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## NUCLEAR REGULATORY COMMISSION

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IN THE MATTER OF:	ALL SELL OL AND
TOLEDO EDISON COMPANY and CLEVELAND ELECTRIC ILLUMINATING CO.	
(Davis-Besse Nuclear Power Station, Units 1, 2 and 3)	: : Docket Nos.
and	: 50-346A : 50-500A
CLEVELAND ELECTRIC ILLUMINATING CO., et al	: 50-501A :
and the second	: 50-440A
(Perry Nuclear Power Plant, Units 1 and 2)	: 50-441A *
Place - Silver Spring, Maryland	
Date - Wednesday, January 14, 1976	Pages 3228-3369

THIS DOCUMENT CONTAINS POOR QUALITY PAGES

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## UNITED STATES OF A FERICA

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4	In the matter of:
10	) Docket Row.
S	ELECTRIC ILLUMINATING CO. ) 50-346A
	(Davis-Besse Nuclear Power Station, ) 50-500A
7	Units 1, 2 and 3) ) 50-440A
3	and ) 50-441A
0	CLEVELAND ELECTRIC ILLUMINATING CO., ) et al,
10	(Perry Nuclear Power Plant, Units 1 )
11	and 2)
12	
13	Fizst Floor Hearing Ween 7915 Englern Avenue
14	Silver Spring, Maryland
13	Wednesday, January 14, 1976
16	Rearing in the above-entitled matter was
17	reconvened, pursuant to adjournment, at 9:45 a.m.
18	DEFORE:
10	MR. DOUGLAS RIGLER, Chairman.
20	MR. JOHN FRYSIAR, Member.
21	MR. IVAN SMITH, Merber.
32	APPEARANCES:
29	(As heretofore noted.)
24	
25	

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2	WITNESS :	DIRECT	VOIR DIED	CROSE	REC CRECT	RECHOSS
3	HAROLD M. MOGER	3263		3269		
4						
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6						
7						
3						
9	EXHIBITS :				CETERAL	RECEIVED
10	Staff Exhibit:					
11	No. 151, document	No. 1			3251	3260
12	No. 152, document	No. 2			n	a
13	No. 153, document	No. 3			17	
14	No. 154, document	No. 4			12	3260
15	No. 155, document	No, 5			e.	n
16	No. 156, document	No. 6			19	
17	No. 157, document	No. 7				3260
18	No. 158, document	Nc. 8			n	8
19	No. 159, document	No. 9			đ	
20	No. 160, document	No. 10			и	3260
21	No. 161, document	No. 11			a	1
22	No. 162, document	No. 12			F7	17 I
23	No. 163, document	No. 13			u	9
20	No. 164, document	No. 14			77	17
25	No. 165, document	No. 15			23	"

1	(Exhibits, continued)		
2		Marked	Received
3	(Staff Exhibit)		
4	No. 155, document No. 15	9251	3260
3	No. 167, document No. 17	n	
G	No. 168, document No. 18	n	
7	No. 163, document No. 19	н	
8	No. 170, document No. 201	п	a
0	No. 171, document No. 202	a	
10	No. 172, document No. 203	a.	đ
11	No. 173, document No. 204		v
12	No. 174, document No. 205	u	· •
13	No. 175, document No. 206	n	*
:4	No. 176, document No. 207	n	ъ
:5	No. 177, document No. 208	n	r
18	No. 178, document No. 209	u	17
17	No. 179 document No. 210	a	9
13	No. 180, document No. 211	п	n
10	No. 181, document No. 212	v	u
20	No. 182, document No. 213	a	
21	No. 183, document No. 214	Р	n
22	No. 134, document No. 215	н	
23	No. 185, document No. 215	,	18
24	No. 186, document No. 217	n	"
23	No. 187, document No. 218	n	а

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1	(Exhibits, continued)		
3	Staff Exhibits:	linglad.	Raccived
3	No. 188, document no. 219	3251	3250
4	No. 139, document No. 220	α	9
5	No. 190, document No. 321	a	a
6	No. 191, document No. 222	a	
7	No. 192, document No. 223	71	
а	No. 193, document No. 224		и
9	No. 194, áccument No. 225	U	13
10	No. 195, document No. 226	A	22
11	No. 195, document No. 227	9	18
12	No. 197, document No. 228	<b>u</b>	a
13	No. 198, document No. 229	5	0
14	No. 199, document No. 230	10	17
15	No. 200, document No. 231	71	
16	No. 201, document No. 232	n	ei
17	No. 202 document No. 233	n	vt
18	No. 203, document No. 234	р	8
19	No. 204, document No. 235	r	17
20	No. 205, Mr. Mozar's testimony	336 <b>9</b>	3269
21	Applicant's Exhibits:		
22	Applicant's Exhibit No. 44, Proposed License Conditions for Davis-Besso		
23	Nuclear Unit 1 and Perry Nuclear Units 1 and 2		
24	ONALS I ANU Z	3322	
25			

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1	PROCEEDINGS
2	CHATRMAN RIGLER: Before we start
3	this morning, the Board has an announcement on a different
4	subject than today's cross-examination.
5	In connection with the pending disqualification
6	motion, the Board has examined in gamera the documents
7	identified in Exhibit H to the City's brief in support of
3	disqualification.
9	We also asked a clerk at the Commission to
10	pull such other documents as were not listed in Exhibit H,
11	but which bore the which were on the stationery of
12	Squire Sanders, so we would pick up any other documents
13	which might be relevant to the issue which were not listed
14	in Exhibit H.
13	As a result of our in camera examination, we
16	have concluded with the exception of approximately four
17	documents which Mr. Reynolds has advised CEI waiving
18	privilege on and which have been turned over to the
19	other parties already, we have concluded for the other
20	50-odd documents the claim of privilege and/or work
21	product was properly applied and our independent in camera
22	examination convinces us that those documents are entitled
23	to protection under the claim of privilege.
24	The next step was to see if any of these
25	documents had such a relationship to the disqualification

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1	issue that we should consider overcoming claim of
2	privilege because of their importance in resolving the
3	other issue.
4	Once again, we are satisfied that these
5	documents don't bear any remote relationship to the dir-
4	qualification issue and there is no need to invade or
7	overturn any claim of privilege.
3	A lateral and perhaps unimportant point is
Э	that by and large our examination of the documents show
:0	they would not be probative with respect to these
11	proceedings. They might be relevant in the sense that
12	they discuss counsel strategy or drafting of pleadings,
13	but in terms of reporting facts or evidence, the documents
14	themselves could not be considered in that category.
15	So for a variety of reasons, those documents
16	will remain privileged. We will not be referring to then
17	in any action we may take with respect to disqualification.
18	The sole exception is one document which,
19	because of one name, we just gave to Mr. Reynolds and asked
20	him to take a second look to see if he would consider
21	waiver of that document.
22	That is out of an extreme abundance of caution,
23	I might add.
24	MR. REYNOLDS: Can we go off the record?
25	(Discussion off the record.)

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1	CHAIRMAN RIGLER: You may proceed, Mr.
3	Goldberg.
3	MR. GOLDBERG: At this time the Stall world like
4	to introduce identify for the record a satiss of
5	documents relied upon by Mr. Mouar in his propared direct
6	testimony.
7	I would like to have marked for identification
8	as NRC Exhibit 151 a document bearing the NRC document
9	No. 1, which is the Davis-Bassa Unit 1 application for a
10	licanse.
11	CHAIRMAN RIGLER: Off the record.
12	(Discussion off the record.)
13	MR. GOLDBERG: I would like to have marked
14	for identification as NRC Exhibit 152 khs docusent
15	bearing the NRC document No. 2 which is the information
16	requested by the Attorney General for antitrust review for
17	Cavis-Besse No. 1.
13	I would like to have marked for identification
19	as NRC Exhibit 153 the document bearing the NRC document
20	number 3, which is the Attorney General's advice letter
21	dated 7-9-71 for Davis-Besse Unit 1.
22	I would like to have marked for identification
23	as NRC Exhibit 154 document bearing the NRC document
24	number 4, which is the application for license for Perry
25	Units 1 and 2.

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1 I would like to have marked for identification 2 as NRC Exhibit 155 a document busting the dRC documents 3 number 5, which is the information requested by the 4 Attorney General for antitust reviews for Perry Units 1 3 and 2. 13 I would like to have narked for identification 9 as NRC Exhibit 156 a document bearing the INC document. 8 number 6, which is the Attorney General's mavica latter, dated 12/17/73 for Perry Units 1 and 2. 9 10 I would like to have marked for identification as NRC Exhibit 157 a document bearing the NRC document 11 12 number 7, which is the application for license for 13 Davis-Besse Units 2 and 3. 14 I would like to have marked for identification as NRC Exhibit 159 a document bearing the NRC documents 15 number 8, which is information requested by the Attorney 16 General for antitrust review for David-Bessa Units 2 and 17 3. 13 19 I would like to have marked for identification as NRC Exhibit 159 a document bearing the NRC document 20 21 number 9, which is the Attorney General's advice latter, dated 2/14/75 for Davis-Besse Units 2 and 3. 22 I would like to have marked for identification 23 as NRC Exhibit 160 document bearing the NRC document 24 number 10, which is the Cleveland Electric Illuminating 25

Company's 1973 FPC Form 12.

2	I would like to have marked for identification
3	as NRC Exhibit 161 a document bearing the NRC document
4	number 11, which is Cleveland Electric Electric
5	Company's 1973 FPC Form 3.
6	I would like to have marked for identification
7	as NRC Exhibit 162 a document bearing the NRC document
3	number 12, which is Duquesne Light Company's 1973 PPC
9	Form 12.
10	I would like to have marked for identification
11	as NRC Exhibit 163 a document bearing the NRC document
12	number 13, which is Duquesne Light Company's 1973 TPC
13	Form 1.
14	I would like to have marked for identification
15	as NRC Exhibit 164 a document bearing the NRC document
16	number 14, which is Ohio-Edison Company's 1973 FPC Form 12.
17	I would like to have marked for identification
18	as NRC Exhibit 165 a document bearing NRC document number
19	15, which is Ohio-Edison Company's 1973 FPC Form 1.
20	I would like to have marked for identification
21	as NRC Exhibit 166 a document bearing the NRC document
22	number 16, which is Pennsylvania Power Company's 1971 FPC
23	Form 12.
24	I would like to have marked for identification
25	as NRC Exhibit 167 a document bearing the NRC document

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1	number 17, which is Pannsylvania Pewar Company's 1975 FPC
2	Form 1.
3	I would like to have marked for identification
L,	as NRC Exhibit 168 a document bearing the NRC document
õ	number 18, which is Toledo-Edison Company's 1973 FPC
G	Form 12.
7	I would like to have marked for identification
8	as NRC Exhibit 169 a document bearing the NRC document
9	number 19, which is Toledo-Edison Company's 1973 FPC
10	Form 1.
11	I would like to have marked for identification
12	as NRC Exhibit 170 document bearing the NRC document
:3	number 201, which is a January 1, 1952 interconnection
14	agreement between the Ohio Power Company and the Ohio-
13	Edison Company, including supplemental latter agroement
16	dated May 1, 1967.
17	MR. BENBOW: Did you say '57 or '67?
18	MR. GOLDBERG: '67 is what I meant to say.
19	I would like to mark NRC Exhibit 171, a
20	document bearing NRC document number 202 which is a
21	September 26, 1952 contract between Pennsylvania Power
22	Company and the Ohio-Edison Company, including an amendatory
23	contract dated March 29, 1959, and a second amandatory
24	contract dated November 5, 1959.
25	MR. BENBOW: November 5 or December 5?

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1	MR. GOLDBERG: November 5.
2	MR. BENEOW: It is not bee important, but mine
3	reads this second amundatory agreement mode and
4	entered into this 3th day of December 1959.
5	Is that what you are reforring to, Mr. Goldbarg?
6	MR. GOLDBERG: Yes, I would like to correct
7	that. It should be December 1959 for the date of the second
8	amendatory contract.
9	MR. ZAHIER: The first one is dated March 29,
10	1955, not 1959.
11	MR. COLDBERG: Thank you.
12	The date of the amendatory contract to MRC
13	Exhibit 171 is March 29, 1955
14	I would like to have marked for identification
15	as NRC Exhibit 172 a document bearing the HRC document
16	number 203, which is a November 29, 1957 agreement between
17	Columbus and Southern Ohio Electric Company, and the
18	Ohio-Edison Company, including amendatory letter agreement
19	dated July 6, 1959; an amendatory letter agreement dated
20	August 19, 1959; an amendatory letter agramment dated
21	November 1, 1961; an amendatory lettor agreement dated
22	April 16, 1963.
23	I would like to have aarked for identification
24	as NRC Exhibit 173 a document bearing the NRC document
25	number 204, which is a June 14, 1962 facilities igreement
	between the Cleveland Electric Illuminating Company and

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1	the Ohio Power Company.
2	I would like to have marked for identification
3	as NRC Exhibit 174 a document banking the NWC document
4	number 205, which is a June 14, 1962 operating agreement.
3	betwsen the Cleveland Electric Illuminating Company
õ	and the Ohio Power Company, including modification No. 1,
7	dated April 30, 1965; modification No. 2, dated September
3	16, 1970.
9	MR. BENBOW: What was that date, Mr. Goldbary?
10	MR. GOLDBERG: September 16, 1970.
11	Modification No. 3, dated November 22. 1972.
12	Modification No. 4, dated March 1, 1972.
13	There is no modification No. 5, to our
14	knowledge, but there is a modification No. 5, dated Orne
15	24, 1971.
16	I would like to have marked for identification
17	as NRC Exhibit 175 a document bearing the NRC document.
:3	number 205, which is a September 6, 1952 facilities and
19	operating agreement between Duqueenc Light Company and
20	Ohio Power Company including modification No. 1
21	MR. SMITH: Before you go any farther on your
22	previous contract, Exhibit 174, modification No. 5 refers
23	to the modification dated March 21, 1972, which would
24	have been modification No. 5. So apparently there is a
25	modification No. 5.

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1	The modification dated March 1, 1972 was
2	modification No. 4.
3	MR. GOLDSERG: We will endeaved to lotate
4	modification No. 5 and make it a part of this exhibit.
5	Returning now to NRC Exhibit 175, there is a
6	modification number 1, dated July 25, 1987; podification
7	number 2, dated April 9, 1970; and attendigent to modification
8	No. 2, dated December 1, 1970; another amendment to
9	modification No. 2, dated December 1, 1971; and a third
10	amendment to modification No. 2 dated December 1, 1972,
11	and modification No. 3, dated May 22, 1972.
12	MR. RIESER: Excusa ne, Mr. Chairman.
13	May I inquire as to whether the handwritten
14	notation modification No. 3 was on the document as
15	obtained by NRC, or is that something they put on?
16	MR. GOLDBERG: To the best of our knowledge,
17	that handwritten notation stating modification No. 3
18	was on the document when we obtained it.
19	We made no handwritten notation on the document.
20	MR. RIESER: Okay, Pine.
21	MR. GOLDEERG: I would like to have marked
22	for identification as NRC Exhibit 175 a document bearing
23	the NRC document number 207, which is a July 29, 1964
24	interconnection contract between Cleveland Electric
25	Illuminating Company and Ohio-Edison Company. It includes

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7	a supplemental letter agreement dated March 21, 1967;
2	an interim supplement dated September 15, 1971; and an
3	interim supplement dated January 1, 1973.
4	I would like to have worked for identification
5	as NRC Exhibit No. 177 a document bearing the SAC
6	document number 208, which is a Pebruary 23, 1965 agraement
7	between Ohio-Edison Company and the Cleveland
8	Electric Illuminating Company, including a lotter
9	agreement dated December 3, 1965, and a letter
10	agreement dated May 8, 1972.
11	I would like to have marked for identification
12	as NRC Exhibit 176 a document bearing the MNC document
13	number 209, which is a July 23, 1965 facilities agreement
14	between the Cleveland Electric Illuminating Company
15	and the Pennsylvania Electric Company.
15	I would like to have marked for identification
17	as NRC Exhibit 179 a document bearing the NRC document
18	number 210, which is a July 23, 1965 firm power agreement
19	between the Cleveland Electric Illuminating Company and the
20	Pennsylvania Electric Company.
21	I would like to have marked for identification
22	as NRC Exhibit 180 a document bearing the NRC document
23	number 211, which is a September 30, 1965 interconnection
24	agreement between the Cleveland Electric Illuminating
25	Company, and Pennsylvania, New Jersey, Maryland (PJM) group.

