that? Are you  
12 aware of whether the Company has discussed either insurance  
13 or the possibility of insurance reimbursement or warranty  
14 claims?

15 A I am not aware of that.

16 MR. KIRSTEN: I am not sure I understood  
17 the question.

18 MR. SAHRADNIK: I was wondering whether  
19 there was any possibility of pursuing any type  
20 of warranty claim or if there was any insur-  
21 ance covering ---

22 MR. KIRSTEN: Covering what?

23 MR. SAHRADNIK: The prolonged outage  
24 due to the sparger outage?

25 MR. KIRSTEN: The answer is that as of

1 the moment there is no claims contemplated,  
2 that the plant is 11 years old and we know of  
3 no warranties, at least expressed warranties,  
4 that would be involved.

5 Q Mr. Finfrock, with respect to the employee levels  
6 you made reference to the fact that you expect a number of  
7 outside contractors to be placed with Jersey Central person-  
8 nel?

9 A That is correct.

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1 Q Now, you also stated that in some instances  
2 this would result in a decrease of costs or expenses, correct?

3 A Yes, it could, in some instances.

4 Q And in other instances you said you thought  
5 that there may be an increase in costs or expenses?

6 A Yes.

7 Q Now, can you just explain to me why you would  
8 replace an outside contractor if it wasn't at a cost savings  
9 to the Company?

10 A I was addressing myself to the labor rate  
11 aspect. If one of our employees does cost more, I would antici-  
12 pate our productivity of him would be higher and offset any  
13 change.

14 Q But in general then, any replacement would be  
15 viewed as achieving maximum cost savings to the Company?

16 A Yes, indeed. In some areas where we have high  
17 level technical people under contract, they are far more ex-  
18 pensive than our own people would be and that savings will  
19 more than offset perhaps the few cases where ---

20 Q I'm sorry, I can't hear your answer over Mr.  
21 Kirsten's discussion. Can you back up a little bit? We were  
22 talking about replacement of outside contractors by Company  
23 personnel, and my question was, why would you replace an out-  
24 side contractor if it would not generate a cost savings to the  
25 Company?

1           A           I expect that the net effect to the Company  
2 will be a savings. A good number of people being replaced  
3 are rather highly paid technicians that are in great demand  
4 today. That's why they are highly paid. The few cases  
5 where we may replace the labor force may be, for instance,  
6 a mechanic or some other person in a labor force, it would  
7 be a little higher there, the payment would be a little higher  
8 there than the craft individual. However, I think our productivity  
9 would offset that as well as the high priced labor that we  
10 are going to replace.

11                               So, the net effect to the Company will  
12 be a savings.

13                               MR. SAHRADNIK: That's all I have.

14                               JUDGE MARSHALL: Does the Board's Staff  
15 have any questions?

16                               MR. SLEVIN: No questions.

17                               JUDGE MARSHALL: Mr. Kirsten, do you  
18 have any redirect?

19                               MR. KIRSTEN: May I have a few minutes?

20                               JUDGE MARSHALL: Certainly. We'll take  
21 a five minute recess.

22                               (Whereupon, a recess was taken.)

23                               JUDGE MARSHALL: Back on the record.

24                               Mr. Kirsten, do you have any redirect?

25                               MR. KIRSTEN: Yes, I just have one or two



1 questions.

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3 REDIRECT EXAMINATION  
4 BY MR. KIRSTEN:

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Q First of all, just to clarify the record, I believe I heard you say that in respect to your characterization of some of the O&M expenses, you first said that replacement of a piece of equipment you would consider capital and then at another point you said, repair of a piece of equipment you would consider capital. Could you clarify that for us?

A If I said that, I made a mistake. Repair I would consider to be O&M.

Q An expense?

A An expense, yes.

Q And replacement?

A Replacement, a capital expense.

Q Now Mr. Sahradnik asked you about, would there ever be a case where you would replace contract personnel with permanent Company personnel where there wasn't a cost savings involved. Are there instances where you might replace Company personnel where costs were not a consideration?

A You mean replace contract personnel with Company personnel?

Q Right.

