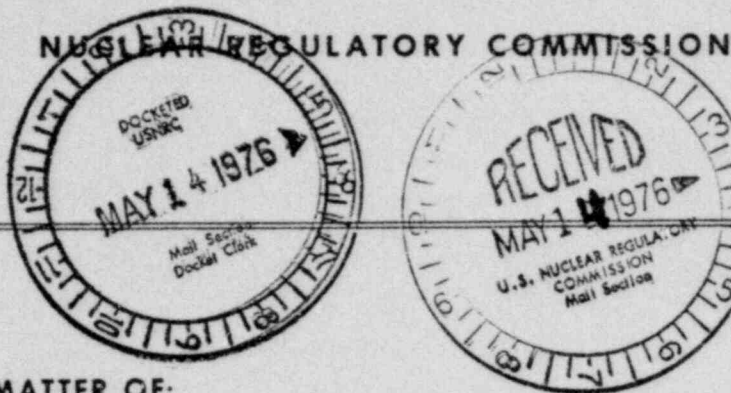


Regulatory Docket File



IN THE MATTER OF:

TOLEDO EDISON COMPANY and  
CLEVELAND ELECTRIC ILLUMINATING CO.

Docket Nos

(Davis-Besse Nuclear Power  
Station, Units 1, 2 and 3)

50-346A  
50-500A  
50-501A

and

CLEVELAND ELECTRIC ILLUMINATING  
CO. et al.

50-440A  
50-441A

(Perry Nuclear Power Plant, Units  
1 & 2)

Place - Silver Spring, Maryland

Date - Wednesday, May 12, 1976

Pages

9362- 9549

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
TOLEDO EDISON COMPANY and  
CLEVELAND ELECTRIC ILLUMINATING CO.  
(Davis-Besse Nuclear Power Station  
Units 1, 2 and 3)

and

CLEVELAND ELECTRIC ILLUMINATING CO.,  
et al.  
(Perry Nuclear Power Plant  
Units 1 and 2)

First Floor Hearing Room  
7915 Eastern Avenue  
Silver Spring, Maryland  
Wednesday, May 13, 1970

The hearing in the above-entitled matter was  
reconvened, pursuant to adjournment, at 9:30 a. m.

BEFORE:

- MR. DOUGLAS RICLER, Chairman
- MR. JOHN FRISVAK, Member (Not present)
- MR. IVAN SMITH, Member

APPEARANCES:

As heretofore noted with the addition of:  
WILLIAM KEMNER, Esquire, Legal Department,  
Cleveland Electric Illuminating Company,  
55 Public Square, Cleveland, Ohio, on behalf  
of the Cleveland Electric Illuminating Company



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<u>Witness</u>	<u>Direct</u>	<u>Cross</u>	<u>Re-direct</u>	<u>Re-cross</u>	<u>Other</u>
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Lynn Firestone		9365	9430 9436		9452
John White	9487				

<u>Exhibits</u>	<u>For Identification</u>	<u>In Evidence</u>
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Staff Exhibit 213		9430
Applicant's Exhibit 126, computer printout	9453	9458

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P R O C E E D I N G S

CHAIRMAN RIGLER: Let's go on the record.

At the end of the day yesterday, we were pursuing a line of questioning designed to show that changes of one one hundredth with respect to reserve margins could have an effect on the ratio set forth in Column 2 of Exhibit 1, revised, of Application 225.

Following our colloquy, I think it became apparent that the Board recognizes these changes will occur.

Do you want to pursue that line of questioning?

MR. GOLDBERG: I have two brief questions more which will demonstrate the significance of that one one hundredth change.

CHAIRMAN RIGLER: There was a pending objection. However, if you will start with two new questions, we will take them and proceed from there.

MR. ZAWLER: I might ask whether resolution of the objection that was pending would be appropriate, in light of the colloquy that Mr. Reynolds had with you and the Staff concerning the position of the Staff was taking vis-a-vis entrance of a new system into CAPCO and whether that would require reformulation of the CAPCO agreements.

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1 CHAIRMAN RIGLER: It does not require  
2 ruling on that objection unless you renew it when he asks  
3 his two new questions.

4 Since he is going to two new questions, the  
5 objection may have to be renewed.

6 MR. ZAHLER: I'm not seeking to get a ruling  
7 from the Board as to the objection. I'm looking for a  
8 response from the Staff which the Board indicated  
9 would be appropriate as to the position the Staff is  
10 asserting so that we can determine the relevance of the  
11 questions.

12 CHAIRMAN RIGLER: We won't require you to  
13 answer. We told you yesterday we would give you an  
14 opportunity if you wished.

15 MR. GOLDBERG: I do not wish to answer.  
16 Whereupon,

17 LYNN FIRESTONE

18 resumed the stand as a witness on behalf of Applicants  
19 and, having been previously duly sworn, was examined and  
20 testified as follows:

21 CROSS-EXAMINATION (Continued)

22 BY MR. GOLDBERG:

23 Q Mr. Firestone, before I ask you these two  
24 brief questions, I want to refamiliarize you with what  
25 you established yesterday.

1           We agreed, did we not, that if the denominator  
2 of the P/N ratio in the very reliable system A on Exhibit  
3 1 (revised) were .05 instead of .06, that the resulting  
4 ratio P/N would be a little over 100,000; is that correct?

5           A       I think we established that, yes.

6           Q       And the difference between 100,000 and the  
7 figure of 88,983.16 which is the correct ratio when  
8 the denominator is .06 is about 11,000, but it is  
9 certainly greater than 10,000; is that correct?

10          A       I will rely on your arithmetic. I haven't  
11 made the calculation, but it sounds reasonable, yes.

12          Q       10,000 is what number times 1/100?

13          A       10,000 is what number times 1/100?

14          Q       Yes.

15          A       1000.

16               MR. ZAHLER: Objection.

17               BY MR. GOLDBERG:

18          Q       Would you accept my statement that 10,000 is  
19 1 million times 1/100?

20               MR. ZAHLER: Objection. I don't know the  
21 relevance of the question.

22               CHAIRMAN RIGLER: Let's see if he can connect it.

23               THE WITNESS: Again the arithmetic sounds  
24 correct to me, yes.

25               CHAIRMAN RIGLER: What is the relevance?



1 BY MR. GOLDBERG:

2 Q Isn't it true then if 10,000, which is the  
3 difference we get in the P/N ratio when the denominator  
4 goes from .06 to .05, just 1/100 less, that the 1/100  
5 difference in the denominator is magnified a million  
6 times in the ratio P/N?

7 MR. ZAHLER: Objection. I still don't know  
8 where the relevance of this line of question is. We agreed  
9 the change in the denominator would have a change on the  
10 ratio.

11 MR. GOLDBERG: And the Board was concerned as to  
12 whether or not it was a significant change. We can easily  
13 establish that the 1/100 change is magnified a million  
14 times in the ratio, and then we can establish whether it  
15 is a significant change.

16 MR. ZAHLER: What circumstances? If he  
17 talks about the magnification of the ratio, what is the  
18 numerator?

19 MR. GOLDBERG: We are keeping the numerator the  
20 same and we are varying the denominator.

21 MR. ZAHLER: The numerator changes in any case  
22 you pick.

23 MR. GOLDBERG: Not when there is error  
24 associated with the denominator or the person putting it  
25 in the computer makes a mistake when he hits the keys.

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very serious matter to the welfare of the other parties.

MR. GOLDBERG: No further questions at this time.

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1 MR.ZAHLER: I still don't know what the relevance  
2 is from his line of questioning.

3 CHAIRMAN RIGLER: What conclusion do you want  
4 the Board to draw from that?

5 MR. GOLDBERG: That very small errors in the  
6 denominators produce significant, here a million times  
7 magnification in the ratio.

8 Therefore, this system of using ratios to  
9 allocate responsibility is extremely sensitive to very  
10 small changes in denominators.

11 CHAIRMAN RIGLER: Assume we accept that.

12 MR. GOLDBERG: Then I think that leaves the  
13 way for a finding on the reliability of these calculations  
14 and their application of the P/N method to small systems.

15 CHAIRMAN RIGLER: I think both Mr. Smith and I  
16 are having trouble tracking you on that. How does that  
17 create or maintain a situation inconsistent with the  
18 antitrust laws?

19 CAPCO has a formula that is satisfactory to CAPCO.

20 MR. GOLDBERG: Yes, but if they use that to deny  
21 other systems membership in CAPCO, that may very well  
22 be part of a situation inconsistent with the antitrust laws.

23 CHAIRMAN RIGLER: Is there any testimony in the  
24 record that the P/N formula has been used to deny membership  
25 in CAPCO?

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MR. GOLDBERG: There is some remaining cross-examination of Mr. Firestone and I wanted to explore the possibility of that.

MR. REYNOLDS: I submit he hasn't responded to your question.

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1 MR. CHARNO: Mr. Chairman, if I may, while your  
2 question was not directed to the Department of Justice  
3 yesterday, in reviewing the transcripts, we came across  
4 some of our surmations of the record which we found trouble  
5 and at variance with what we understand the record to show.

6 CHAIRMAN RIGLER: Give me the page size.

7 MR. CHARNO: 9356 is the specific page to which  
8 I refer. And the sentence that I'm having specific trouble  
9 with, the sentences are the last sentence in the first  
10 paragraph of your statement on that page, and the first  
11 sentence in the following one. They read: "The record  
12 suggests that CAPCO really was not contemplating new  
13 members. There may be a point on controversy whether  
14 this was by design or merely accidental."

15 If your second sentence is intended to modify  
16 the one that immediately preceded that, we have more  
17 trouble.

18 In any event, we think the record shows that  
19 to the extent CAPCO was not contemplating new members, it  
20 was intending to exclude such members.

21 We think the record is very clear on that.

22 CHAIRMAN RIGLER: That is the contested issue?

23 MR. CHARNO: That is a contested issue.

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25 CHAIRMAN RIGLER: I thought that would be clear  
from the second sentence you read that I was saying that. I

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1 understand the Department's position and the opposition  
2 parties' position that CAPCO was a closed pool. They  
3 either consciously excluded new members or by failing to  
4 make provisions for them, reached the same result.

5 I think the Applicants take the opposite position  
6 that the question was simply not addressed. Is that  
7 correct, Mr. Reynolds?

8 MR. CHARNO: We would go one step further and  
9 contend there is evidence in the record that a method  
10 of reserve allocation, when adopted, was adopted with an  
11 idea toward exclusion.

12 That seems to be --

13 CHAIRMAN RIGLER: In your affirmative case,  
14 what in your affirmative case supports that conclusion?

15 MR. CHARNO: You have to take it in a number of  
16 steps.

17 First there was clearly concern that  
18 municipal systems would join the pool. And that would  
19 be Exhibits DJ-679 and City 49 and 50.

20 CAPCO examined the effect the proposed  
21 allocation method would have on the municipal systems.  
22 That would be City Exhibits 27 and 28.

23 They conducted studies to show the impact of  
24 allocation method upon the Cleveland municipal pool  
25 system, specifically.

1 Exhibits DJ-275 and City 48. It was discussed  
2 In CAPCO meetings prior to the execution of understanding  
3 that CAPCO should use an allocation set forth in City 48 --  
4 pardon me, not so that -- because of the inhibiting effect  
5 that would have on municipals joining the pool.

6 That is in City 48. Indeed, they followed  
7 a system of arbitrary allocation at the outset, City Exhibits  
8 30, 31, 44 and 48.

9 CHAIRMAN RIGLER: What were those again?

10 MR. CHARNO: 30, 31, 44 and 48.

11 MR. REYNOLDS: Let me have his statement, if I  
12 can, preceding those exhibits.

13 MR. CHARNO: That initially reverse allocations  
14 were arbitrary for periods "A" and "B" which were the first  
15 two periods of contemplated operation of the CAPCO pool.

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arl 1 CHAIRMAN RIGLER: Now when you say the alloca-  
2 tions were arbitrary, are you referring to the P/N formula  
3 there? You are referring to generating capacity allocations,  
4 are you not?

5 MR. CHARNO: I think we have established in the  
6 record that the reserve allocations and the generating  
7 capacity allocations are directly proportional. It is  
8 impossible to establish one without having a direct impact  
9 on the other.

10 MR. ZAHLER: Mr. Chairman, if I could interject.

11 MR. CHARNO: Let me finish my statement, please.  
12 I would appreciate it.

13 CHAIRMAN RIGLER: Let him finish his statement.

14 MR. CHARNO: And then that the underlying bases  
15 for unit representation within the context of P/N, that  
16 is pro rata as opposed to investment responsibility,  
17 were utilized to avoid conferring any advantage of  
18 membership upon municipal systems.

19 CHAIRMAN RIGLER: What supports that?

20 MR. CHARNO: The Duquesne memo which suggests  
21 changing the pro rata method because it would  
22 benefit municipal systems which did not have generation,  
23 as Exhibit DJ 283.

24 The resulting change from pro rata to investment  
25 responsibility is DJ 372.



1 That is not intended to be the kind of compre-  
2 hensive evidentiary summary necessary to support findings  
3 but we think it does indicate it.

4 CHAIRMAN RIGLER: You contend the selection  
5 of the P/N method was an integral part of a plan designed  
6 to keep municipals out of the CAPCO pool?

7 MR. CHARNO: We contend at this time that  
8 the selection of the P/N method was a set formula and a  
9 set formula was selected for exclusionary purposes.  
10 Further, that the P/N method acts as an exclusionary  
11 barrier which perpetuates Applicant's concerted effort  
12 to keep municipals from being allowed to join the CAPCO  
13 pool.

14 MR. SMITH: Is there anything so far in evidence  
15 which would demonstrate that the P/N formula was less than  
16 optimum to the CAPCO companies themselves without regard  
17 to any exclusionary results?

18 MR. CHARNO: Well, we know that --

19 MR. SMITH: Less than optimum compared to alterna-  
20 tives?

21 MR. CHARNO: We find the P/N and application of  
22 P/N being varied from the inception of the CAPCO pool  
23 until today. It is clear it was neither optimum nor  
24 wholly satisfactory with all of its members, and it was  
25 being constantly negotiated back and forth to allow the

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1 perpetuation of CAPCO. A standardized application of  
2 P/N did not occur.

3 MR. SMITH: Is there any evidence suggesting  
4 that the changes were not adopted for the purpose of attain-  
5 ing the best method of allocation among CAPCO companies  
6 and that they are evolving toward that result?

7 I want to know if they did this to exclude, what  
8 did it cost them? They either had to exclude -- if they  
9 did it to exclude, then there was something wrong with it  
10 as far as their own internal operation was concerned, or  
11 is it coincidental?

12 MR. CHARNO: I don't see the premise you  
13 assume that it would be impossible to have an exclusionary  
14 measure that didn't cost them something in addition.

15 MR. SMITH: I would say there would be one best  
16 method of allocating reserves and capacity among CAPCO.  
17 Maybe they don't know what it is yet, but there would be  
18 one best.

19 If they selected something other than the one  
20 best, perhaps we could infer from that that it was for  
21 exclusionary purposes. I don't know.

22 What I'm asking now is, is there any evidence  
23 that they did not accept the best known method of alloca-  
24 tion known to them?

25 MR. CHARNO: What I'm saying is one of the factors

1 in determining whether it was the best method of allocation  
2 was the potential it had for excluding municipal systems.

3 MR. SMITH: I understand that point.

4 I don't want to confuse the record on this  
5 point and suggest that I have come to the conclusion at  
6 this point in the hearing that P/N is the best. I don't  
7 know that we could ever arrive at any best. I want to know  
8 what evidence is there that the CAPCO companies themselves  
9 have fallen short of what they regard rationally as best  
10 internally without regard to exclusion.

11 There are big numbers involved here, and it  
12 suggests that all of this capacity in these big huge units  
13 are allocated for the purpose of excluding Pitcairn;  
14 well, I want evidence of that.

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1 MR. CHARNO: I don't think that is the Department's  
2 position, that the sole purpose of choosing P over N is to  
3 exclude municipals. It is, one of the conscious reasons  
4 and selecting the allocation method from the beginning, was to  
5 exclude municipals. It is part of an overall course of  
6 conduct to exclude municipals.

7 MR. SMITH: I would suggest in my common ordinary  
8 experience, if a course of action is designed to accomplish  
9 two objectives, and that has resulted in a compromise  
10 and that you have given up some benefits, well, I think  
11 I have expressed my concerns, as well as I can.

12 Normally, I would expect if they come up with a  
13 formula that had as an important feature, exclusion,  
14 then they had to compromise and give up some advantages  
15 in the best allocation method within the organization  
16 itself, without regard to exclusion.

17 I would be a coincidence if both purposes  
18 produced optimum results.

19 MR. CHARNO: I think that is the essence of the  
20 points that Staff is making upon cross-examination, that  
21 this system is apparently -- pardon me, CAPCO contends the  
22 system is fair to the members of CAPCO which are large  
23 systems.

24 The point Staff is making on cross-examination  
25 is that it is not fair to small systems. So you could have



bw2 1 an allocation system among large systems that was  
2 adequate to all of their needs and perhaps the best.

3 MR. SMITH: All right.

4 MR. CHARNO: Again, I'm not saying it was the  
5 best.

6 MR. SMITH: I want to know what the position  
7 is, and what evidence there is that it is not for their  
8 own selfish purposes.

9 MR. CHARNO: Let's say it was best for the members  
10 of CAPCO.

11 MR. SMITH: Notwithstanding exclusion?

12 MR. CHARNO: Arguendo, it is best of CAPCO in its  
13 allocation of reserves. At the same time that system is  
14 inherently biased -- that allocation method is inherently  
15 biased against small systems. I don't see where any compro-  
16 mise between --

17 MR. SMITH: That is fine.

18 That is my question.

19 CHAIRMAN RIGLER: That is what I asked in the  
20 transcript references from yesterday, which you were  
21 addressing. That was part of that colloquy.

22 MR. SMITH: Let's go the next step.

23 If we can find that, what do we do about it?

24 MR. CHARNO: If you find that the selection of  
25 the allocation method has an exclusionary effect, and it is

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1 coupled with a number of other exclusionary aspects of  
2 conduct. I think that is a basis for finding upon latent  
3 and exclusion from CAPCO.

4 MR. SMITH: How about relief?

5 If the Staff is declining to discuss relief,  
6 if you do, too, why bother listening to me? It has to  
7 lead to some result.

8 MR. CHARNO: Clearly, it will lead to something.

9 MR. SMITH: Your case in chief is over.

10 MR. CHARNO: Frankly, we have not formulated  
11 detailed license conditions that would be appropriate  
12 under these circumstances.

13 MR. SMITH: What if the Applicants had  
14 rested at the end of your case?

15 MR. CHARNO: If you are asking, would we have had  
16 pool membership in some form, I think the answer is clearly  
17 yes.

18 MR. SMITH: So you are still developing your  
19 relief by cross-examination of Applicants' witnesses?

20 MR. CHARNO: I think there is certainly an intent there.

21 I am not suggesting the cross-examination of  
22 their witnesses is necessary to the development of our  
23 relief.

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There are a number of alternatives possible.

I think that it is clearly the Department's position since the outset that some access to the benefits of coordinated operation and development is necessary, that is going to restore the competitive status quo ante.

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There are alternative ways of going about that. If you make, for example, the City of Cleveland a full member of the CAPCO pool, you don't have to worry about what the allocation method is going to be because if they have veto power, they will have an allocation method acceptable to them eventually.

If you change the allocation method, if you have some kind of subsidiary method of membership, some kind of associate method of membership without the requirement of unanimity, you have a wholly different situation.

There are a lot of ways to handle it.

MR. SMITH: You are going to address yourself to it?

MR. CHARNO: We certainly are.

MR. GOLDBERG: I would like to say that the Applicants have introduced Mr. Firestone's testimony as part of their direct case and with it the CAPCO probability technique.

Now I don't know what they intend to do with it, but they feel it is an important part of their direct case.

1 I don't know what we will see in the way of proposed  
2 findings of fact and conclusions of law from Applicants.

3 CHAIRMAN RIGLER: Mr. Firestone is an expert, or  
4 he has been introduced as an expert here today. I gather  
5 he is defending the adoption of the P/M system as a new and  
6 perhaps better way of allocating reserves to comply with  
7 his concept of equity among parties to pooling agreements.

8 Is that a fair summary of your position, Mr.  
9 Firestone?

10 THE WITNESS: Yes, it is.

11 MR. GOLDBERG: Yes.

12 Accepting that, since they have introduced  
13 this as part of their direct case, I think we have the  
14 opportunity and indeed have the obligation to discuss  
15 the parameters of that testimony and of his paper, and to  
16 really see exactly what the numbers are and what they mean.

17 That is all we are trying to do. They feel it  
18 is an important part of the case and somehow it is going  
19 to come up in proposed findings of fact and conclusions of  
20 law.

21 We certainly want to be prepared to deal with  
22 them at the appropriate time. If they are not going to  
23 use this, fine.

24 CHAIRMAN RIGLER: Suppose you can pick holes  
25 in their formula and you can show that there are some

1 rough spots that lead to some distortions in the ratios,  
2 how will that have gotten you over the hurdle that at least  
3 CAPCO was attempting to design a rational system that  
4 they thought would improve over the prevailing industry  
5 practice of equal percentages of reserves?

6 MR. GOLDBERG: If that method is biased against  
7 small systems and at the same time they feel it is  
8 equitable for themselves, they use that method to  
9 exclude other systems as one of the reasons for excluding  
10 other systems, I think it is part of a situation which  
11 may be inconsistent with the antitrust laws and could  
12 be properly remedied by this Board.

13 CHAIRMAN RIGLER: Clearly if they are using the  
14 P/N system as a tool for excluding other entities,  
15 you would have a point.

16 Now Mr. Charno has given us some citations on  
17 that which we will go and restudy.

18 CHAIRMAN RIGLER: Mr. Reynolds, earlier  
19 you mentioned Mr. Goldberg had not responded directly to  
20 one of the early questions I posed. I was agreeing with  
21 you.

22 I was going to go back to Mr. Goldberg.  
23 However, I think Mr. Charno, who intervened at that  
24 point, really responded directly to my question.

25 I don't know if it is necessary, in light of

1 Mr. Charno's response now to go back to Mr. Goldberg.

2 MR. REYNOLDS: It is up to you.

3 CHAIRMAN RIGLER: Do you have anything to add  
4 to the colloquy at this time. We have interrupted our  
5 cross-examination.

6 MR. REYNOLDS: I don't think at this time that I  
7 do have anything to add unless the Board has a question  
8 they want to ask that they would like me to answer.

9 I don't really, at this juncture, feel it is  
10 necessary for me to jump in and argue our position or  
11 reargue our position again.

12 CHAIRMAN RIGLER: Mr. Charno indicated he thought  
13 the Board had been a little loose in its characterization  
14 of the record yesterday, in its summarization.