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1	It includes a may I have two or three minutes,	
2	please?	
3	(Pause.)	
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mm1 #2 1	MR. GOLDBERG: Referring to NRC Exhibit 180,
2	there are attached to the interconnection agreement seven
3	service schedules, the first sin of value were part of the
4	original interconnection sgrammat, the sevench of which,
5	Service Schedule 7.01 was added day 4, 1967, effective June
e	5, 1967.
7	I would like to have marked for identification as
0	NRC Exhibit 181, a document bearing the NRC document number
9	212, which is a December 1, 1955 operating agreement between
10	Toledo Edison Company and Ohio Power Company.
11	I would like to have marked for identification as
12	NRC Exhibit 182, a document bearing the MRC document
12	number 213, which is a March 1, 1966 operating agreement
14	among Consumers Power Company, the Detroit Edison Company,
15	and the Toledo Edison Company.
16	I would like to have marked for identification as
17	NRC Exhibit 183, a document bearing the NRC document number
13	214, an October 17, 1956 letter agreement between Ohio
19	Edison Company and Pennsylvania Power Company.
20	MR. BENBOW: I am not sure that is an adequate
21	description of the document, as I see it.
22	MR. GOLDBERG: If you prefer, I will quote from
23	the document.
24	CHAIRMAN RIGLER: What is your problem, Mr. Beabow?
25	MR. BENEOW: It is an agreement to provide for an

mm2 1	interim period the sale of short-term power by Pennsylvania
2	Power Company and Ohio Edison Company to Duquesne Light
3	Company, as I read it.
4	CHAIRMAN RIGLER: Will you accept that,
5	Mr. Goldberg?
6	MR. GOLDBERG: Yes.
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arl 1	MR. GOLDBERG: I would like to have marked
2	for identification as NRC Exhibit 184 a document
3	bearing the NRC document number 215, which is
4	the September 14, 1967 Capco group memorandum of under-
5	standing.
6	I would like to have marked for identification
7	as NRC Exhibit 185 a document bearing the NRC document
8	number 216, which is the September 14, 1967 Capco trans-
9	mission facilities agreement.
10	I would like to have marked for identification
11	as NRC Exhibit 186 a document bearing the NRC document
12	number 217, which is a September 14, 1957 Capco administra-
13	tion agreement. It includes amendment No. 1, dated
14	January 4, 1974.
15	I would like to have marked for identification
16	as NRC Exhibit 187 document bearing the NRC document
17	number 218, which is a September 15, 1967 agreement
13	between the Dayton Power & Light Company and Ohio-Edison
19	Company.
20	MR. SMITH: Mr. Goldberg, on your Exhibit 136,
21	I recall I don't recall how you described it, but
22	there is a possibility of confusion there. The date of
23	the agreement is not the date that appears on the lead
24	page.
23	MR. GOLDBERG: Referring to Exhibit 186,

ar2	1	the Capco administration agreement, on the first page it
	2	says, "This agreement intered as of September 14. 1967,"
	3	which is the date I used to describe it. The agreement
	4	was actually executed on the lat day of November 1971
	5	as of the 14th day of September 1967.
	6	MR. RIESER: I might note a similar problem
	7	arises with respect to the transmission facilities
	8	agreement which was executed, I believe, some time in 1971
	9	as of September 14, 1967.
	10	MR. GOLDBERG: I'm just using the dates I have
	11	used for identification purposes.
	12	I think the documents all are clear on their
	13	face.
	14	I would like to have marked for identification
	15	as NRC Exhibit 188 a document bearing the NRC codument
	16	number 219, which is a January 1, 1968 agreement among
	17	Buckeye Power and Cincinnati Gas & Electric, Columbus
	18	and Southern Ohio Electric, Dayton Power & Light,
	19	Monongahela Power, Toledo-Edison and Ohio Power Companies.
	20	I would like to have marked for identification
	21	as NRC Exhibit 189 a document bearing the NRC document
	22	220, which is a Fe. ruary 1, 1968 interchange agreement
	2.7	between West Penn Power Company and Duquesne Light
	24	Company, including amendment No. 1, dated May 23, 1972,
	25	and an addendum dated May 31, 1973.

1 I would like to have marked for identification 2 as NRC Exhibit 190 a document bearing the NRC document 3 number 221, which is a June 20, 1966 agreement between 2 Ohio Power Company and Ohio-Edison Company. 3 I would like to have marked for identification 5 as NRC Exhibit 191 a document bearing the NRC document 7 number 222, which is an August 1, 1966 agreement between Toledo-Edison Company and Ohio-Edison Company, including 8 an interim supplement dated, I believe, September 26, 1971. 9 The actual day of September is handwritten and it is either 10 the 26th or the 20th. I can't determine whether it is 11 12 the 26th or the 20th. 13 Including also a second interim supplement dated August 1, 1972 and another interim supplement 14 dated January 1, 1973. 15 I would like to have marked for identification 16 as NRC Exhibit 192 a document bearing the NRC document 17 number 223, which is an October 7, 1968 agreement, 18 among West Penn Power Company, Monongahela Power Company, 19 Ohio-Edison Company, and Pennsylvania Power Company. 20 It includes amendment No. 1, dated February 1, 21 1972, and amendment No. 2, dated June 1, 1973. 22 I would like to have marked for identification 23 as NRC Exhibit 193 a document bearing the NRC document 24 number 224, which is a May 29, 1969 power agreement among 25

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1	the Toledo-Edison Company, the Cleveland Electric
2	Illuminating Company, the Duquasma Light Company,
3	Ohio-Edison Company, and Pennsylvania Power Company,
4	including amendment No. 1, dated May 26, 1971.
5	I would like to have marked for identification
6	as Exhibit 194 a document bearing NRC document number
7	225, which is a January 1, 1970 interchange agreement
8	among Ohio-Edison Company, Pennsylvania Power Company,
9	and Duquesne Light Company, including an interim
10	supplement dated September 8, 1972, an interim supplement
11	dated January 1, 1973, and an interim supplement dated
12	July 10, 1973.
13	With respect to this document, NRC Exhibit 194,
14	I note that there are pages 11 and 12 missing from the
15	copies supplied to the Board and the parties, and I would
16	like now to distribute pages 11 and 12.
17	Also with respect to NRC Exhibit 194, in my
18	description of that document I included an interim supplement
19	dated July 10, 1973. There may be another interim
20	supplement dated July 10, 1973, which we apparently do not
21	have.
22	If we can locate it, we will attach it to this
23	exhibit and distribute it to the parties.
24	I would like to have marked for identification
25	as NRC Exhibit 196 a document bearing the NRC document

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mml !	MR. SMITH: Did you refer to July 22, 1970?
2	, MR. GOLDBERG: Not with respect to NRC Exhibit 195.
3	MR. BENEON: The last two pages seem to be a letter
4	of that date. I think that is what Member Smith is referring
5	to.
6	In addition to the agreements I mentioned, we will
7	also enter a July 22 letter agreement. I would like to
8	correct that to a July 22, 1970 strike that, it is a
9	letter agreement.
10	I would like to have marked for identification
11	as NRC Exhibit 196, a document bearing the NRC Document
12	Number 227, which is a July 25, 1972 interim agreement between
13	the Cleveland Electric Illuminating Company and the Toledo
14	Edison Company.
15	I would like to have marked for identification as
16	NRC Exhibit 197, a document bearing NRC Document Number 228,
17	which is a May 7, 1973 surplus power agreement, East Lake
18	Unit Number 5, between the Cleveland Electrical Illuminating
19	Company and the Duquesne Light Company.
20	I would like to have marked for identification as
21	NRC Exhibit 198, a document bearing the NRC Document
22	Number 229, which is an August 28, 1973 CAPCO unit ownership
23	agreement.
24	I would like to have marked for identification as
25	NRC Exhibit 199, a document bearing the NRC Document

1	ere, 그는 것 :
2	Number 230, which is an October 1, 1975 agraement between
3	Ohio Edison Company and the Diquesna Light Company.
4	I would like to have marked for identification as
5	NRC Exhibit 200, a document bearing the NRC Document Number
6	231, which is an October 3, 1973 agree ont between the
	Cleveland Electric Illuminating Company and the Ohio Edison
7	Company.
8	I would like to have marked for identification as
0	NRC Exhibit 201, a document bearing the NAC Document Number
10	232, which is a June 10, 1974 surplus power agreement, Rast
11	Lake Unit Number 5, between the Cleveland Electric
12	Illuminating Company and the Toledo Edison Company.
13	I would like to have marked for identification as
14	NRC Exhibit 202, a document bearing the NRC Document Number
15	233, which is a January 1, 1975 CAPCO basic operating
16	agreement.
17	I would like to havemarked for identification as
18	NRC Exhibit 203, a document bearing the NRC Document Number
19	234, which is a January 13, 1975 interconnection agreement
20	between Painesville, Ohio and the Cleveland Electric Illuminating
21	Company.
22	This document which has just been identified as
23	NRC Exhibit 203, has already been received into evidence
24	and when we find the number, we can cross-reference it.
25	NRC Exhibit 203 has been received into evidence
1	

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as NRC Exhibit 140.

2	I would like to have marked for identification
3	as NRC Exhibit 204, a document bearing the NRC Document
4	Number 235, which is an April 17, 1975 agreement between
5	CEI and Cleveland for installetion and operation of a 138 kv
6	synchronous interconnection.
7	MR. GOLDBERG: May we have a short break?
8	CHAIRMAN RIGLER: We will make it a short one.
9	We will be back at quarter after.
10	MR. HJELMFELT: These haven't been moved into
11	avidence yet.
12	MR. REYNOLDS: Off the record.
13	(Discussion off the record.)
14	CHAIRMAN ROGLER: Mr. REynolds advises me that he
15	has consulted with CEI and CEI has agreed to waive privilage
16	with respect to a document which bears number 2029. It is a
17	February 25, 1972 memorandum from Mr. Obermeyer, apparently,
18	to Mr.Howley, with a copy to Mr. Hauser, and the reason we
19	asked him to reconsider it is that it mentions a Mr.Laughlin,
20	whose name was mentioned in connection with the possible
21	cross-flow of information.
22	That document will be made available to all
23	parties.
24	MR. REYNOLDS: Thank you,
25	(Recess.)

#6		3251
arl	1	(The documents were marked
	2	Staff Exhibits Nos. 151
	з	thru 204, inclusive, for
	4	identification.)
	5	MR. GOLDBERG: I would now like to move into
	6	evidence NRC Exhibits 151 through 204.
	7	MR. HJEMFELT: With respect to NRC Exhibit 195,
	8	document 226, the purported agreement between CEI and
	9	the City of Cleveland, I'm not objecting to its being
	10	admitted into evidence, but I object to it being admitted
	11	as an agreement between the parties.
	12	That letter was filed with the FPC, accepted
	13	by the FPC, as representing an agreement of the parties.
	14	It was appealed by the City of Cleveland, and on last
	15	Friday, which I believe was January 9, the Circuit Court
	16	of Appeals for the District of Columbia roversed and
	17	remanded the Federal Power Commission.
	18	The city is contending this is not an agreement
	19	of the parties. It was reversed in part and remanded,
	20	the part that was reversed went to the legality of this
	21	agreement.
	22	MR, SMITH: It was invalid ab initio?
	23	MR. HJEMPELT: Sir, the FPC was asked to re-
	24	examine in light of the city's contentions. Our
	25	contention would be that this agreement does not represent

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1	that this letter does not represent the true agreement of
2	the parties and was improparly accepted for filling by the
3	FPC.
4	CHAIRMAN RIGLER: Is it a partial agreement of
3	the parties?
6	MR.HJEMFELT: Yes, the part that is actually
7	in contest goes to the rate contained therein.
з	CHAIRMAN RIGLER: You are not objecting to the
9	receipt of the letter into evidence?
10	MR. HJEMFELT: Not with that understanding.
11	We are not agreeing this is an agreement between the parties.
12	CHAIRMAN RIGLER: You are not estopped to challenge
13	the rate provisions sat forth in Exhibit 195.
14	MR. REYNOLDS: I have a number of observations
15	on this list.
15	I think with everybody's permission, I can
17	probably consolidate the objections, and as long as it
18	is clear, we need not go on a document-by-document basis.
19	Let me just note in connection with Mr.
20	Hjemfelt's remarks the Court of Appeals remand was to
21	receive evidence on the rate matter that was contained in
22	or was the subject of the letter.
23	It was to receive further evidence from that.
24	MR. HJEMFELT: It was to reconsider the city's
25	arguments with respect to whether this was properly filed

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1	at the parties' agreement. What further proceedings might
2	be had before the FPC, I think is maybe not clear,
3	and probably not relevant right here.
4	MR. REYNOLDS: I just don't want the
5	characterization to mislead anybody.
6	On the list I would like to first raise
7	an objection on behalf of the Ohio-Edison Company,
8	Pennsylvania Power Company, and Duquesne Light Company,
9	with respect to the Exhibit No. 151, 152, and 153, which
10	pertain to the application, the information requested
11	by the Attorney General and the Attorney General's advice
12	letter in Davis-Besse No. 1.
13	The three Applicants I named were not parties
14	to Davis-Besse No. 1, nor Applicants, and therefore I
15	would like to make the continuing objection as to those
16	three Applicants to these exhibits coming in, in any
17	way against them.
18	As to the
19	CHAIRMAN RIGLER: Who is making the objection?
20	MR. REYNOLDS: That would be all of the
21	parties that are not all the parties hereto that are
22	not Applicants to the Davis-Besse 1 Plant.
23	That would be Chio-Edison Company, Pennsylvania
24	Power Company, and Duquesne Light Company.
25	I would object on behalf of all Applicants to

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1 1 the introduction into evidence of any of the advice 2 1 letters by the Department of Justice. I don't think that 3 1 that is proper evidentiary makerial. I know of nothing in the statute that requires that to be introduced into evidence.

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It seems to me it is already a matter of record, and I would object to those documents being introduced into evidence in this proceeding.

4	With respect to the FPC forms that are listed as
5	Exhibit Numbers 150 through 169, if I can articulate this in
5	a manner that is clear to everybody, I would like to have the
7	record reflect he continuing objection of these Applicants
3	who were not participants in the form that is referenced in
9	the documents. So that, for example, if it is a Cleveland
10	Electric Illuminating Company FPC Form, the continuing objection
11	would be with respect to all Applicants other than the
12	Cleveland Electric Illuminating Company.
13	I would like to make that continuing objection in
14	that fashion to those documents.
15	As to the agreements which are identified as NRC
16	Exhibits 170 through Staff Exhibit 204, again, if I can
17	articulate it clear, the continuing objection is to be made
18	with respect to each of the Applicants who is not a party to
19	one of those agreements.
20	So that again, by way of example, if you do have
21	listed an agreement that is bilateral agreement between Ohio
22	Edison and Cleveland Electric Illuminating Company, the
1	continuing objection would be not

continuing objection would be made as to that document on behalf of the other three Applicants who are not parties to that agreement.

I would also like to request that as to NRC Documents 151 through 169, those that are admitted into evidence I would ask that the Board admit them subject to Applicants' opportunity to review the documents, and insurathat they are complete documents. There has been a lot of 'Xeroxing. We have not received this material until last night.

8 I don't anticipate there will be an objection, but 9 I think if we are going to have these kinds of documents in 10 the record, that all of the parties should be satisfied that we 11 have a complete document, and that it has been 12 Xeroxed and all the pages are collited in the right way 13 and it is the proper document we are talking about.

I am not suggesting that is not the case. I am only indicating that I did not have an opportunity to go through this material and have not yet, and if we do edmit them, I don't want to waive any right at some later date to point up to the Board what might be a missing page, if there is such a thing, or a wrong collation of the document.

20 CHAIRMAN RIGLER: Which numbers are included in 21 that request?

> MR. REYNOLDS: That would be 151 through 169. CHAIRMAN RIGLER: Thatwill be granted.

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1	MR. REYNOLDS: I guess I'm reminded while I
2	have gone through copies of all of the other exhibits,
з	the agreements, I have not gone through the copies
4	that they have handed out. Maybe the Board would agrae
3	that we could also have that opportunity so that
6	everybody is agreed that the complete document is in the
7	record.
3	In other words, what I'm really saying is
9	that I'm not voicing an objection so much as asking for
10	an opportunity, if documents 170 through 204 are admitted,
11	that we can examine and make sure that the copies that
12	were admitted are indeed the complete copies and in the
13	Xeroxing we didn't lose pages.
14	CHAIRMAN RIGLER: I'm sure the Staff would
15	agree to that.
16	MR. GOLDEERG: Yes, sir.
17	CHAIRMAN RIGLER: Mr. Reynolds, with respect
18	to the Attorney General's advice letters, those
19	matters are a matter of record in these proceedings,
20	irrespective of whether they are introduced into avidenco,
21	are they not?
22	MR. REYNOLDS: I believe they are a matter
23	of record, but I do object to than being introduced into
24	evidence. It is the same as trying to introduce the

petitions to intervene into evidence or a complaint into

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1	evidence.
2	CHAIRMAN RIGLER: Do you have the numbers
3	of the Attorney General's advice letters?
4	MR, REYNOLDS: Staff Exhibit 153, Staff
5	Exhibit 156, and Staff Exhibit 159.
3	CHAIRMAN RIGLER: Do you concur in that, Mr.
7	Coldberg?
3	MR. GOLDBERG: Yes, those are the correct
9	numbers.
10	Mr. Chairman, would you like the Staff to
11	respond to Mr. Reynolds' objection?
12	CHAIRMAN RIGLER: You may, if you would, briefly.
1.3	MR. GOLDBERG: As far as the advice letters
14	are concerned, the Atomic Energy Act, I believe, requires
15	the Commission to consider the advice letters of the
16	Attorney General. The language is "the Commission shall
17	consider the advice letters of the Attorney General."
13	CHAIRMAN RIGLER: There is no doubt that they
19	have been considered, is there?
20	MR. BENBOW: At some length.
21	MR. GOLDBERG: The advice latter by definition
22	is one of the triggering devices of this proceeding.
23	Since it must be considered by the Commission, I think
24	it is proper to receive it in evidence in this proceeding.
25	I don't think it is necessary to respond to the

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1	continuing objection of the Applicants.
2	With respect to the Staff Exhibits 151, 152,
3	153, concerning Davis-Besse 1, I would only say first of
4	all this is a consolidated proceeding.
3	We are concerned with all five Applicants,
6	and the activities under the license which are the
7	subject of this proceeding.
8	We are concerned with the Capco group, Capco
9	memorandum of understanding, the operating agreement.
:0	These concern base load power.
11	The plants, all of than, will provide base load
12	power for all of the Applicants.
13	Therefore, I believe that it is proper that
14	these documents be received into evidence with no such
15	restrictions on their use.
16	MR. REYNOLDS: To correct one statement of
17	Mr. Goldberg's, the Davis-Besse 1 Plant vill not provide
18	any base load power to the three Applicants that made
19	the objection.
20	MR. GOLDBERG: As the evidence will clearly
21	show, the Applicants have numerous coordinating agraements
22	among themselves and the power supplied by Davis-Basse
23	certainly will be power which is exchanged pursuant to
24	the interconnection agreements.
25	CHAIRMAN RIGLER: The objection with respect

