NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

BOUTON HDISON COMPANY, et al.

(Pilgrin Haclear Generating Decket ic. 50-471 Station, Unit 2)

Place - Plymouth, Massachusetts

Date - Friday, June 1, 1973

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Teleonone: (202) 347-3700

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	4	In the matter of:	
	5	BOSTON EDISON COMPANY, a: al. :	
	6	Pilgrim Nuclear Generating : Docket No. 50-471	
	7	Station, Unit No. 2)	
	3		-
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	10	Plymouth Memorial Hall, Plymouth, Massachusetts	-
	11		-
	12	Friday, 1 June, 1979	
		The hearing in the above-entitled matter was	
	13	reconvened, pursuant to adjourment, at 3:00 a.m.	
	14	BEFORE :	
	15	EDWARD LUTON, Chairman	
	16	DR. RICHARD F. COLE, Member	
	17	DR. DIXON CALLIHAN, Member	
	18	APPEARANCES:	
	19	GEORGE LEWALD, Esq., Ropes & Gray, 225 Frankli	n
	20	Street, Boston, Massachusetts; and DALE G. STOODLEY, Esq., Boston Edison Company,	
	21	Legal Department, 800 Boylston Street, Boston Massachusetts; on behalf of the Applicant	,
	22	HENRY HERRMANN, Esq., 151 Treport Street, 27K,	
	23	Boston, Massachusetts; on behalf of the Massachusetts Wildlife Federation, Intervenor	
	24	WILLIAM S. ABBOTT, Esq., on behalf of Alar R.	
	25	Cleeton and Marion Cleeton, Intervenors	
		2347 124	

avid2	1	APPEARANCES (Continued):
	2	MICHAEL B. MEYER, LAURIE BURT and FRANCIS
	3	Sight, Assistant Attorneys General, Stachouse, Boston, Massachsetts; on behalf
	4	of the Connonwealth of Massachusetts, Intervence
	5	BARRY SMITH and MARCIA MULKEY, Esgs., Office
	6	of the Ex cutive Legal Director, Nuclear Regulatory Commission, Washington, D. C.
	7	on behalf of the Nuclear Regulatory Commission Staff
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6 11)					
-	Falk Kantor	}					
- 1	Germain LaRoche	;					
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21	Mr. B. Pox, un	dated.)	ce Co.	•	10,15	1 1	0,161
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10, 50 T1 cr4780 LTZER/mm ; PROCEEDINGS 2 CHAIRMAN LUTON: Cood morning ladies and 3 gentlemen. Are there any matters of a preliminary nature, before 4 we continue with cross mamination? 5 MR. MEYER: Yes, Mr. Chairman. 3 On the need for power issue, I understand it was 7 discussed yesterday on the transcript, and the schedule was 3 left that the Commonwealth would file by the 29th of June 3 and that hearings would be scheduled to begin the 9th of July. 10 CHAIRMAN LUTON: That's right. 11 MR. MEYER: When the Commonwealth originally asked 12 for June 29 for filing of testimony, it was with the under-13 standing that the hearings would start 15 days thereafter. 14 We particularly picked that day because I was going 15 to be in San Francisco the week of July 9 through the 13th. 16 I would request -- and I understand that the Board feels 17 strongly, they wish to do this as rapidly as possible -- that 18 that need for power matter go the week of July 16, as opposed 19 to July 9, if that is possible. 20 Now I understand the Board's desires in this matter 21 and I'm only asking that it be postponed a week. 22 CHAIRMAN LUTON: All right. 23 MR.NEYER: I have not discussed this with the 24 parties.