15 Is there any part of the Board's remarks  
16 that you would want to cause us to rethink or indicate  
17 that we may have gone astray?

18 We want to make sure we understand the parties'  
19 position on this, and we are trying hard to do that.

20 We will give you an opportunity now to straighten  
21 out any of the assumptions or hypotheticals we have  
22 made during this colloquy.

23 MR. REYNOLDS: I guess that unless the Board  
24 has some questions of me as to Applicant's position, I  
25 understood the colloquy and it seemed to me that the



1 questions were well put and I don't know that jumping in  
2 and out at this juncture would serve any purpose.

3 MR. SMITH: I might have one.

4 Could it be that the Applicants at this stage  
5 might recognize that P/N, because of technology, might  
6 disfavor a small utility?

7 MR. REYNOLDS: Let me ask you so I'm sure I under-  
8 stand what you are asking.

9 When you say disfavor a small utility --

10 MR. SMITH: I have in mind the phenomenon  
11 that you have to have units sufficiently large to be  
12 economical, but in the small utility that makes the  
13 ratio of units to peak greater while in your CNPCO  
14 large companies you can have relatively large units and a  
15 sufficient number of them to come up with a rational  
16 balance of economies of scale and reliability.

17 While that is not possible in your small  
18 utilities. Isn't that evident now? Isn't that furthered  
19 by the P/N?

20 MR. REYNOLDS: I guess that I have some problem  
21 with the concept of small vs. large utility. Because I  
22 don't think that the P/N formula disfavors a small utility  
23 because it is a small utility.

24 If you are talking about the configuration of  
25 the small utility system, i.e., that it has a number of

1 smaller units rather than one or two large units, that  
2 P/N calculations are sensitive to the configuration of  
3 the respective systems.

4 And if you are asking me if it is more  
5 difficult for a small system to size its units in a  
6 small unit which would improve reliability, it is more  
7 difficult for a small system to do that than for a  
8 large system to do that.

9 Therefore, the effect of applying the P/N to a  
10 small system tends to impose on the small system higher  
11 reserve responsibility because its configuration of its  
12 system is composed of larger units. Or fewer number units  
13 of larger size.

14 I would say I don't quarrel with that as being  
15 the result of the Application of P/N, i.e., that it will be  
16 the extent that the smaller system has a configuration of  
17 units which are a small number and large size, it will  
18 impose on that system a higher reserve responsibility than  
19 it would impose on a similarly sized system having a number  
20 of units of smaller size or than it would impose on a  
21 larger system having a larger number of units of smaller  
22 size.

23 It is not accurate to talk in terms of a large  
24 or small system when you are asking what burden is imposed  
25 by this calculation.

What the P/N calculation does, is that it

1 assesses the reliability of a system in terms of its  
2 configuration in an isolated state and the reliability of  
3 that system as so set up.

4 What it is tuned to are the -- is not the  
5 largeness or smallness of the system, per se, but the way  
6 that the system, configuration of the system is set up.

7 Does that answer your question?

8 MR. SMITH: Yes.

9 But can't you further concede that pressures  
10 of the economy inevitably lead to this disfavor? The  
11 small system must respond to the needs of their system,  
12 upgrade the size of their units. They have to do it.  
13 There is no way to get around it. Which in turn changes  
14 the configuration which disfavors them.

15 Aren't we at that point where that can  
16 be conceded and put aside?

17 MR. REYNOLDS: They certainly could buy small  
18 shares in large units. Indeed, that is the position of  
19 Applicants and has been all along, that to the extent  
20 these small systems face -- let's say a difficulty you are  
21 suggesting which is that the economies of the situation  
22 don't permit them to build a number of smaller units,  
23 there is nothing to prevent these small systems from  
24 buying small shares in large units in a number of large  
25 units and accomplish from a reliability standpoint the

1 identical situation that you would have if they built  
2 the small units themselves.

3 I think that that is -- it is not a situation  
4 where there is no alternative. I guess if we direct our  
5 attention to economies of scale, I think there are  
6 serious questions whether you do as a small system  
7 achieve any economies of scale if, for example, you have a  
8 load growth of 10 megawatts a year and you run out and you  
9 put in an 85 megawatt unit in order to get economies of  
10 scale.

11 If we take a look at the analysis, check  
12 analysis of that situation, you would wind up because of  
13 the small system and its load growth with a much different  
14 response or much different answer as to what economies of  
15 scale are available to the small system than if you had a  
16 large system whose load growth would permit the large  
17 system to put in an 85 megawatt unit because its projected  
18 growth will contemplate it would grow 50 megawatts.

19 If you are talking about putting in large  
20 and small units and the economies of scale associated  
21 with large units that it is very realistic in terms of  
22 the small system to say generally that large units will  
23 produce for that small system economies of scale.

24 What I'm really saying is that to the  
25 extent the small system can achieve greater reliability

1 by putting in smaller units, its options are not  
2 foreclosed. It can accomplish that by buying shares in a  
3 number of units.

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1 MR. SMITH: I didn't want to delay the hearing  
2 so long.

3 It has been helpful to me. I think that  
4 answer to my question is mathematically satisfying, and your  
5 explanation glossed it.

6 It was helpful.

7 MR. REYNOLDS: I was trying to answer the question.  
8 I know you weren't. That is fine. I understand  
9 your point.

10 MR. REYNOLDS: I was trying to be responsive.

11 MR. SMITH: I know you were. I appreciate it.  
12 I knew you did.

13 CHAIRMAN RIGLER: You had a pending question.

14 MR. GOLDBERG: I have something further to  
15 add.

16 At this time we are not contending that the  
17 W method is not the best method. We don't know whether  
18 it is the best method or not, but we have to be prepared  
19 with it at the appropriate time, and that is the  
20 purpose of this cross-examination.

21 CHAIRMAN RIGLER: Your pending question relates  
22 to whether a chain of one one --

23 MR. GOLDBERG: One one hundredths in the denominator  
24 is magnified a million times in the P over W ratio.

25 CHAIRMAN RIGLER: I overrule the objection.  
You may answer.



bw2 1

2 THE WITNESS: My recollection of the background  
3 that you set before you got to the magnification question,  
4 you assumed a computational error had to be introduced  
5 into the process. I go back to a statement Mr. Smith  
6 made, that this capacity program that CAPCO has committed  
7 in a very expensive program.

8 It is a multimillion dollar program. Each of  
9 the CAPCO partners is very anxious to minimize its  
10 investment responsibility, minimize its money requirement.

11 Therefore, each of the CAPCO partners is  
12 very concerned to be assured that there are no computation  
13 errors.

14 I recited yesterday, it is our practice  
15 in making these calculations to have two of the parties  
16 make the calculations independently and then compare  
17 results and if we do not check their results, then the  
18 computation is redone, until we search out any error that  
19 may have been introduced.

20 CHAIRMAN RIGLER: Mr. Goldberg is asking,  
21 suppose there were an error.

22 MR. GOLDBERG: I move to strike the whole  
23 answer.

24 CHAIRMAN RIGLER: It is helpful. I will leave  
25 it in, but I will require him to answer the question.

THE WITNESS: I can't argue with the arithmetic.

bw3

1 If the numerator is changed, and the change in the  
2 denominator is small compared to the numerator, then it  
3 has a substantial effect on the numerator.

4 MR. GOLDBERG:

5 Q The example here is a million.

6 A In the example you have recited, it is a  
7 million. I have no idea as to the basis for your assumption  
8 that the denominator will change from .36 to .35.

9 MR. GOLDBERG: I move to strike that.

10 CHAIRMAN RIGLER: Granted.

11 BY MR. GOLDBERG:

12 Q Yesterday Mr. Rigler asked you several questions.  
13 At least one of them concerning the largest single unit  
14 method of carrying reserves.

15 Are you aware of the fact that many people in the  
16 electric utility industry criticize the largest single  
17 unit method as requiring too large a reserve burden  
18 for small systems?

19 A I have no specific knowledge of that, no.

20 Q Do you recall yesterday that you agreed with  
21 Chairman Rigler that some of the figures for the CAPCO  
22 method were larger than the figures that would be  
23 required under the largest single unit method?

24 A I believe that statement was made in connection  
25 with a discussion of my hypothetical study. Yes, I recall

bw4

1 that statement was made, and I agreed with it.

2 Q In the hypothetical study in your paper, the  
3 scale factor there is ten to one; is that correct?

4 A Yes, it is.

5 Q Are you aware of the fact that the scale  
6 factor between CEI and Cleveland's MELP has exceeded the ten  
7 to one scale factor in your example?

8 A I wouldn't question your statement of that. I  
9 have never computed that scale factor.

10 Q Directing your attention to Applicants Exhibit  
11 123, which is the addendum to your prepared testimony, on  
12 the first page of that, not counting the cover sheet,  
13 beginning on line 8, you state that during your analysis,  
14 it was observed that there were some contradictions to  
15 basic theory; is that correct?

16 A I believe my statement said that we observed  
17 results which seemed to contradict basic theory; that  
18 is correct.

19 Q On line 11, do you not talk about  
20 rounding off numbers?

21 A Yes, I do.

22 Q So there was apparently a mistake made at one  
23 time in computing the figures that appear in your example;  
24 is that correct?

25 A No, that is not correct.

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arl

1 Q The figures that appear on page 26 of your  
2 direct testimony in the right-hand column, are the correct  
3 figures; is that what you are telling us now?

4 A I'm telling you that the first time this  
5 hypothesis was conducted, those were the figures that  
6 were generated. There were no mistakes, to the best of  
7 my knowledge, made in computing those figures. We concluded  
8 upon analysis of those figures that -- would you like to  
9 hear the further explanation?

10 Q Yes.

11 A We concluded on analysis of those figures  
12 that the digital computer program we were using is and  
13 had been structured to accommodate the computational require-  
14 ment of the CAPCO group.

15 Each of the parties of the CAPCO group could be  
16 described as being much larger than the small system that  
17 I have postulated in this hypothetical study.

18 In the manipulation of the data in the calcula-  
19 tions process for the CAPCO group, figures are rounded,  
20 margins are grouped into bands, and we worked to an  
21 allocation answer that is rounded to the nearest five  
22 megawatts.

23 This type of arithmetic we concluded did not  
24 carry the precision because of the rounding process to  
25 the point that is necessary to compute results for this

1 hypothetical study that would track with theory.

2           Therefore, we made some program modifications  
3 to alter really the manner in which we conduct the rounding  
4 process, to alter the manner in which we group megawatt  
5 margin bands, and then generated a new set of numbers  
6 which I submitted to an addendum to my original testimony.

7           Both sets of numbers are correct from the  
8 standpoint that to the best of my knowledge, there  
9 are no computational errors contained in either computation.

10           But the impact of rounding is felt to a  
11 greater degree in the first set of numbers than it is  
12 in the second set of numbers.

13           CHAIRMAN RIGLER: Mr. Firestone, what caused  
14 you to conclude that the large system programs which  
15 CAPCO was using would not be applicable to the small  
16 systems, so that you found it necessary to rerun your  
17 program?

18           THE WITNESS: If I can refer to one of the tables  
19 attached to one of my exhibits. If I can find it, I  
20 believe I can answer that question.

21           Yes, the exhibit that we have identified as  
22 Applicant's Exhibit 125, which would go to Exhibit 1  
23 (revised), we look under the column headed by the number  
24 7 in parentheses toward the top of the page, and below that  
25 we have a heading "reliability assessment," and the column

1 heading "positive margins and megawatt days."

2 If you look at the number displayed for system  
3 A, small system A, you will see a number 45181.06.

4 If you look at the large systems, the correspon-  
5 ding number for system A prime,  
6 it is 54180.81.

7 The theory inherent in this process indicates  
8 to me that those two numbers should carry with them the  
9 scale factor that we built into the study. It should be  
10 roughly on the order of 10 to 1. The fact we have  
11 introduced a higher forced outage rate associated with the  
12 larger units in the large system would further tell me  
13 that we should not have exactly 10 to 1 scale factor. It  
14 should be somewhat less in connection with the positive  
15 margins as it is if you look at the two numbers.

16 If you compare the other corresponding sets,  
17 you will find that. We can go to the negative margin  
18 tabulation and again the scale factor should be working  
19 for us there.

20 The impact of the greater forced outage rate  
21 for the large units in the large system is greater -- the  
22 impact of the forced outage rate is greater for the large  
23 units than it is for the small. \*

24 Again we noted in the first computation what  
25 appeared to be a relationship in those numbers, the



1 negative margin numbers, that was counter to our theory.

2 The revised computation also has corrected  
3 that apparent problem.

4 CHAIRMAN RIGLER: When did you notice this?

5 THE WITNESS: Shortly after submitting the  
6 original set of calculations into my testimony. The  
7 calculation that was performed, even though this answer  
8 that I presented in my testimony appears hopefully to be  
9 very simple, the calculation that went into that  
10 was quite complex, and generated a set of computer sheets  
11 that the stack in a package would be roughly an inch and  
12 a half thick.

13 We made that study somewhat under forced draft  
14 conditions to comply with targeted dates in submitting  
15 this testimony. Upon careful analysis of it, I noted that  
16 apparent problem with the scale factor.

17 I, of course, wanted to submit a hypothetical  
18 study that tracked the facts of life as closely as I could  
19 make it track the facts of life. I felt it was important  
20 to remove this problem that had arisen from the rounding  
21 technique that we employ in the computer program, and there-  
22 fore had the computer runs redone, generating another  
23 inch and a half of computer output, and then when I had  
24 that information I submitted the corrections or the  
25 addendum.

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BY MR. GOLDBERG:

Q Mr. Firestone, I would like to ask you to assume that a small nonapplicant system in the COGT area wanted to join the CAPCO pool, and the present four CAPCO parties agreed to allow that small system to join the CAPCO pool, so that there were five parties in the CAPCO instead of the present four.

Would you use the CAPCO probability technique of equalizing all parties P/N ratios to allocate capacity responsibility from the five Perry and Davis-Besse units for these five parties?

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1 I think your hypothetical introduces a problem,  
2 in that it is difficult for me to visualize how CAPCO  
3 could take, in an additional partner on a representative basis.

4 If you want to consider that on a prescriptive  
5 basis, I can visualize that readily, that all CAPCO parties  
6 could and would agree to bring in a fifth entity, jointly  
7 planned capacity addition, then, in which the fifth entity  
8 would participate, and that capacity addition would be the  
9 next capacity addition beyond the presently considered  
10 capacity program, in which case, again, the CAPCO group  
11 would have to agree on the modifications necessary to the  
12 capacity planning rules rules to accommodate this situation.  
13 One of which would be, we would have to address the peak  
14 reliability standard to see if the addition of the new  
15 entity indicated that that study should be changed.

16 Once having made that decision, I would recommend  
17 that the PN process be applied in its present form or in  
18 the same form as we now know it to cover that situation.

19 Q Assume further that after the small system is  
20 told what its allocated capacity responsibility would  
21 be, using your CAPCO probability technique of equalizing  
22 all of the parties' P over N ratios, the small system  
23 informs CAPCO that it cannot meet the resulting allocation,  
24 because of the unproportionate burden it would place on  
25 the small system.

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1           Would you then refuse to admit that small  
2 system as a party to CAPCO?

3           A.       Again, I have a little trouble tracking your  
4 hypothesis. I thought you were suggesting that CAPCO  
5 had accepted a fifth member, had consummated a plan, had  
6 agreed on obligations and then you asked me if one of  
7 the parties, in effect, wrenched on its obligations, would  
8 we allow it to join as a party. That is a disturbing  
9 thought. Once allowing a party to join, you have passed  
10 on whether you were going to allow him to join or not.

11          Q       This last question assumes you have agreed in  
12 principle to allow this small system to participate in  
13 CAPCO.

14                What you then tell the small system is, okay,  
15 you can agree, but you must be allocated responsibility.

16                We use our P over N method and tell you that  
17 that is and the small system comes back to you and says,  
18 "I'm sorry, we think that is unproportionate burden on  
19 us, and we cannot meet it."

20                MR. ZAHLER: Objection.

21                If Mr. Goldberg assumes they are using P over  
22 N, I object to him assuming that it is disproportionate.

23                MR. GOLDBERG: I said, assume that is what the  
24 small system tells CAPCO.

25                CHAIRMAN RIGLER: Overruled.

1 THE WITNESS: I would think the practical  
2 sequence or practical development of your hypothesis would  
3 be if a fifth entity came to CAPCO and said, I would like  
4 to join, the present partners in CAPCO would do their  
5 utmost to explain the rules to the fifth party, to be sure  
6 that fifth party understood all of the obligations that he  
7 would undertake.

8 If at that point, the fifth party wanted to  
9 move further, it would be necessary then to generate a one-  
10 system plan, and in the generation of that one-system plan,  
11 the fifth party would have a voice.

12 Then from there, the tentative allocations of  
13 capacity responsibility would be identified, and I say tentative  
14 would be tentative in that they could be subject to change,  
15 depending upon subsequent developments.

16 Then at that point, the fifth party would have  
17 to exercise his judgment as to whether under the package  
18 of CAPCO rules and the circumstances that he had helped  
19 to develop, he chose to participate or whether he felt that  
20 he would not want to participate.

21 The choice would be his.

22 Now, once, assuming the party undertakes to join  
23 and agrees to discharge the responsibilities, the other  
24 partners would take that very seriously, in that, if one  
25 of the parties welves on his responsibilities, that is a

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CHAIRMAN RIGLER: Do you have any?

MR. CHARNO: Very few.

BY MR. CHARNO:

Q Mr. Firestone, you testified that there were two factors which limited the size of the power pools.

One was a decisionmaking process, and the other was the exhaustion of the economies of scale. Is that correct?

A I believe I made those assertions that in my judgment those were practical forces that tended to limit the size, yes, that's correct.

Q Could you tell us what you mean by exhaustion of the economies of scale?

A Yes, I will try.

I believe I used the term "frontier of technology" in that economy of scale is derived from using -- basically the economy of scale is derived from using larger and larger equipment and that is somewhat of a generalization. Higher and higher transmission voltages, larger and larger generating units which are operated as an integrated unit, one package.

There are, of course, only limited sources of supply of such equipment. The manufacturer's reputation is at stake when he sells to a user a piece of equipment. He, of course, is very interested in assuring, protecting his reputation and assuring that the



1 piece of equipment he is about to sell will work properly.

2 The purchaser is, of course, very interested  
3 in being assured of the same. So you -- and I should  
4 mention to you, come to physical limitations, technology  
5 is constantly striving to get more squeal out of the pig,  
6 so to speak, to work metals at higher temperatures,  
7 higher stress levels, and so on.

8 Engineers strive to work a piece of material as  
9 hard as they think they can, just short of having that  
10 piece of material fail. And sometimes the engineers go  
11 too far and in this endeavor they get to the point where  
12 the equipment is not reliable.

13 This is what I have in mind when I speak of  
14 the frontier of technology. A 1200 megawatt generating  
15 unit is a sizeable piece of equipment. In a fossil  
16 boiler there are miles of pipes, tubing, miles of  
17 electrical circuitry, and there are a lot of things  
18 being worked very hard and could fail.

19 So certainly we want to stop short in our  
20 search for bigness, short of the point where we think we  
21 are going to push material or knowledge beyond the proper  
22 confidence level. When you come to nuclear units, again  
23 I'm not 100 percent certain of my figures, but I believe  
24 that currently, roughly a 1200 megawatt sized unit is the  
25 largest that can be licensed in this country.

1           You have these types of practical limits,  
2           impeding further movement in the direction of the economies  
3           of scale.

4           Have I answered your question?

5           Q       How does this exhaustion of the economies of  
6           scale limit the size of the power pool?

7           A       Well, putting together a power pool such as  
8           CAPCO does not result in producing nothing but benefits.  
9           Living life -- let me start over.

10           Trying to manage and operate an electrical  
11           system wherein your major decisions have to be made  
12           by economy, results in a very burdensome decisionmaking  
13           process.

14           So this is impeding, in my judgment, it is a  
15           negative incentive when one considers the merits of  
16           forming the pool.

17           On the other side of the equation, one of the  
18           biggest factors or perhaps the biggest is the economy of  
19           scale objective.

20           Once you have exhausted all of the potential of  
21           economy of scale, there remains little or no incentive  
22           to further expand your group because there is no more  
23           economy of scale savings to be achieved.

24           But if you proceed, nevertheless, to expand your  
25           group and introduce more partners, and your fundamental

1 decisions are being made by unanimous agreement of many  
2 partners, this in my judgment introduces a very  
3 serious deterrent to expanding the size of the group.

4 Q Let me backtrack and see if I can comprehend  
5 what you are saying.

6 When you say you have exhausted the economies of  
7 scale, are you saying that a power pool will be putting  
8 on the largest scale unit currently feasible once every 12  
9 months so that the addition of additional partners  
10 would not allow them to increase the size of that unit?

11 A Essentially that is right. The CAPCO group,  
12 for instance, is planning to utilize a 1200 megawatt  
13 class nuclear unit which is the largest nuclear unit  
14 that vendors are willing to provide, or that can be  
15 licensed in this country.

16 Now I'm sure vendors are busy in their design  
17 shops trying to produce something that is larger.

18 Right now 1200 is the largest that you can buy.

19 Q At this time is it your testimony that CAPCO  
20 has exhausted the economies of scale?

21 A With respect to generating capacity, I hate  
22 to make a flat statement, but I think we have achieved all  
23 of it, and that to the practical extent, yes, we have  
24 exhausted the economy of scale with respect to generating  
25 capacity.

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1 Q Would it be possible by putting on a new  
2 1200 megawatt unit every 11 months instead of every 12 months  
3 to provide additional capacity for new members of CP&CO  
4 without diluting the economies of scale? Leave that factor,  
5 the economies of scale, and not go to the other factors  
6 which limit the pool size, the decisionmaking process?

7 A The frequency of installation of such a large  
8 unit does not in itself impact upon economy of scale.  
9 The more people or more load that can be served from such  
10 units would generate a larger and larger pot of savings  
11 arising from economy of scale, which is, I believe, the  
12 point you are making and I would have to agree with that.

13 Q Sir, going to your -- I guess Applicant's  
14 Exhibit 125, and your Exhibit 5 to that, column 7 and 8,  
15 you represent the very unreliable system and I guess  
16 this is a large system and a very unreliable small system  
17 would be 1/10 this size in terms of generating units; is  
18 that correct?

19 A Yes, sir.

20 Q Taking that very unreliable system, if we change  
21 that first generating unit in column 7 to 500 megawatts,  
22 and change the figure in column 8 to 250 percent of load,  
23 would that make that system more reliable or less reliable  
24 for years 1 through 14, or would it have any effect upon  
25 the reliability of the system at all?