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1	to the Davis-Besse 1 Unit is overruled.
2	The objection to the receipt in evidence of
3	the Attorney General's advice letters is sustained, and
4	we will not receive into avidence Exhibits 153, 158, and
5	159.
6	The objection with respect to FPC forms being
7	raceived for non-reference of the Applicants therein is
8	overruled, as are the agreements with reference to 170
9	through 204.
10	In overruling the continuing objection as
11	to those, we will note that in Exhibit 184, the Capco
12	group memorandum of understanding, Part 7.0 appearing on
13	page 23, suggests that these other agreements may bear
14	relationship to the Capco operation.
15	The Exhibits 151 through 204 will be received
15	into evidence with the exception of No. 153, 156, and 159.
17	(Staff Exhibits Nos. 151,
13	152, 154, 155, 157, 158, and
19	160 thru 204, previously
20	marked for identification,
21	were received in evidence.)
22	MR. GOLDBERG: We note our exception to the
23	exclusion of NRC Exhibits 153, 156 and 159.
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mmli	MR. LESSY: The Staff's next witness is
2	Mr. Harold M. Mozer.
3	While the witness is gatting settled, I have
4	one preliminary matter.
5	Dr. Guy, in his testimony, referred to a map,
6	the principal facilities of CAPCO map, that was submitted by
7	CEI pursuant to the application for a nuclear license.
3	The Board requested, an unmarked copy of the map.
9	The documents that were received into evidence today includes
10	unmarked copies of that map, but we will endeavor to make
11	available to the Board an additional copy of that.
12	Secondly,
13	MR. REYNOLDS: Could you wait just a minute.
14	While we are on this subject, I might raise a
15	matter with the Board, that I don't think anybody is going to
16	have a problem with.
17	The map that Dr. Guy used, he had inserted a number
18	of things in different colors. The copy that we received
19	didn't reflect that, and I was not aware of his color scheme
20	until after he was finished testifying.
21	We have agreed, with the Board's permission, to
22	have Dr. Guy write up a narrative of what that color scheme
23	is, and submit it as a supplement to that exhibit.
24	CHAIRMAN RIGLER: That is fine. However, the
25	Board's copies didn't have colors on them either.

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mm 2 1	MR. REYNOLDS: I thought the Board asked Dr. Guy
2	to submit the original and had the only original with the color
3	scheme. For that reason, it seems to me to be important that
с Д,	we know what the colors represent.
5	CHAIRMAN RIGLER: The reporter has the copy with
6	the colors on it. I suppose what you should do is sinculate
7	to the Board the description of the color scheme.
8	MR. LESSY: There is no problem with that. We
9	think this would be the appropriate witness to do it.
10	Mr. Lyren at the conclusion of his testimony
11	referred to an agreement between AMP/O and Ohio Power Company.
12	It was received into evidence yesterday as Staff Exhibit 141A.
13	I would like to seak to ask the witness one question
14	with respect to that agreement, hopefully, for the clarification
15	of everyone.
16	Mr. Lyren, as you recall, characterized that
17	agreement as a wheeling agreement. This would be the
18	appropriate witness to ask if he agreed to that character, and
19	that, of course, would be subject to an amendment to the
20	direct examination for purposes of cross-examination.
21	CRAIRMAN RIGLER: Well, lets get the witness sworn
22	first, and find out if he adopts his testimony. And at
23	that point it may be appropriate.
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mm 3	1	Whereupon,
	2	HAROLD M. HOZER
	3	was called as a witness on behalf of the Regulatory Staff,
		and having been first duly sworn, was examined and testified
	5	as follows:
	6	DIRECT EXAMINATION
	7	BY MR. LESSY:
XXXX	3	Q Will you state your name, please?
	9	A My name is Harold Mozar.
	10	Q Mr. Mozer, I show you a document which is
	11	unnumbered. It bears the language at the bottom, "Propared
	12	Direct Testimony of Harold M. Mozer," and ask if you can
	13	identify it for us,
	14	A This is printed copy of the direct testimony that T
	15	prepared in this matter.
	16	Q Do you have any nonsubstantive typographical addi-
	17	tions or corrections to your prepared testimony at this time?
	18	A Yes, I do.
	19	Q Could you please relate those to the Board and
	20	parties?
	21	A Chay.
	22	I will try to do this in sequence.
	23	Page 1, lines 9 and 10, I have had a change in
	24	assignment and have dropped one of my administrative duties to
	25	one of my subordinates. Strike, starting on line 9, beginning

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nun4	1	with the word "and" and continuing through the rest of line
	2	9 and all of line 10.
	3	I am no longer the manager of our Worthwest Regional
	4	Offica. My principal duties are director of electrical
	5	engineering.
	5	Also, the comma on line 9 following the word "Ind"
	7	period should be stricken.
	8	Q Is your replacement the manager of the power
	9	department in the Northwest Regional Office CH2M Mill?
	10	A He has assumed that role.
•	11	Q Does he report to you?
	12	A Yes, he reports to me.
	13	Page 1, line 13, strike the word "Junsau." We
	14	have closed that office.
	15	Page 3, lines 21 and 22, starting on line 21,
	16	strike beginning with the word "manager" and continuing ac
	17	strike through line 22, the word "and."
	18	That is similar to the one on page 1.
	19	Q The appropriate language would read, as I
	20	mentioned previously,"I am director of electrical engineering
	21	for the entire firm."
	22	Is that right?
	23	A That is correct.
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arl	1	Next correction is page 29, line 17, the last
	2	word on the line should be plural. It should read
	3 5	"agreements."
	4	On page 32, lines 10 through 13, there are
	5	some quotation marks left out.
	6	Line 11
	7	MR. BENBOW: Could I have that page number
	3	again?
	9	THE WITNESS: Page 32, starting on line 10,
	10	there should be a quotation mark before the word "ready."
	11	On line 11, there should be a quotation
	12	mark following the word "capacity" at the end of the line.
	13	On line 12, the term "emoxgency operating
	14	capacity" should be enclosed in quotation marks,
	15	The term "economy energy" should be anclosed
	16	in quotation marks.
	17	The term "emergency energy" should be
	13	enclosed in quotes.
	19	On line 13, the term "short term operating
	20	capacity" should be in quotes.
	21	There should be a quotation mark ahead of the
	22	word "short term."
	23	On page 37, line 24, near the bottom, at the
	24	end of that line, reference to Emhibit _ HMH-2 should be
	25	corrected to read HMM-4. That is line 24.
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1	Next correction is on page 59, on lines 14 and
2	24, there is a transposition in the numbers. The number
3	which reads 4095 should be corrected to read 4905.
4	That is on lines 14 and 24 on page 59.
5	Page 79, line 20, there is a word toward the
6	end of that line spelled entiry's.
7	It should be "entity."
8	MR. BENBCW: What line?
9	THE WITNESS: Line 20, page 79.
10	On Exhibit HSM-6, page 1 of that exhibit, on
11	the next to the bottom, term entitled
12	"diversity exchange," the first word in the second line
13	should read "possible,".p-o-s-s-i-b-l-c.
14	Throughout the testimony reference to MRC
13	exhibits should be changed to read NRC documents.
16	I understand that terminology has been
17	adopted for this proceeding.
18	That completes the corrections I have.
19	BY MR. LESSY:
20	Q Other than these corrections, do you adopt
21	the testimony as it presently reads, subject to those
22	corrections?
23	A Subject to the corrections, I adopt the testimony.
24	MR. LESSY: Mr. Chairman, I would like to seek
25	to amend the testimony with two questions addressed to a

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2	document received into evidence as Stalf Ethible 111-2.
3	It was an attachment to a latter received guaterlay.
4	It was transmitted by Mr. Rowley to Mr. Milburg.
3	It is entitled "Agreement Bathman American
3	Municipal Power, Ohio, Inc., and Ohio Power Company,"
7	dated April 1, 1974.
8	BY MR. LESSY:
9	Q I would like to ask Mr. Motor:
10	Mr. Mozer, are you familiar and have you
11	reviewed this agreement ensitied MRC 141-AP
12	A This appears to be the same agreement I received
13	late yesterday. I had opportunity to review it rather
14	briefly.
13	Q Does this agreement constitute a wheeling
15	arrangement between American Municipal Power, Ohio, Ind.,
17	and the Ohio Power Company, in your opinion?
18	A The agreement in its entirety is not just a
10	wheeling arrangement. It provides for other pervices,
20	Service A is a wheeling agreement, as I would
	characterize it.
21	MR. LESSY: With those additions and the
22	corrections as Mr. Mozar has adopted into avidence, T
23	would like to move into evidence the prepared direct
24	testimony of Harold M. Mozer.
25	

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1	CHAIRMAN RIGLER: You haven't identified it.
2	Do you want us to give it the NRC Exhibit No. 205?
3	MR.LESSY: Yes, it is NEC 205. It was
4	previously distributed to the Board and filed with the
5	parties at the appropriate time this fall.
6	MR. REYNOLDS: I would simply point out that
7	in terms of the Exhibit EMM-4, we this morning identified
8	some dates that were wrong, and some supplements that
9	were not properly referenced, which it seems to me should
10	be reflected on that exhibit.
11	I don't know that it is necessary to do it now.
12	But it may be something that the Staff and Mr. Nozer would
13	want to do at some later date.
14	MR. LESSY: We would be happy to provide an
15	updating of that exhibit pursuant to this morning's matters
16	on the record.
17	MR. BERGER: Could wa have a moment, Mr.
18	Chairman?
19	MR. BENBOW: If I might suggest since we
20	have not yet had cross-examination with respect to Hr.
21	Mozer's testimony, I think I would suggest to the Board
22	that it might be appropriate to reserve ruling on the
23	Staff's offer until such time as that cross-examination
24	has occurred.
25	It may in the course of it turn out that

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1	3269 certain parts of this may no longer be offered or they
2	may be amended or otherwise.
3	I think that would be an appropriate course
	if the Board sees fit to follow it.
5	MR. LESSY: The appropriate course that I am
3	familiar with is that you move it into evidence. If
7	they indicate they would like to move to strike a
3	portion that would be subject to a motion also.
9	CHAIRMAN RIGLER: It could be subject to a
10	motion to strike.
11	Hearing no objection, we will receive
12	NRC Exhibit 205 into evidence at this time.
13	(A document was marked
1-1	Staff Ezhibit No. 205 for
15	identification, and was
16	received in evidence.)
17	CHAIRMAN RIGLER: Does that conclude your
18	direct examination?
19	MR. LESSY: Yes, it does.
20	CHAIRMAN RIGLER: Mr. Charno?
21	MR. CHARNO: No questions.
22	CROSS-EXAMINATION
23	BY MR. HJEMFELT:
24	Q Mr. Mozer, referring to page 64 of your prepared
25	direct testimony, lines 15 through 20, you are describing

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1	there a utility which would be able to obtain power
2	supply arrangements without transmission connections with
3	our utilities.
4	Can you tell me if any of the Applicants here
5	would be able to obtain those power supply alternatives
5	without those transmission interconnections?
7	A I don't believe so.
8	MR. HJEMPELT: Thank you.
Э	I have no further questions.
10	CHAIRMAN RIGLER: Do the Applicants have any
11	cross-examination?
12	(Laughter.)
13	Before we come to that, the Board has a
14	question, and we think it might be better procedure to
15	get the Board questions answered so that the Applicants
16	can consider those answers in their own cross-examination.
17	MR. SMITH: Mr. Mozer, in part of your testimony,
18	and I can't locate it at the moment, you refer to the
19	MR. BERGER: Mr. Smith, I can't hear you.
20	MR. SMITH: In a portion of your testimony,
21	you refer to the phenomenon where large capacity
22	generators tend to preempt transmission lines so that
23	smaller utilities would be unable to construct their
24	own transmission liens along the same route.
25	Would that be a not too inaccurate summary of

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your point there?

THE WITNESS: I'm not sure that I accept the word "preempt." I think you are describing the situation that I have discussed wherein by constructing large generating stations at points which tend to be remote from the load areas of the several utilities that empect to receive electric service from the generating stations, they must build large transmission lines.

9 As a result, this creates a transmission network or grid as it is sometimes referred to, and this 10 11 results in a situation whereby a small utility wanting 12 to build a transmission line through this same general area would tend to find that the small utility was 13 duplicating the facilities that had already been 14 constructed as part of the need for transmission of the 15 generation to load. 16

17 MR. SMITH: Then you stated further it may be 18 possible under the Ohio statutes for power siting, other 19 lines could not be constructed along that line for 20 environmental purposes.

THE WITNESS: I reached that opinion, yes.
 MR. SMITH: Would the same effect tend to exist
 in relation to siting for nuclear power plants?
 For example, would there be a problem with the

25 city of Painesville building a nuclear power plant because

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	1	of the fact that the Perry Plant is very near it, assuming
	2	it had the capacity to build one?
	3	THE WITNESS: In general, I would answer yes
	4	to that, because there tends to be a siting problem
	5	associated with most of the nuclear power plants I'm familiar
	6	with, so that nuclear sites are unique.
	7	There are probably a finite number of them.
	8	To the extent that other utilities are using acceptable
	Э	sites in a particular area, there may not be sites left
	10	for a second utility to use.
	11	In Painesville's case, of course, the Perry site
	12	would seem to be a desirable location, since it is near
	13	to Painesville's load area. It would always be nice to
	14	build your nuclear plants as close to your own load area
	15	as possible. It is hard to say precisely that it precupts
	16	the ability of the small utility to find a nuclear
	17	plant site, but it certainly creates great difficulty for
	18	them.
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	1	CHAIRMAN RIGLER: Are the Applicants stady with
#11mm1	2	their cross-examination?
	5	MR. REVNOLDS: Yes, Mr. Chaiman.
	4	MR. LESSY: Could we ask Mr. Reynolds to identify
	5	the parson to his right?
	6	MR. REYNOLDS: I would be happy to.
	7	This is Dr. Joe Pace. He is not making an
	8	appearance.
	9	Is there anybody else we need to identify?
	10	MR. LESSY: Since he was sitting at the counsel
	11	table, and since the Board asked that people sitting at
	12	the counsel table be identified, including Mr. Cerber on a
	13	previow data, I thought the record should be clear.
	14	BY MR. REYNOLDS:
	15	Q Mr. Mozer, at page 1 of your testimony, I note that
	16	with the amendment this norning you were, until recently, the
	17	manager of the power department is the Northwest Regional Offic
	19	of the firm's CH2M Hill, Inc.
	19	Were your responsibilities in that assignment all
	20	in connection with utilities located in the Pacific Northwest?
	21	A No. 7
	22.	Q Would you explain what your responsibilities
	23	included?
	24	A My responsibilities were principally administrative
	25	responsibility over what we termed the power department in
	1.12	

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our Northwest Regional Office. That department was involved in all electrical engineering activity, both for electric utilities as well as industrial type electrical designs, some of which were for our in-house electrical projects.

In that department within the last year, we had projects that ranged from Trinidad to various projects in Colorado, and we did a study for the Library of Congress.

9 Cver the past few years, we have done work in 10 California in that office as well as others.

While we principally are organized on a regional basis, and do most of our Northwest work in that office, we also do other work in that office. And as manager of that power department, my duties were larger than just concerned with the Northwest.

16 Q What were your duties as director of electrical 17 engineering?

A I am responsible for the technical performance, new business development, and general organizanization and personnel of all electrical engineering activities in the firm. We have a firm of over 1000 people.

23 Q You have indicated that there are investor-owned 24 investor utilities among your clients.

A That is correct.

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Q Which utilities?

A Puget Sound Power and Light Company, the Portland General Electric Company, Pacific Gas and Electric Company, Pacific Power and Light Company.

I believe those are the principal ones.

Alaska Electrical Power Company.

Q Would you explain for me what the Bonneville Power 8 Administration is?

A Bonneville Power Administration is a federal agency
under the Department of Interior which has the responsibility
for transmitting and marketing power generating at
federal hydroelectrical power projects in the Pacific
Northwest.

The role of the Bonneville Administration includes construction of the large transmission network in the Pacific NOrthwest that is fully coordinated with the investor-owned and publicly-owned utilities in the region.

As a consequence of their fundamental functions, they also provide wheeling or transmission service for the federal and non-federal agencies and public and industrial agencies in the region, as well as their basic function which is marketing federally generated power.

23 Q Is that all subsidized power federally generated 24 power?

I wouldn't call it subsidized.

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I think the power is being paid for by the ratepayers.