A Oh sure, there are a lot of other reasons. We

1 have much better control over our own personnel. It certainly  
2 increases the morale of the people who work there when they  
3 are all employees of the Company. It alleviates difficulties  
4 with our internal union because they don't like contractors  
5 around, and we could get a much better employee when we  
6 have an opportunity to train him and the opportunity to keep  
7 him.

8                               Some of these contractor people, when  
9 they are trained they go away. And, we have lost the benefit  
10 of all of that when they do. So yes, there are reasons like  
11 that.

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1 Q Now, I think there was a question posed by Mr.  
2 Nardelli as far as non-outage related expenses and at the  
3 time you were unable to give us a breakdown. Have you since  
4 been able to get any information which would provide a better  
5 answer to that question?

6 A Yes, I believe he asked me about the composition  
7 of the \$962,000 that was noted as non-recurring.

8 Q That's correct.

9 A And, I have some numbers in that regard that I  
10 can now give you. The one item was \$472,000 for processing  
11 the Torus water. I believe I referred to that in earlier  
12 testimony as removing the chlorides from the chromated water.  
13 Another item is \$56,000 for the review of the new health  
14 physics program. And, another item is \$434,000 for miscel-  
15 laneous employee expenses.

16 Q I have one other question, Mr. Finfrock. In  
17 respect to some of the modifications of the plant and some  
18 of the changes and procedures, you refer to a term, Lessons  
19 Learned. Would you tell us if you can to what extent are  
20 these Lessons Learned items related to the TMI-2 unit acci-  
21 dent of last year?

22 A Unfortunately, I guess it was the Nuclear Regula-  
23 tory Commission that created the buzz words, TMI Lessons  
24 Learned. And, that is in good regard perhaps a misnomer.  
25 When something happens, whether it's at Three Mile Island

1 or at some other plant which enables us to see ways to im-  
2 prove the system, to modify it, to enhance its safety, we do  
3 that. And I wouldn't want you to think that it's only Three  
4 Mile Island that's brought to light modifications because if  
5 we had found out by any other mechanism, they would have  
6 surely been made. We have, for example, a major expenditure  
7 in an increased fire protection system because of another plant's  
8 fire where it became apparent the cable trays in the plant  
9 had to be protected far more than they were in the original  
10 design.

11 We are designing a modification now in  
12 which it became apparent one of our systems has an inadequacy  
13 in it because of another plant's --- not an accident but  
14 because of a failure. So, all of these things are done to  
15 change the plant so that what we had perceived to have hap-  
16 pened, doesn't happen again.

17 Q In referring to the plant that had the fire,  
18 you said because of, and you just said now, perceived. Is  
19 the fire the cause of the changes or is the fire creating  
20 the perception of the danger which made such changes im-  
21 portant?

22 A The fire causes more awareness or perception  
23 of the danger that exists if you don't do something.

24 Q Would that be analgous to the Lessons Learned  
25 with respect to TMI-2?

1 A Yes.

2 MR. KIRSTEN: Those are all the questions  
3 I have of Mr. Finfrock.

4 JUDGE MARSHALL: Mr. Nardelli, do you  
5 have any further questions?

6 MR. NARDELLI: No.

7 JUDGE MARSHALL: Does any other party  
8 have any questions of this witness?

9 (No response.)

10 JUDGE MARSHALL: In that case, I'd like  
11 to thank you very much for testifying, Mr.  
12 Finfrock. You may step down.

13 Off the record.

14 (Whereupon, there was an off the record  
15 discussion.)

16 JUDGE MARSHALL: Back on the record.  
17 The parties have no more questions today so  
18 we will adjourn until the morning of October  
19 20th back here at nine o'clock as is the set  
20 OAL policy. Thank you for attending.

21 (ADJOURNED TO MONDAY, OCTOBER 20, 1980,  
22 9:00 A.M., NEWARK, NEW JERSEY.)

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EXHIBITS

Number	Identification	Page
JC-700	Letter dated September 26, 1980 from JCP&L to Mr. D. G. Eisenhut, Director, U.S. Nuclear Regulatory Commission, Division of Licensing.	1567
JC-700A	<u>Reserved for Response from NRC to JCP&amp;L's letter of September 26, 1980.</u>	1568

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