1           A       Well, inasmuch as there is only a single unit, and  
2 again I have been fooled too many times, so I hate to  
3 indulge in this type of thing, but my inclination would be  
4 to say it would make it less reliable in that the larger  
5 unit could be expected to have a higher forced outage rate  
6 and, of course, as long as there is only one unit involved,  
7 the maintenance requirements and forced outage rate are the  
8 factors that are controlling.

9           Q       Now, sir, if this unreliable system -- pardon  
10 me. Let me backtrack.

11                    Would your answer be the same if the unit size  
12 had gone from 20 megawatts to 50 megawatts instead of  
13 from 200 to 500?

14           A       As long as there is just one unit involved, to  
15 whatever extent the forced outage rate is a function of  
16 size and is increasing with size, my answer would be the  
17 same, yes.

18           Q       Now, if the very unreliable system as it is  
19 denominated here, worked out an arrangement with another  
20 system whereby it sold its -- pardon me, it gave its  
21 surplus or sold its surplus to that other system and in  
22 return received reserves for its unit, couldn't it become  
23 100 percent reliable?

24           A       It could certainly improve its reliability.  
25 100 pe-cent is a pretty high target. It could certainly

1 improve it.

2 Q If it had a coordinating arrangement with  
3 another utility that provided it firm reserves, to the  
4 extent of that other utility's capacity, then in the very  
5 least its reserves, its reliability would be comparable  
6 with the other system with which it coordinated?

7 A It would be comparable. Again maybe I'm  
8 quibbling some over theoretical things again. If you were  
9 to take the total installed capacity in the Continental  
10 United States and measure it against the load, you would  
11 not achieve 100 percent reliability. When you speak  
12 of firm power, that is somewhat an illusive term.  
13 It would have very reliable supply and close to 100 percent,  
14 I suspect, but not quite 100 percent.

end 10

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1 Q Are you aware of the existence of an arrangement,  
2 analogous to the one I just described between Buckeye  
3 Power and Ohio Power?

4 A I'm aware there is an arrangement between Buckeye  
5 and Ohio Power, yes, sir.

6 Q Are you aware that that arrangement provides for the  
7 sale of surplus -- exchange of surplus power from a  
8 generating unit for reserves?

9 A I'm not really acquainted with the details of that  
10 arrangement. Years back, I read in the newspaper some of  
11 the descriptions of it. Initially, at least, I thought  
12 it amounted to a unit sale of power or power from a  
13 designated unit for the Buckeye members and then with a  
14 backup provision from a companion unit. So that in my  
15 judgment that would not provide a 1000 percent reliability  
16 nor truly high reliability at all.

17 But I don't claim to be current on the Ohio Power-  
18 Buckeye arrangement and have no specific knowledge of it.

19 MR. CHARNO: I have no further questions.

20 Thank you.

21 BY MR. HJELMFELT:

22 Q Mr. Firestone --

23 CHAIRMAN RIGLER: Wait, Mr. Hjelmfelt.

24 MR. SMITH: I have one or two questions.

25 Mr. Firestone, in considering the three types



bw2

1 reserve allocation methods that have been discussed, which  
2 are, as I understand it, percent of peak, largest unit  
3 down, and your method, do you have an opinion as to which  
4 one rewards to the individual CPSCO company --  
5 would reward to the individual CPSCO company efficiency of  
6 operation? Which one would be more likely to penalize  
7 errors in inefficiency and more likely to reward efficiency  
8 in operation?

9 THE WITNESS: The PM method would be most likely  
10 to achieve the consequence that you described. In fact,  
11 it is the only one of the three that quantitatively  
12 evaluates the factors that I believe you referred to.  
13 Efficiency of operation to me, meaning thorough and  
14 careful preventive maintenance practices that result in high  
15 availability of generating capacity.

16 Efficient utilization of manpower in performing  
17 scheduled maintenance, so that a large turbine generator unit  
18 could be maintained, perhaps in three weeks in a calendar  
19 year, rather than five.

20 That sort of thing would be quantified and  
21 would produce the result you describe.

22 MR. SMITH: Would that include the careful  
23 selection of generating equipment, evaluating technology?

24 THE WITNESS: Yes, it would. It places a very  
25 high premium on high availability. In the selection of

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1 basic equipment, in the basic design of a power plant,  
2 designing in redundancy and certain of the critical  
3 elements, that sort of thing would be evaluated and would  
4 have significant impact on the reserve assignment.

5 MR. SMITH: Does it encourage preservation of  
6 our fuel resources?

7 THE WITNESS: Again to the extent that through  
8 the PN process, high availability is regarded by assigning  
9 lower reserve responsibility, assuming that high availability  
10 is achieved and that it is achieved in the baseload units,  
11 that would result in conserving precious fuel, yes, it  
12 would.

13 BY MR. HJELMFELT:

14 Q This morning in answer to a hypothetical  
15 from Mr. Goldberg, you stated if a small utility was  
16 being admitted to CAPCO, one of the things that group would  
17 have to do would be to reassess its reliability criteria.

18 Did I understand that?

19 A Yes, you did.

20 Q What did you have in mind?

21 A Again, the reliability criterion that we have set  
22 up for the CAPCO group in total is a quantification  
23 of the residual dependence that we expect to place on the  
24 resources of others after we have utilized our own resources to  
25 the maximum extent.

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1 To take that point to the extreme, if the  
2 pool consisted of all of the power systems in the  
3 Continental United States, then the residual dependence  
4 would look out to a barren environment.

5 Therefore, each time an additional member  
6 was put into the pool, the needs of the pool  
7 change and the environment changes.

8 That aspect would have to be considered.  
9 It would depend on the circumstances of who the additional  
10 party was, and the impact on the remaining environment,  
11 and so on, as to whether the index would need changing  
12 at all or not.

13 Q When you refer to an index, you are referring  
14 to the one negative day?

15 A Yes, I am.

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1 Q How did CAPCO arrive at the one negative day?

2 A Very laboriously.

3 Well, it evolved over a period over perhaps  
4 a year or two years in which negotiations took place,  
5 analytical study took place and, finally, a judgment  
6 was made as to, let's give this number a try.

7 This goes back to prior to 1967, and the days  
8 when -- speaking now for my own system -- Ohio Edison, --  
9 our company, in my judgment, also followed conservative  
10 practices with respect to installed generating capacity.

11 Back in those days, I believe 125 megawatt  
12 generating unit was the largest unit we had.

13 I was not head planner at the time. The man  
14 who was, as near as I could every understand his  
15 philosophy, embraced the multiple of the largest unit  
16 philosophy, somewhere between one and a half and two times  
17 the largest unit, was the philosophy he embraced.

18 Some of the neighboring companies had philosophies  
19 of their own.

20 We, at Ohio Edison, were becoming acutely  
21 aware of the need of trying to achieve or attain the  
22 economies of scale.

23 We, at Ohio Edison, decided on our own to  
24 use a 300 megawatt generating unit, which was starting  
25 to get to the limit of the size unit we could tolerate.

bw2

1           Of course, that if you use a one and a half or  
2 two times the largest unit criterion for your installed  
3 reserve, and you have been installing 125 megawatt units,  
4 and suddenly you move to 300, that gives you cause for concern  
5 in your criterion.

6           We made that move. Following that, we thought  
7 it might be advantageous for our company to consider a 600  
8 megawatt unit.

9           At that point we thought this is a big pill  
10 for us to swallow, if we retain the one and a half or  
11 two times largest unit reserve criteria.

12           We saw no way to utilize such a large unit by  
13 ourselves. We opened discussions with neighbors and arrived  
14 at an arrangement with the Cleveland Electric Illuminating  
15 where a pair or such units would be constructed, one on  
16 our system and one on theirs.

17           We would have a mutual backup agreement, such  
18 that, in fact, the unit on our system looked like two,  
19 300 watt units rather than one, 6.

20           Along about the same time the thought of a larger  
21 and more formal pool was emerging.

22           I'm not sure I know what philosophy the other  
23 fellows were following in planning their reserves.

24           Cleveland Electric Illuminating, I believe,  
25 was a step ahead of the rest of us, in that they were using

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1 probability analysis at least as a tool to evaluate  
2 their situation in arriving at their judgment as to proper  
3 reserve.

4 I think Duquesne, to some extent, used computer  
5 analysis.

6 I think Toledo did not.

7 Ohio Edison concluded that the one and a half,  
8 two-unit, the multiple of the largest unit rule was  
9 totally inadequate to assess a situation like this.

10 Percent reserve was totally inadequate.

11 We had to get to a probability analysis, so that we  
12 could set a target level of reliability and know whether  
13 our plan was going to achieve it or whether it wasn't.

14 Again, in the negotiations now with what has  
15 become to be the CAPCO group, we used the probability  
16 tool on a historical basis to measure the philosophy we  
17 had practiced and the experience we had lived  
18 through. The Ohio Edison system, all by itself, was  
19 practice as measured by the probability tool, generated  
20 the reliability standard for a couple of best years, as  
21 I recall, and this was some time back, something like three-  
22 tenths of a negative day per year.

23 As I recall, Cleveland was speaking for a  
24 number something like ten negative days per year, as  
25 being indicative of -- I don't know that they represented

bw4

1 that as being indicative of their past performance, but it  
2 certainly was -- they were advocating that as  
3 a desirable standard for all of us.

4 Much analysis was done. Much discussion was  
5 held, by negotiation and compromise we concluded, let's try  
6 the one negative day standard.

7 That is where we are.

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1 Q There is no way of saying that this particular  
2 one negative day standard is "the" right reliability  
3 standard in any absolute sense?

4 A No, there is no way. All I can say to you is that  
5 since the normal functioning of CAPCO which commenced with  
6 the installation of the first jointly-owned unit, which I  
7 believe was in 1971, with the possible exception of 1975.  
8 I think we have not in fact achieved a reliability level of  
9 one day per year.

10 Nevertheless, we seem to have survived those  
11 years adequately. But the ultimate test, proof of the  
12 pudding will be in the experience. If it turns out  
13 that the one day standard is too generous, I'm sure we  
14 will all be anxious to relax it some, because it will  
15 result in lower costs for all of us.

16 If it turns out it is too optimistic, we will  
17 have to tighten it up.

18 Q So in going to larger units to attain economies  
19 of scale, Ohio Edison reduced its reliability standard?

20 A Well, in fact that seems to be the way it has  
21 turned out, yes. We felt we were making a compromise  
22 that resulted in Ohio Edison operating to a lower level of  
23 reliability. Our environment had changed somewhat, too.

24 But the answer to your question is yes, that's  
25 right.

1 CHAIRMAN RIGLER: Mr. Firestone, your  
2 answers are beginning to maybe exceed the question a little.  
3 Try to tighten them up and close your answer, please.

4 THE WITNESS: Okay.

5 MR. HJELMFELT: You will make me run over 15  
6 minutes.

7 BY MR. HJELMFELT:

8 Q How is the 600 megawatt unit that Ohio Edison  
9 constructed prior to joining CAPCO, how was that  
10 represented in the CAPCO computation?

11 A There are two CAPCO computations you have to  
12 deal with. The one having to do with the total pool  
13 reliability on the basis that all of the capacity resources  
14 are treated as one system. That unit is simulated as a  
15 single 600 megawatt unit with forced outage rate  
16 characteristics and maintenance characteristics as ascribable  
17 to that.

18 In the allocation process, it is treated  
19 differently. Sammis 6 and Avon 9 of Cleveland Electric  
20 Illuminating are the two units I refer to as being  
21 under a staggered construction agreement and with a  
22 mutual backup arrangement.

23 That backup arrangement provides that when the  
24 Ohio Edison 600 megawatt unit goes out of service  
25 unexpectedly or when it is down for maintenance and

1 Cleveland is obligated to provide power to Ohio Edison.  
2 I think it is to the extent of 300 megawatts. And when  
3 we talked about 50 percent of unit rating. I think it is  
4 300 megawatts.

5 In effect, when Semco 3 goes out of service,  
6 it appears like a loss of 300 megawatts on the Ohio Edison  
7 system and a loss of 300 on the Cleveland system.

8 The converse of that is when the Arco 3 unit  
9 goes out of service, that looks like a loss of 300 on  
10 each system.

11 If they are both out of service, there  
12 is a wash, 600 out on each system. We simulate that set  
13 of circumstances in the allocation process.

14 MR. HJELMFELT: Does that result in a lower  
15 allocation to Ohio Edison than if it was treated as a 600  
16 megawatt unit?

17 THE WITNESS: Yes, it does.

18 BY MR. HJELMFELT:

19 Q What is the largest unit on the Penn Power system?

20 A I believe it is Chestwick Unit. I have forgotten  
21 the number. 570 megawatt unit, to the best of my recollection.  
22

23 MR. ZAHLER: May I interrupt?

24 The witness may have misspoke. The question was  
25 in regard to Penn Power. The answer was in connection to

1 Duquesne.

2 THE WITNESS: I did mispeak. I associated  
3 your question with Duquesne.

4 Penn Power, I believe it is 145 megawatts.  
5 It was designed to be 125, and with the capability that  
6 exists and the ambient temperature conditions, its  
7 rating is roughly 145. It is in that order.

8 BY MR. HJELMFELT:

9 Q In your testimony, have you differentiated  
10 between coordination or coordinating agreements and  
11 pooling?

12 MR. ZAHLER: Can I know what part of the testimony  
13 Mr. Hjelmfelt is referring to?

14 MR. HJELMFELT: I'm referring generally to his  
15 discussion yesterday morning on cross-examination and  
16 also his discussion of mutuality.

17 Sometimes he talks about coordination requiring  
18 certain things and sometimes -- I'm wondering if he is  
19 talking then about pools also.

20 MR. ZAHLER: Could you point to a specific  
21 point in the transcript or testimony so that the witness  
22 can answer it?

23 CHAIRMAN RIGLER: Let's see if the witness  
24 can answer without that reference.

25 THE WITNESS: The question is awfully broad; if

1 I can answer in a broad way.

2 Generally I use the term interchangeably.  
3 It may be that in a specific point in my testimony I  
4 used the words to have different meanings, but I think  
5 generally I was using them interchangeably.

6 BY MR. HJELMFELT:

7 Q Are there certain things that you would say  
8 are present in one and not present in the other that would  
9 distinguish them?

10 A Well, perhaps pooling, use of the word "pooling"  
11 has broader connotation than the use of the term  
12 "coordination agreement."

13 The two parties could coordinate their  
14 scheduled maintenance, for instance, and do nothing more  
15 than that. You can expand the reciprocal services to  
16 more and more. And the further you expand them, the more  
17 you move toward pool operation.

18 Q Do I understand that you would not reach a  
19 certain point where you would say okay, on one side of the  
20 line, it is coordination, and on the other it is pooling,  
21 but there is a point where you would start referring to it  
22 as pooling?

23 A Again I don't recall how I have used the  
24 terms in my testimony. As I said, I think in a lot of  
25 places I have used them pretty much as synonyms. But I

1 could use the terms as I have just described them.

2 No, I can't identify the point at which the  
3 package of services that were agreed upon under a  
4 coordination agreement suddenly became a pooling arrangement.

5 Q In one-system planning for CAPCO, does that  
6 mean that there is just one one-system plan?

7 A In planning by anyone or by anybody, the  
8 procedure normally is to explore alternate ways to achieve  
9 objectives and then agree upon the plan. From that point  
10 on, there is just one plan, the plan.

11 Q It is selected from alternative plans?

12 A Yes, sir.

13 Q You used the term, I believe, fundamental equity.

14 A I believe I did.

15 Q How does one determine what fundamental equity  
16 is?

17 A Basically, I believe it is a philosophical matter  
18 or a subjective matter, that one must somehow analyze the  
19 factors that are involved and conclude upon some approach  
20 that in his mind produces an equitable situation.

21 Q Does fundamental equity change?

22 A Again that is pretty broad. I think that when  
23 I used the term, I was associating it with assigning  
24 capacity responsibilities. And my belief is that the P/N method  
25 of analysis and of assigning responsibilities produces

1 fundamental equity.'

2 Of course, in our -- in the search to develop  
3 or to find a method for assigning capacity responsibility,  
4 to me the attainment of fundamental equity is paramount.  
5 I suppose I'm repeating myself.

6 I don't believe any pool has a chance of  
7 working over an extended period of time unless each of  
8 the parties is satisfied there is fundamental equity  
9 for all parties.

15 10 Q I believe you have defined equity as a method of  
11 providing that a party will contribute to the same extent  
12 that it receives.

13 Those weren't your words, but I wonder if that --

14 A In proportional respect, yes.

15 Q Is that the fundamental equity you are  
16 striving for in CAPCO?

17 A With respect again to generating capacity  
18 responsibilities, to me that is the mathematical quantification  
19 of an objective, to reach fundamental equity.

20 When these responsibilities are assigned such that  
21 each party is in the position that he can expect to  
22 contribute to the pool of reserves in the same proportion  
23 as he expects to call on the pool of reserves, then  
24 fundamental equity has been achieved, yes.

25 Q That, I take it, has been constant throughout



1 CAPCO, through the duration of CAPCO?

2 A That was a going-in position in 1967 when the  
3 memorandum of understanding was signed, and that principle  
4 is still in place, yes.

5 Q And it is my understanding, then, that the  
6 CAPCO formula does not identify what fundamental equity  
7 is, but is a tool for achieving fundamental equity; is that  
8 correct?

9 A Not totally. It identifies or explains that  
10 contribution to the common pool as compared to the expectation  
11 to draw on the common pool is the fundamental equity defini-  
12 tion.

13 Of course, the P/N process is the arithmetic  
14 process that allows one to accomplish the objective.

15 Q You identify fundamental equity and then  
16 you develop the formula method as a way of reaching that  
17 situation; is that correct?

18 A Yes, I think that's correct.

19 Q Has the CAPCO method always produced results  
20 that meet that goal?

21 MR. ZAHLER: What goal are we talking about?

22 BY MR. HJELMFELT:

23 Q This fundamental equity?

24 A Well, the assignment of capacity responsibility  
25 by the pure application of the P/N formula has only

1 existed in two periods. A part or all of 1974 and  
2 all of 1975.

3 Prior to that, the assignments of capacity  
4 responsibility were arrived at really by negotiation.

5 Again I'm not sure I have answered your question.

6 Q For which two periods, the periods derived by  
7 negotiation cover what units?

8 A I'm afraid I'm going to exceed my short  
9 answer promise here again.

10 Originally the CRPCO procedure contemplated  
11 making capacity responsibility assignments for periods of  
12 time that would be dictated by the period of time  
13 occurring between the in-service date of consecutive  
14 units.

15 The first period was contemplated to exist  
16 from the in-service date of Sammie 7 to the in-service date  
17 of Eastlake 5.

18 The second period was contemplated to be between  
19 the in-service date of Eastlake 5 and Beaver Valley 1.

20 For those two periods of time, capacity  
21 responsibility assignments were made by negotiation.

22 We contemplated for the periods following that, the  
23 assignment would be made by the P/N formula.

24 Once again, we discovered that we  
25 weren't as clever as we thought or don't have as much control

1 as we thought in that as facts have turned out, the unit  
2 that we at one time thought would be No. 5 has in fact  
3 turned out to be No. 3.

4 So that this period method of assigning  
5 responsibilities is unworkable. We recognized that in 1973,  
6 and we revised the rules such that the capacity responsibility  
7 period would be a calendar year.

8 And we made some other revisions to the rules  
9 to allow us to use the P/N process, with the result that  
10 for all or nearly all of 1974, the capacity responsibility  
11 assignments were made by application of the P/N concept and  
12 for 1975, the same.

13 Q Why did you -- why did CAPCO negotiate the  
14 earlier assignments of responsibility?

15 A Well, that negotiation was a part of the original  
16 package of compromises that resulted in the concurrence  
17 of the four parties that they would sign the memorandum  
18 of understanding.

19 It was a condition that had to be satisfied  
20 or there would have been no memorandum of understanding.

21 Q And do you know why that was insisted upon?

22 A Well, again I think it comes back to an evaluation  
23 on the part of each of the parties as to the benefits  
24 that were to be achieved and the responsibilities that  
25 were to be undertaken.

1 We negotiated back and forth or discussed back  
2 and forth until each party felt that when he measured  
3 his responsibilities against his potential benefits,  
4 he was satisfied that moving ahead was the desirable  
5 thing to do.

6 I can't recite to you what was in the mind of  
7 each of the parties when that determination was made.

8 All I know is that those deliberations were  
9 made and the decision was made to sign the memorandum of  
10 understanding, which has been done.

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1 BY MR. HJELMFELT:

2 Q Is capacity for the 1976 allocation responsibility,  
3 is capacity being represented on a prorata method?

4 A In the PN process work that was done in  
5 connection with arriving at the 1976 capacity responsibility,  
6 the prorata simulation of jointly-owned unit was used.

7 Q And will that result produce fundamental equity?

8 A I think it is safe to say, or it would be my  
9 judgment, that the parties have agreed and would agree that,  
10 yes, that will produce fundamental equity.

11 Q Will there come a time when the prorata method will  
12 no longer be used?

13 A There will come a time when the manner in which  
14 prorata method is used will be somewhat different  
15 from the manner in which it was used in connection with  
16 the 1976 evaluation.

17 Again, in my judgment, it will be necessary  
18 to always use the prorata in some form.

19 Q Will the change in the method by which prorata  
20 is used, affect the outcome of the calculation?

21 A Yes, I am sure it will.

22 Q Will the effect be that a shifting of reserves  
23 from what would have occurred under the current prorata  
24 method to, say, from Duquesne to Toledo Edison or from one  
25 party to another?

bw2

1           A       I can't answer that question until the  
2 manner in which prorata is to be used in the future is  
3 identified, and then the calculations could be made both  
4 ways to answer that question.

5                    Until you identify the manner in which it  
6 would be used in the future, there is no answer.

7           Q       There is no answer in saying which way the reserves  
8 will flow; is that what you were saying?

9           CHAIRMAN BIGLER: Can you hold up for 30  
10 seconds? I have had someone on hold for ten minutes now.

11                   (Pause.)

12           THE WITNESS: That is what I'm saying.

13           BY MR. HOELMFBELT:

14           Q       Will the rules still produce fundamental equity?

15           A       Again, the FN process is intended to arrive at  
16 the assignment of capacity responsibility, such that the  
17 contribution to the pool of reserves is in proportion to  
18 the expected use of the reserves.

19                   That, by definition and by agreement of the  
20 parties, has been accepted as fundamental equity.

21                   Now, the mathematical process to arrive at  
22 the assignment of capacity responsibilities, as I have  
23 implied or said, is a very complicated calculation.

24                   mathematical simulation of facts of life is  
25 a complicated process.

bw3

1 In my judgment , whatever the four parties are willing  
2 to agree to as being an adequate simulation of a fact of  
3 life, then results in fundamental equity.