З	Q You indicated in connection with your work with
ų,	the Bonneville Power Administration, that you had prepared
5	justifications for transmission in related projects.
6	What do you mean by justifications in transmission?
7	A I studied the engineering report of the system
8	engineering department and assisted in developing the
9	writeups justifying from an engineering and economic hasis,
10	the submittal to the Congress for appropriations to construct
11	certain facilities.
12	Q When you mentioned related projects, would that
13	be other facilities than transmission facilities?
14	A As part of transmission network, this would
15	include substations, microwave carrier communications,
16	certain warehouse facilities, although I didn't get into the
17	warehouse activities very much.
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<b>#1</b> :	2	
arl	1	Q On page 4 of your direct bestimony, you
	2	indicate that you have had specific assignments with
	3	regard to planning the integration and cordination
	4	of Priest Rapids and Wanapum
	5	projects of Grant County Public Utility District into the
	5	Pacific Northwest Transmission Network.
	7	Let me ask you, how are you using the term
	8	"coordination" in that connection?
	9	A In two senses. The question of how the
	10	project feeds its power into the regional transmission
	11	network because the projects, while they were under
	12	the ownership of a single utility, the power was cold
	13	to 12 or 13 utilities in the region. It was necessary
	14	to move the power from the power plants to the load areas
	13	of the utilities.
	16	Then there was also a question of operating this
	17	hydroelectric facility into a network of other hydro-
	13	electric facilities and some steam generating facilities.
	19	We are talking about how you operate a project
	20	that had a variable flow of water on a daily, seasonal,
	21	annual basis, and how that project would work in
	22	conjunction with other similar projects,
	23	hydroelectric projects.
	24	We are involved with the provision of that
	25	project into a project that will be a thermal type,
		including nuclear generation.

ar2 What was the nature of the planning you par-1 Q 2 ticipated in? I participated in some of the transmission 3 A studies that were done jointly between the Grant County A Public Utility District and the Bonneville Power 5 Administration. 3 I participated also in drafting the 7 contracts for the sale of power to the unit power par-8 ticipants in the project. 8 You indicate that in '57 and '58, you prepared 10 0 and analyzed transmission system studies which are part 11 of the power supply plan for the eastern two-thirds of 12 the state of Nebraska. 13 What was the nature of those studies? 14 The nature of the studies were to find the A 15 most desirable power supply for that portion of 16 Nebraska which represented two-thirds of the state in 17 area, and I don't recall the parcentage of load, but 13 substantially more of the load of the state than that. 19 We were examining several alternative power 20 supplies and found that the best supply available at that 21 time was additional power from the Bureau of Reclamation. 22 We than made transmission studies which I 23 participated in. Some of those were made as joint 24 studies by the various entities in Nebraska, including 25

ar3	3279
1	our cliant, and the studies were made at the General
2	Electric Company, at that time AC notwork analyzer.
з	I had computer studies on the same system
4	also. The result was a recommendation to purchase
5	additional power from the Bureau of Reclamation and to
6	transmit that power by a line constructed by the Nebraska
7	Generation Transmission Co-op from Fort Randall, South
8	Dakota to Columbus, Nebraska.
9	Q Did you make the power supply sindy or the
10	transmission study?
11	A I was principally responsible for the transmis-
12	sion study and participated in a smaller way in the power
13	supply study.
14	My principal involvement in that study was
15	in the transmission aspect.
16	Q Were any private utility systems involved in
17	that?
18	A No.
19	Q What is the nature of your present consulting
20	on the power operation and power marketing aspects of
21	studies of hydroelectric projects in the states of
22	Nebraska and Washington?
23	A In the state of Nebraska, we are now in the
24	preliminary design stages of a hydroelectric project to
25	add power to an existing irrigation dam.

4	3280
1	Early parts of that study, which were
2	prepared under my direction and with considerable input
3	directly from me, ware on the feacibility of the project
4	to determine both its physical feasibility and the cost
5	of power, to determine whether or not the power appeared
6	to be marketable at the price at which we would have
7	to charge in order to recover the cost of constructing
8	the project.
9	In the Pacific Northwest, I have several on-
10	gcing projects. I'm a consultant to the Grant County Public
11	Utility District on the continued operation of the
12	Priest Rapids and Wanapum projects,
13	There are two separate hydroalectric projects
14	under the same ownership and are operated as a joint
15	project.
16	Our consulting there involves the physical
17	operation of the project and interpretation occasionally
10	of contract language.
19	We have to write periodic reports on the
20	insurance that is carried on the projects, and every
21	three years we prepare a comprehensive report on the
22	operation of the project.
23	The project has certain operational
24	constraints under its FPC license, the stream flows
25	that had to be maintained. They operate as part of the
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5	3281
1	Pacific Northwest coordination agreement, which is a
2	major agreement coordinating the activities of the
3	principal generation in the region.
4	The other project that is an engoing one is
5	our consulting work for what is known as the
3	Public Power Council, which is a planning entity or
7	organization consisting of the non-federal publicly-
3	cwned electric utilities who are customers of the
9	Sonneville Power Administration and are involved in the
10	planning of their future power supply activities.
11	Consulting work there has been
12	to evaluate alternative projects and to help in the
13	development of power purchase and coordination type
14	contracts involving in most cases multiple parties.
15	Our client is the Bonneville Administration,
16	private utilities, investor-owned utilities, and public
\$7	bodies, joint operating agencies made up of groups of
18	utilities.
19	Q Would it be fair to state that your experience
20	is with electrical design and integration of
21	facilities, rather than with contract terms setting rates

22 or specifying obligations among the parties?

A That would be too limiting. By experience
is much broader than that.

Q All right.

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3282 1 In response to question 12 on page 5, you refer 2 to two papers which you have co-authored. One with 3 Saul Schutz, and the other with Harschal Jones. Did Le either of these papers involve analyses of coordination. 5 interconnection, pooling, wheeling? 6 Not directly, no. Indirectly, the paper on A 2 future power supply, as I recall it now, discussed the 8 need for smaller utilities to coordinate their offerts 3 in obtaining future power supply on the premise that most 10 of them couldn't achieve the economies of scale that 11 were most desizable if they tried to act alone. 12 0 You indicate on page 6 that you prepared 13 testimony for use in the Duke Power antitrust proceeding? 12 Yes, I did. A 15 0 What was the nature of that prepared testimony? 16 My testimony involved the largely the discussion A 17 of hypothetical studies we did of alternative power

18 supply arrangements that might be available to the
19 principally municipalities or certain selected municipalities
20 that were currently being at that time still served by the
21 Duke Power Company.

Testimony discussed those studies, and come general aspects of power pooling and coordinations operations.

Q Did you have occasion to refer to that testimony

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ar7		3283
	1	for this proceeding?
	2	A Yes.
	3	Q Do you have a copy of that tastimony?
	4	A Not with me.
	5	Q Could I get a copy of that, Mr. Lessy?
	6	MR. VOGLER: We don't have it.
	7	MR. REYNOLDS: Could you furnish a copy of
	3	that to us?
	9	MR. VOGLER: The record shows it was for the
	10	department.
	11	BY MR. REVNOLDS:
	12	Q I'm asking the witness to furnish a copy of it.
	13	A I don't have one here. I have one in my office.
	14	Yes. That is public record. My client was the Department
	15	of Justice.
	16	CHAIRMAN RIGLER: On the other hand, Mr.
	:7	Reynolds, you might be able to obtain it more easily by
	.8	application at the Docket Room of the NRC.
	19	MR. REYNOLDS: I don't believe it was ever filed,
	20	which was why I was making the request. He indicated
	21	the testimony was not given.
	22	THE WITNESS: I would like to seek advice of
	23	the Department of Justice as to whether I would be
	24	permitted to make that testimony public, inasmuch as it
	25	wasn't filed. I have a copy and can physically provide it.

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ar8	3284
1	I have to seek advice of counsel as to whether
2	it would be appropriate or not.
3	MR. REYNOLDS: I believe he has testified
4	that he did make reference to it in preparing his
5	testimony here. In light of that, I would like to
6	request a copy of it.
7	CHAIRMAN RIGLER: I think you are entitled to it.
8	MR. REYNOLDS: All right.
9	MR.LESSY: There was an exchange of underlying
10	data between the parties representing wherein all the
11	parties but the Applicants requested copies of underlying
12	data. Some of the matters requested were testimony.
13	There was no request made by Applicants of
14	Mr. Mozer.
15	However, we will endeavor to call his Washington
16	office and have it sent here at the next break.
17	CHAIRMAN RIGLER: I do recall that the Staff
18	was obliged to comply with the terms relating to underlying
19	data.
20	MR. LESSY: I want to make it clear that
21	wasn't requested ahead of his appearance.
22	MR. REYNOLDS: It was not requested because
23	it was only learned now that it was an underlying document.
24	It was used in reference for preparing his testimony.
25	BY MR. REYNOLDS:

ar9	3285
1	Q Mr. Mozer, would you relate to us what your
2	assignment was in connection with the present proceeding?
3	A I was I had a contract or have a contract
4	with the Nuclear Regulatory Commission, original contract,
5	of course, with the AEC, to assist them in contain of the
5	prehearing proceedings, to review documents, and my
7	original assignment did not include the proparation of
8	testimony, although that was included as one of the
9	several things I might be called upon to do.
10	Following the early stages of reviewing
11	documents, I was given an authorization and prepared
12	testimony discussing generally the coordination arrango-
13	ments and utility bulk power supply activities that I
14	found the Applicants and the utilities in the general
15	area served by the Applicants were engaged in.
16	The NRC had a broad outline of the sort of
17	things we were interested in having me discuss as an expert.
18	Subsequent to that, I revised that outline
19	and made other suggestions prior to the presentation of
20	testimony.
21	Q How did the material that you reviewed come
22	into your possession?
23	A From the NRC Staff.
24	Q Did the Staff select the material and send it
23	to you?

arlo	3286		
1	A Not completely. They sent material which		
2	they thought was pertinent. I asked for, as you recall,		
з	other documents wehre I suspected there were documents		
4	or where they didn't send me information, I asked for		
5	them, FPC Forms 1 and 12.		
õ	They had some of that available. We looked at		
7	them. I can't remember what I asked for and what they		
8	supplied voluntarily.		
9	Ultimately it all came to the Staff.		
10	Q Did you undertake any studies with respect		
11	to the electric utilities in the Midwest in connection		
12	with your job?		
13	A By studies, do you mean a formal analysis?		
14	I'm not sure how you define a study.		
15	Q Well, to what extent did you engage in any		
16	sort of study with respect to the Midwest area?		
17	MR.LESSY: Is the Midwest area clear to the		
18	witness?		
19	CHAIRMAN RIGLER: It isn't clear to me.		
20	THE WITNESS: I was going to inquire about that.		
21	BY MR. REYNOLDS:		
22	Q Let's take the state of Ohio.		
23	A I had a limited amount of traveling in the		
24	state of Ohio. I studied documents that were available,		
25	various maps and transmission diagrams. I did study that		

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	1	material	, reports of the companies.	
	2	Q	What about with respect to the state of	
	3	Pennsylv	ania?	
	4	A	Only insofar as there were interconnect	ions
	5	into Penn	sylvania involving the Applicants in this	s proceed-
	6	ing and t	the interrelationship of the Capco people,	the
	7	Western P	ennsylvania utilities.	
	8	Q	Which of the Applicants serving Pennsylu	vaniu?
	9	A	Pennsylvania Electric and Duquesne.	
	10	Q	Pennsylvania Electric Company?	
	11	A	Pennsylvania Pennsylvania Power.	
	12	Q	In your visit to Ohio, I believe you hav	2
	13	indicated	in your testimony that you visited the si	te
	14	of the mu	nicipal electric light plant in Cleveland.	And
	15	CEI, and	also the Perry site; is that correct?	
	16	A	That's correct.	
	17	Q	Did you visit these locations on more	than
	18	one occas:	ion or did you make a single visit and do a	ell three
	19	in the sin	ngle visit?	
	20	A	I made a single visit several days in the	o Chio
	21	area.		
	22	Q	When did that occur?	
	23	A	In July of 1974, early July. Do you want	: the
	24	dates?		
	25	Q	What was the relevance of those visits to	o your
	5			

ar12	3208
1	testimony?
2	MR. LESSY: I object to the lack of
з	clarity of that question. I think it could be cleared
4	up.
5	CHAIRMAN RIGLER: I will parmit it. You may
6	answer.
7	THE WITNESS: I was particularly interested
8	in the early parts of the preparation of my
9	studies and the relationships between the Cleveland
10	Electric Illuminating Company and the municipal systems
11	which served in its area.
12	I felt that while a great deal of information
13	can be obtained from documents and maps and things, it
14	would be helpful to have a first-hand look at these physical
15	relationships and physical entities involved.
16	So I requested the trip and asked to see
17	certain basic facilities.
18	Q Did you visit a Davis-Besse power station?
19	A NO.
20	Q How did you find the physical condition of the
21	Municipal Electric Light Plant in the city of Cleveland?
22	A You are talking about the generating plant?
23	Q Generating plant.
24	A There were several units. I would have to refer
25	to my notes to know which one. Several units were out of

arl3	3289
1	service at that time for maintenance. The rest of them
2	were operating.
З	I am not a mechanical engineer and I didn't
4	make an attempt to do a real detailed evaluation of the
5	plant.
6	Q Do you know if the city's largest unit was
7	out of operation at the time?
8	A I don't recall.
9	Q Did you make any inquiry as to the general
10	outage experience that the city had had with respact to
11	that unit or any of its units?
12	A I recall discussing it and I have seen
13	references to it in some of the material that I have read.
14	Q What did you find out?
15	A Generally they have had several outages on
16	many of their small as well as their largest unit.
17	Q Wher you say several
18	A More than one.
19	Q would it be more than you would normally
20	expect?
21	A I don't have in mind any outage percontage figures
22	which would be the way that I would want to answer that
23	more precisely.
24	Q Did you make any inquiry as to whether
25	their outage experience was typical?

arl4	3290
1	CHAIRMAN RIGLER: Typical of what?
2	MR. LESSY: Typical of what?
3	BY MR. REYNOLDS:
Δ	Q Typical for a system that size.
5	A I came away with the general impression that
6	they probably had more than the usual number of outages,
7	but I can't define that in any more precise terms.
8	Q Would you not think that the outage record
9	and the physical condition of the Municipal Light
10	Plant would be relevant to your testimony?
11	A Yes, I think it is relevant in general.
12	Q In what way is that reflected in your testimony?
13	A It typifies the need of a small utility to have
14	support from additional from surrounding from its
15	neighbors.
16	It typifies the difficulty that any utility
17	would have operating as an isolated entity.
13	Q Did you visit the municipal system in the city
19	of Painesville?
20	A No.
21	Q Why didn't you visit that system?
22	A It is a much smaller system. We had a fair
23	description of it given to me. We passed through the
24	city of Painesville en route to the Perry Plant. I didn't
25	feel at the time it would add a great deal to the information

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	1	I needed to prepare testimony if I was to ultimately
	2	prepare testimony.
	3	Q Did you make any inquiry as to the physical
	4	condition and the outage record of the Painesville
	5	system?
	6	A I have a recollection of discussing it. In
	7	general terms only. Again those I have no specific
	8	outage records for Painesville.
	0	Q Is it your understanding that that is an isolated
	10	system?
	\$1	A Yes.
	12.	Q Would you say that I believe you indicated
	13	that the city system is typical of an isolated system?
	14	MR. LESSY: Which city?
	15	BY MR. REYNOLDS:
	16	Q The city of Claveland?
	17	A I don't think I said the city was typical of
	18	an isolated system. I said the problems they were having
	19	were of a nature that indicated that
	20	isolated operation leaves something to be desired.
12	21	
	22	
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\$13 mml 1	Q Do you know whather the City of Painesville was
2	having similar problems?
3	A I don't recall hearing that they were having
4	mechanical problems of a similar nature, or to a similar
5	extent that Cleveland was having.
6	Q Did you visit the City of Newton FAlls?
7	A NO.
3	Q Did you make any inquiry as to that system?
S	A No.
10	Q Do you know if that is an isolated system?
11	A I don't know that system.
12	Q Did you make any inquiry as to any other
13	municipal systems in the State of Ohio in connection with
14	A Not specific inquiries, no.
15	Q Did you not think that might be relevant to your
16	testimony?
17	A I had some general impressions of those systems
18	simply from the material that appears in the Federal Power
19	Commission Forms 1 and 12 as to the fact that a large number
20	of them are basically buying their power supply from the
21	various larger utilities.
22	Q Given the City of Cleveland's past isolation,
23	would it be your view that the Municipal Light Plant System
24	is a well-planned generating system?
25	A I really haven't studied their planning. It

mm2 1 is a little hard to give an opinion like that without some additional study of the system itself involved in th eir 2 3 planning. Do you know how large their largest unit is? 12 0 As I recall, it is around 80,000 kilowatts. 3 Ä Do you know how that relates to the peak load 6 0 of the Municipal Light System? 7 The peak load is something over 100,000 kilowatts. A 8 It is 110 or 112,000 kilowatts. 9 Would you, as an engineer, ever advise an isolated 10 0 system to install a unit of that size with the load that you 11 have indicated? 12 MR. LESSY: Excuse ma. 13 Thatquestion assumes that that peak load oxisted 14 at the time the decision was made to install the unit. 15 That would have to be established. 16 MR. REYNOLDS: I am asking for his opinion. 17 MR. LESSY: You can ask for his opinion, but you 18 have to give -- assuming that peak load at the time and 19 the decision was made at the time. 20 The guestion requires clarification in order to get 21 an opinion we can listen to. 22 BY MR. REYNOLDS: 23 What I am asking you is, assuming the peak load Q 24 was as you stated, and the size of the unit was as you stated, 25

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would you advise an isolated municipal system in their 2 planning to install a unit of that size?

3	A It is a question that can't be answared without
4	a study because putting a unit of that size on a
5	sysetm with that peak load, would require carrying considerable
6	reserve capacity. You would have to make a study as to
7	whether or not the benefits of the larger sized units
3	as compared to the alternatives, would offset the cost of the
9	reserve capacity and without making the study, I am a little
10	hard put to precisely answer that.
11	MR. REYNOLDS: Is this a good place to take a
12	break?
13	CHAIRMAN RIGLER: I would like to run another
14	15 mirutes, or so.
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BY MR. REYNOLDS:

Q Have you ever seen a study anywhere which
concluded that the installation of a unit that was 30
percent of the peak load would be a prudent planning
policy for an isolated system?

A With an isolated system, I don't believe I have
ever seen a study with that recommendation encept perhaps
for the one -- I never saw the study that prompted
Cleveland to put in a unit that size, but they probably
had one.

When you first received your assignment in 0 11 this proceeding, did it include an assignment with 12 respect to anything relating to Duquesne Light Company? 13 Not except that they were one of the several 14 A Applicants involved in the proceeding. I was not 15 originally going to examine and detail the Duquesne system. 16 What about the Ohio Edison system? 17 0 I was not going into the same detail there A 18 as I was the CEI system. 19 Was it included in any more detail than the 0 20 Duquesne Light System? 21 A Not originally. 22 What about Pennsylvania Power Company? 0 23 A Same answer. 2d

25 Q And Toledo-Edison Company?

1 Same answer. A 2 0 Now at what point did you get an assignment (7) which would prompt you to look elsewhere than in the CET ê, area? 5 I want to clarify one point. I did look A G beyond CEI, of course, in terms of transmission. It is 7 all interconnected. That was my very considerable interest 8 in the beginning. 9 But between the first and second drafts of my 10 testimony I was asked to give more attention and more detail to the study of individual contractual relation-11 ships among the several entities and even the entities 12 which are not even Applicants. 13 14 I examined these contracts and have a general idea of the relationships of the bulk power supply services 15 that all of the applicants were engaging in among than-16 selves and between the non-Applicant parties. 17 I had not included this information in 18 detail in my testimony as you now see it. So it was 19 between the first and second drafts of my testimony 20 that the NRC Staff asked me to prepare a considerably 21 more detailed analysis of the individual contractual 22 relationships. 23 0 What was the time frame on that? 24 Just a second. A 25

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1	About May of 1975.
2	Q You had by May of '75, you had prepared a
3	first draft?
4	A That's correct.
5	Q When was that done?
6	A That was done in early '75, about February or
7	so.
8	Q And then following the assignment in May of
9	'75, you prepared the final draft that we have here?
10	A I prepared a second draft which except for a
11	lot of detail is the essence of this testimony. At that
12	time I incorporated a discussion of contracts.
13	Q Was that new assignment given to you in
14	writing?
15	A I don't recall a specific directive. There
15	was some written material in the form of suggested
17	questions which would form the framework of the kind of
18	information that I wanted to study, to prepare the testimony
19	on.
20	Q With whom did you discuss this new assignment?
21	A Various members of the NRC Staff, the engineering
22	people and counsel. Mr. Lessy, Mr. Tolston, Mr. Guy.
23	
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end 14

O Did they explain to you any they had given you 15 mml 1 11 2.1 THE LEW SELECTIONSE? A TON, I sugge to general any manufal that they ÷. wanted widthional de six on the contract, orthopy froments! ( on additional malysis and dotail in for copyrights and I was qualified to prepare such Laurinony. 6 Q .... And ware the continues once you are referring to the ones listed on your Whitin Eld-07 8 1 That is what we finally resolved it to. Α. 3 Mode of these contracts I all croits of lorg 0 before the decision to include this double data included. I 11 think some of them I got inter when the Staff apparently 12 found some additional material, probably chronol that 13 discovery process. Q You haw undicated to us in connection with your 15 assignment, that you featlized vourself which the owners? 16 power supply situation in Onic. 17 Is that correct? 13 I think I made that general statement, you. 2 19 Would you tell me please, in what area of Ohio 0 the Duqueane Light Company serves? 21 A Duquesne. 22 I refer you to your answer on page 7 to quastion 0 23 16, where you suggest that you have fumiliarized pottenal? 24 with the power supply situation in Ohio, and then you go on 25

a.192	1	to sty there Duquesna Light served chair mustomers.		
	3	A I looked monthly at this - I did also look with		
	3	nuch lass desirt at wheters funnsyltanis, where Suguesus		
	41	and Fenneylyand: Forar are serving		
	5	Q You con't mean to suggest by this annuar, do you,		
	6	6 Laat Duquesna Might or Pennsylvania Posser Company ire		
	7	serving mustomars in Obio?		
	8	A I am not suggesting take. To my knowledge, they		
	9	don't.		
	-0	Q Now familiarizing yourself with the joneral		
	11	power supply situation in Ohio, did you familiarize yourself		
	2	with the power supply situation in Coloubus?		
	13	A Not in detail.		
	14	Q Why is that?		
	15	A It didn't seem to be a relevant part of the kind		
	16	of material I wanted to present in this testimony.		
	17	Q Well, could you explain that to me, please?		
	13 1	A BASICALLY I was looking at bulk power supply		
	19	arrangements among the applicants, and relationships af		
	20	those bulk power supply arrangements to various smiller		
	21	utilities in Ohio.		
	22	I didn't feal it was necessary to examine each		
	23	situation to draw the general conclusions that I drew in the		
	25	testimony. I was not interested in discribution systems in		
	2.5	Columbus or anyplace else.		

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mm3	1 Q Did you familiarize yourself with the Buckeye
	2 Power Plant and that transmission arxingement?
	3 A A little bit, yes.
	a Q Did you familiarize yoursolf with the power
	5 supply situation in the State of Pennsylvania?
	A I couldn't make a broad statement to that effect,
	no. Certainly not the degree I am aware of it in Ohio.
	8 Q To what degree would it be accurate to say you
	9 did familiarize yourself with the power supply situation in
1	0 Pennsylvania?
1	A I was interested in the arrangements for bulk power
1	2 supply that Pennsylvania Power and Duquesne had that were
1	interrelated to the power plants under concern in this
1	a matter.
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arl	1	Q On page 6, in response to question 14, you
	2	make reference to technical literature of power
	3	systems planned and operating concerns.
	4	Could you tall us what technical literature
	5	you have reviewed to keep familiar with the power supply
	6	system planning and operating concerns?
	7	A Well, the principal source of data is a large
	3	body of data which is incorporated in the publications
	9	of the Power Engineering Society of the Institute of Electrical
	10	and Electronics Engineers.
	11	Data is available in the trade publications
	:2	that I read of a less technical nature, Electrical World
	13	is one.
	14	Q Have you read "The CAPCO Group Probability
	15	Technique for Timing Capacity Additions and Allocation of
	16	Capacity Responsibility," a paper prepared by Messre.
	17	Firestone, Monteith and Masters?
	18	A Yes, I have it.
	19	Q Have you read "Evaluation and Comparison of
	20	Some Methods for Calculating Generating System
	21	Reliability," which was prepared by Mr. Ayoub
	22	of Guy & Patton?
	23	A I don't remember the paper specifically. I
	24	had a recent opportunity not in connection with this
	25	matter to do some additional study in this field. I

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1	examined several papers fairly recent on the subject
2	of power system reliability.
3	Q When did you read the Firestone, Monteith and
4	Masters paper?
5	A I don't recall if I read it when it was first
6	published or not. My most specific recollection is
7	having received a copy of it in my visit to the
8	Cleveland Electric Illuminating Company in 1974 and reading
9	it on the airplane as I recall on the way back home from
10	that trip.
11	Q What is your understanding of the mothodoloy
12	discussed in that paper?
13	A I didn't study the paper to the degree if I
14	might if I was trying to operate in that system; but as I
15	recall the methodology is a probability method of first
16	determining the overall reserve requirement of the CAPCO
17	coordinated system and then a further methodology,
13	mathematical methodology of allocating the total
19	capacity among the various sytems in the CAPCO group.
20	Q Do you know the extent to which that methodology
21	is used by other pool arrangements?
22	A The only other pool that I'm fairly intimately
23	familiar with is the Northwest Power Pool, a rather large
24	pool, and it is not used there.
25	Q How many pooling agreements in the United States

ar3	3302
1	would you say you have read and studied?
2	A I have read probably three or four, perhaps.
3	I think I have made what might be zeferred to as a study
4	principally of two.
5	Q Which are those two?
õ	A These would be the Northwest Coordination
7	Agreement and the CAPCO contracts, which I have testified
8	to.
9	Q Are you familiar with the PJM pool?
10	A Only very generally, I have not read the PJM
11	contractual relationships.
1	Q What about the Cincinnati, Columbus, Dayton
13	pool?
14	A No.
15	Q Would not that be a relevant pool to
16	consider in familiarizing yourself with the bulk power
17	supply situation in the state of Ohio?
18	A If I was interested in the entire state in
19	detail, yes, I would certainly have studied that pool.
20	I was operating in an area which is that is operating in
21	an area not important to the geographic situation I was
22	studying here.
23	Q The bulk power supply situation outside the
24	state that you concentrated on was not relevant to your
25	testimony?

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ar4 1	
	A It wasn't as important. Some of it was
2	relevant because I do discuss some interrelationships
3	between the five Applicants here and other utilities
4	within the state of Ohio that are not Applicants.
3	MR. REYNOLDS: Is this a good place to stop?
6	CHAIRMAN RIGLER: Have you finished this line?
7	MR. REYNOLDS: Perhaps I can look at my
8	questions over lunch.
9	CHAIRMAN RIGLER: This would be a good break
10	point. Can we reconvene at 2:00 today?
11	(Whereupon, at 1:05 p.m., the hearing
12	was recessed, to reconvene at 2:00 p.m.,
13	this same day.)
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\$17	1	AFTERNOON SESSION
arl	2	(2:00 p.m.)
	3	CHAIRMAN RIGLER: Mr. Roynolds.
	4	MR. CHARNO: Mr. Chairman, before we recommence
	5	cross-examination and before I'm challenged, I would like
	6	to introduce the gentleman sitting at counsel table with
	7	me. He is our expert engineering witness, Roland Kampmeter.
	8	Whereupon,
	9	HAROLD M. MOZER
	10	resumed the stand as a witness on behalf of the Staff
	11	and, having been previously duly sworn, was examined
	12	and testified further as follows:
	13	CROSS-EXAMINATION (Continued)
	14	BY MR. REYNOLDS:
6330	15	Q Mr. Mozer, I believe you mentioned that
	16	you had spent several days in Ohio in connection with
•	17	your preparation?
	18	A That's correct.
	19	Q Do you recall exactly how many days you spent?
2	20	A I think it was three. I have my notes with me.
2	21	if you want a more precise answer.
2	22	Q All right.
2	23	A July 9, 10, 11 of 1974.
2	24	Q And how much of that time was spent at CEI?
2	25	A One day, July 9.

ar2		3305
	1	Q And what was your purpose for spending that
	2	day at CEI?
	3	A I wanted to get some general impressions of
	4	the bulk power supply arrangement of the company and
	5	principally how they appeared to be physically. I felt
	6	like I needed at least to have an idea of where the city
	7	of Cleveland was and where the Perry Plant was and
	8	where some of the transmission facilities were. Not
	9	necessarily all of them, because I feel I have enough
	10	experience in dealing with this.
	11	The information I asked for and saw specifically,
	12	I can infer specifically the maps and drawings,
	13	Q Which maps and drawings?
	14	A There was an exhibit I was handed earlier this
	15	morning that I had a copy of before I went to Cleveland
	16	of the CAPCO system which gave a pretty general
	17	description of the bulk power and transmission systems
	18	that were involved with CEI and the other Applicants to
	19	this proceeding.
	20	Since then I have had access and observed other
	21	transmission maps, some of which are included in my
	22	testimony.
	23	Q Were you distributed the other documents before
	24	you went to CEI?
	25	A Before I went to CEI?

ar3	3306
1	Q That's right.
2	A I don't have dates on all of the documents I
3	received. I believe that I had some information relating
4	to the Parry Plant prior to going to CEI.
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18 mml 1	Q Did you receive any documentation other than the
2	map that related to any of the Applicants, other than CDI?
3	A The answer to the Attorney General's questions
4	in the Perry plant, as I recall, was a document that includes
5	responses by five Applicants.
3	Q Did you have that in your possession bafore you
7	made your visit?
3	A I am pretty sure that was in my office prior to
9	my visit to CEI.
10	Q Did how much time did you spend at the
1:	Municipal Light Planz?
12	A The second and third day. Two days.
13	Q Wr you visit the Parry site?
14	A On the first day, the day I was with the CBI people.
15	Q What was it you were looking for at the Municipal
16	Light Plant, in connection with your preparation?
17	A I wanted to me specifically the power plant.
13	I was interested in its location with respect
19	to the Municipal system, as well as the CEI system.
20	I looked at some Beacon Power Plant they had on
21	their distribution system. I was interested in what, at
22	that time, was a 69 kv transmission line between CBI and
23	the Municipal System, to give me some idea what the proposed
24	permanent interconnection or future synchronous interconnection
25	was going to be or where it was going to be.

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Was that information relevant to your assignment 1 0 imm 2 2 at that time? I considered it so. 3 A And -- did you consider your assignment at that time A 0 to require visits at any other places in the State of Ohio? 15 A At that time I didn't think it was necessary to S visit any other places in the State of Ohio. I thought the 7 impressions I got in the general vicinity of Claveland would 3 to adequate for the testimony. 9 Was that because the assignment you had foonsed 10 only c' the City of Claveland area? 11 No, it didn't really focus on the City of A 12 Cleveland area. 13 The City of Cleveland and Painosville were the 1.1 two of the largest utilities, non-Applicant utilities 15 involved, and I felt that I could get pretty general improduion 16 there as to he relationships of the Applicants to the other 17 utilities in Ohio that would be suitable. 18 I wasn't as interested in the details of the others. 15 Was it your opinion that the municipalities of 0 20 Cleveland and Painesville would typisy the situation with 21 respect to the other municipalities in Ohio? 22 Not necessarily. A 23 In fact, neither one of them were what I would 20 call typical. They are both different, between the two of them, 25

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in many respects. 3 Why is it that you determined that you would 0 2 not need to explore the other municipal areas? 3 Principally because these were the two largest A 2 ones with generation. 5 I believe thre are other utilities with generation, 3 but not very many. Most of them are nongenerating utilities. 7 I think the information I could get on the maps 8 and data there was adequate. 9 Is it your testimony that has been submitted 0 10 in this proceeding directed primarily at municipalities 11 that had their own generation? 12 A NO. 13 Did you examine any of the electric cooperativos in 0 14 the State of Ohio? 15 Not in detail. Only insofar as they in general A 16 were part d the Buckeye organization. I did have some interest 17 in Buckeye relationships. 13 Would you explain for us what your study of the 0 19 City of Painesville entailed? 20 Here again the use of the word study is not a very A 21 precise one. 22 0 Investigation. 23 I observed passing by on the highway, the general A 24 physical relationship of Painesville and CEI in an area, 25

which is rather well encircled with CEI transmission fac	ilitico.
I examined the contract between CEI and Paine	ovilio.
I have seen some landdata in tarms of the size	a
of the Painesville area. Here again I was not really ve	=¥
interested in their detailed distribution system, or how	
they served individual customers. I was more concerned	with
the bulk supply and the relationships therein.	
Q You thought you could determine that by what	
you saw passing by on the highway?	
A That was just one of the several things I used	2.
Q What else did you use?	
A The data I found as to the size of their loads	1, I
their contractual relationships.	
Q When you say the data you found, is that data	
that was selected and furnished to you by the Staff, she	
Staff?	
A Data that was furnished to me, yes.	
Q To what extent did you use data in addition to	>
that that was furnished to you by the Staff?	
A I recall looking for some load information in	
Federal Power Commission data which we normally keep in c	mr
office library. I didn't find any and I was furnished so	ma
correspondence that gave some existing load and load fore	-
casts for the City of Painesville.	
Q You indicated that when you prepared a first d	ixaft

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mm5 y	of your testimony, that it was different from what we have
2	today.
3	What did the first droft what area did your
4	testimony cover in your first draft?
5	A The first draft covered sverything that is in
6	the present testimony, except for detailed explanations of
7	individual contracts.
8	Q Did you make general reference to those individual
9	contracts?
10	A I made general reference to power supply relation-
19	ships among the Applicants and other utilities.
12	Q Had you reviewed the contracts that are referenced
13	in your present testimony at the time you prepared your first
14	draft?
15	A I reviewed I would say probably most of the con-
16	tracts that are now in my testimony, I moviewed at the time
17	I prepared the first draft, plus a lot of others that I make
18	no reference to here.
19	Some of the contracts that are in my testimony
20	were furnished tome by the NRC Staff, after I had prepared
21	my first draft.
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	1 States
919 arl	1 Q Did you review any agreements between the
	2 Applicants other than CEI and the suclies willicies
	3 located in their areas?
	A I do not review the wholesale potter contracts
	5 between the Applicants. Some of the mutarial which I
	6 believe Mr. Guy Ciscussed in his tastimony, 1 did not review
	7 those contracts.
	2 Q Did you not think that these contracts would be
	9 relevant to your testimony?
	0 A No, not in detail.
1	1 Q Why is that?
1	2 A Because in terms of my testimony, I was
1	3 looking for general relationships and the fact that various
1	4 of the Applicants sold power at wholesals to a number of
1	s municipalities was all of the information I really needed
1	6 to establish that general relationship.
1	7 Q What about the terms and conditions of the
1	wholesale power contract? Wouldn't that be relevant in
	g determining the relationships?
2	0 A It wasn't my purpose to have judgmants on the
2	terms and conditions of the initial contracts. That
2	2 wasn't that kind of information was not requested of
2	3 me. I could have done that if it had been desired.
2	Q Did the second draft that you made after the
2	s change of assignment strike that.