4 That evaluation lies in the mind of the parties.

5 MR. HJELMFELT: Thank you.

6 I have no more questions.

7 CHAIRMAN RIGLER: Let's take ten minutes.

8 (Recess.)

9 CHAIRMAN RIGLER: Mr. Goldberg, what do you  
10 want us to do with Exhibit 213?

11 MR. GOLDBERG: I was just about to move that  
12 into evidence.

13 CHAIRMAN RIGLER: Hearing no objection, we will  
14 receive it.

15 (Whereupon, the document  
16 previously marked Staff Exhibit  
17 213 for identification, was  
18 received in evidence.)

19 REDIRECT EXAMINATION

20 BY MR. ZAHLER:

21 Q Mr. Firestone, do the nonApplicant electric  
22 entities served by Ohio Edison, enjoy the reduced costs  
23 of pooling encouraged by the FPC Power Survey?

24 A In my judgment, yes, they do.

25 Q Why is that?

End 16&amp;16a

s17



bwd

1 A By virtue of our contracts to sell them wholesale  
2 power, they enjoy the advantages of economy of scale and  
3 of reliability that any of the customers of the Ohio  
4 Edison system enjoy.

5 Q Mr. Firestone, do you have a copy of yesterday's  
6 transcript in front of you?

7 A Yes, I do.

8 Q Could you please turn to page 9243?

9 A Yes, sir.

10 Q To the extent that you agreed with Mr. Goldberg's  
11 suggestion on 9243 that one can draw a direct connection  
12 between the sharing of nuclear power and construction, is  
13 it not equally true that such a direct connection can be  
14 drawn whether the reference is to a sharing of nuclear  
15 power or any other kind of power from a similarly-sized  
16 unit?

17 A Yes, it is equally true.

18 Q Does this demonstrate that you indicated at  
19 line 2 that there was nothing magical about nuclear power?

20 A I think it does, yes.

21 Q Mr. Firestone, how do the CRPCO companies treat  
22 interruptable loads in their load model?

23 A For purposes of analysis of the pool reliability  
24 and for purposes of allocation of capacity responsibility,  
25 interruptable load is excluded from the load model.

bw5

1           There are procedures within the CIPCO framework  
2 whereby a party with a so-called interruptible load  
3 certifies to the other parties that this load meets the  
4 tests or the requirements associated with an interruptible  
5 load.

6           Q     Mr. Firestone, on page 9203 of the transcript --

7           A     Yes.

8           Q     -- line 10, in response to a question by the  
9 Chairman, you testified that you thought you had stated that  
10 a neighboring system's conduct, policies and activities  
11 can affect another neighboring system. Do you recall that  
12 testimony?

13          A     Yes, I do.

14          Q     Will you look at pages 9284 through 9286 of the  
15 transcript, and review them at this time.

16          A     9284 through 9286?

17          Q     Yes.

18          A     Yes, I have read those pages.

19          Q     Does not the testimony you gave there indicate  
20 that a neighboring system's conduct, policies and activities  
21 would not affect another neighboring system, because, in  
22 your view, there were unrealistic assumptions being made in  
23 the requests?

24          A     Yes, the testimony does indicate, as you have  
25 stated.

1 Q In light of that, would I be correct in concluding  
2 you misspoke when you indicated to the Chairman that your  
3 testimony would be otherwise?

4 A You would be correct, yes.

5 Q On page 3 of Applicants Exhibit 134 -- do you  
6 have it? That is the CAPCO article.

7 A I don't seem to have it. I believe it is  
8 attached to --

9 Q Let me provide you with a copy.

10 A Yes, thank you.

11 Q On page 3 of that exhibit on the last line and  
12 carrying over to page 4, you use the term "power sales."

13 A On page 3, carrying over to page 4, there  
14 was no problem in large firm sales. Yes, I see that.

15 Q What types of transactions did you intend  
16 to identify with the phrase firm sales?

17 A The transfer of substantial quantities of power  
18 or bulk quantities of power between neighboring utility  
19 companies,

20 CHAIRMAN RIGLER: Bulk power transactions?

21 THE WITNESS: Yes.

22 BY MR. ZANLER:

23 Q If a CAPCO company were to make such a firm  
24 sale to a non-CAPCO company, for example, to Ohio Power, and  
25 such a sale was not contemplated within the CAPCO one-system

b47

1 plan, would such action by the CAPCO company be contrary  
2 to CAPCO planning principles?

3 A Yes, it would.

4 In that, I believe the two are by definition  
5 mutually exclusive.

6 If a party is free to unilaterally make a decision  
7 affecting capacity, then that undercuts the concept of  
8 one-system planning. It is impossible to have both.

9 Q Mr. Firestone, would you please turn to page  
10 26 of your testimony which has been identified as Applicant's  
11 Exhibit 122.

12 A Yes, I have it.

13 Q The data tabulated on that page holds the  
14 total amount of reserves to be kept by the  
15 combined systems constant, does it not?

16 A Yes, it does.

17 Q As a result, is the reliability of the combined  
18 systems described in case number one, case number two and  
19 case number three, equal?

20 A No, the reliability would vary among cases.

21 Q How does the reliability of the  
22 combination of systems in case number two compare with the  
23 reliability of the combinations of systems in case number  
24 three, assuming, as you did in the table, that both  
25 combinations maintain the same total amount of reserves?

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A Just so I understand -- case number 2, being the very reliable large, plus the very available small?

Q That is correct.

A And the case three being the very unreliable large, plus very reliable small.

The reliability of the combination under case two would be substantially better than the reliability of the combination under case three.

Q Now, turning to Applicants Exhibit 116 and, in particular, Exhibit 3, revised.

A Yes, I have it.

Es17

arl 1 Q Does that table quantify the difference in  
2 reliability between case No. 2 and case No. 3?

3 A Let's see. I believe that it does. The system  
4 A plus system C prime -- let's go back to the key.

5 I'm having difficulty finding the combination  
6 of very reliable large plus very unreliable small.

7 Q Would that be not the system that is listed  
8 under II, that is C plus A prime? That is the one listed  
9 at line 11.

10 A Line 11, C plus A prime, yes. I'm sorry, I was  
11 looking at Exhibit 1 (revised) rather than Exhibit 3. C  
12 plus A prime has reliability factor as indicated here of  
13 .019. Whereas A plus C prime has a reliability factor  
14 of 49.602.

15 These numbers again being stated in terms of  
16 days per calendar year or days per -- heavy load days of any  
17 calendar year, the heavy days being 252.

18 A plus C prime having a reliability factor  
19 of 49 means that, well, that is approximately 50 days out of  
20 252 means approximately one day out of five there would be  
21 inadequate capacity to serve the load.

22 Q Just so the record is clear, the system described  
23 as A plus C prime on Exhibit 3 (revised) corresponds  
24 to the table on page 26 to the system of a very reliable  
25 small system and a very unreliable large system?

1 A Yes, it does.

2 Q And that would be case No. 2 that we have  
3 identified previously; is that correct?

4 A That's correct.

5 Q And the system identified on exhibit 3 (revised)  
6 is C plus A prime, would correspond to a system of a  
7 very unreliable small system and a very reliable large  
8 system; is that correct?

9 A Very unreliable large --

10 Q Very unreliable small system. We are talking about  
11 C plus A prime.

12 A C plus A prime?

13 MR. ZAHLER: Maybe I'm confusing the record.

14 Could we go back to where I started to identify, which was  
15 which -- and let's make sure we have it right on the record.

16 (Whereupon, the reporter read from the  
17 record, as requested.)

18 MR. ZAHLER: I misspoke at that point. It  
19 should have been case 3. Let's pick up at that point.

20 CHAIRMAN RIGLER: Let's note on the record what  
21 there is confusion in the two cases and Mr. Pinestone  
22 will clarify his answer, and eliminate the confusion as he  
23 gives his answer.

24 THE WITNESS: The case we have identified as case  
25 2 on page 26, of Applicant's Exhibit 102, is identified as



1 a very reliable large plus very unreliable small system.

2 Going to Exhibit 3(revised) of Applicant's Exhibit  
3 125, the corresponding case on that exhibit is identified  
4 on line 12, C plus A prime.

5 Going back to page 26 of Applicant's Exhibit 123,  
6 the case that we identified as case 3 consisting of the very  
7 unreliable large plus very reliable small corresponds  
8 to the case identified in Applicant's Exhibit 125.

9 Exhibit 3R(revised), to the case that is identified  
10 on line 4 as being A plus C prime.

11 MR. ZAHLER: Thank you.

12 BY MR. ZAHLER:

13 Q What would be the required reserve obligation  
14 for the very unreliable large system in case No. 3 if  
15 the combined systems in case No. 3 were to achieve the same  
16 reliability as the combined systems in case No. 2?

17 A The installed reserve requirement would be for  
18 case No. 3, would be substantially greater.

19 However, I can't give you the exact number of  
20 megawatts. That would require again a computation using  
21 the digital computer and I have such a computation  
22 made, but I don't have the number at hand now.

23 Q Would you have an estimate for what the required  
24 reserves would be in that situation for the very reliable  
25 small system?

1           A       Again you are talking about the combination of  
2 A plus C prime and C plus A prime.

3           Q       At this stage I'm talking about case No. 3.  
4 That is the very unreliable large plus the very reliable  
5 small.

6                       We are assuming they have to, based on your  
7 previous testimony, increase their total amount of installed  
8 reserves to achieve the reliability similar to that of case 2.

9           Q       You told me previously that to achieve that  
10 reliability, the large system would have to maintain  
11 reserves in excess of what you have indicated in your  
12 charts. You couldn't give us a precise figure without  
13 giving the study.

14          A       I was trying to indicate that the combination  
15 would have to to install substantially more reserve  
16 capacity in order to achieve the same level of reliability  
17 as stated under case 2.

18                       Now if the reserve responsibilities were to  
19 be assigned by the P/N method, then I would believe that the  
20 majority of the responsibility for the additional megawatts  
21 required to improve the combination's reliability would be  
22 assigned to the large system in that that is the very  
23 unreliable component of the combination.

24          Q       Now just looking to case No. 2 on page 25, if the  
25 very unreliable small system chose not to enter CAPCO and

1 carry a reserve of 88 megawatts, but to remain isolated --

2 MR. GOLDBERG: Excuse me. The 88 megawatt figure  
3 is no longer the correct figure in light of Mr. Tinsford's  
4 addendum.

5 MR. ZANLER: Mr. Goldberg is correct when the  
6 addendum does correct the particular figures.

7 However, the original testimony was with  
8 respect to this table, and I think it would be clear on the  
9 record if we talked about it. I don't think the changes  
10 in the figure are significant for the line of questioning  
11 that will be taking place.

12 BY MR. ZANLER:

13 Q Just looking to case No. 2 on page 25, if the  
14 very unreliable small system chose not to enter CRPCC and  
15 carry a reserve of 88 megawatts, but to remain isolated  
16 and carry, as the Chairman suggested yesterday, its  
17 largest single unit or 50 megawatts as a reserve, how would  
18 the reliability of the small system in isolation compare  
19 with the reliability of the combined systems in case 2?

20 A The reliability of the small system  
21 would be substantially less or substantially poorer in that  
22 event.

23 Q So by combining with the large system and  
24 maintaining 88 megawatts of reserve, the small system  
25 improves its reliability; is that correct?

1 A Yes, it does.

2 Q What benefits arise by the small system taking  
3 that action?

4 A Well, reliability of service to customers is a  
5 very important element in the supply of electric service.

6 So achieving an improvement in reliability  
7 would be a benefit that would flow to the customers of  
8 that small system.

9 Q Now assume that the small system again chose  
10 to be isolated; what amount of reserves would it  
11 have to carry to achieve the same reliability as the  
12 combined systems in case No. 2?

13 A Again I can say that the reserve would be  
14 substantially greater. I don't have the  
15 quantification of the amount. That is the number that  
16 could be generated by analysis with the computer.

17 CHAIRMAN RIGLER: It couldn't be all that much  
18 greater, could it? It would only take an additional 12  
19 megawatts and they would be carrying 100 percent reserves.

20 The small system only has a peak load of 100 MW  
21 is that correct?

22 THE WITNESS: I thought. That's correct.

23 CHAIRMAN RIGLER: They are already carrying  
24 reserves of 88 MW in example 2.

25 THE WITNESS: Again I thought the question had to

1 do with the reliability of the unreliable small system  
2 operating in isolation, but with an installed reserve of  
3 38 megawatts as contrasted to the small system operating  
4 in consort with the very reliable large system. In which  
5 case the reliability enjoyed by the small system would reach  
6 the level of the reliability enjoyed by the very reliable  
7 system.

8 Therefore, a very substantial improvement in  
9 reliability would ensue from combining the two or a very  
10 substantial improvement in reliability for the customers of  
11 the small system would ensue from that combination.

12 If the small system operating in isolation chose  
13 to install enough capacity to achieve the same level of  
14 reliability for its customers that it would have enjoyed under  
15 the combined arrangement, then in my judgment additional  
16 megawatts of reserve or a substantial amount in excess of  
17 the 38 would be required.

18 BY MR. ZAWLER:

19 Q Mr. Firestone, I understand you can't give us  
20 precise figures without having done the study. Is it  
21 conceivable if the small system maintained 100 percent  
22 reserves and it was operating in isolation, it would still  
23 not achieve the same reliability as it can combined with  
24 the very reliable large system?

25 A That is entirely conceivable.

1           Again it is risky to try to outguess the  
2 interaction of these components, but that certainly  
3 is conceivable. Of course, at some point, through the  
4 addition of megawatts and depending on the packaging of  
5 those megawatts, the small system operating in isolation  
6 could achieve the same level of reliability as would be  
7 achieved by the combination.

8           MR. CHARNO: Could I have that answer back?

9           (Whereupon, the reporter read from the  
10 record, as requested.)

11          BY MR. ZAHLER:

12          Q       Mr. Firestone, why would it be if the small  
13 system in isolation were to maintain reserves of 100 percent,  
14 it still might not have the same reliability as the  
15 combination of the very reliable large system and the very  
16 unreliable small system as indicated in case 2?

17          A       That would depend in a large degree on the manner  
18 in which the reserve megawatts were packaged. If they were  
19 comprised of one generating unit of reserve, the reliability  
20 would not be as great as if the 100 percent reserve was  
21 made up of say 5 smaller sized units.

22          CHAIRMAN RIGLER: We don't have any problem with  
23 the theoretical application of your question. It strikes us  
24 that at some point you get unrealistic. You get to "never,  
25 never land" to suggest they keep increasing their reserves

1 on the small system.

2 MR. ZAHLER: The witness indicated he hadn't  
3 run the studies to compare the particular systems we are  
4 talking about.

5 Applicants have no objection to Mr. Firestone's  
6 running those and submitting those on the record. That may  
7 be the way to clear this up.

8 CHAIRMAN RIGLER: I don't know what we are  
9 clearing up. I don't see any disagreement with respect to  
10 the principles you espoused. The question is where the  
11 tradeoff between reliability and the cost of all these  
12 extra reserves occurs, and how that affects the concept  
13 of equity.

14 But in terms of the principles you are attempting  
15 to demonstrate through these questions, we can accept them.

16 BY MR. ZAHLER:

17 Q Mr. Firestone, if I understand what you have  
18 testified to, just before, you are telling us that by  
19 combining with the large system and maintaining 33 megawatts  
20 of reserves, the small system keeps reliability constant,  
21 but is able to reduce its reserve obligations from what  
22 they would otherwise have been if they were operating in  
23 isolation?

24 A Well, in the situation that is described as  
25 case 2 or that we have been describing as case 2 on page 26,



1 you have a very reliable large plus a very unreliable small,  
2 and the reserve megawatts are fixed. They are 10 percent  
3 of the aggregate peak load.

4 I'm saying by virtue of combining these  
5 two, the very unreliable small system, if we think now in  
6 terms of these two being operated really as one system or  
7 sharing generation reserves as one system, the very  
8 unreliable small system has moved from that position to  
9 essentially the same position as the large system, to a  
10 very liable position.

11 If the small system does not in some way  
12 assume a greater portion of the responsibility for that  
13 installed reserve than is indicated by the uniform percentage  
14 rule, then in my judgment the small system is taking  
15 advantage of the large in that he has achieved that  
16 improvement in reliability at essentially no cost to him or  
17 his customers.

18 To use the vernacular, he's taking a free ride  
19 on customers of the large system.

20 MR. CHARNO: Could I have the answer back?

21 (Whereupon, the reporter read from the  
22 record, as requested.)

23 MR. SMITH: Mr. Firestone, in your answer, are  
24 you measuring the value of reliability rather than the  
25 cost of reliability to the small system?

1 THE WITNESS: Well, I'm not trying really to  
2 measure the value of reliability, although I would  
3 think that it certainly should have some value. In the  
4 hypothetical systems that I have postulated here, I think  
5 we have embraced a spectrum of conditions where the reliability  
6 is at an intolerably poor level all the way to conditions  
7 that produce a high degree of reliability.

8 Certainly it is bad practice, I think, to allow  
9 a complement of generating capacity to be such that you arrive  
10 at an intolerable level of reliability in providing service  
11 to your customers.

12 So it is a judgment matter as to what constitutes  
13 the proper level of reliability that one wants to afford to  
14 the customers. Once having determined the target level  
15 of reliability, then, of course, it seems to me to be  
16 prudent to try to achieve that level of reliability in  
17 the most economic manner.

18 But in my answer I was trying to convey that  
19 the large, very reliable system got that way by virtue of  
20 the way it chose to install capacity resources, which, of  
21 course, had attendant costs attached with those capacity  
22 resources.

23 Now, to me it is inappropriate for a very  
24 unreliable system, large or small, to buddy up with the  
25 very reliable/system and suddenly move from an intolerably  
large

1 poor level of reliability to a very high level of  
2 reliability without somehow assuming some cost obligations.

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1 MR. SMITH: You are not concerned with the use  
2 that the participants make of the benefits.

3 You are concerned that they pay for the benefits  
4 they receive in the pool, aren't you?

5 A. Basically, yes. Again, I keep coming back  
6 that if we are going to have all systems interconnected  
7 and operate, then in an interconnected environment, it  
8 is impossible, really, for one neighbor to deprive another  
9 neighbor from enjoying the benefits of backup.

10 They just know. We do find ourselves in such  
11 an environment.

12 If we do find ourselves in such an environment, it is  
13 beyond the control of any one of us to control that  
14 environment, however we influence it.

15 I think it is appropriate to surmount rules  
16 whereby each element or each party within that environment  
17 will install capacity resources, such that everyone can be  
18 assured that the aggregate environment will be reliable.

19 Also, I think those rules should be such that the  
20 cost attendant with achieving that acceptable level of  
21 reliability for the entire environment is shared on an  
22 equitable basis by the members that make up the environment.

23 So that underlies what I've been trying to say.

24 CHAIRMAN RICLER: I still have some problems with  
25

bw2

1 your free-riding answer, as I compare examples two and 3.  
2 Where the large system is the unreliable system, in order  
3 to pool under the CAPCO method, they have to increase  
4 their reserves only 18 mw in your example, which is  
5 in percentage terms or absolute terms is far less than what is  
6 required of the unreliable small system to enter into the  
7 same type of pooling arrangement.

8 THE WITNESS: I think there is a missing link  
9 here.

10 This analysis was put together on the assumption  
11 that installed capacity is a constant.

12 The megawatts of reserve in the three situations  
13 are constant. But the reliability that is achieved in  
14 the three situations is not constant.

15 So when you look at the case three that you  
16 just described, the very unreliable large, plus a very  
17 reliable small, now the combination, in my judgment, has  
18 an intolerable level of reliability.

19 It is so poor that it would be intolerable.  
20 This plan three or example three should have additional  
21 capacity added to it to bring it up to a level of reliability  
22 that is comparable to case two.

23 If that were done and then the PN process were  
24 applied to assign the respective responsibilities, again  
25 I am speculating some, but I think you would see that the

bw3

1 large system would pick up the lion's share of the  
2 additional capacity required to achieve the improvement  
3 in reliability.

4 CHAIRMAN RIGLER: That additional capacity doesn't  
5 show on example three.

6 THE WITNESS: NO. This example wasn't directed  
7 toward the question you raise nor the problem I think you  
8 are finding with this.

9 BY MR. ZAHLER:

10 Q Going back to the free-ride concept for a second,  
11 Is the free-ride result a consequence of applying the equal  
12 percentage method of computing reserves as indicated in  
13 your table on page 26?

14 A Yes, I think it is. If reserve responsibilities  
15 were to be assigned by that method, yes, the free-ride  
16 is the consequence.

17 Q To what extent would you expect that a small  
18 system would enjoy benefits from economies of scale  
19 by installing larger-sized units in excess of, let's say,  
20 50 percent of its peak load?

21 A Again, the incentive to strive for economy of  
22 scale is greater for systems that are operating with smaller  
23 units than it is for systems operating with large units.

24 You run into the very practical consideration  
25 that the capacity that one chooses to install to serve

bw4

1 the then-existent load somehow has to be supported by the  
2 revenue to be derived from the then-existing load.

3 If you have a small system, whose, say, the  
4 load is growing ten megawatts per year, and if  
5 that system should decide to install a 100 megawatt  
6 unit, somehow or other, then the financial burden of  
7 supporting the costs associated with that 100 megawatt  
8 unit have to be met.

9 This acts as a deterrent on trying to reach too  
10 far in the direction of economy of scale.

11 An economic deterrent. There is another  
12 factor also that if one moves too far in the direction  
13 of attempting to achieve economies of scale, and then that  
14 unit turns out to be a so-called lemon or experiences some  
15 sort of disaster, serious mechanical failure, that might cause  
16 it to become inoperative for six months or a year, then  
17 that can have nearly catastrophe consequences on the financial  
18 situation of the company owning that unit.

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arl 1 Q Turning back to Exhibit 125, which is  
2 the capacity allocation study and looking to Exhibit 1  
3 (revised) in that document.

4 A Yes.

5 Q The data listed under columns 7, 8, 9 is shown  
6 as significant to two decimal places; is that correct?

7 A Yes, that's correct.

8 Q Why was that done?

9 A To simplify the tabulation primarily. Those  
10 numbers have been rounded as they are indicated here.

11 Q Does that mean that the computer performed  
12 the calculations to only two significant digits?

13 A No, it does not.

14 CHAIRMAN RIGLER: How many digits were involved?

15 MR. ZAHLER: Mr. Chairman, if I can introduce  
16 an exhibit, we will get into that.

17 CHAIRMAN RIGLER: All right. But he can  
18 answer that question.

19 THE WITNESS: I can't answer it, although this  
20 other sheet of paper will.

21 CHAIRMAN RIGLER: It shows two significant  
22 digits. How many did the computer utilize?

23 THE WITNESS: The printout from the computer  
24 also displays rounded numbers, the printout displays  
25 figures that show five significant figures to the right of

ar2

1 the decimal point. I can't answer you with precision  
2 as to the significant figures that were carried internal  
3 to the computer as it was making the computation.