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1	At the time that your assignment was changed,
2	was any request made for you to examine the burns and
3	conditions of the wholesale contracts?
4	A When you say ausignment changed, I would
5	prefer to term it brondened. It wasn't really charged,
G	but, no, there was no discussion of me examining the
7	wholesale contracts.
3	Q Did you speak to any rapresentatives of
9	municipalities in the Ohio-Edison area?
10	A In the Ohic-Edison area?
11	Q Right.
12	A No.
13	Q What about in the Toledo-Edison area?
14	A No.
15	Q In the Pennsylvania Power?
16	A No.
17	Q What about Duquesne Light?
18	A No.
19	Q Would it be accurate to state that strike
20	that.
21	What documents other than those listed on your
22	Exhibit 4 did you study specifically in preparation?
22	A I can't recall. I'm sure all of the documents,
24	and I don't have them all listed, but I examined some of
25	the annual reports of the Applicants, Federal Power
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ar3	3314
1	Commission Forms 1 and 12 for the Applicants and the
2	Cleveland Municipal System.
3	There are contracts along the various
4	Applicants I do not have listed here that I examined
5	in varying detail.
6	9 Would it be accurate to state that your
7	testimony in this proceeding is based on a review of
8	contracts and forms that the Applicants are parties to,
9	and Forms 1 and 12 that the Applicants filed in 1973?
10	A Those documents wore included in my review, yes.
11	Q What else in your review is relevant to your
12	testimony?
13	A I think I have an emblit in my testimony of
14	ECAR document dated 1975, a document that updated some of
15	the information.
16	I also looked at Forms 1 and 12 of a more
17	recent date than '73, but we didn't have complete information
18	for all of the parties after that, so I decided to use 1973
19	as a typical date.
20	Q Anything else?
21	A I studied the responses to the Department of
22	Justice questions and license applications. I have encarpts
23	from the Perry Environmental Report that had factual
24	data as to the nature of the product. I can't remember
25	details of that.

And and a second second

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1	There are a great deal of documents in here,
2	and I don't play memory games with them.
3	Q Did you have discussions with the other expert
4	witnesses in this proceeding?
5	A The only other expert witness that I have
6	met with is Dr. Hughes, Bill Hughes, and Dr. Guy, of
7	course. He presented testimony, too.
8	Q When did you meet with Mr. Hughes?
9	A I came out with him twide. Once prior to
10	preparing my first draft of testimony, but after I had
11	prepared an outline of the testimony, probably some time
12	in the summer or . early fall of 1974. Second time was
13	about September of 1975 as my testimony was nearing its
14	final form.
15	Q What was the purpose of the first meeting?
16	A The meeting with Dr. Hughes and the WRC Seaff
17	was to kind of decide where the dividing line between
18	engineering and economics was, I believe. It is not always
19	a clear dividing line. Engineers get into economic
20	aspects in their studies.
21	I inferred from the discussion that the Staff
22	didn't want to be redundant, that I should testify to the
23	areas which were principally engineering and Dr. Hughes
24	should testify to whatever areas they wanted him to cover,
25	or were intorested in having him cover.
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ar5	Q At the time of that meeting, the assignment
2	yru had was the narrower assignment?
8	A It was the assignment that did not include
4	the detailed analysis of individual contracts, if that
Б	is what you mean by narrower.
ó	Q The individual contracts except those involving
7	CEI?
8	A The first assignment did not have a detailed
9	discussion of any single individual contracts.
10	Q When you refer in your testimony to small stillibles
11	in the area served by Applicants, did you intend to include
12	cooperative systems?
13	A In the general sense, yes.
14	Q On page 8 of your testimony, lines 6 through 11,
15	you state that the coordination arrangements in which
18	the Applicants are participants, have led to the development
17	of what appears to you to be a reliable and efficient bulk
18	power supply system.
19	What is the basis for that statement?
20	A I have had occasions before and after the dotailed
21	examination here to be aware at least of the major power
2.2.	pools in the country.
23	As I said earlier, I haven't studied all of
2.4	their detailed contracts, but I am aware that CAPCO and the
25	ECAR operation generally is considered to be one of the

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1	major operating pools in the country. I have to reason
2	to I have never seen any statements to the contrary.
з	The wansmission system seems to be utilizing
4	transmission voltages that would appear to be
5	appropriate for the distances and the loads to be trans-
6	mitted.
7	I have to draw that conclusion principally on the
3	basis of judgment from my experience. I made no detailed
8	studies of transmission syntems.
10	Q Have you made cost analyses of the systems
11	of the non-Applicants to insure their reliablity in the bulk
12	power supply area?
13	· A NO.
14	Q Do you have any idea of the investment by the
15	Applicant in the interconnections which have contributed
13	to the reliability and efficiency of the systems?
17	A I have not studied the dollars and cents. That
13	is all a matter of record in the accounting system.
19	Q You go on to state on page 8, lines 12 to
20	14, that the power supply options like those available
21	to Applicants are not generally available to other electric
22	entities. And you refer to non-Applicant CCCF in the
23	areas served by the Applicants. What do you mean by the
24	phrase "not generally availabla"?
25	A The Applicants are getting large amounts of

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1	their power supply now from vory large generating
2	units, either on line or planned, which are principally
3 1	coal-fired or muclear-fired.
14	Generating units of this size, as I have
5	indicated in the testimony, tend to have an aconomy of
6	scale.
7	In other words, the cost per kilowate of capacity
8	tends to be considerably lower in a large-sized unit than
9	it does in a small-sized unit.
10	The smaller antities secaingly small
19:	entities unless they have opportunities to join together,
12	can't construct units of that size. A utility with a
13	25,000 kilowatt or 100,000 kilowatt load can't build an
14	800,000 kilowatt powar plant for its out une the

ar7

14 own use. It would have to be participating with others on some basis to do 15 so. I have seen evidence that it would be very difficult 18 and almost impossible for the small utility to do that. 17

Do you know whether or not the Buckeys arrange-0 13 ment provides power supply participation arrangements in 19 Buckeye for those smaller Applicante? 20

Yes, I would say Buckeye is an opportunity for A 21 any small utility to participate jointly in a larger 22 power plant than they would be able to without this 23 opportunity. They have special arrangements 24 with other utilities besides themselves to enable that to be 23

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1	possible.
3	9 Would the participants in Buckeye in areas
3	served by Applicants be considered non-Applicant CCCP?
4	A Any participants in Suckeye would be non-
5	Applicant. In the service areas of the Applicant. IS
6	they are in the service area of the Applicant, they would
7	come under that general term,
8	Q Then am I to understand you, that your
9	generally available statement is not entirely accurate
10	with respect to the Buckeye participants?
11	A I think the statement generally available is
12	accurate. However, I can't say at the moment what
13	percentage of the Applicant CCCT entities are actually
14	in Buckeye.
15	It is my general impression that it represents
16	either very few in number, or a very small part in terms
17	of total load.
18	Again the statement is general and it is not
15	intended to be all-inclusive.
20	Q You sya a small part in terms of total load.
21	Are you comparing it with the total municipal load or the
22	total load of the Applicants?
23	A The total of the non-Applicant CCCT entities.
24	I don't believe the proportion of that group that belongs
25	to Buckeye would represent a particularly large proportion

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	:	of that load, but I don't have the figures readily as hand.
	2	G In formulating your opinion in regard to the
•	3	availability of power supply options, did you tube into
	4	account Applicant policy committeents to allows electric
	3	entities in the CCCT access to sucheas yover from the
	6	Davis-Besse and Perry Nuclear Plants together with the
	7	transmission service necessary to produce that power?
	8	MR. LESSY: Be more specific.
	9	BY MR. REYNOLDS:
	10	Q Were you provided with a copy of Applicanta'
	11	proposed license conditions in connection with the
	12	preparation of your testimony?
	13	A I don't remember an Applicant's proposed license
	14	condition.
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3321 Q Were you advised that applicants had proposed #20 mml 3 License conditions which would offer to smaller alectnic 2 entities in their area, access to the mulear facilities and 12 transmission to deliver that power? MR. IESSY: I object to the characterization of it as 3 0 license conditions. What the license conditions are, and what they 7 in fact do, is an issue in this proceeding. Who knows 3 about them also, I might add. 5 MR. REYNCLDS: The gazation was whether he was 10 advised with respect to those license conditions. 11 CHAIRMAN RICLER: I suppose he can answer with 12 respect to any advice he received in terms of that 12 characterization. 14 You may answer. 15 THE WITNESS: I don't recall. :6 The word advice is something I would have to 17 answer negative to. 18 I have some recollections of the discussion 19 that the Applicants had discussed somewhere the possiblity 20 of access to nuclear power to the non-Applicant CCCT entities. 21 But I have seen to my recollection, no specific conditions 22 as to how that power might be delivered, or what the tarms 23 and conditions might be. 20 25

BY MR. REIMOLDS: R.C.usti 2 0 If Applicants had made an offar of occass to the auclear plants, would that not be relevant be your asport testimory? A 15 Sure. Tes. S MR. REYHOLDS: I would like to say's as Applicants' 13 Exhibit 44, what is labelled Applicants' Proposed Liganse 1 Conditions for Davis-Besse Muclear Unit 1, and Parry Muclear 3 Units 1 and 2, and ask if you would ravidy those for may 9 Mr. Mozer, please. MR. LESSY: Could the reporter rand back the 11 guescion. 12 (The reporter read the record as requested.) 13 MR. LESSY: I would object to the label of this 1.2 document. The label of this document is Applicants' Proposed 15 License Conditions. 18 There is a hypothetical question as to thether 17 or not these conditions, if they were implemented, sould 18 impact on the witness's testimony is one thing. 10 To assume for purposes of the question that the 20 license conditions have been proposed, is something aloe. 21 I think that is what we are getting to hore. 22 CHAIRMAN RIGLER: I don't see how we could make 23 that assumption. The document is whatever its label is. 2% If you are asking us not to read the document 25

mm 3	for the truth of the proposition that these are proposed
	license conditions, I would agree with you.
	Ma. AMSSY: Wank you.
	MR. REVENCEDS: Can we have a few minutes of you
	can read through that?
<b>P</b>	CHAINMAN RIGLER: We will give you about five
	minutes, in view of the possible imporatance of this
	document.
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BY MR. REYNOLDS :

11 2 0 Mr. Mozer, have you had opportunity now to 3 read the document identified as Applicant's Exhibit 146? 4 Yes, I have. A 5 Would you turn to page 3 and tall me what Q 3 your understanding is of paragraph 1 on that page? 7 A Paragraph 1 is an offer to entities in -- in 3 the Applicant area to participate by an concrahio share or 3 by a unit power purchase in, as I road it, aither 10 the Davis-Besse Unit 1 or the Perry Units 1 and 2, or perhaps both, subject to cortain conditions. 1.4 12 Q Are there any unreasonable conditions in 13 your view? And I am focusing now on paragraph 1. 13 On paragraph 1 -- well, there are some blank A 15 dates in here which -- in 1975, which are obviously 16 impossible to fulfill. 17 Other than that, I see no problem with 13 paragraph 1. 19 Q What is your understanding with respect to 20 paragraph 2-A? 21 A Paragraph 2-A is a limited agreement to 22 provide an interconnection necessary to deliver the 23 power which is provided for in paragraph 1. 20. Is that all ---Q 25

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1	A It also provides cartain back-up facilities.
2 /	specifically replacement power and energy to cover
3	periods of maintenance, amorgencies or reducling of the
4	specific plants of the nuclear powar which it contracted
5	for, or purchased under paragraph 1.
G	Q What do you understand that by mean specifically?
7	A It means that in terms of base load power supply,
3	the entities undertaking this exrengement would have
9	assurance that they had this power supply available to
10	them virtually 100 parcent of the time, of ther es
11	power directly from the nuclear units or by means of the
12	emergency or back-up provisions.
13	Q And would that include, as you understand it.
j alj	the wheeling in of power for replacement power what?
15	it was requested?
16	A Paragraph 2-A, subparagraph 3 provides an
17	option that the emergency and back-up power could be
18	purchased from a third party and wheeled if the entity
19	chose to purchase the back-up power from a courds other
20	than the owner of the Davis-Bease or Perry Plants.
2.1	Q In other words, they could shop around for the
22	power, is that right?
23	A For this particular block of power, yes.
24	Q What is your understanding of paragraph 2-3
25	that appears on page 5?

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1	A Paragraph 2-8 is a fairly general
2	paragraph discussing that interconnections scald be made
9	at various voltages, that this agreement to some degree
4	at least does not prohibit interconnections between the
5	parties to this agreement and other parties except that
6	it does have a proviso that any other such interconnections
7	need to be considered jointly by the parties to this
3	agreement to protect the safety of the company or the owner
3	of the nuclear plant as this would be, to protect their
10	system.
11	Q I wouldn't consider that to be an unreaconable
12	condition, would you?
3)	A Conditions for joint planning and protection
14	are not unreasonable, no.
15	Q Let's move to paragraph 3.
16	Can you tell no what your understanding is of
17	that paragraph?
13	A Well, it takes in a general sense of the
19	company and the participating entities will provide
20	reserve capacity, necessary reservos, that these will be
21	established jointly, that is by the parties to this
22	agreement, and will meet certain rather general conditions
23	except that it does have a proviso of what the minimum
24	reserve shall be in no event shall the minimum resarve
25	be less than the amount of the block of power which is

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purchased from those power plants.

1	purchased from those power plants.
2	Q Part of paragraph 2 that says if agreement
3	can be reached as to the minimum reserve requirement, it
4	should be determined on the basis of the smallest reserve
5	requirement which company has agreed to under other similar
9	reserve arrangement then in effect.
7	Is that, in your view, a reasonable provision?
3	A I don't think it is a completely understandable
э	provision. I don't know whether you are dalking about
10	reserve I don't know what smallest reserve requirements
11	mean, and on what basis they are to be detained.
12	Is it the smallest in terms of some percentage,
13	or is it smallest in terms of some absolute magnitude of
14	kilowatts?
15	I can't have a value judgment on the reaconablements
16	of that particular provision because I don't know enactly
17	what it means.
18	Q Would it be your view if it were one or the other
19	that it would be unreasonable?
20	A It might be.
21	Q Which one would you consider might be unreason-
22	able?
23	A Here again it talks about very generally determining
24	reserve requirements. I can't read that portion without
25	reading the final provise that says but in no event

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1	shall the participating entities' minimum reserve be
2	less than its largest single block of molenr generating
3	capacity.
A	Whatever agreement they reach under the
5	smallest reserve requirement you and up with the minimum
6	reserve not being less than the largest single block of
7	nuclear cauacity. That I consider unreasonable.
8	Q That would depend, would it not, on the size of
0	the block of nuclear capacity that thes requested?
10	A NO.
11	Q Why is that not so?
12	A What you are in effect saying there is if you
13	buy a block of nuclear capacity, you need 100 percent of
14	reserve to back it up. It is unreasonable. It fails to
15	take into account any benefits of joint participation
16	in the power plant.
17	Q What if the block of nuclear capacity was only
16	3 percent of your requirements? Would you consider that
:9	to be burdensome?
20	A I would have to see what the rest of your
21	reserve requirements would be. If all you are adding is a
22	block of 3 percent of your requirements, it is entirely
23	possible that your reserve requirement would go up half
24	of that amount in terms of any kind of reasonable
25	calculation of reserves.

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1	Q But this provision species only to a minimum
3	overall reserve requirement, doesn't it?
3	A That's right. I would have so interpret
44	this as to a full range of possibilities of the entities
5	that might be participating in such an agreement, and
	most of the entities we are talking about, many of them
7	don't have any generation now. If they added a block of
8	nuclear power, say 50 percent of their load or 100 percent
9	of their load and had to double that up with reservo
10	requirements. that would be a rather large burden, and they
11	would try to seek a better way to accumplish it.
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922 mm1	Q Would you consider it reasonable for them to add
2	a single block of nucleus capitalty to be equal to 50 or
3	100 percent of their load?
44	A Let's talk about what we mean by loud.
3	Whether you are talking about their yeak long
6	or average energy load, the base load. I think they would
7	try to avoid adding a block of nuclear capebily that equalled
8	their peak load.
	Q Do you know what portion of the Applianius'
10	total load will be satisfied by each of these mains?
11	A I am not sure what point of time you are talking
12	about.
13	Q The year they come on the line?
14	MR. LESSY: Mr. Reynolds would help the vitness
75	if he identified which year, for which white.
13	We would get a batter answer that ver.
17	BX MR. REWNOLDS:
13	Q I am talkingabout the three units that are specified;
i9	Davis-Besse Unit 1, Perry Unit 1, and Porry Unit 2.
20	MR. LESSY: Now we are mining hypothetical
21	questions because this is what these questions are, with
22	facts that the witness is supposed to know that happone in
23	the real world.
24	If we are clear on a hypothetical line and he wints
25	to add other facts, he ought to add them on a hypothetical

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mm 2 1	The second state of the se
2	facts that may exist in the real world, will be confusing
2	for all of us.
4	The proper way of asking hypothesical questions is,
6	you can ask a quezion and ask him to assume cortain other
6	facts that are hypothetical and go forward.
7	BY MR. REYNOLDS:
8	Q Mr. Mozer, do you know when these units are coming
5	on line?
10	A I haven't committed that to maxory. Those dates
11	tand to be slipping. I am not sure of the dates.
12	The last dates I have were in the ECAR Planning
13	Report. It is in my testimony. I haven't remorized the
14	figures.
15	Q Do you know what portion of each of the Applicants'
16	cotal load would be represented by nuclear capacity from
17	each of these plants when it could on the line?
	A Not precisely.
18	
19	MR. LESSY: I will object to that guastion. It
20	is lacking specificity and is confusing in this concess.
21	BY MR. REYMOLDS:
22	Q Lid you understand the question, Mr. Mocorr
23	A I think I understand the general threat of the
24	question.
25	MR. LESSY: Can we get a ruling?

CHAIRMAN RIGLER: Let's see if the witness Emm. . 3 understands. 2 THE WITNESS: I fail to understand if you are 3 4 talking about their pack load or their avarage emergy load, or their base load. 3 What component of load are you referring to when 6 you use the term load? 7 BY MR. RETMOLDS : 3 Do you know aithar one of them? 9 3 I don't have specific figures in my mind, only A 10 fairly broad generalities which I think are probably fairly 11 close. 12 What would that be? 0 13 I think the planning year is based on a nuclear A 13 unit meeting all or a fair portion of each year load growth 15 at the time it comes on for each of the utilities. 16 I believe these utilities' load growth is probably 17 in the order of 7 or 8 percent a year. Probably loss with 13 conservation practices. 19 The objective is to meet most of that load growth 20 for the Applicants with a nuclear power plant at the sime 21 it comes on with some occasional supplementing with peaking 22 power. 23 5 to 10 percent of the load is probably close 20 enough. 23

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24		Q If we were to suppose that participating entities
	11	were to get the same proportion and amount of muchear
	3	capacity from each of these plants, would you this
		minimum reserve provision to be burdansato?
	3	A Inthat case I would say that it is a kind of
	3	limiting way to dzermine resorve bacause the reserve
	7	capacity that needs to be maintained by a system is besed
	3	on its total power supply si tustion, and its load situation,
	0	and shouldn't be specifically related to one single element
	10	of power supply.
		Certainly this would be taken into account.
	\$2	What I think you are saying is, if the utility
	13	arrived at or took 10 percent of its load from a nuclear
	14	power plant and had a reserve equal to that 10 percent,
	15	that if their total reserve was only 10 persent that probably
	15	would not be unreasonable, but it would be a rather Low
	17	reserve.
	18	I fail to see how a provision of this nature has
	19	any necessary relationship to the total resurve to be
2	20	carried by the system.
2	21	Q Would you tu m to paragraph 3B and tell me what
2	22	yoar understanding is of that paragraph?
2	23	A This is a general provision to cover the day-to-day
2	24	operating reserves with a general statement the each system
2	25	should carry reserves as put here to avoid the imposition

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of unreasonable demand on the others.

2 That is kind of a generalization and philosophy 3 that isn't very specific.

I don't know how it would be implemented.

Q Do you have any problems with that to smilation?

A In general I don't have any problems with it.

7 Although I am not sure of any other way to write it. But these
8 things do tend to lead to conflict, eventually.

Q And what about paragraph &?

A I don't know what some of the things in paragraph
4 exactly mean.

12 They talk about sharing of interconnections on the 13 basis of net benefits are sometimes very difficult to arrive 14 at. There is a general thought in paragraph 4 that services 15 to be provided are compensatory.

16 I certainly subscribe to that to the degree that 17 one can establish what the cost of providing a service is, 18 A fair ratemaking would suggest that the price to be made 19 should be compensatory to the party furnishing a facility.

20 Q Are you suggesting another basis for sharing costs 21 otherthan a net benefit basis?

A Well, here again this is kind of an agreement to agree. It is an agreement to have some rate schedule with certain provisions in them.

Until you can actually siz down and examine those

1 1 provisions, it is a little difficult to tell whather you have 2 agreed to something that is desirable, or not. 3 The same is true of sharing on the basis of pat 12 benefits. I would certainly admit that there is a treoretical objective hare to try to arvange things so that the parties 5 pay for what they get. But it is hard to determine the 6 effect of an agraemant like whis until you sit down with 7 8 specific facilities and dacide who is to pay for what. Am I right in concluding that you don't see anything 0 9 wrong with the principles, on the surface, though? 10 I think the general principles of paving a A 11 compensatory rate for services or facilities provided are 12 generally within the kind of thing that I would accept and 13 believe as fairly common. 14 0 If you will look at paragraph 5, do you sao 15 anything in that paragraph that you find troublesona? 15 A Paragraph 5 discusses implementation with perpact 17 to certain laws and statutes. 18 This is more of a legal appect of this thing than 19 an engineering technical aspect. I have less pasts for 20 opinion on paragraph 5. 21 Now, Mr. Mozer, having gone through this document 0 22. and having had time to read it -- have you over seen this 23 document before? 24 A I don't recall having ever seen this document. 25

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non	7	Q Have you ever seen what is the contents of this
	2	document in some other form, some other document form?
	3	A I don't recall having seen any.
	4	Q Has have you had any discussion with the MC
	5	Staff regarding any of the matters that are contained in this
	6	document?
	7	MR. LESSY: I think that question nosds
	8	clarification.
	9	CHAIRMAN PICLER: That was protty broad.
	10	BY MR. REVNOLDS:
	11	Q In connection with the proparation of your testimony,
	12	were you at any time advised that Applicants had proposed
	13	license conditions with respect to the Perry and the Davis-
	14	Besse Nuclear Plants?
	15	A I don't recall any specific advice that there
	16	were any specific conditions proposed. I have verallections
	17	of some general discussions that there were considerations
	18	being given to proposals by the Applicants, but I recall no
	19	specific documents or terms and conditions of such
	20	lie ase conditions.
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. 1	Q Did you make any inquiry when you were
2	told generally that there was some discussion as to what
З	the nature of those discussions ware, or what direction
A	they were going, or what they involved?
5	A I probably discussed them breadly, but having
6	no specific document relating to them, we couldn't get into
7	any details.
8	Q When you were at CEI, did you make any inquiry
9	as to what their position was with respect to access
10	to the nuclear facilities?
11	A No, I was interested in physical conditions
12	and things that existed, at the time I vasn't
13	prepared to discuss any proposals or such activities of
14	that nature.
15	Q Did you make any inquiries of that sort of any
16	of the other Applicants?
17	A No.
18	Q Would you not consider it relevant if you
19	were going to give expert testimony on alternative
20	bulk power supply options to probe and determine shat the
21	position was of Applicants with respect to access to the
22	nuclear facilities?
23	A No, my testimony was diracted toward what
24	was the situation that existed and some general
25	discussions based upon that, and my experience as to what

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1	might be desirable in terms of power supply arrangements.
2	To the extent appropriate conditions were offered, that
3	would fit my pattern, that would be well; but this was not
4	part of my testimony, to comment on any proposals,
5	particularly those I received, or to my knowledge had
6	been offered.
7	Q Well, if you in your testimony on page S,
8	in response to question 17, you said these smae or equivalent
9	power supply options are not generally available to other
10	electric entities, non-Applicant CCCT entities in the area
11	served by Applicants.
12	Then you go on to point out by way of
13	example the Cleveland area. Would not it be relevant
14	to that kind of testimony to know what Applicant's
15	position was with respect to the matters that are set forth
16	in the document identified as Applicant's Exhibit 447
17	A I wasn't aware of the document Exhibit 44.
18	Q Would that not have been relevant to your
19	testimony if you had been aware of it?
20	A As far as I can see, it is not an executed
21	document. I don't know the nature of this document
22	vis-a-vis the non-Applicant CCCT entities. I don't see
23	anything here that indicates they were aware of it.
24	wasn't.
25	Q But as I understand your testimony, it goas to

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1	availability; is that not correct?
2	A That is correct.
5	Q Then would not it be relevan; to that
4	testimony to determine whether any or all of the offers
3	that are set forth in this document works in fact available?
6	A All I can say is that I had no information of
7	the availability of any opportunity to participate in
8	nuclear power supply on behalf of any of the non-Applicant
9	CCCT entities.
10	Q If indeed the availability of nuclear power
11	were available on the terms set forth in this document,
12	would that bear on your testimony?
13	MR. LESSY: Objection. Were available or
14	were offered?
15	BY MR. REYNOLDS:
16	Q Were available.
17	A Yes, if nuclear power was evailable, it would
18	bear on my testimony.
19	Q And that would would that be directly
20	relevant to some of the conclusions you have drawn in your
21	testimony?
22	A It would be relevant to the conclusions if
23	it was contrary to the conclusions that I reached that
24	nuclear power was not available, it would be applicable.
25	yes.

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3340 It doesn't change my testimony with respect n. La to the desirability of having nuclear power available. 3 0 I see. You picked out the Cleveland area. for 44 example, in your discussion there back on page 8 that I 5 read a few minutes ago, about the availability of the 3 same or equivalent power supply options to non-Applicant 17 CCCT entities. Why is it that you selected the Cleveland 8 area as an example, and what other areas it examplifies? 9 10 MR. LESSY: That question is really two questions: 1. One, why did you select the Cleveland area; and \$2 two, does it exemplify any others? 33 It would be clearer if the question is broken 14 down. 15 THE WITNESS: I selected the Cleveland area 16 because --17 CHAIRMAN RIGLER: Was that a compound guastion? 13 Do you want to break it down for us? 19 MR. REYNOLDS: I will rephrase the question. 20 BY MR. REYNOLDS: 21 Q My question is: 22 Why did you select the Cleveland area as an 23 example? 20 I selected Clveland because it was the largest of A 23

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beginning of my investigation leading up to my testimony, I was concerned only with the Permy Plant at that time.

Claveland was one of the larger entitles involved.
It represented a situation at least in many respects
similar to Painesville in the sense that these two
municipalities were isolated generating type utilities.

8 Q I thought I understood you to testify earlier 9 that Cleveland was atypical of the other municipal areas 10 in the state of Ohio?

11 A I don't think I have said anything is completely typical. Cleveland represents an isolated 12 generating type entity. It is similar in muny respects 13 to Painesville. It is not at all similar, of course, 115 to the many, many utilities in Ohio which are not -- which 15 have no generation of their own in that sense. It is 18 similar to many of them in that each of these municipalities 17 has the transmission systems of the CAPCO utilities more 18 19 or less surrounding them, and in terms of bulk power supply movement capability. 20

I hate to characterize any utility as completely typical because there are differences in all of them, and yet there are many things the same. It is a hard question to answer generally.

MR. REYNOLDS: Lot me pause just a minute.

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(Pause.)

BY MR. REYNOLDS:

3	Q Your example on page 9 was, as I read your
	testimony, addressed to the Cleveland area, and I'm not
5	sure that I understood from your response and I
6	still don't understand from your response why the Cleveland
7	area is one that is typical of any other municipal areas.
3	A I don't think my testinony suggests that it
9	is typical. I used it as an exemple because it represents
10	a major utility, major operating entity in the area
11	of the Applicants. One Applicant particularly, of course.
12	Q When you were in the city of Cleveland and visited
13	CEI, did you ask CEI about its whatling policy?
14	A I don't remember asking spacifically. I may
15	have reference to that in my notes.
16	Q Do you recall making that sort of inquiry of
17	anyone?
19	A Yes. The guestion of CEI wheeling, I don't
19	know whether it is a policy or not, because I can't i smoother
2.0	ever seeing anything that said policy, but I do have
21	reference to a document in a petition of AMP-0 to
22	intervene that indicated that Cleveland had specifically
23	
24	denied in a specific case an opportunity to wheel.
25	I don't know whether that represents a policy
	or not. I did inquire as to whether or not there was
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1	any wheeling being done for Cleveland or Paincaville or
2	any of the municipals.
3	I found no evidence that there was any wheeling
	being undertaken in these cause, although there is sens
3	wheeling being tone by some of the CRPCO onthetas.
5 ji	Q When you said any of the mulcipals, what other
7	municipals did you ask about basiles Claveland or
8	Painesville?
9	A The general question was whether any power
10	was being wheeled by CEI to any of the sunidipal antities.
11	I have recollection of a negative ensury. I have no
12	documentation of that.
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2 \$24 Q Do you recall when you made this inonirv? 12 This would have had to have been in my general 25 discussions in Cleveland, because that is the only time I aren had direct contact with any of the members of the STaff of 4 3 CEI. 3 At the time you wore asking about the wimeling 0 7 of CEI, was your assignment limited to that question as far as wheeling was concerned? 3 I don't think I had an assignment related to a 1.7 A question. 10 I was trying to examine the power supply practices 11 of the entities and wheeling is an important power supply 12 practice, as I have discussed in my testimony. 13 I believe you indicated that your executation 10 0 did not include an investigation of the other entities in 15 the same manner as you investigated CEY. 15 A At that time that is correct. 57 Did it at any time? 0 18 Yes, later on when I was studying indetail the A 19 contractual relationships that the entities had with each 20 other, with some additional entities. 21 I learned a great deal about the balk power 22 supply practices of those utilities. 23 If CEI were willing to wheel power to the City of Q 24 Cleveland from markets open to CNI, would not that be a 25

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<b>mm2</b> ]	relevant consideration in connection with your testimony?
2	A It would be relevant, yes.
3	Q Cid you inquira as to the coordination policies
.λ	of the Applicants in connection withthe testimony you prepared?
5	A I didn't inquire into policics as such.
6	I assumed that their policies ence as they may
7	be, would be reflected in the practices 'llustrated in their
8	contracts.
9	Q Those contracts were provided to you by the MRC
10	Staff?
11	A Yes, sir.
12	Q Did you, in connection with your preparation of
13	your testimony, make any inquiry with respect to the make
14	any inquiry of the small Municipal Systems with respect to
15	the requests they may have made for coordination
16	or wheeling of any of these Applicants?
17	A Yes.
18	Q Which ones?
19	A Cleveland.
20	Q Anybody else?
21	A They are the only one I talked to specifically.
22	Q What was the nature of your discussion with
23	Cleveland?
24	A Simply to reinforce the information I had already
25	become aware of, that the Municipal System had been denied the

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1 opportunity to -- by CEI to wheel power from the possible 2 source of power that the Municipal System had from PLENY. 13 Is that the extent of the information you had? 0 4 That is the only specific instance I know about A 3 regarding wheeling. 6 Cutside of the Cleveland area then, you had no 0 7 knowledge as to what the current policies are of any entities 8 with respect to coordination or wheeling, do you? 9 No, my testimony doesn't go to, in that A 10 case, the specific policios. 11 Wouldn't those policies be relevant to your 0 12 conclusions on the availability of bulk power supply 23 options for the non-Applicant CCCT entities? 14 Only to the extent that if the policies support 3 15 what I have testified to as being desirable opportunity for the 13 small utilities to have, they would be policies which I 17 would find desirable. 18 CHAIRMAN RIGLER: Pause for one adadce, Mr. Reynolds. 19 (Pause.) 20 end 25 21 22 23 24 25

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CHAIRMAN RIGIER / You may proceed, Hr.

2 Reynolds.

3 BY MR. REYNOLDS:

4	Q Mr. Mozar, when you used the torn "available,"
5	you mean that in terms of the options have not been made
3	avaialable, or are you using the term "available" in the
7	sense that they have not been taken advantage of?
8	A I used it in the sense that as far as I have
9	been able to determine, they could not be they could
10	not be used simply because they were not offered.
11	Q And when you say insofar as you can determine,
12	will you explain to me why it is that you do not in the
13	course of your investigation try to make that determination
14	by inquiries of any of the applicants as to what it
15	was that they were willing to make available?
16	A Perhaps it was an oversight. I thought that I
17	had studied as much of the material as I could find and
18	been provided to me, and I just never found particularly
19	an opportunity to go out and talk to the Applicant about
20	what was available.
2.1	I assumed if these if there were opportunities
22	being offered, that I would have seen some evidence of that.
23	I had seen none.
24	I had seen only one denial. No evidence of any
25	offers.

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1	Q You didn't look for any evidence of any offers,
2	though, did you?
3	A I think I looked for some. Perhaps not as much
4	as I might have.
5	0 That will qualify your statement on page 8
6	in response to question 17, which categorically states
7	these same or equivalent power supply options are not
8	generally available to other electric entities, non-
9	Applicant CCCT entities in the area served by Applicants.
10	MR. LESSY: What would qualify? The fact he
15	didn't look for offers? I don't see how the fact that the
12	witness didn't contact each Applicant Individually would
13	disqualify his conclusion.
14	BY MR. REVNOLDS:
15	Q Would you care to qualify that categorical
16	statement?
17	MR. LESSY: We are going from hypothetical
18	statements to factual conclusions.
19	CHAIRMAN RIGLER: I will permit the question
20	as originally asked.
21	MR. LESSY: I request we have it back, please.
22	(Whereupon, the reporter read the pending
23	question, as requested.)
24	CHAIRMAN RIGLER: The objection is overruled.
25	I will permit that question.

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1	THE WITNESS: I think I alroady gualified
2	the answer by using the word "generally." I still haven't
3	seen any avidence that these opportunities are available
4	to the Applicants. I would cardially be happy to
5	qualify the answer if I'm shown to be wrong.
6	BY MR. REYNOLDS:
7	Q Is the is it fair to state that your statement
8	there is based on the information provided to you,
9	documentary information provided to you?
10	A Yes, I think so.
11	Q All right.
12	And that documentary information did not include
13	what has been identified as Applicant's Exhibit 44; is
14	that correct?
15	A I don't recall aver seeing Applicant's Exhibit
16	44 before.
17	CHAIRMAN RIGLER: Mr. Reynolds, you have asked
18	him and had that one answered two or three times.
19	Some of the questions are getting a little repetitious,
20	I think.
21	BY MR. REYNOLDS:
22	Q On the bottom of page 8, you state that
23	large nuclear units are not practical options for non-
24	Applicant CCCT entities unless made available to those
25	small utilties by the Applicants.