4 I can say with certainty it was in excess of five  
5 significant figures to the right of the decimal point in  
6 that the computer printout has been rounded to the five.

7 CHAIRMAN RIGLER: For the value of the negative  
8 margin?

9 THE WITNESS: Yes, sir.

10 MR. ZAHLER: Mr. Chairman, I would like to  
11 mark as Applicant's Exhibit 126 a single sheet of paper  
12 which is a computer printout.

13 (The document referred to  
14 was marked Applicant's  
15 Exhibit 126 for identifica-  
16 tion.)

17 BY MR. ZAHLER:

18 Q Mr. Firestone, would you identify what has  
19 been marked as Applicant's Exhibit 126?

20 A Yes. This is one of the pages of computer  
21 printout associated with the study that I had referred  
22 to earlier which generated approximately an inch and a  
23 half of pages of computer printout. This particular sheet,  
24 you can see by the heading, has to do with the expected  
25 frequency distribution of generating capacity margins, test

ar3

1 of risk and allocation with hypothetical systems for  
2 antitrust testimony.

3 Risk calculation system A which is the small  
4 system, very reliable, you can see just below that  
5 in the upper left part of the sheet the letters DMC  
6 which indicates that this computation is made for the  
7 period or month of December.

8 Down below that, you can see the columns. The  
9 two columns to the left indicate the megawatt margin from  
10 a lower limit to an upper limit.

11 The first entry is 19, 19. We expect to find  
12 information associated with the discrete megawatt margin  
13 of 19 megawatts.

14 To the right of that we find a column headed  
15 "days this period."

16 First entry is 13.40450, representing the days  
17 in the simulation of the December month during which  
18 you would expect to find that discrete margin of 19.

19 If you look down that column, you will find  
20 the days this period associated with the various discrete  
21 margins. If you go to the bottom of that column, you will  
22 find a sum of the positive margin values, sum of the  
23 negative.

24 If you add those two together, you will find you  
25 get a number of 20.99976, which is very close to 21 days,

1 representing the number of days that we simulate in a  
2 calendar month, 12 months, 21 calendar days produce a  
3 total of 252 days.

4 If you move to the next column to the right,  
5 "days all periods," you see the corresponding information,  
6 now with respect to the days summed through the calendar  
7 year including the month of December.

8 There we find the information for the entire  
9 calendar year. The column to the right of that expresses  
10 the same information only in terms of percent. Again if  
11 I could go to the column headed "days all periods," if  
12 one were to add those numbers, you will find that the  
13 sum associated with the positive margins 251.97923.

14 The sum of the negatives is .01372. The sum  
15 sum of those figures is 251.99795 which again is close  
16 to the 250 days we are analyzing.

17 To the right of those we find numbers that  
18 represent the sum of the positive megawatt margins being  
19 5481.06, which is a number that we have tabulated in our  
20 exhibit previously.

21 We find the number associated with the sum of  
22 the negative day margins being 0.06, which is  
23 again a number we submitted.

24 The ratio of the positive to negatives is  
25 shown as 88983.16. If you take the trouble to perform

1 arithmetic of dividing the sum of negatives into the sum of  
2 the positives, you find you do not get the precise number  
3 shown there as being the ratio of the positive to  
4 negatives.

5 This arises because, as I said earlier, the  
6 computation of these numbers is done internal to the machine  
7 carrying at least five significant figures to the right  
8 of the decimal point, and then rounding the answers.

22 9 CHAIRMAN RIGLER: Do you remember your discussion  
10 with Mr. Goldberg yesterday in which he tried to get you to  
11 concede the computer was prone to error on occasion, and  
12 the reliability of these printouts was not perfect?

13 THE WITNESS: Yes, I recall that.

14 CHAIRMAN RIGLER: Would you look, please,  
15 at the second figure under the day 18 margin, under days  
16 this period where on my printout it goes from day 19 to  
17 a figure in excess of 18 to 0.03485 followed by 1.3632?

18 It looks as if the zero cannot be correct. It  
19 looks to me to be a value greater than 10; is that correct?

20 THE WITNESS: No. I submit it is extremely  
21 risky to try to outguess this calculation.

22 CHAIRMAN RIGLER: Look, that entire column  
23 labeled "days this period" begins with a large value and  
24 decreases day by day, does it not?

25 MR. REYNOLDS: I'm sorry, it does not decrease

1 day by day if you go down the column.

2 THE WITNESS: It begins with a large number,  
3 but from that point down, they jump around.

4 CHAIRMAN RIGLER: Why is it as we follow day  
5 18, going from day 19 to day 16, they all start with an  
6 extremely large value? The "days all period" column  
7 drops off to correspondingly lesser values to day 16.  
8 The cumulative column drops off the same way, but the  
9 day 18 goes from an extremely large value to one of the  
10 smallest values shown and then bounces back up on day 17  
11 to 1.38.

12 THE WITNESS: When you refer to day 18 and day  
13 17, I think you are really referring to the discrete  
14 megawatt margin that is existing. Are you looking  
15 at the two columns left-most on the table?

16 CHAIRMAN RIGLER: Why don't you hand yours  
17 up and I will circle for you the problem.

18 THE WITNESS: You have circled the value under  
19 the column headed by "days this period," value of 0.02488,  
20 which is associated with the megawatt margins having a  
21 value of 18 megawatts.

22 That means that --

23 CHAIRMAN RIGLER: Why would it be so much less  
24 than where the value is 19 or 17?

25 THE WITNESS: This analysis is taking all of the



1 combinations of capacity that can exist in this month of  
2 December.

3 That capacity model recognizes certain  
4 units have been removed from the capacity model to simulate  
5 scheduled maintenance. It recognizes that the rating of  
6 capacity has been adjusted to account for the seasonal factors  
7 and for an allowance for partial outages of capacity and  
8 condition derating factors.

9 Then that capacity complement or the capacity  
10 model is merged with the load to be served that month.

11 CHAIRMAN RIGLER: That is true of all of  
12 these figures, isn't it? These are constant operations.  
13 And yet I'm seeing what appears to me to be a  
14 significant distortion from the pattern reflected in  
15 the table as a whole.

16 THE WITNESS: All I can say in the way of answer  
17 is that the computation of capacity conditions that  
18 can exist when measured against the load to be served is  
19 such that there evidently is a very high likelihood that  
20 margins of 19 megawatts will exist and a low likelihood  
21 that margins of 18 megawatts will exist.

22 CHAIRMAN RIGLER: There is suddenly a high likelihood  
23 they will exist at 17?

24 THE WITNESS: High as compared to 18, but low as  
25 compared to 19. That is the way this ball game works.



1 That is why it is risky to try to outguess how this will  
2 turn out.

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1 BY MR. ZAHLER:

2 Q Mr. Firestone, the 18.48450, does that represent the  
3 number of days out of 21 that it is expected that the  
4 small system will have 19 megawatts of capacity on-line?

5 A No.

6 Q That it will be a capacity margin of 19 megawatts?

7 A Discrete capacity margins of 19 megawatts.

8 Q And that the other figures represent the number  
9 of days out of 21 -- that is whatever is left from 21  
10 minus 18, on which they will have a discrete capacity margin of  
11 less than 19 megawatts?

12 A Not less than 19 -- whatever is left. If you  
13 are speaking collectively of the entire table; that is  
14 right.

15 Q If the computer program tells us on 18 out of the  
16 21 days, I will have a capacity margin of 19 megawatts,  
17 then the sum of the rest of the figures in that column  
18 would add up only to there; is that correct?

19 A That is correct.

20 Q Does that explain why the first number is  
21 significantly larger than the rest of the other numbers?

22 A Well, that accounts for all of the 21 days.

23 I don't know that that explains why there is  
24 such a high likelihood that a discrete margin of 19 megawatts  
25 will exist.

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1 That really is a function of the makeup of the  
2 generating capacity and the characterization of the load.

3 Q The 19 megawatts is what one would -- to use this  
4 in a loose term -- normally expect the system to operate  
5 with as capacity margin; is that correct?

6 A I think you are reading more into this than  
7 there is there. You are putting a different interpretation  
8 on it.

9 This measures all of the installed capacity  
10 that this party has, accounts for the availability of  
11 that capacity, and then measures that capability of  
12 installed capacity against the load requirements.

13 Now, it doesn't tell you that it is  
14 necessary nor desirable to operate this amount of  
15 capacity on that particular day.

16 Q If the number below the 18,4045 was to the  
17 order of ten, would that indicate that 20 days were  
18 accounted for in the period whereas the program could only  
19 have 21 days as a maximum number?

20 A Yes, that would indicate there is an error.  
21 There are only 21 days to be accounted for. Again, this  
22 is a check point on the accuracies.

23 After one has assumed all of the days in the  
24 period, if the number is different than 21, you can be  
25 confident there is an error.

bv3

1 MR. ZAHLER: Mr. Chairman, I have picked  
2 out one sheet here that corresponded to line 4 on Exhibit A,  
3 revised.

4 Applicants would be willing to make available  
5 to you the entire computer printout, which indicates that  
6 the data shown on this sheet is not a distortion of the  
7 data printed on the entire computer printout.

8 CHAIRMAN RIGLER: I may be in error in my assumptions.  
9 I will let Mr. Goldberg test it on recess.

10 I have difficulty understanding why the fluctuation  
11 would be in there, particularly when I compare the days  
12 all periods column immediately next to it.

13 MR. ZAHLER: That represents the entire year.

14 CHAIRMAN RIGLER: I understand that.

15 But I can't understand, once again, what is  
16 so peculiar about this December period that would produce that  
17 kind of result.

18 MR. ZAHLER: The columns have to  
19 add to 21.

20 CHAIRMAN RIGLER: I appreciate that point.

21 MR. ZAHLER: If 18 of the days are accounted  
22 for in the first entry, all of the other entries  
23 have to be very, very small.

24 CHAIRMAN RIGLER: I can see my ten is wrong.  
25 I still don't understand why you go to a value

bw4

1 that low and bounce up on the 17th day, however.

2 MR. ZANLER: I don't think there is a pattern.  
3 If one took the numbers and plotted them, there is  
4 not a pattern.

5 There is a random division of the numbers going  
6 up and down.

7 CHAIRMAN RIGLER: That random pattern doesn't  
8 begin to occur, as I look at it, until after the 10th  
9 day.

10 In other words, for the 19 through 15, it appears  
11 to me to be a pattern with the one exception upon which I  
12 have been focusing.

13 THE WITNESS: I think I can add somewhat to your  
14 understanding of this by saying that in simulating the load  
15 in this hypothetical study we took some assumptions or took  
16 some liberties in modelling that load and departed somewhat  
17 from the type of load pattern you would expect in real life,  
18 in order to simplify the calculations.

19 The load pattern we assumed, however, is common for  
20 all of these capacity programs, so you have a common impact.

21 That factor could contribute to what appears  
22 to be an unusual concentration of margins right at the 19  
23 megawatt level.

24 If you look toward the bottom of that  
25 sheet of paper, you will see words "peak duration curve."

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And, again, in the simulation of load, we generate a curve that is defined by point 1, point 2, by six points, really.

Then the computer solves for the load level on the peak day as being 100 percent.

Solves for the load level on the next lower day or next lower day and so on.

For the purpose of our calculation here, we assumed that in December, the load is at 100 percent level. All 21 days of the month.

ES?3

arl 1 We further assume that the peak load in  
2 December would be 90 percent of the annual peak load which  
3 we assumed would occur in August.

4 So this study has a very high -- well, a flat load  
5 curve, I guess, would be the proper way to say it, which  
6 I think is contributing, as I mentioned, to the concentration  
7 of the margins here at 19.

8 Once again, the pattern of the generating unit  
9 and the characterizations of the load will determine how  
10 these discrete margins turn out. It is unrealistic  
11 to think they will be ordered in a nice descending order  
12 of values.

13 CHAIRMAN RIGLER: Why don't we let Mr. Zahler  
14 finish his redirect and then if the Staff wants to go into  
15 this, they may.

16 BY MR. ZAHLER:

17 Q To recap for a second, do I understand your  
18 testimony to be that since .06 divided into 5481.06 is not  
19 equal to 88983.16, that tells you that the computer  
20 calculation, the negative information as something other  
21 than exactly .06; is that correct?

22 A Yes, that's correct. And that is further amplified  
23 again --

24 CHAIRMAN RIGLER: If it is correct, stop there.

25



ar2

1 BY MR. ZAHLER:

2 Q Could you explain to me the significance  
3 of the footnote at the bottom of the computer printout  
4 which reads "note, sum positives and negatives are  
5 accumulative of nonrounded context entries and will not  
6 always equal the sum of the rounded printed amount"?

7 A That note is intending to state the conclusion  
8 we just reached that the computation within the computer is  
9 working at one level of precision, that is then rounded  
10 when it comes time for printing out results on this sheet  
11 of paper.

12 When you have numbers like this, you get into  
13 the problem that has been pointed out to us here. It  
14 is not realistic to take the rounded value in this  
15 ratio for the numerator and the denominator and use the  
16 rounded values and expect to arrive at the value of the  
17 ratio that has been computed by the computer working to  
18 precision in excess of five significant values to the right  
19 of the decimal point.

20 MR. ZAHLER: I would move Applicant's Exhibit  
21 126 into evidence.

22 MR. GOLDBERG: No objection.

23 CHAIRMAN RIGLER: We will receive 126 into  
24 evidence.

25

1 (The document heretofore  
2 marked Applicant's Exhibit  
3 126 for identification, was  
4 received in evidence.)

5 MR. ZAHLER: I have no further redirect, Mr.  
6 Chairman.

7 RE-CROSS-EXAMINATION

8 BY MR. GOLDBERG:

9 Q Mr. Firestone, you stated a little while ago  
10 that you were in error when you agreed with the Chairman  
11 yesterday that the neighboring system conducts policies  
12 and activities -- that a system's conduct, policies and  
13 activities could affect a neighboring system.

14 A I was in error when I recalled that I had  
15 agreed. My testimony indicates that I had not agreed.

16 Q Do you recall testifying yesterday that the  
17 reliability of one system depends on the reliability of  
18 all systems with which it is interconnected?

19 A Not specifically, but I don't doubt that I said  
20 that.

21 Q I would like to refer you to page 9276 of your  
22 testimony.

23 A Yes, sir.

24 Q Line 13. I ask the question, isn't it a fact that  
25 the reliability of one system depends on the reliability

1 of all of the systems with which it is interconnected, and  
2 your answer was yes, the absolute reliability does.

3 Do you recall that?

4 A Yes, I do.

5 Q Do you recall answering yes to some extent  
6 to my question, isn't it true that the reliability of  
7 one system depends on the activities, policies, conduct  
8 of the other systems with which it is interconnected?

9 A Yes, I recall that you asked that.

10 Q Do you recall you gave the answer yes, to some  
11 extent?

12 A Yes, I do.

13 Q Would you now like to change the testimony that  
14 you gave today in response to Mr. Zahler's question where  
15 you thought you were mistaken in agreeing with the Chairman  
16 that you testified that a neighboring system's conduct,  
17 policies and activities could affect another neighboring  
18 system?

19 A No, I wouldn't. I'm not sure of the sequence  
20 in which these statements were made.

21 I believe that at the time I was asked about  
22 my recollection. That followed a sequence of questioning  
23 about possibility of certain effects in which in my  
24 response I did not agree there could be such an effect.

25 Without checking that, I don't know what impact this

1 statement has on that statement.

2 Q Referring to your testimony on 9278, is that testi-  
3 mony correct or is it incorrect?

4 A In my judgment, it is correct.

5 Q It is correct.

6 It is correct in view of Mr. Zahler's question  
7 today?

8 A I don't have in mind Mr. Zahler's question  
9 today.

10 Q I'm referring to his question with respect to  
11 your statement in agreeing with Chairman Rigler that  
12 you had indeed testified that a system's conduct, policies  
13 and activities could affect a neighboring system's?

14 A That was not the nature of the question. The  
15 question had to do with did I recall agreeing. I said  
16 I thought I did. But upon checking, it turns out I did  
17 not agree.

18 Therefore, when I say that I did recall agreeing,  
19 that turns out to be in error.

20 CHAIRMAN RIGLER: What was your page reference,  
21 Mr. Zahler?

22 MR. ZAHLER: Mine was to 9303 and to 9284 to 86.  
23 The confusion is arising because the question asked on 9278  
24 is more specific and relates to the reliability of one  
25 system. Mr. Firestone doesn't doubt that. The question I

1 asked related to the general question, would it have  
2 an effect on the other system without any reference.

3 Mr. Goldberg did go into that with the witness at  
4 9284, and 86. And the answers are different than  
5 he otherwise recalled to the Chairman at a later date.

25

6 MR. GOLDBERG: If the conduct, policies and  
7 activities have effect on the reliability of a  
8 neighboring system, it has an effect on that system when  
9 you don't get specific and you are talking about a general  
10 effect.

11 One of the ways it has an effect is on the  
12 reliability.

13 MR. ZAHLER: The testimony is in the transcript.  
14 I'm confused by where Mr. Goldberg's line of questioning  
15 is going at this point.

16 BY MR. GOLDBERG:

17 Q Mr. Firestone, with respect to Mr. Zahler's  
18 question to you about whether or not you were mistaken  
19 when you said you agreed with the Chairman, exactly  
20 what part of your testimony would you like to change?

21 A I wouldn't propose to change my testimony  
22 other than to make the correction that what I thought I  
23 recalled was at variance with what I had said immediately  
24 prior to being asked that question.

25 Q But even prior to that, you did agree that

1 activities, conduct and policies of one system affect a  
2 neighboring system; is that correct?

3 A To the extent I so stated on 9273, that's correct,  
4 yes.

5 Q In your example on pages 25 and 26 of your  
6 testimony you stated in response to a question by Mr.  
7 Zahler that there was a requirement imposed upon this  
8 example that the reserves always come out to be equal to 220  
9 megawatts; is that correct?

10 A I don't have my testimony before me, but that  
11 was a constraint on the study that, yes, we were working  
12 to a fixed total amount of installed capacity which  
13 produce if you expressed the reserve as a difference  
14 between total installed capacity and the sum of annual peak  
15 loads produced a 220 megawatt number.

16 Q In using the CAPCO probability technique to  
17 allocate reserves for the four CAPCO parties, do you a priori  
18 put a constraint on the reserves that are to be allocated?

19 A The reserves that are to be allocated are deter-  
20 mined by again the planning rule that we contemplate  
21 installing capacity such that we will achieve a reliability  
22 level equal to the one negative day standard.

23 Once the total amount of capacity that is  
24 necessary to achieve that standard is determined, then  
25 that amount of capacity is input into the allocation

1 process and the responsibilities for that amount of  
2 capacity are assigned to the members.

3 Q But that capacity does not all go to reserves,  
4 does it?

5 A Well, again it is necessary to account for all  
6 of the capacity in the system. I don't get the distinction  
7 of reserves. It is necessary to assign a responsibility  
8 for each piece of capacity in a system, not just the  
9 reserves.

10 Q Your answer would be no, it does not go  
11 all to reserves?

12 A I don't follow your question.

13 Q Is that capacity you are allocating all for the  
14 purposes of reserves?

15 A I thought I answered that the capacity we are  
16 allocating is the total installed capacity within the CAPCO-  
17 group.

18 Q In light of that, can't you answer the question  
19 yes or no, does all that capacity go to reserve or is it  
20 from other types of power also?

21 MR. ZAHLER: Objection; asked and answered. No  
22 have been over this four times. The witness' response is  
23 responsive to the question as posed by Mr. Goldberg.

24 MR. GOLDBERG: Throughout my cross-examination  
25 of the witness, there have been many, many questions that



1 could have been answered with yes or no and some explanation.  
2 I haven't said anything until now, but I am having trouble  
3 getting a yes or no answer. I have no objection to the  
4 witness explaining the answer, but I would like a yes or no  
5 answer.

6 CHAIRMAN RIGLER: Overruled.

7 MR. ZAHLER: Would you repeat the question for  
8 the witness?

9 (Whereupon, the reporter read the  
10 pending question, as requested.)

11 THE WITNESS: The allocation process does not  
12 deal only with the reserve element of capacity. As I  
13 understand your question or if I understand your question,  
14 I think the answer to it is no.

15 BY MR. GOLDBERG:

16 Q Is the output of a computer ever more accurate  
17 than the input?

18 A Again I don't feel qualified as a mathematician  
19 nor computer expert to answer that. My instinct is the  
20 output is rigorous from a mathematical analysis standpoint,  
21 but if poor assumptions have been put in, then the output  
22 is no better than the assumptions that are put in.

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1 Q During your absence yesterday Mr. Zahler stated  
2 that you computed all of the numbers in this data we  
3 have been provided with.

4 Did you?

5 MR. ZAHLER: Could I have a reference to my  
6 statement?

7 MR. GOLDBERG: Page 9350, line 11.

8 MR. ZAHLER: Could you repeat the question?

9 (Whereupon, the Reporter read the  
10 pending question, as requested.)

11 THE WITNESS: I think I understand the  
12 question or have it in mind. IN terms of yes or no, the  
13 answer is, yes and no.

14 In that the numbers were computed under my  
15 supervision and under my direction, but I personally did  
16 not prepare the data information and input it to the  
17 computer and carry the output around and that sort of  
18 thing.

19 BY MR. GOLDBERG:

20 Q Who conducted the error analysis  
21 associated with the methods you have used?

22 A As the exhibits that I have submitted indicate,  
23 my initials are shown on those exhibits, as well as one of  
24 my associates by the name of Codospoci, C-o-d-o-s-p-o-c-i,  
25 who I look to to be responsible for -

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1 the necessary checking to assure that there were no  
2 computation errors or errors in inputting the data.

3 Q Did he conduct an error analysis with respect  
4 to both the iterative process and the computer program?

5 A I'm not acquainted with precisely what he did,  
6 other than to assure me that there were no data errors and  
7 to also indicate to me that these checks that I have  
8 mentioned earlier, the periods of time were accounted for  
9 and so on. He indicated check points that in turn indicated  
10 to me that our study did not include errors.

11 Q You stated before that you simulated loads.  
12 And that you made assumptions in modeling load.

13 Do you recall that?

14 A Yes, I do.

15 Q Referring to Applicants Exhibit 135, you, in the  
16 footnote, state that the sum of the positive and negatives  
17 are accumulations of nonrounded content entries and will  
18 not always equal the sum of the rounded printed  
19 context.

20 Do you mean to suggest by that that the data  
21 which was the input to the computer program did not contain  
22 any rounding?

23 A This footnote has no reference to the presentation  
24 of the data input.

25 It has reference to the computational process,  
internal to the computer, and then the resulting printing

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1 out of the results of that computation.

2 Q Then let me ask you was the data that formed  
3 the input rounded before it was put into the computer?

4 A Well, in setting up our analysis we chose  
5 to make it somewhat easy on ourselves by assuming even  
6 numbers. So that the generating capacity was reflected  
7 to the even megawatt value.

8 The load was reflected to the even megawatt  
9 values. Forced outage rates are stated in terms of tenth  
10 digit.

11 Q Would your answer be, yes, you did round  
12 numbers?

13 A My answer would be, no, we did not. There is  
14 no necessity to round numbers.

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arl 1 Q Did you not round megawatts to five, smaller  
2 than five megawatts to five megawatts?

3 A We did not.

4 Q In the first -- in the megawatt margin column  
5 of Applicant's Exhibit 126, you go from 19 to 20 and so  
6 forth. They are all discrete figures. Does that mean that  
7 you rounded to the nearest one megawatt there?

8 A I can't answer that, with precision. Again you are  
9 now talking about displaying the results of the calculation.  
10 It may be that rounding to the nearest megawatt has  
11 taken place there. Certainly with respect to input data  
12 again, there was no necessity to round it.

13 Q No necessity to round.

14 In view of your testimony that you did not  
15 have to round off numbers that provided the input for the  
16 computer program, I would appreciate your explaining to me  
17 how one programs the fraction 1/3 on a computer?

18 MR. ZAHLER: Objection.

19 CHAIRMAN RIGLER: What is the objection?

20 MR. ZAHLER: I don't understand the relevance,  
21 first of all, to the question that is asked or the statement  
22 by Mr. Firestone that it was unnecessary to round the input  
23 data to -- for this particular study that was conducted.

24 Input data is not rounded. It is whatever it is.  
25 Mr. Firestone said they chose even megawatts in some

1 instances, outage factors to the tenth digit as hypotheticals  
2 to the study.

3 How you input 1/3 to the computer is not relevant  
4 to the testimony Mr. Firestone has given.

5 MR. GOLDBERG: It is relevant. He testified  
6 in no instance was it necessary to round off any number  
7 in the vast number of calculations he has made as far as  
8 the input is concerned.

9 I suggest that it is impossible to program a  
10 computer to do these types of calculations without  
11 rounding off figures because using the phrase that Mr.  
12 Firestone is using, internal computational process must by  
13 necessity round off the numbers on that 1/3 as a decimal  
14 equivalent of .3333 with an infinite number of 3.

15 There is only <sup>one</sup> way to put it on a computer.

16 CHAIRMAN RIGLER: Mr. Zahler's point is they  
17 chose even numbers to put in the computer.

18 MR. GOLDBERG: Then they had to round off to get  
19 the even numbers.

20 MR. ZAHLER: That was assumed in the study.

21 CHAIRMAN RIGLER: He's conceded they rounded the  
22 numbers to the even numbers.

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1 MR. EHLER: I'm confused with the  
2 notion that something was rounded to something. That is  
3 a hypothetical study. The study was set up. The numbers  
4 they chose are the numbers they chose. It is no required  
5 rounding.

6 It is meaningless to talk about rounding  
7 numbers, if you picked them for a purpose of a study  
8 and no rounding was necessary.

9 BY MR. GOLDBERG:

10 Q In reality, when you allocate your responsibility  
11 among the four CAPCO parties you don't just assume numbers  
12 for that, do you? You have actual numbers that are  
13 determined from practice and study; is that correct?

14 A It is necessary to make assumptions with respect  
15 to certain forecasts.

16 Certain variables.

17 CHAIRMAN RIGLER: That is not his question.

18 His question is for the actual existing  
19 on-line units, how do you put them into your study?

20 THE WITNESS: To the extent we can, we represent  
21 them, based on historical performance they have exhibited.  
22 But it is also necessary to input information with respect  
23 to units for which we have no record of performances.

24 So it is necessary to make assumptions in  
25 connection with these units and input those numbers on an



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1 assumed basis.

2 CHAIRMAN RIGLER: Well, in your existing units,  
3 are you doing rounding with respect to their current  
4 capacity?

5 THE WITNESS: Once again, it is necessary for  
6 us to identify the rating of a particular generating unit,  
7 and we determine the degree of precision that we are going  
8 to use in specifying the rating of a generating unit.

9 Again, in our judgment, we normally rate to an  
10 even megawatt. Now that is not a requirement of the  
11 computational process that the computer will follow.

12 It is not a requirement, in order to input data  
13 to the computer.

14 It is a judgment matter that we exercise to  
15 make life more simple in describing our equipment and so on.

16 BY MR. GOLDBERG:

17 Q Are you aware of the technique of judging  
18 the correctness of a particular iterative process and the  
19 resulting computer output by determining whether or not  
20 the quantitative results conform to what one would expect  
21 qualitatively?

22 A I'm not aware of any rigorous procedure for doing  
23 that, no.

24 Q I did not inquire about whether or not it was a  
25 rigorous procedure. But I'm merely asking you whether or not

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you are aware that one way of checking the correctness of the choice of an iterative process for a particular computer program is to see whether or not the quantitative results of the output conform to what you would expect qualitatively.

A To me, you are stating that one can use his instinct or his judgment or his knowledge, or a test against what comes out of computational process and, yes, I'm certainly aware of that and exercise that type of test in the normal course of my activities.

Q Would you agree you could not see any correlation with respect to the progression of numbers that appears in your column "days this period."

On Applicant's Exhibit 226.

A I think I have stated, repeatedly, in my testimony, it is risky to try to outguess the results of careful scientific calculations.

MR. GOLDBERG: I don't have any further questions.

MR. CHARNO: The Department has questions.

CHAIRMAN RIGLER: How many?

MR. CHARNO: Two lines of questioning.

(Whereupon at 2:00 p.m., the hearing recessed, to be reconvened at 2:15 p.m. This was agreed.)

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AFTERNOON SESSION

(2:15 p.m.)

Whereupon,

LYNN FIRESTONE

resumed the stand and, having been previously duly sworn,  
was examined and testified further as follows:

## RE-CROSS-EXAMINATION (Continued)

BY MR. CHARNO:

Q Mr. Firestone, let me direct your attention  
to Applicant's Exhibit 126, the page from the computer  
printout.

Now am I correct in my understanding that the  
MW margin which has the numbers descending from 19 through  
the minus value of 20, represent the positive margin in  
megawatts which results from subtracting load from capacity?

A Essentially that's right, yes.

Q Would I also be correct in assuming that both  
load and capacity are fed into this program on a megawatt-  
by-megawatt basis?

A Yes, I think you are correct.

Q Again with respect to Applicant's 126, can  
you explain to us the extent to which load factor affects  
both reliability and reserves?

A Well, if one has a given amount of installed  
capacity and that part of the analysis is fixed, assume

1 you have a certain complement of capacity, then his annual  
2 load factor increases and reliability decreases.  
3 The positive margin would decrease and the negative  
4 margins would increase.

5 Q Now as I understand Applicant's 126 with respect  
6 to this page, for the month of December, you assume that  
7 the peak load was the constant load on the system; is that  
8 correct?

9 A We assumed that for the month of December the  
10 peak load would be 90 percent of the annual peak and that for  
11 each of these 21 days we simulated the load would be 100  
12 percent of the peak experienced in this month of December.

13 Q So that resulted in term of your input in a  
14 daily load for each day of December of 90 megawatts; is  
15 that right?

16 A Yes, that's right.

17 Q And is a load factor of that magnitude a realistic  
18 assumption for a month like December?

19 A Well, it could be on a given system. Again  
20 the characteristics of systems vary. I would say generally  
21 speaking that is an unrealistically high assumption. We did  
22 that intentionally, but it does not destroy the validity of  
23 the analysis, but it is an unrealistically high load factor.

24 Q Would the constancy of that load factor also be  
25 unrealistic?

1           A       The constancy, the simulation, each heavy load  
2 day in December had the same peak as every other day,  
3 that is unrealistic.

4           Q       If you took your very reliable system and you  
5 broke that up into 10 separate systems and distributed  
6 the generating units among those systems in an approximately  
7 equal manner so that a number of systems would have 120  
8 megawatt combinations of generation, some were 130 and  
9 some 110, for that generation you posited for the large  
10 reliable system and spread it over 10 systems, would  
11 those systems be more or less reliable than the original  
12 system?

13          A       If you computed the level of reliability for  
14 each of those systems on an isolated basis as though it were  
15 an isolated entity, the computed level of reliability would  
16 be less for that system than the computed level of the  
17 aggregate of the 10 systems.

18          Q       Would it be fair to say then that that  
19 reliability of the large system is at least in part due  
20 to the fact that all of its load is being served by one  
21 corporate entity?

22          A       I think the statement you have made is a truism,  
23 but I don't know that you can draw that conclusion from  
24 the hypothetical that you have stated, nor from the work  
25 that is represented by my exhibits.

1 Q One last question, sir.

2 Does your study take into account any diversities  
3 in peak loads, either seasonal or daily, or hourly?

4 A It does not. It just combines the loads.

5 MR. CHARNO: I have no further questions.

6 MR. HJELMFELT: No questions.

7 MR. ZAHLER: Can I ask one question?

8 FURTHER REDIRECT EXAMINATION

9 BY MR. ZAHLER:

10 Q Why is it the assumptions that were made in  
11 your study as to peak load and load duration, why do they  
12 have no effect on the conclusions of your study?

13 CHAIRMAN RIGLER: On the validity, you mean?

14 BY MR. ZAHLER:

15 Q On the validity of the conclusion of your study.

16 A In that the corresponding assumptions were made  
17 for each of the systems postulated in the study so the  
18 10-to-1 scale factor applies with respect to the load model.

19 When we come to comparing the one system against  
20 another, the comparison is the important parameter and the  
21 effect of the assumed high load factor washes out in the  
22 comparison.

23 MR. ZAHLER: I have no further questions.

24 CHAIRMAN RIGLER: Mr. Firestone, thank you very  
25 much.

(Witness excused.)

1  
2 MR. STEVEN BERGER: Before proceeding with the  
3 calling of our first witness, we would like to understand  
4 at the outset that the presentation of our case at this  
5 point in time will not in any way prejudice, nor is it to  
6 operate, or be understood to operate as a waiver of  
7 our rights under our now pending motion to dismiss.

8 As our first witness we would like to call  
9 Mr. John White to the stand.

10 Whereupon,

11 JOHN WHITE

12 was called as a witness on behalf of Applicants Ohio Edison  
13 and, having been first duly sworn, was examined and  
14 testified as follows:

15 DIRECT EXAMINATION

16 BY MR. STEVEN BERGER:

17 Q Would you state your name, residence, and  
18 positions which you occupy with Ohio Edison and  
19 Pennsylvania Power Company?

20 MR. LESSY: Excuse me, Mr. Berger.

21 I have a statement I would like to make.

22 We are starting off with the case of Ohio Edison  
23 at this time and Staff has to complain about the notice it  
24 received as to the scope of the testimony. We received a  
25 letter after the last hearing on, I believe it was,



1 Thursday or Friday, whatever day we adjourned, saying  
2 that Mr. White's testimony was going to cover all matters  
3 alleged to be inconsistent with the anticrust laws.  
4 So was Mr. Firestone's.

5 Subsequent to that, on Monday or Tuesday, we  
6 orally received a notice that that testimony would also  
7 include Penn Power.

8 24 hours ago we received a listing of documents  
9 which were about a half dozen or seven or eight in nature,  
10 and two hours ago we received copies of additional  
11 documents which were not provided under the 24-hour  
12 rule.

13 I don't want to interrupt the examination of  
14 this witness, but I think the statement "all matters alleged  
15 to be inconsistent" for both witnesses means the scope of  
16 our preparation has to be extremely broad, and I hope that  
17 is the scope of preparation for this witness.

18 It would be easier to state as we have, and the  
19 other parties have, and Duquesne has, with reasonable  
20 specificity, interconnection with Orrville, things of that  
21 nature.

22 Since we are starting with a case of a separate  
23 Applicant, reminding myself of Mr. Berger's comments of  
24 his request for notice, thinking of the last one, the  
25 Orrville situation, where the Department gave him a letter

1 in advance of the scope of Mr. Lewis' testimony and  
2 then when it attempted to exceed that, we had objections  
3 and motions to strike.

4 I think it is starting on the wrong foot and  
5 for the future witnesses, if there is opportunity to be  
6 more specific, that ought to be done.

7 I further think that the 24-hour rule, as it has  
8 been interpreted by the Board ought to be complied with.

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1 MR. STEVEN BERGER: First, I would like to state  
2 I don't believe that Staff and the Applicants have been on  
3 an equal footing in terms of notice, notice of the charges  
4 that were -- that have been alleged against us in this  
5 proceeding has been the matter which is a subject  
6 of discussion many times.

7 As to the question of our giving them notice as to  
8 what areas of the charges they presented we  
9 intend to counter with, I think it represents a little bit  
10 different kind of situation.

11 With regard to the allegations contained in  
12 the September 5 filings and otherwise, the statements of  
13 record that have been made here which bring into question  
14 the conduct of Ohio Edison and Pennsylvania Power, more  
15 particularly Mr. Lyren's discussions of the WCOE  
16 negotiations, some of which are not contained in the  
17 specific allegations, Ohio Edison, of course, has made  
18 motions with regard to many of the allegations.

19 Even though they have made motions with regard to  
20 it, and even though I have made my opening statement with  
21 regard to not being prejudiced as to putting on evidence  
22 with regard to allegations that the motions go to, there  
23 may be many allegations that we will put no evidence in with  
24 regard to, because we see no basis whatsoever in this record  
25 that the Board could make any finding whatsoever with regard

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to certain of those allegations.

1  
2 Beyond stating we intend to meet the evidence  
3 that we believe in the case we have an obligation to meet,  
4 I don't believe an obligation to go through the list of  
5 charges and otherwise indicate to the other side what  
6 we intend to present is indicated.

7 As far as the documents I intend to be  
8 using with Mr. White, all documents I will be using  
9 with Mr. White are already in evidence.

10 I recognize that the Board has indicated that  
11 the parties, as a matter of courtesy, should indicate  
12 beforehand the documents they intend to use, and we did  
13 that with regard to all documents, with the exception of  
14 the correspondence relating to Pitcairn.

15 We will be going through that with Mr. White, and  
16 we thought it best in the name of continuity and the flow  
17 of the examination to use the Pitcairn documents, as well, and  
18 that decision was not made - until yesterday, and as soon  
19 as it was made, we gave them notification of it.

20 MR. CHARNO: I think if I may add, Mr. Chairman,  
21 at this point it is already clear that the scope of  
22 Mr. White's examination is not going to conform with the  
23 notification we received, and it will be more narrow  
24 than that notification, and I make an objection at this  
25 point.

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1                   CHAIRMAN RIGLER: The Board is not being  
2 called on to decide anything at this point. I think there  
3 is merit to some of Mr. Lessy's suggestions.

4                   Nonetheless, I think where you can be more  
5 specific, you should be more specific.

6                   MR. STEVEN BERGER: Do I understand there  
7 is some objection to our proceeding at this point?

8                   MR. LESSY: No, the only request I make is  
9 that to the extent that other review has had to be all of  
10 the evidence relating to Ohio Edison, we may want additional  
11 time between the end of direct and cross, because we  
12 have had to be so broad in our preparation.

13                   CHAIRMAN RIGLER: We will address that  
14 question, if it comes up.

15                   Proceed.

16                   MR. STEVEN BERGER: Mr. Rigler, just before  
17 I commence my examination of Mr. White, let me make it clear  
18 that the statement we made with regard to all allegations  
19 being covered by Mr. White and Mr. Firestone's testimony  
20 is to this date still true.

21                   It is all allegations that we believe we have  
22 a responsibility to put in context or otherwise. If we  
23 are talking about, for example, the 1959 Penn Power charge  
24 and there has been no evidence put in the record, as to it,  
25 I don't think Mr. Lessy needs notice of the fact that

bw4 1 I don't intend to put on any evidence with regard to that.

2 BY MR. STEVEN BERGER:

3 Q Would you state your name, residence--

4 MR. REYNOLDS: I would like to go off the

5 record for a minute.

6 (Discussion off the record.)

7 BY MR. STEVEN BERGER:

8 Q Would you state your name, your residence and  
9 the positions which you held with Ohio Edison and Pennsylvania  
10 Power Company?

11 A My name is John R. White. I reside at 26 North  
12 Portage Path in the City of Akron, Ohio.

13 I'm president of Ohio Edison Company and  
14 Chairman of the Board of Pennsylvania Power Company.

15 Q Mr. White, would you outline for us your education  
16 after high school.

17 A I graduated from Muskingum College in New  
18 Concord, Ohio, and from the University of Michigan Law  
19 School.

20 Following graduation from law school, I served  
21 for a time in the Royal Canadian Air Force and in the  
22 United States Navy during the War.

23 After my release from active duty in the  
24 Navy, I spent roughly a year, employed here in Washington  
25 by the Labor Department and preparing myself to enter the Ohio

bw5 1 Bar examination which I did. I engaged in the private  
2 practice of law in Akron for about two years, until 1943  
3 at which time I became employed by the City of Akron  
4 as an assistant law director.

5 I left that employment in 1953 and after a short  
6 time, again in private practice, I joined Ohio Edison  
7 Company as an attorney.

8 A few years later my title was changed to that  
9 of senior attorney. Still somewhat later I was made general  
10 counsel and in the latter part of 1973 I was elected  
11 executive vice-president and I became president on  
12 February 1 of 1975.

13 MR. LESSY: Would you read back when he  
14 became executive vice-president.

15 (Whereupon, the reporter read from  
16 the record, as requested.)  
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BY MR. STEVEN BERGER:

Q Mr. White, would you state for us the corporate relationship between Ohio Edison and Pennsylvania Power Company?

A Pennsylvania Power Company is a wholly-owned subsidiary of Ohio Edison Company. Ohio Edison owns all of the outstanding common stock of Pennsylvania Power Company.

Q Would you state also for us the nature of the operation of Ohio Edison and Pennsylvania Power Company, that is the extent to which they operate together?

A The two systems, that is the electrical systems owned by the two companies are operated for all practical purposes as a single system.

Dispatching is done at one point. There are numerous interconnections.

As I say, for all practical purposes, the electrical operation of the two is as if they were a single system.

Q Is Ohio Edison and its subsidiary Pennsylvania Power Company represented as a single system by the Securities and Exchange Commission?

A Well, Ohio Edison Company, because it owns the common stock of Pennsylvania Power Company, and thus has a subsidiary, is a registered holding company under

1 the Holding Company Act of 1935.

2 That, of course, has a number of implications  
3 as to the relationship between the companies. As a matter  
4 of fact, I think it is fair to say that there probably  
5 would be only one company, were it not for the fact that  
6 in both Ohio and Pennsylvania, the statutes require  
7 that utility service be provided by domestic corporations.

8 Q Mr. White, did you finish your answer?

9 A I think so.

10 Q Mr. White, prior to the CAPCO companies  
11 signing the memorandum of understanding, would you tell us  
12 what your responsibilities were and what involvement you  
13 had in the discussions leading up to the signing of the  
14 memorandum of understanding?

15 A My involvement was somewhat peripheral  
16 at the very early stages of those discussions. I became  
17 rather heavily involved towards -- in the latter parts of  
18 the discussions. Particularly when the drafting of what  
19 became the memorandum of understanding was underway.

20 My involvement, as I say, in the early stages  
21 was confined more to internal discussions at Ohio  
22 Edison Company, not so much in the discussions with the  
23 other prospective participants in the group.

24 Q Who was your predecessor as president of Ohio  
25 Edison Company?

1 A Mr. Mansfield, Mr. Bruce Mansfield.

2 Q Was your relationship with Mr. Mansfield  
3 such that discussions with regard to the formation of  
4 CAPCO and the decisions that Ohio Edison made with regard  
5 to CAPCO were such that you and Mr. Mansfield would  
6 discuss such matters?

7 A Oh, yes, from time to time we did.

8 Q Why did Ohio Edison join CAPCO, Mr. White?

9 A Well, I would have to start back, a little back.  
10 to answer that, Mr. Berger.

11 The present CAPCO is in a sense a survivor of a  
12 CAPCO which had been organized some years earlier and  
13 in which there were represented a number of companies  
14 in addition to those who now participate in CAPCO.

15 That original organization was formed as a  
16 sort of fledgling reliability council.

17 Later, the original CAPCO was supplanted by  
18 what is now known as ECAR, and which embraces all  
19 of the substantial producers and transmitters of bulk power  
20 in the FPC's central area.

21 The companies Ohio Edison and Penn Power,  
22 Cleveland Electric, Duquesne Light and Toledo Edison had  
23 some feeling that even with the organization of ECAR,  
24 there was still an appropriate reliability function which  
25 they could form as a group.

1           And so those companies stayed in CAPCO as it  
2 was and pretty much continued that function. It was in  
3 the course of those activities that discussions of the  
4 possibility of tenancies in common in generating  
5 capacity and so forth first began.

6           Q       My original question was why did Ohio Edison  
7 join CAPCO.

8           A       Originally it was for purposes of enhancing  
9 reliability. But later as the discussions shifted to  
10 installation of generating capacity, there was a belief  
11 on our part and considered by many people in the industry  
12 that there were economies that might be gained by  
13 activities of the kind in which CAPCO now engages.

14          Q       Are you speaking now of the economies of scale?

15          A       Yes, sir.

16          Q       Had Ohio Edison, prior to signing of the  
17 memorandum of understanding, entered into any coordination  
18 arrangement with another utility for the purposes  
19 of maximizing the economies of scale?

20               MR. LESSY: What time frame?

21               MR. STEVEN BERGER: I said prior to the signing  
22 of the memorandum of understanding.

23               MR. LESSY: I would ask the question be limited  
24 from 1965 to 1968 before the signing of the memorandum.

25               CHAIRMAN RIGLER: No, but I think it should be

1 limited to 1964. You don't mean to include early agreements  
2 from the '40s, do you?

3 You are talking about the 1960s?

4 MR. STEVEN BERGER: Yes, I am.

5 THE WITNESS: The one arrangement of that sort,  
6 and I believe it was dated in '64, if I recall, was an  
7 agreement between Ohio Edison and Cleveland Electric  
8 Illuminating. That agreement provided for the installation  
9 on the Ohio Edison system of a 600 megawatt unit which is  
10 known as Sannis No. 6, and of a similar unit on the Cleveland  
11 system which is known as Avon No. 9.

12 Each of those units was substantially larger,  
13 twice or more the size, than either of the two companies  
14 felt it could prudently install on its own system without  
15 some kind of arrangement with another party.

16 The agreement provides that while Ohio Edison is  
17 entitled to all of the output of Sannis 6 in normal opera-  
18 tion, an outage of that unit will be treated as an outage of  
19 300 megawatts on the Ohio Edison system, and as an outage  
20 of 300 megawatts on the Cleveland system.