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1	O Do wholesale transactions make available
2	large scale nuclear power to non Applicant CCCT entities?
. 3	A What sort of wholesale transactions do you
.4	wean?
3	Q Full requirement wholecals contracts.
5	A To the extent that there is nuclear power
7	in the power supply of the entity providing the power,
3	I would assume that the nuclear power is included in the
0	rate base in which the rates are determined.
10	MR. REYNOLDS: May I have the answer read back?
11	(Whereupon, the reporter read from the
12	record, as requested.)
13	BY MR. REYNOLDS:
14	Q Looking at the following sentence, you go on
:5	to state even then effective utilization of nuclear
16	power requires other power supply options. Nould you please
17	spall out for me pracisely what other power
18	supply options are required?
19	A Of course, in the sense in which I have responded
20	to question 17, the paragraph you are talking about, I'm
21	talking about nuclear power as an option standing alone
22	and not mixed necessarily with another power supply.
23	If an entity has access to nuclear power as a
24	participant or purchasing unit, they would have
25	options including the reserve and emergency and maintanance
	power. Options, of course, similar to those that you have

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	shown in Exhibit 44 and I have discussed in my testimony.
2	Q Is there anything else besides reserves,
3	emergency and maintenance?
4	A It depends upon the specific power supply high
3	of the acility and the nature of the utility. for
6	might want peaking power. You might want interachiate
7	power. You might want some additional base load power.
8	You might want general wheeling access to a variety of
9	power sources.
10	Q Why is it that general wheeling would be required
11	for the effective utilization of the nuclear power?
12	A It may or may not be. It is an option that
13	you want to have available so that you could shop around
14	for the best possible source of the various other options,
15	maintenance, peaking capacity, and the like.
10	
17	entity and be deliverable only by means of some sort of
19	transmission service. It is an option.
19	By use of the term option, I don't bean at all
20	times that you want to exercise each one of the options.
21	You want the options available, however,
2.2	Q What do you mean by effective utilization?
23	A Effective utilization of the power supply goes
24	to matters of economics and matters of practical system
25	operation. You want the best power supply mix that you can

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7	use on your system taking into account the characteristics
2	of the system and the various power supply options that
-	you have.
. 4	You almost have to talk about scatching
. 5	specific to make a study of it and to be more specific
G	then that.
7	It goes to economics and to practical operating
3	characteristics of the utilities.
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0 Did you ---I want to add reliability to that last anstar, the. A Did you make any such studias is connection with 0 your testimony here?  $\mathbb{S}_{1}$ Detailed studies of andividual summer, 2 and not A make . \*1 Q Do you know then what power supply options would 3 be necessary for effective utilization of the nuclear power 3 from the particular nuclear plaats that are involved in this 10 proceeding? 15 A I think that an answer would differ with each utility that wanted to use some of that nuclear power. 12 13 It is related as much to the characteristics of the utilitity using the power as it is to the source of the power. 10 15 Q Would it be directly related tothe amount of 18 nuclear power purchased? A That would be one of the relationships that would 17 be involved. 12 Q What other relationships would be involved? 19 20 A The amount of power, the amount of power with respect to the utilities load, the nature of other courses of 21 generation available to the utility either on its own evatem 22 or by purchase from other systems. 23

24 Q It would be true, wouldn't it, that the greater 25 amount of power purchased, the greater need for backup and

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#### reserve power?

A I couldn't inswor that as being time. It has to be a relative smount of power. It isn't -- the absolute amount being purchased doesn't make the difference as much as the relationship of that power to the size of the load and to the other resources available to the utility.

9 Nouldn't you agree that the referve problem would
8 be different if you put 30 percent of your needs, rather
9 than 3 percent from a single unit?

A The reserve probably might be vory different
 under those conditions, yes.

12 Q On the middle of page 9, line 7 through 11, you 13 state that the additional transmission to be constructed and 14 operated in conjunction with the nuclear power plants will 15 insure further Applicants' ability to restrict or limit 16 power supply options available to small atilities in the 17 areas served by applicants.

18 If you were to take into account the proposed
19 license conditions addentified as Applicante' Exhibit 46,
20 would that alter your conclusions?

A No.

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Q Why would that be?

A Exhibit 44 discusses only one power supply option.
It provides for wheeling under certain specific and very
limited conditions.

1 The general statement that, or the implication in 2 the statement that more general access to wheeling would 3 be a desirable option to a powar supply matter, deasn't 41 change the facts. Exhibit 44 goes part way, Lut it doesn't change 5 S the fact that the transmission grant is there. Except that as it may be penetrated by the limited wheeling opportunity 7 given in Exhibit A, it doesn't give the broad and access 8 to power supplies that might be available by means of 9 wheeling. 10 It would give access to that transmission for 11 0 purposes of transmitting the nuclear power, would it not? 12 A Yes. 13 What do you mean by the words "insure further" 12 0 in that sentence? 15 16 A It is my observation that the transmission system prior to the introduction of any nuclear power plants on 17 the -- in the CAPCO area was a rather extensive network that iC would make it in my opinion, vary difficult for another 19 entity to build most transmission facilities that they might 20 want. 21 I am sure it is possible to conjure up some possi-22 bilities of a limited nature that could be constructed. 23 Generally it looks to me a pretty solid transmission notwork 24

in the area that would make proposed construction by a party

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not involved in the pooling arrangement appear to be constructing a duplicating facility. That network exists prior to the introduction of any anchear plants on the system.

The construction of nuclear power plants gives 51 cause to the further strengthening of that bransmission grid and makes a difficult situation more difficult in terms of the entity desiring a power supply that would require some form of transmission to be taken.

Will you please define for us what you mean by 0 duplicating facility?

Duplicating transmission facility is one 3 that if it is constructed, does something that would be done just as well as if it wasn't constructed.

CHAIRMAN RIGLER: Let's take a five-minute brenk. (Recess.)

end #26 17

\$27 3358 MR. REYNOLDS: Could I have the last mention 1 11 and answer read back before the break? 1 (Whereupon, the reporter read from 1 the record, as requested.) BY MR. REYNOLDS: 5 You say does something just as well as if 3 0 it was not constructed. What do you mean? 7 A I mean if the facility that I would term as 5 duplicating facility was not constructed, that all of the 0 power would move safely, reliably and virtually as economically EQ. or more economically, perhaps, than if the duplicating 10 facility is built. A duplicating facility doesn't add anything 13 assential to the transmission system. 5.2 Are you referring solely to short term wheeling 0 arrangements in that connection? : 5 It is a physical entity. I'm not talking A 100 about any wheeling arrangements. 13 Q Would you be talking about a short tarm 19 transmittal of power over the emisting facility in the 20 context of saying it could be done equally well over the 22 existing facility? 22 A I guess I'm still not clear as to the question. 13-Will you look at page 36 of your prepared 0 20 direct testimony, please, at lines 11 through 15, you give 25

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1	us an explanation of duplicating transmission facilities
2	which as I understand it is similar to what you have
3	just described; is that correct?
4	A It is intended to be, yes.
5	9 In that context or in relationship to that
6	description there, are you referring to short term
7	wheeling arrangements?
8	A I'm not sura
9	Q You say can be moved over the existing facility.
16	Are you talking about power that can be moved?
11	A The alternative to constructing a duplicating
12	line, is that what you are referring to?
13	Q Right.
14	A The alternative to a duplicating transmission
15	line would be some sort of transmission or wheeling
16	arrangement. Whether it is short term or long tarm is
17	not necessarily important. It could be either.
18	Q If it ware a long term transaction, would that
19	not tend to load up the transmission facility and thanafore
20	yield a long run additional requirement for transmission?
21	A It might, yes.
22	Q In what circumstance might it not?
23	A You would have to look at the old transmission
24	system in order to determine such a circumstance. I
25	could conceive of a situation where a particular wheeling

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1	arrangement tended to use a transmission system in such
2	a way as to use facilities that would otherwise
3	never have been fully loaded, but it would require some
4	pretty detailed transmission studies to determine that case.
5	Q In the typical situation with a typical
3	transmission system, wouldn't you agree that if you added
7	transmission over an existing system, that that would
8	require the construction of additional facilities?
9	A Not necessarily.
10	Q If the system is expanding or growing, would that
11	not be the case?
12	A Again not necessarily.
13	Q Would you not think that that normally would be
14	the situation?
15	A If wheeling was a part of the requirements for
16	the transmission system, it would have to be taken into
17	account in the planning and perhaps at some point, scale
18	specific additions to the system may have to be included
19	for wheeling, but have again you can't make a general
20	answer, because it depends upon the nature of the wheeling
21	arrangement, both as to the points from and to transmission
22	is needed, and the magnitude of transmission involved.
23	Also the general characteristics of the trans-
24	mission network that you are using to wheel power.
25	Q When you referred to duplicating transmission

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facilities, do you have in mind a situation where the movement over the existing facilities would not require any expansion of those transmission facilities at my point in time?

A Not necessarily at any point in time, but I do have in mind a situation where the emisting transmission facilities might be capable of transmitting the power that it is desired to be moved without constructing additional specific facilities for that purpose.

It is possible that what I would term duplicating facilities might never have to be constructed precisely as they would if wheeling was not provided. If wheeling is provided, you may never have to build the facilities exactly as they would have to be built if you had to build a duplicating facility.

16 Q If you had to build the additional transmission 17 facility at some point in time, why would it be 18 any less duplicative?

A Because you probably wouldn't build the same facility. If you were incorporating wheeling into a well-coordinated and well-planned transmission system, you would build the system to take into account the total transmission requirements and not the particular requirements of a particular wheeling arrangement.

If you don't have a wheeling arrangement you

Would have to build a transmission line maybe for that purpose. Absent a wheeling errangement, you may build a line that would never be built in a system that had a wheeling arrangement.

5 Q You say the same kind of line would never bo 6 built?

A It is possible with a wheeling arrangement you may never build the kind of a line that you may have to build absent a wheeling arrangement.

10 Q But is it not equally possible that if you were 11 to use the existing facility for that wheeling arrangement, 12 you would have to build additional transmission on the 13 existing system at some point?

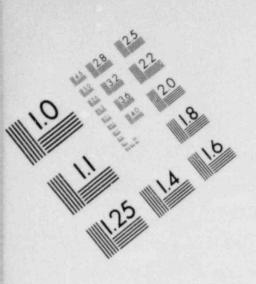
A At some point you might have to provide capacity in the planned transmission system to accommodate the wheeling arrangements, yes.

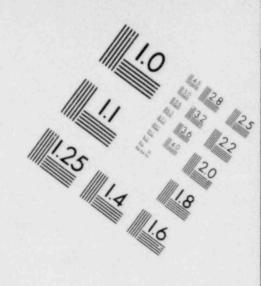
0 How would you provide that capacity? 1.7 It becomes a matter of system planning. If A 18 you know that in the course of planning a transmission 19 system, say 10 years hance, and you know there is a long 20 term contract hat provides for X number of kilowatts to 25 be provided at the power plant at the particular point. 22 and X plus losses kilowatts to be delivered from that 23 power plant at some other point on the system, that 22 particular source of generation and magnitude of load would 25

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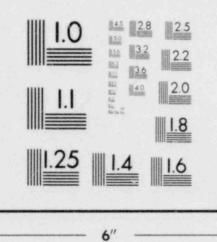
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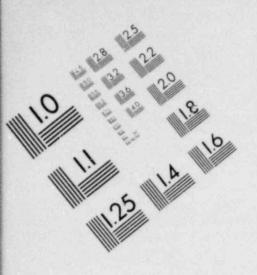


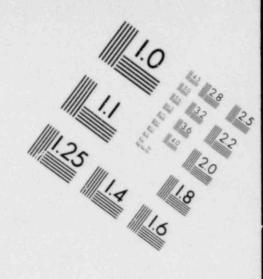
## IMAGE EVALUATION TEST TARGET (MT-3)



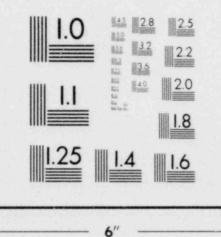
## MICROCOPY RESOLUTION TEST CHART







### IMAGE EVALUATION TEST TARGET (MT-3)



# MICROCOPY RESOLUTION TEST CHART



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1	be included in a transmission planning study and the
3	transmission system would be provided accordingly.
3	At this point I think I should make the point
\$	that a wheeling arrangement isn't specifically an
5	identifiable path from point A to point 8.
5	The power doesn't flow in that manner. It flows
7	over a transmission network in a pattern where you can't
8	always identify exactly which power is associated with the
Q	wheeling.
70	It becomes part of everall planned transmission
11	system if you plan for wheeling. You can plan to have
12	wheeling.
13	Q We will assume that the option we are to build
14	a separate line for the wheeling transaction or to move
13	the power over an existing transmission line which would
16	require an increase in the capacity of the transmission
17	facilities.
55	Would the in that situation, would the single
19	line be a duplicative facility in your view?
20	A Let me see if I understand the question. You
21	are giving a hypothetical arrangement where you would either
22	have to build a separate line to accommodate the wheeling
23	capacity as against building another transmission line
2.4	by a different entity in lieu of wheeling.
25	Q Or expanding the existing transmission grid in

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order to accommodate the wheeling?

A I think what you are trying to get at is a very narrow situation where it just so happens that the magnitude of power to be wheeled requires an additional transmission line.

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5 In that case, if the transmission line properly 7 fits into the system, it might be built either by a 3 party that could provide a wheeling service or by a party that needed the wheeling service. That is a very aarrow 5 and limiting form and my enswer as to whether or not that 10 would be a duplicating facility would be simply to -- not 51 simply, but it would have to take a transmission study 12 to find out whether the line to be constructed is a 13 proper part of the system. 14

15 It could be. It could be under very 16 specific circumstances whereby the magnitude of the 17 wheeling and the nature of the location of both the power 18 supply and the load which it is serving had a certain 19 configuration that resulted in a transmission line 20 being constructed in just that manner.

In that case, the very narrow case itself, certainly you could have the option of having the transmission line built by the principal operators of the transmission network or have the same transmission line built by a separate entity.

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\$23 mm1	Q If a wheeling arrangement put additional power over
2	a transmission grid, would not that have to be factored in in
8	your planning for future transmission supering?
* ***	A Yes.
5	Q And might that not therefore lead to the need for
G	additional transmission capacity?
7	A It wight.
8	Q IN that situation the facility would have to be
ş	built in either event, is that not right?
10	A It might not be the same facility, however.
11	You are talking about the addition of transmission
12	capacity. THat is different then a speelfic facility.
13	Q If it is not the same facility, is it your
4	understanding that it is not properly a duplicative transmis-
5	sion facility?
.ô	A I don't know whet it is in this case.
17	Q If we are talking about the situation there
.8	there would need to be an expansion of the emisting trans-
19	mission facility, would you consider that that additional
20	transmission would not be a duplicative facility?
21	A If it was necessary to expend the translation
22	capacity to provide the whealing and if the facilities
23	to be built to provide the wheeling were part of the overall
24	planned transmission grid, it would not be a duplicative
25	facility.

Q Have you conducted any studies which would indicate whether or not a duplicating transmission famility is unaconomic?

Are you asking that in a general conset

I have been involved in a codes that resulted in a recommendation to provide wheeling in lice of separate transmission line construction. I have naver advocated a duplicative transmission facility as I have defined it. Q When you state on page 35 that duplication tends

to be wasteful, therefore, probably unconcontral and should be avoided, what do you mean by probably uneconcatent?

A If you have to buy transmission towers, and conductors, and right of way, and labor to do a job that doesn't need to be done, you are spending money which could be avoided.

16 I think from an engineering point of view, and we 17 do deal in economics, that would be uneconomical to spend 18 money that you didn't have to spend.

19 Q And that assumes that the same amount of mo ry Would not have to be spant by the expansion of the amintaing system at some later date?

A Yes, there is an assumption here that would have to be borne out in each specific instance by a study, that wheeling provides a more economical means of delivering a given block of power from a source of power to a load, or

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	2	0 Would you ware not stating as a gaustality
	3	that that would be the saws, and you?
	4	A No.
	5	There is an implication here, I believe.
	0	Perhaps it doesn't come across surcegly enough, so I will
	7	ury to make it. TEat is if proper transmission studies
	3	indicate it is more economical to build a new line, then -
	9	I wouldn't dofine that new line as a duplicating facility.
	10	If it is nore economical to provide a facility,
	:1	then it is probably a proper facility in the long manye
	12	transmission plan, and wouldn't come under the definition .
	13	of a duplicating facility.
	14	I am trying to limit my definition of deplicating
	15	facility as something that is clearly not needed, and
	13	the service being provided by another means and generally
and 28	17	more economically.
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3350 \$29 ar1 1.11 Q Your deifnition of duplication is a function of 2 1 economics, then? 3 1 17 It is a function partly of accommics and partly of good engineering. Good engineering includes 42 1 5 1 economics. Engineers are trained to try to look for facilities that will both work by the laws of nature as 3 7 well as being economical facilities. 8 Certainly we don't want to impose cost burdens on the utilities and the customers of these 3 10 utilities unnecessarily. 0 If you could -- it costs \$10 million to build 87 24 a line in order to transmit power separately, and by comparison if you were to put the power over an existing 13 transmission line and beef it up to take it, it would 24 cost \$9 million, then you would say use the existing 15 transmission line? 10 F. With the minimum facts that I have, I think I 17 would use the existing transmission line for a 10 percent 18 saving, yes. :9 Q Would you define the separate line as duplicative? 25 A If I understand your hypothetical quastion, 21 the existing system would do the job, and therefore 22 the additional line would be duplicative. 23 On page 47 ---Q 23 CHAIRMAN RICLER: We are moving on to a new line, 25