21 The same thing is true with respect to Avon 9,  
22 the unit on the Cleveland system.

23 Those are the basics of that arrangement.

24 There have been a few refinements since that I  
25 can go into if you wish.

1 BY MR. STEVEN BERGER:

2 Q Mr. White, was there prior to the signing of  
3 the memorandum of understanding pressure from any regulatory  
4 agencies which contributed to the decision of Ohio Edison  
5 to join CAPCO?

6 A Yes. The Federal Power Commission in particular  
7 had expressed a great deal of interest in increasing  
8 the reliability of electric systems generally.

9 Also it had published the first National Power  
10 Survey which set some goals for economies, reductions in  
11 the average prices of electric energy to consumers which  
12 have turned out to be highly optimistic.

13 Nevertheless, at the time apparently it seemed  
14 realistic to the Power Commission. It was pretty well  
15 apparent to us at Ohio Edison that we could reach  
16 those goals only by achieving greater economies in our  
17 operation and the source of those economies almost certainly  
18 had to come from larger generating units.

19 Q Did the 1965 Northeast blackout and the  
20 resultant reaction of regulatory agencies to that also  
21 contribute to the decision?

22 A Yes, indeed. The Northeast blackout, as I'm  
23 sure everybody remembers, generated an enormous amount  
24 of interest in the question of reliability of electric  
25 systems.

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1           Either in the National Power Survey or in its  
2 report which followed the Northeast blackout, the Federal  
3 Power Commission pointed to the East Central region,  
4 East Central area of which Ohio Edison is a part as having  
5 what was considered to be the strongest system of inter-  
6 connections to be found in the country, or indeed in the  
7 world.

8           We thought that was true at the time and we  
9 still think it is true. We have added a number of inter-  
10 connections since that time.

11           Q     Are the activities of Ohio Edison  
12 and Pennsylvania Power subject to regulation both at the state  
13 and federal level?

14           A     Yes, indeed.

15           Q     Can you outline for us the nature of that  
16 regulation and the extent of it?

17           A     We have in Ohio a dual system of regulation.  
18 In the municipalities in which we serve at retail, the  
19 municipal councils have authority to fix the rates for  
20 that service, to require extensions to customers, and  
21 some authority over service generally.

22                     There is provision for review by the Public  
23 Utilities Commission of Ohio of rates fixed by a municipality  
24 which are found unacceptable by a serving utility.

25                     All rates for retail service, not fixed by



1 municipal ordinance are in fact fixed by the Public  
2 Utilities Commission of Ohio.

3 That Commission also has very broad jurisdiction  
4 over our service. That is to say the conditions of service,  
5 the terms of service other than rates, over amendments  
6 of service which may not be made without appropriate  
7 orders of that commission, over our issuance of securities,  
8 over many agreements between utilities, over the  
9 adequacy of service.

10 That is to say the limits within which  
11 voltage must be kept. Matters of that nature. Over  
12 safety, the conditions upon which extensions of lines  
13 must be made to serve customers and so on.

14 CHAIRMAN RIGLER: When you speak of service  
15 now, are you speaking of retail service?

16 THE WITNESS: Yes, I am, Mr. Rigler.

17 As a matter of fact, I believe that our Ohio  
18 Commission has no jurisdiction over our wholesale service.  
19 The Federal Power Commission, however, has very similar  
20 jurisdiction over wholesale service, including rates,  
21 including authority to order us to serve a municipal system,  
22 for instance, at wholesale if that is found to be in the  
23 public instance and so on.

24 Our security issues, the relationships between  
25 Ohio Edison and Penn Power, services one of the two companies

1 may perform for the other and matters of that kind,  
2 any acquisitions of utility assets that we may wish to  
3 propose to make, those matters are all governed by  
4 SEC under the Holding Company Act.

5 Now I haven't mentioned the Ohio Power siting  
6 Commission which has jurisdiction over the siting of  
7 power plants and transmission lines, the Ohio and  
8 Federal Environmental Protection Agencies, which have  
9 sweeping jurisdiction in certain areas and, of course, I  
10 could spend a good part of the rest of the afternoon  
11 listing such things as boiler codes and so on.

12 I don't think that is quite the thrust of your  
13 question, Mr. Berger.

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1 BY MR. STEVEN BERGER:

2 Q Mr. White, is the Pennsylvania Power Company  
3 subject to regulation by the Pennsylvania Commission?

4 A Yes. The Pennsylvania Public Utility Commission  
5 has jurisdiction very similar to that of the Ohio -- of the  
6 Public Utilities Commission of Ohio. There is not, as I  
7 understand, any municipal regulation of rates in  
8 Pennsylvania.

9 The Pennsylvania Commission also has authority  
10 to issue certificates setting forth the areas in which utilities  
11 are permitted to offer service.

12 Q Is it not true that the Pennsylvania Commission  
13 also has responsibility as to certification of  
14 new generation and transmission facilities?

15 A Yes, indeed. The Pennsylvania Commission has  
16 that authority, has that jurisdiction and, as a matter of  
17 fact, when Ohio Edison proposed to loan a portion of a  
18 generating unit in Pennsylvania, it was necessary that  
19 we secure such a certificate from the  
20 Pennsylvania Commission.

21 Q Mr. White, did the Borough of Pitcairn ever  
22 request of Ohio Edison to discuss the matter of membership  
23 in the CAPCO pool?

24 A Yes, sir. We receive a letter, two or three  
25 letters, I believe, from a Mr. McCabe, who then was  
solicitor of the Borough of Pitcairn.

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1 CHAIRMAN RIGLER: May I interrupt at this  
2 point and find out when you became general counsel.

3 THE WITNESS: I believe that was in 1964,  
4 Mr. Rigler.

5 CHAIRMAN RIGLER: So that in 1964 you were  
6 senior attorney and sometime in 1965 you became general  
7 counsel?

8 THE WITNESS: Yes, sir.

9 BY MR. STEVEN BERGER:

10 Q From 1964 until 1965, just for clarification  
11 of the Board, was there any change of a substantial  
12 nature in the nature and scope of your responsibilities  
13 from senior attorney to general counsel?

14 A No, there was no change at all. As I think I said  
15 earlier, Mr. Berger, that was more a change of title than  
16 a change of function.

17 Q Mr. White, let me show you a document which is a  
18 letter dated December 5, 1967, from Mr. McCabe to  
19 Mr. Mansfield, which has been designated in the proceeding  
20 as NRC Exhibit Number 3.

21 BY MR. STEVEN BERGER:

22 Q Mr. White, did Mr. Mansfield discuss this letter  
23 with you after its receipt?

24 A Yes, sir.

25 Q Can you tell me the substance of the

1 conversation you had with Mr. Mansfield?

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2 A. We started wondering what the Borough of Pitcairn  
3 might be and what facilities it might have for generation  
4 or transmission or distribution of electric energy.

5 We got out a directory. I believe it is  
6 published by McGraw-Hill or some publisher of that  
7 kind.

8 It contained some information about Pitcairn.  
9 If I recall, it showed that Pitcairn had about three  
10 megawatts of generating capacity. There were some  
11 other states that I don't recall, as to, as I suppose,  
12 kilowatt hour sales and things of that sort.

13 The one that sticks in my mind is the figure  
14 of the three megawatts of generating capacity.

15 We scratched our head and wondered with each  
16 other in what way an entity as small as that might use-  
17 fully participate in CAPCO.

18 And what, if anything, membership of such an  
19 entity might offer in the way of advantages either to  
20 Ohio Edison or to Penn Power or, indeed, to anybody  
21 who was in CAPCO.

22 I recall that one of us said and the other  
23 more or less echoed, I don't know which said it first, that  
24 as we understood it, our engineers were at the time in  
25 doing CAPCO planning, rounding their calculations to the

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1 nearest five megawatts and we both concluded that it would  
2 not be possible, therefore, to find Pitcairne, if Pitcairne  
3 were, indeed, included in those calculations.

4 Q Did you finish your response?

5 A Yes.

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arl, Q Did Mr. Mansfield and yourself conclude that  
2 a response along the lines of your discussions should be  
3 made to the Borough of Pitcairn?

4 A We did, and I believe some time not a great  
5 deal afterwards Mr. Mansfield wrote such a letter to  
6 Pitcairn.

7 Q Let me show you a document now, Mr. White, which  
8 is a January 2, 1968 letter from Mr. Mansfield to Mr.  
9 McCabe, which has been designated in this proceeding as  
10 NRC Exhibit 9, and ask if that is the response that  
11 you just made reference to?

12 A Yes, it is.

13 Q After sending that response, did the  
14 Borough of Pitcairn again contact Ohio Edison?

15 A Yes, some time later there was another letter  
16 from Mr. McCabe in which he said in effect that he thought  
17 there ought to be some discussions, anyway, that possibly  
18 the conclusion of Mr. Mansfield's letter was premature.

19 Q Let me show you a document now which is a  
20 January 11, 1968 document from Mr. McCabe to Mr.  
21 Mansfield and ask if that is a letter that you made reference  
22 to?

23 A Yes, sir, this is the letter.

24 Q Did you discuss with Mr. Mansfield responding  
25 to that letter?



1           A       We talked about it and concluded that we should  
2 respond to Mr. McCabe by saying to him in effect, if indeed  
3 there are some advantages to CAPCO or to Ohio Edison, more  
4 particularly which might accrue from the participation of  
5 Pitcairn in CAPCO, if in effect there is something to be  
6 overlooking, we would be glad to hear what that is.

7                   I don't remember just why we concluded that Mr.  
8 Mansfield would suggest he communicate with me, but at any  
9 rate we did conclude that and Mr. Mansfield wrote a letter  
10 expressing those thoughts to Mr. McCabe.

11           Q       Mr. White, did you have occasion to discuss  
12 the January 11 letter from Mr. McCabe with any of the other  
13 counsel for the CAPCO companies?

14           A       Counsel for the other CAPCO companies and I  
15 together with an engineer from each company had been  
16 constituted a drafting committee for the purpose of  
17 preparing definitive CAPCO documents or agreements  
18 which would replace the memorandum of understanding.

19                   We were meeting frequently through this period  
20 and from time to time I think perhaps on more than one  
21 occasion, we did discuss with one another the correspondence  
22 which was then going on between Pitcairn and each of the  
23 companies.

24                   The opinion I held was, for instance, that we should  
25 respond independently to the letters from Pitcairn rather

1 than trying to prepare a single answer which would, so to  
2 say, speak for all of the companies.

3 We heard from either the engineer or counsel  
4 from Duquesne Light and I dare say from both of them  
5 something about the Pitcairn system and its site and its  
6 location and matters of that sort, all of which were, of  
7 course, completely foreign to the rest of us.

8 This, of course, was in -- these discussions  
9 have occurred at meetings of the drafting committee,  
10 meetings which were not called for this purpose, but  
11 for drafting purposes and what I'm reciting to you now  
12 is simply the substance of side conversations, so to speak,  
13 at those meetings.

14 MR. LESSY: Excuse me, Mr. Berger. I will  
15 ask the reporter to read back the question and the answer.

16 (Whereupon, the reporter read from the  
17 record, as requested.)

18 MR. LESSY: The question was did he have  
19 the occasion to discuss. The answer went far beyond  
20 that as I listened to it.

21 It went to his opinions, conclusions,  
22 recommendations, and I think the procedure we have been  
23 following is to avoid the long narrative type testimony  
24 and do it specifically with questions and answers.

25 Therefore, I would move to strike the answer

1 beyond the phrase or leading up to the phrase "the opinion  
2 I held." Where he said yes, in fact he did have  
3 occasion to discuss it.

4 If the other testimony comes in, it should be  
5 pursuant to specific questions and answers.

6 CHAIRMAN RIGLER: I think it moves it along  
7 all right this way. Denied.

8 BY MR. STEVEN BERGER:

9 Q Mr. White, did you in fact -- did Ohio Edison  
10 in fact respond to the January 11 letter of Mr. McCabe.

11 A Yes, there was a letter written to Mr. McCabe  
12 in response to the letter of January 11.

13 Q Let me show you a document now which is a letter  
14 dated January 30, 1968 from Mr. Mansfield to Mr. McCabe,  
15 which has been designated in this proceeding as Applicant's  
16 Exhibit No. 53 and ask you if that is the letter you just  
17 made reference to.

18 A Yes, sir.

19 Q Did Mr. McCabe in fact contact you after January  
20 30, 1968?

21 A Yes, sir.

22 Q Let me show you a document now which is a letter  
23 dated February 6, 1968 from Mr. McCabe to you and ask you  
24 if this is the letter contacting you by Mr. McCabe?

25 A Yes, sir.

1 Q Did you respond to Mr. McCabe?

2 A I did.

3 Q Did you do so by letter?

4 A Yes, sir.

5 Q Let me show you now a letter dated February 11,  
6 1968 from yourself to Mr. McCabe. It is Department of  
7 Justice Exhibit 230.

8 I ask if that is the letter you sent in response  
9 to Mr. McCabe's letter of February 6?

10 A It is.

11 Q Did Mr. McCabe ever contact you again?

12 A No, sir.

13 Q Mr. White, are you aware that the City of  
14 Cleveland has asked for participation in specific CAPCO  
15 generating facilities and/or membership in CAPCO itself?

16 A I am.

17 Q When did you first become aware of that?

18 A At a meeting of the CAPCO chief executives  
19 in -- I'm sorry, Mr. Berger, the date slips me. Mr.  
20 Rudolph advised the other chief executives -- I happened to  
21 attend that meeting -- Mr. Rudolph advised the other  
22 chief executives that the Cleveland Municipal system had  
23 made those two requests.

24 Q Was that a matter of information or was anything  
25 else discussed at that time?

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A No, there was little discussion, if any, at that time. It was mainly a matter of information.

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1 Q When next did you hear of the Cleveland requests?

2 A There was another meeting of the JEPCC chief  
3 executives. This one in, I believe, December of 1973.  
4 The first meeting I referred to was some months before that  
5 but also I believe in '73 at which there was some discussion  
6 of those two requests.

7 Q Can you tell us the nature and substance  
8 of the discussion that took place at that time?

9 A Mr. Rudolph referred to the fact that there  
10 were then underway as between Cleveland Electric  
11 Illuminating and Cleveland Municipal systems an FPC  
12 proceeding of some kind, an either litigation or else very  
13 earnest discussion, I'm not sure which, of the fact that  
14 the municipal system at the time owed CEI a substantial  
15 amount of money. If I remember it was something in the  
16 neighborhood of \$ 3 million and was refusing to pay it.

17 He said that the two requests by Cleveland  
18 Municipal had been discussed as between CEI and Cleveland  
19 Municipal at meetings being held in connection with those  
20 other two matters.

21 He said further, that he had another meeting  
22 scheduled for a few days later and that he would like at that  
23 meeting to present to Cleveland Municipal some kind of  
24 a response to the requests.

25 Or that he thought it was incumbent upon him to

1 see that there was a response. He suggested that he would  
2 be only too happy if the other chief executives would  
3 attend that meeting and each give his own response to  
4 Cleveland Municipal.

5 There was a substantial amount of discussion;  
6 a large part of it consisted of information as to the  
7 again -- similar to the Pittsiana thing, the amount of  
8 capacity that the Muni system had, what was its condition  
9 and matters of that sort.

10 There was talk about the pros and cons of having them  
11 as a full participant in CAPCO.

12 There was talk about the feasibility of the  
13 MUNI's other requests, namely for specific amount of  
14 entitlement in specific generating units and so forth. It  
15 was agreed that each of the companies would advise Mr.  
16 Rudolph before the date of his next meeting with MUNI of  
17 its views on the matter and that is where that meeting  
18 ended.

19 Q Was Mr. Mansfield in attendance at that meeting?

20 A Yes, sir.

21 Q Do you know whether Mr. Mansfield complied  
22 with Mr. McGraw's request and did communicate the response  
23 of Ohio Edison?

24 A Yes, he did.

25 Q What was that response?



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1           A       That response was first, that there was an in-  
2 consistency and I don't know whether Mr. Mansfield used  
3 the word, but certainly an irreconcilable inconsistency  
4 between the municipal's request for full participation  
5 in CAPCO and its request for specific amounts of capacity  
6 in certain of the CAPCO generating units that were then  
7 planned.

8                   The second point of the response was that  
9 participation by MUNI in CAPCO did not seem to offer any  
10 particular advantages as far as Ohio Edison Company was  
11 concerned.

12                   Finally, there was a suggestion that in our judge-  
13 ment, the desire of Cleveland Municipal for participation in  
14 large scale units could most feasibly be handled through  
15 some arrangement between Cleveland Electric and Cleveland  
16 MUNI. We also suggested that if that resulted in some  
17 impairment of Cleveland Electric's ability to meet its  
18 obligations under the then existing CAPCO arrangements, that  
19 we, Ohio Edison, would be prepared to discuss some adjustment  
20 of those obligations in order to accommodate the change  
21 in circumstances that would be brought about if Cleveland  
22 Electric in fact made some arrangement to provide some of  
23 kts CAPCO capacity to Cleveland MUNI.

24                   BY MR. BERGER:

25           Q       Mr. White, have any of the cooperatives or  
municipal systems in Ohio Edison's or Pennsylvania Power's

1 area to your knowledge ever requested membership in  
2 CAPCO pool?

3 A No, sir. And as a matter of fact, at a meeting  
4 we had at one point with the wholesale municipal customers  
5 we serve, discussing some other matters, they expressly  
6 disavowed any desire to become participants in CAPCO.

7 Q Mr. White, in connection with your duties and  
8 responsibilities in the counsel's office of Ohio Edison,  
9 did those duties and responsibilities include the negotiations  
10 and review of contracts between Ohio Edison and its whole-  
11 sale customers?

12 A Yes, sir.

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BY MR. STEVEN BERGER:

Q Mr. White, do you have a contract in front of you between Ohio Edison and Wadsworth, dated the 21st of December 1965?

A Yes, sir.

Q Which has been designated in this proceeding as Staff Exhibit Number 35?

A I can't read the designation on this copy, Mr. Berger. But this does appear to be a copy of a contract dated December 21, '65.

Q After exhibit number it says 403, does it not?

A Yes, it says that. That I can read.

Q Are you familiar with this document, Mr. White?

A Yes, sir.

Q Let me first direct your attention to the first paragraph of the contract, first numbered paragraph of the contract, second sentence which states that it shall be a ten-year contract.

Is it a policy of Ohio Edison to seek contracts of this duration with its wholesale customers?

A I think it is more a matter of habit, Mr. Berger, than policy, but certainly we have done it many times.

Q What is the basis for asking for long-term contracts with municipal or wholesale customers?

bw2

1 A I think it is a spill over, really, from an Ohio  
2 statute which provides that contracts with municipalities  
3 for service for street lighting, for instance, service  
4 to water pumping stations, police stations and what have you,  
5 may have periods as long as ten years.

6 There are some sound business reasons for contracts  
7 of relatively long duration, when they are contracts for whole-  
8 sale service.

9 The facilities through which that service  
10 must be provided or from which are long-lived facilities.

11 The securities issued to finance the construction  
12 and acquisition of those facilities are long-lived securities.  
13 That is to say common stock or preferred stock which  
14 I suppose run on forever, bond normally which, in most cases,  
15 have a 30-year period.

16 From a municipalities' point of view, there is  
17 often an interest in an assured supply for an extended  
18 period.

19 And so there is an, I guess, in some ways a  
20 desire on both sides, or there are things on both sides  
21 of the table which impel the parties toward a fairly  
22 long period for a contract like this, and as I say, in these  
23 cases, we have gotten into the habit of suggesting ten-year  
24 contracts and by and large our municipal customers have  
25 found that kind of period satisfactory.

Q Is the planning responsibility of Ohio Edison

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1 involved in the question of the term of the  
2 contract with a wholesale customer?

3 A Oh, certainly, Because if we are to consider  
4 a municipal wholesale customer as part of the load, then  
5 we must do our planning to be able to supply that part  
6 of the load, as well as the rest of it and, of course,  
7 it is that which prompted me to mention the long life of the  
8 facilities which are needed for the purpose, and the long  
9 term of the securities by which they are financed.

10 Q Do you recall whether or not any municipality  
11 approached the company at the time these contracts were  
12 being negotiated and asked that term of the contract  
13 be less than ten years?

14 A Yes. We were negotiating at the time with a  
15 committee representing our wholesale municipal customers.  
16 As we approached the end of that negotiation, a representative  
17 of the City of Niles, I believe it was -- I'm almost sure  
18 it was Niles -- suggested that Niles was considering  
19 self-generation and would, therefore, perhaps wish to  
20 terminate this contract sooner than ten years.

21 We replied to that, saying that if, in fact,  
22 Niles had gone to self-generation, we would be prepared  
23 to terminate the contract and suggested to the Niles  
24 solicitor that he write up what he would consider an  
25 appropriate provisions for that purpose, and we would

1 be glad to insert it in the contract.

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2 Having done that, a representative of one of  
3 the other cities said what if we should think about  
4 self-generation.

5 We said if any of you -- any of the rest of  
6 you should desire that kind of a provision in your  
7 particular contracts, that is agreeable.

8 I think perhaps three or four of them may have  
9 picked that up.

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bwl 1 BY MR. STEVEN BERGER:

2 Q Other than the requests for self-generation,  
3 for the inclusion of a notice provision, as to self-  
4 generation or two-year termination date, as to self-  
5 generation in the Niles contract and the other  
6 contracts, are you aware of any request having been  
7 made on Ohio Edison by any of the municipalities  
8 involving a reduction of the ten-year term?

9 A There is one contract now, Mr. Berger,  
10 and I can't recall with which city it is, which provides  
11 that after five years the City may give a two-year notice  
12 of termination.

13 So I guess you get a seven-year term out of  
14 that.

15 I know of no other requests for the kind of thing  
16 you are asking about, no.

17 Q Mr. White, let me direct your attention again  
18 looking at the Wadsworth contract to paragraph 4 on page 3,  
19 5 on page 2, paragraph 6 on page 2 carrying over to page 3,  
20 and also in the attached rate schedule, more particularly  
21 on page 3 of the rate schedule under "other," carrying over  
22 to page 4.

23 I ask you if you are familiar with those  
24 particular provisions of the contract?

25 A Yes, sir.



bw2

1 Q Were those provisions included in all of the municipal  
2 contracts as of 1965?

3 A Yes, sir.

4 CHAIRMAN RIGLER: Let me interrupt you here. The  
5 courtesy copies you handed up to the Board have those  
6 particular provisions deleted.

7 MR. PERI: In the end you will find a last  
8 contract in your courtesy copy and that should be it.

9 CHAIRMAN RIGLER: I have it for Walworth.

10 MR. STEVEN BERGER: Would you like the  
11 question repeated?

12 CHAIRMAN RIGLER: No, I have the question.

13 BY MR. STEVEN BERGER:

14 Q Mr. White, can you tell us the basis for  
15 the inclusion of these provisions in the contract?

16 A I guess the basis is simply the agreement of  
17 the parties.

18 Q An agreement of parties reflect in use  
19 in the best interests of both concerned to include these  
20 provisions in the contract.

21 A Certainly, we thought so. I have to assume  
22 that the other parties thought so.

23 They were negotiating with us through a  
24 committee and they were represented by counsel.

25 Q Did you at the time think that these provisions

bw3

1 were in the public interest?

2 A I did.

3 Q On what basis?

4 A I thought that they brought into an area in which  
5 there had been some uncertainty from time to time and some  
6 confusion, a degree of certainty, and elimination of  
7 confusion. That is to say there were occasionally  
8 instances of mistakes by customers as to the source of their  
9 service.

10 I thought it was in the best interests of  
11 all concerned and, particularly, of Ohio Edison Company  
12 as to this point, that there be some definition of the area  
13 within which the company held itself out to provide  
14 public utility service.

15 I thought that these provisions, and this is the  
16 most important reason, would eliminate or at least very  
17 substantially reduce the possibility that there would  
18 be duplication of facilities, that being a touchstone,  
19 so to speak, of public utility law and practice.

20 These provisions, I thought, and the company  
21 thought, all tended beneficially in those directions.

22 Q Let me direct your attention specifically to  
23 paragraph 5 on page 2 of the contract and ask first the  
24 basis for the inclusion of that particular provision.

25 A The Ohio Constitution provides that a

1 municipality which operates a public utility may dispose  
2 of or may sell outside its corporate limits any surplus  
3 product of that utility up to an amount not exceeding  
4 50 percent of the amount sold or distributed within the  
5 municipality.

6 There was a question in our minds and it is a question  
7 that has been discussed from time to time in Ohio for  
8 many years, whether a municipality which, in fact, had no  
9 means of producing power, indeed, have a surplus when all the  
10 electric energy it had available for sale had to be  
11 purchased in the first place.

12 In other words the question could be framed in  
13 more concrete terms by considering a municipality which had  
14 a generating plant capable of generating more than was  
15 required for service within the municipality.

16 The balance might then be considered surplus  
17 and under the Constitution be made available for sale outside  
18 the corporate limits.

19 The municipality which had no generating  
20 facilities, but which purchases all of its requirement,  
21 might arguably at least be said not to have a surplus,  
22 not to have a surplus, not to be capable of having a  
23 surplus.

24 That was the question that was being kicked  
25 around then and has been kicked around from time to time

bw5

1 since, but it has never been litigated in Ohio.

2 I suppose since it hasn't been litigated,  
3 nobody can be sure he knows the answer.

4 That got into our conversations  
5 with these municipalities, and it seemed to be something  
6 that worried them.

7 We weren't particularly interested in  
8 litigating the question with them.

9 In any event the result was paragraph 5 on page 2.

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1 Q Now under the terms of the contract, and more  
2 particularly paragraph 4 on page 2 and page 3 of the  
3 tariff attached, each, that is the municipality and  
4 company were both precluded from serving under certain  
5 circumstances unless they got the written consent of the  
6 other party?

7 A Yes, sir.

8 Q Were there occasions, to your knowledge, after the  
9 effective date of these contracts when consents were requested  
10 by either party?

11 A Yes, sir, there were.

12 Q In connection with your responsibilities  
13 in the counsel's office of Ohio Edison, did you become  
14 familiar with the operation of these provisions?

15 A I was consulted from time to time and  
16 particularly in the first six or eight months or so, that  
17 these provisions were in effect by some of our people who had  
18 questions about meaning or interpretation or applicability,  
19 yes.

20 Q Are you aware of the extent to which  
21 consents were given from 1965 on or requested?

22 MR. LESSY: Given by whom to whom? He said  
23 it went both ways.

24 BY MR. STEVEN BERGER:

25 Q Let's say from the municipality to Ohio Edison,

1 the request for consent.

2 A You are asking about requests made by Ohio  
3 Edison?

4 Q No, requests made by the municipality for  
5 consent of Ohio Edison under the contract to serve where they  
6 otherwise, pursuant to the contract, were not permitted  
7 to serve.

8 A If you had asked me that question a couple of  
9 weeks ago, I would have said there were 10 or a dozen such  
10 instances. You showed me within the past week a  
11 correspondence, letters and the like which would indicate  
12 to me that I would have been low in my guess, and that  
13 there were probably something like 25 or 30 such  
14 instances in the period from '65 through '72 or into '72.

15 Q Those were exhibits in this proceeding, were they  
16 not?

17 A They were.

18 Q Mr. White, were you aware or -- were you  
19 aware during the time that these provisions were in effect  
20 of the company ever conditioning their consent to a request  
21 from a municipality for a right to serve where they  
22 otherwise were not permitted to serve under the contract,  
23 which conditioned the consent on the municipality agreeing  
24 that at some future time the municipality would give  
25 Ohio Edison a customer of like size?

1           A       Once again, Mr. Berger, had you asked me  
2 that question two weeks ago I would have said no, I was  
3 not aware of such a thing.

4           You showed me a letter, however, of which I was  
5 sent a copy at the time and which did contain some language  
6 of the sort that I think you are describing.

7           Q       So to the best of your knowledge, it was not a  
8 practice at least that came to your awareness in the  
9 counsel's office of Ohio Edison?

10           MR. LESSY: Objection. I think that is  
11 inconsistent with his previous answer. He testified he  
12 received a copy of that letter.

13           'In addition to that, it is a leading question.

14           CHAIRMAN RIGLER: Sustained on that basis.

15           BY MR. STEVEN BERGER:

16           Q       Mr. White, are you aware of instances  
17 in which Ohio Edison has traded customers with other  
18 utilities?

19           A       Oh, yes.

20           Q       Could you indicate for us the instances of which  
21 you have knowledge?

22           A       Shortly after I joined Ohio Edison Company,  
23 there was such a trade with Toledo Edison Company. I had a  
24 small part in preparing the application for authority to  
25 make that trade to the Public Utilities Commission of



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Ohio.

There has been in more recent years a trade of customers or a trade of facilities with the Hudson Municipal System and I believe one with Wadsworth.

CHAIRMAN RIGLER: Why don't we take a very short recess here of about five minutes?

(Recess.)

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BY MR. STEVEN BERGER:

2 Q Mr. White, the contract, Wadsworth contract we  
3 have been talking about, the 21st day of December 1965  
4 contract date, was that contract and the other similar  
5 contracts with the municipals filed with the Federal Power  
6 Commission?

7 A Oh, yes, sir. They were all filed with the  
8 Federal Power Commission and accepted for filing by that  
9 Commission.

10 Q Were they subject to discussion with the Staff of  
11 the Federal Power Commission?

12 A Yes, sir. We met on a number of occasions first  
13 with the municipalities and then on a number of other  
14 occasions meetings here in Washington with participation  
15 by the FPC Staff.

16 Q Mr. White, did there come a time when it was  
17 determined by Ohio Edison that the provisions in the contract  
18 we have been talking about, should no longer be included  
19 in the contracts with the municipals?

20 A Yes, sir.

21 Q Approximately what point in time was that?

22 A We reached our conclusions as to that, Mr.  
23 Berger, late in 1971.

24 Q What was the basis of the conclusion that Ohio  
25 Edison reached with regard to these provisions?

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2           A       There were two bases, Mr. Berger.    The first  
3 was that we and most particularly I suppose, I had become  
4 much more sensitive than I had been in the past with respect  
5 to question of antitrust law.   The second basis was simply  
6 the small number of instances in which either we or the  
7 municipalities had had occasion to make these provisions  
8 operative.

9                   As I said earlier, I think there were perhaps  
10 25 or 30 instances in which municipalities and indeed by  
11 no means all of the municipalities, had felt disposed  
12 to ask for a consent.

13                   If my memory serves me, there has been only  
14 one occasion on which the company felt so disposed.   Those  
15 two considerations led to the conclusion that these provisions  
16 ought to be eliminated from the contracts.

17                   We were, at the time, preparing a new filing  
18 with the Federal Power Commission seeking an increase in these  
19 rates; '65 contracts, by the by provided for a  
20 decrease.

21                   And that seemed to be a good time therefore to  
22 amend the contracts not only with respect to the rates  
23 but with respect to these provisions by way of deleting  
24 them.

25                   That is what we did.

                  Q       Mr. White, let me show you two documents right now.

1 Both are dated January 27, 1972. One is a letter to the  
2 Federal Power Commission which is Applicants Exhibit No. 11  
3 and the other is a letter to the Mayor of the City of Wadsworth  
4 from yourself, designated as Applicants Exhibit No. 10.

5 Do you have these?

6 A I have these before me, Mr. Berger.

7 Q The document to the Federal Power Commission  
8 states, "Transmitted herewith for filing are the new rate  
9 schedules." It is not attached to this letter. I take  
10 it those were attached at the time it was sent?

11 A I am not quite sure I follow you.

12 Q I take it that the contract was attached at  
13 the time you sent this to the Federal Power Commission,  
14 although it is not attached to the letter to the Federal  
15 Power Commission that I presented to you?

16 A Oh, yes.

17 Q The contract that was sent to the Federal Power  
18 Commission, was it not the same contract as attached to  
19 Applicants Exhibit No. 10, which is the letter with attachments  
20 to the Mayor of the City of Wadsworth?

21 A Yes, sir; that is correct.

22 Q And if you turn to page 3 of the attachment,  
23 namely the contract attachment of the Applicants Exhibit No. 10,  
24 there is a substantial blank space appearing in that copy.

25 A Yes, sir.

Q Was that done by Ohio Edison pursuant to the

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1 conclusions you had reached as to the provisions in the contract  
2 no longer being required or necessary?

3 A As I said, Mr. Berger, we had concluded that  
4 those provisions ought to be deleted. As a matter of  
5 convenience we took the then existing contracts with each  
6 of the cities and reproduced them, I expect by Xerox,  
7 with a piece of white paper over the provisions that we proposed  
8 to delete in order that it might be perfectly clear to the cities  
9 what it was that we were proposing.

10 Q Had you had any discussion with the municipalities  
11 prior to doing this?

12 A No, sir. This was our proposal both as to the  
13 rates and as to the amendments that we were suggesting of the  
14 contract.

15 Q As to those particular provisions in the contract that  
16 we referred to before contained in the rate schedule under  
17 "other" on page 3, those were deleted as well by substituting  
18 a new rate schedule without those provisions, is that correct?

19 A That is correct.

20 Q In addition to the letter you sent to the Mayor  
21 of WAdsworth, you sent -- did you send similar letters  
22 to all of the mayors with the attached contracts?

23 A Yes. The FPC rules required that when  
24 a proposal for a change in rate of this kind is made, the  
25 proposal must be served on each of the affected parties.

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Obviously, each of these cities was an interested party. So we did serve -- mail service was unnecessary in this case. We did serve a copy in that matter on each of the cities.

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2 Q Mr. White, today does Ohio Edison have  
3 any agreement, contract, understanding with any other  
4 entity which would restrict in any way either Ohio Edison  
5 or any other entity as to the territory to be served or  
6 the customers to be served by Ohio Edison or any other entity?

7 A No, sir.

8 Q What about Penn Power?

9 A Penn Power serves five wholesale customers;  
10 each of the contracts between Penn Power and a wholesale  
11 customer has a provision which provides that the party  
12 serving a customer on the date the contract was first  
13 made shall continue to serve that customer during the life  
14 of the contract.

15 Q Does Pennsylvania Power have any intention --  
16 strike that.

17 Are all of these contracts presently in  
18 effect?

19 A No, sir, three of them have expired within the  
20 last two or three weeks. One of them will expire within  
21 the next two or three weeks, I believe, and one of them  
22 runs until July, I believe of next year.

23 Q Does Penn Power have any intention with regard  
24 to the provision in their wholesale contracts to which  
25 you made reference?

A Yes. Penn Power is proposing a new filing with



1 FPC and will do as Ohio Edison did in that filing.  
2 namely delete the provisions to which I have just referred.

3 Q Mr. White, since the removal of the provisions  
4 in the wholesale contracts Ohio Edison had with its  
5 municipal customers, has there been a noticeable increase in  
6 the competition -- in competition for new or  
7 existing load between the municipalities and Ohio Edison?

8 A No, sir.

9 As a matter of fact, there had never been such.  
10 Our experience with the provisions which have since been  
11 deleted from our wholesale contracts showed that if we  
12 needed to be shown, that there simply were not many such  
13 occasions and there has really been no change in that  
14 circumstance since.

15 CHAIRMAN RIGLER: Mr. Berger, a minute ago  
16 you asked Mr. White if Ohio Edison had in effect today  
17 any agreements or understandings restricting its right  
18 to serve customers, and Mr. White said that Ohio Edison  
19 did not.

20 Previous to that you had been discussing its  
21 contracts with municipalities. His answer seemed broader  
22 than those contracts because your question addressed any  
23 entities.

24 I wonder if he had in mind the territorial  
25 maps that were put in evidence here, and was your question

1 intended to include any agreement, understanding or  
2 contract between Ohio Edison and any municipality, system,  
3 cooperative system or investor-owned system?

4 Is that how you understood the question?

5 THE WITNESS: Yes, sir. That is what I meant  
6 by my answer.

7 BY MR. STEVEN BERGER:

8 Q Does Ohio Edison have a policy with regard  
9 to the acquisition of municipal systems?

10 A I don't know that we have a policy as such.  
11 We have a sort of pragmatic, ad hoc approach, if you  
12 will.

13 Q Could you describe for us that pragmatic approach?

14 A When it is suggested to us that there is some  
15 interest in a possible sale of a facility of a  
16 municipal system, we will ordinarily make some inquiry  
17 to determine how real and how extensive that interest  
18 might be.

19 If it appeared as it has on occasion that  
20 the interest was real and was extensive, then we would  
21 suggest that the municipal council adopt a resolution  
22 authorizing us to have access to the facilities and access  
23 to the records of the municipal system for the purpose  
24 of arriving at a price which we might be prepared to offer  
25 for it and in fact asking us to give an indication of that

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price.

If the council adopts such a resolution, we would then examine the facilities, inspect them, inventory them, examine the records to determine the amount of kilowatt hour sales over some number of past years, revenues, number of customers, and so forth, arrive at the price and make that known to the council.

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Q What would take place after that?

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A Either of two things:

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Either the council might decide that it wasn't prepared to sell the facilities at that price; or it might decide that such a price was of interest to it.

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If it decided -- if the council decided to go forward, then we would suggest to that council that it adopt an ordinance, determining to offer the facilities for sale at competitive bidding.

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Assuming that that ordinance was enacted and that the necessary advertisement had been made and so forth, we would then submit a bid.

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If the responsible officials, those designated in the ordinance council determined our bid is the highest and best, we would then make a sale agreement with the city.

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That sale agreement would of necessity be made subject to our receiving from SEC an order authorizing us to acquire those facilities.

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We would then make the sale agreement the subject of an application declaration to SEC under the Holding Company Act.

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SEC would issue appropriate notices under that act, set the time within which interventions could be had and so on, conduct whatever investigation it considered

1 appropriate hold a hearing if one had been requested  
2 and assuming that everything had gone smoothly through  
3 all of those stages, issue an order authorizing us to  
4 acquire the facilities.

5 With that order in hand, we would go pay the  
6 money and take possession of the facilities.

7 Q Is the matter of acquisition of a municipal  
8 subject ever of a referendum in the municipality?

9 A Yes. Any resolution or ordinance of a  
10 municipal council in Ohio may be made the subject of a  
11 referendum.

12 Q Since 1965, what acquisitions has Ohio Edison  
13 made of municipal systems?

14 A We have acquired the Village of Lovellville  
15 system, Village of Hiram system, City of Norwalk system and  
16 the City of East Palestine system.

17 Q Were the steps that you outlined for us just a  
18 moment ago followed in each of those instances?

19 A Yes, sir.

20 Q Was the company approached in the first instance  
21 to look into the question of acquisition in each of those  
22 instances?

23 MR. LESSY: I object to that as a leading  
24 question.

25 CHAIRMAN RIGLER: Let me hear it again.

1 (Whereupon, the reporter read from the  
2 record, as requested.)

3 MR. LESSY: I think the more appropriate  
4 question is in each of these instances, who made the initial  
5 step or who made the first approach.

6 That would be a clearer way to state it.

7 CHAIRMAN RIGLER: I will permit it as phrased.

8 THE WITNESS: I'm not sure which I'm to answer,  
9 Mr. Chairman.

10 Shall I answer Mr. Berger's question?

11 CHAIRMAN RIGLER: Yes, sir.

12 THE WITNESS: Yes, sir. The answer to that is yes.

13 BY MR. BERGER:

14 Q Mr. White, let me show you a document which is  
15 a letter dated January 13, 1970 which has been designated  
16 in this proceeding as Department of Justice Exhibit 122,  
17 and it is a letter from Mr. A. N. Gorant to Mr. Mount  
18 of the Norwalk system.

19 Is this the same system that you acquired?

20 A Yes, sir.

21 Q Are you familiar with this letter?

22 A Yes, sir.

23 Q Did you help draft this letter?

24 A I did.

25 Q Let me point you, Mr. White, to the second paragraph

1 under numbered paragraph 1. That is to the paragraph  
2 beginning, "In those instances," and more particularly  
3 to the last sentence of that paragraph which states,  
4 "Accordingly, the company would not be interested in  
5 purchasing the city's steam generating units except in  
6 the event the city should decide to sell its entire electric  
7 system. That is both generation and distribution facilities."

8 Now let me ask you, Mr. White, can you state  
9 why it is the city was unwilling to purchase the steam  
10 generating facilities except in the instance that  
11 Norwalk should decide to sell their distribution facilities?

12 I'm sorry. Did I misspeak?

13 MR. SMITH: I think so.

14 BY MR. STEVEN BERGER:

15 Q Why it is that the company would be unwilling  
16 to purchase the steam generating facilities of the city  
17 of Norwalk unless the city agreed to or determined to sell  
18 their distribution facilities as well?

19 A If you look at the two sentences preceding  
20 the one that you read, Mr. Berger --

21 Q Yes, sir.

22 A -- particularly the one immediately preceding.  
23 The reason that the company was unwilling to purchase the  
24 steam generating units as such is stated there, and it was  
25 simply that units of those sizes and characteristics



1 didn't seem to us to be units that would be particularly  
2 useful to us.

3 We also recognized in the next sentence the  
4 obvious fact that if the city were to decide to sell its  
5 distribution system, it would certainly wish to tie  
6 in the sale of the generating units for which it would  
7 no longer have any use.

8 And, so, plainly, if that kind of a  
9 transaction were to be worked out, we would have to take  
10 it into account in some way.

11 So the sentence really doesn't do much more than  
12 state the obvious.

13 Q Your ultimate acquisition was of the entire  
14 system, was it not?

15 A Yes, it was.

16 Q All generation and the distribution system?

17 A That's right.

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1 Q Mr. White, are you aware of whether or not Ohio  
2 Edison ever received a request either from Buckeye or  
3 from Norwalk which requested of Ohio Edison the use of  
4 their transmission facilities for purposes of effectuating  
5 a transaction between Buckeye and the City of Norwalk?

6 A No, sir, there was no such request from either  
7 Norwalk or Buckeye.

8 CHAIRMAN RIGLER: Have you established how Mr.  
9 White would know if such a request was made?

10 MR. STEVEN BERGER: No, I haven't but if you  
11 would like I can go into that.

12 BY MR. STEVEN BERGER:

13 Q Mr. White in 1971, what were your responsibilities  
14 with the company?

15 A In 1971, I was general counsel.

16 Q And would a matter such as a request of the  
17 company to use its transmission facilities for purposes  
18 other than delivery of power to its load centers be a matter  
19 that would come to your attention?

20 A I am sure it would have, yes.

21 CHAIRMAN RIGLER: Why is that?

22 THE WITNESS: Simply because of the way, Mr. Rigler  
23 in which we did things. That would have been an unusual  
24 request had we received it. And I am sure it would have been  
25 the subject of consultation between Mr. Mansfield who was

1 then the President and myself and someone or more of the  
2 engineers who would have been called upon to look at the feasibility  
3 of doing such a thing had it been requested.

4 CHAIRMAN RIGLER: I am accepting your answer  
5 that the way the company operated it would have been referred  
6 to you. I am having difficulty seeing the legal problem  
7 which would require the office of the general counsel. It  
8 looks more like an engineering request that necessarily  
9 wouldn't involve legal analysis.

10 THE WITNESS: I don't know just -- there would  
11 certainly have been at some point a necessity to work out  
12 a satisfactory agreement to cover such a transaction. And  
13 I am sure I would have been involved in that had the  
14 thing gotten that far.

15 Mr. Mansfield and I were in the habit even then  
16 of talking together frequently about company affairs.  
17 Covering at one time or another pretty much the waterfront.  
18 I am sure an unusual thing of this sort would have  
19 arisen in one of those conversations entirely aside from the  
20 attention that I would have been expected to give to it  
21 in the preparation of the contract and in the  
22 preparation -- in the consideration of any legal questions  
23 that might arise.

24 You are quite right to suggest, of course,  
25 that the perhaps primary considerations would be of  
an engineering nature and would relate to physical and electrical

eak 1 feasibility.

2 BY MR. STEVEN BERGER:

3 Q Weren't you also at that time involved in  
4 the question of the acquisition of the Howlett system?

5 A Oh, yes.

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1 Q So even in that context, wouldn't a request of the  
2 company either by Buckeye or Norwalk, involving  
3 Norwalk requirements come to you in connection with  
4 your responsibilities with respect to the acquisition?

5 A As you can see, Mr. Berger, by looking at  
6 this letter we most recently discussed, that letter  
7 responds to several questions from the service director of  
8 Norwalk which relate not only to the possible sale of  
9 Norwalk of some or all of its system, but what would be  
10 the charges for service from Ohio Edison Company on  
11 various assumptions a couple of different assumptions  
12 here.

13 Now that was at a time when Norwalk was  
14 exploring a lot of possibilities as to its future  
15 and I'm sure that if they had raised with us the question,  
16 would we transmit power from Buckeye to Norwalk, they  
17 would have known about that just as I know about the  
18 questions asked in this letter from Mr. Mount and reviewed  
19 a draft of a reply to it.

20 MR. STEVEN BERGER: Mr. Rigler, I'm about  
21 to move to a new line, if you want to go here at this time,  
22 or do you want to break it here. Whatever is your  
23 pleasure.

24 CHAIRMAN RIGLER: This is a good break point.

25 We will resume in the morning at 9:45.

(Whereupon, at 4:30 p.m., the hearing

was adjourned, to be reconvened at 8:15 a. m., on

Thursday, May 13, 1976.)

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