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1	CHAIRMAN LUTON: All right.
2	Do the other parties have any reactions? We are
3	only talking about a week's difference.
4	(No response)
5	(Board conferring)
6	CHAIRMAN LUTON: All right, Mr. Meyer, we will
7	adjust that. We will adjust that July 9 starting date to
а	July 16.
9	MR. SMITH: Mr. Clairman?
10	CHAIRMAN LUTON: Yes?
11	MR. SMITH: Mr. Chairman, since we have moved to
12	the 16th of July, would it be appropriate, or could the Board
13	then consider the STaff filing testimony on June 20th along
14	with the Commonwealth?
15	CHAIRMAN LUTON: Yes, I think so.
16	Mr. Lewald, you have already filed your need for
17	power testimony sometime ago?
18	MR. LEWALD: Yes. If we care to file a supplemental
19	testimony, we will file it by the 29th.
20	CHAIRMAN LUTON: All right.
21	Mr. Lewald, you don't have any difficulty with that
22	adjustment, do you, on the hearing date?
23	MR. LEWALD: No, I can accommodate that schedule
24	CHAIRMAN LUTON: All right.
25	Is there anything else of a preliminary nature?
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1	(No response.)
2	Then, let's continue with the cross-examination of
3	the Staff's panel by the Commonwealth.
4	Whereupon,
5	DINO SCALETTI
6	TERRY JOHNSON
7	JOHN LEHR
8	MICHAEL MASNIK
9	JOSEPH LEVINE
10	FALK KANTOR
11	LEONARD SOFFER
12	GERMAIN LAROCHE
13	LOUIS BYKOSKI
14	and
15	RICHARD B. MCMULLEN
16	resumed the stand as witnesses on behalf of the Regulatory
17	Staff, and having been previously duly sworn, were further
18	examined and testified as follows:
19	CROSS-EXAMINATION (Continued)
20	BY MS. BURT:
21	Q Mr. Lehr, turning for a moment to page 4-6 of
22	the Final Environmental Statement, description of sites 1,
23	2 and 2-A on the Merrimack River.
24	On that page you describe the water quality of the
25	Merrimack River as being very poor, do you not?
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î	A (Witness Lehr) Yes. I do.
2.	0 Now, from your description of the presence of
3	floating solids and some nutrient levels which are in sucess
4	of Federal and STate Water Quality Standards, is it fair to
5	say that the major source of pollution on the Merrimack
6	River immediately upstream from sites 1, 2 and 2-A was
7	primarily municipal sewage?
а	Isn't that correct?
э	A As I read the reference material, they indicate
10	both municipal sewage and industrial waste coming from areas
11	upstream of Mashua, New Hampshire, and also sources on the
12	Nashuaa River.
13	2 On the Nashua River.
14	Where, exactly, are sites 1, 2 and 2-A in relation-
15	ship to Nashua? How far are they?
16	A I believe there are I don't have the figure off
17	the top of my head, how far down they are. They are downstream
18	of Mashua, New Hampshire.
19	Q Well, site 1 is located in Dunstable, is that not
20	correct?
21	A Yes, that's indicated in Figure 3.
22	Q And sites 2 and 2-A are located in the towns of
23	Tyngsborough for 2, and both Dunstable and Tyngsborough for 2-A,
24	is that not correct?
25	A That would appear correct from Figure 4.
	2347 130

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	19 10,054
1mm5 1	Q And you do not know how far those towns are from
2	Nachua, New Hateshire?
3	A I don't know an exact number. We can look on the
4	map and determine it.
5	Q Do you have a map with you?
G	A Yes, I do.
7	Q Wouldyou please bring that map out.
8	DR. CALLIHAN: Ms. Burt, may I take advantage of the
9	imprruption.
10	Did you say, how far it is from a town, was you:
11	guestion related to the distance of some site from a town?
12	MS. JURT: No.
13	My question was whether or not how far the sites
14	1, 2 and 2-A are from Nashua, New Hampshire.
15	DR. CALLIHAN: From where?
16	MS. BURT: Nashua, New Hampshire.
17	MR. LEWALD: That's a city.
18	DR. CALLIHAN: Villages?
19	MS. BURT: A village. Yes. Excuse me.
20	MR. LEWALD: It's a city in New Hampshire, Nashua.
21	WITNESS LEHR: As a help, if you will also notice
22	on page 4-6, that a sampling location which is located at
23	the bridge between Nashua and Hudson, New Hampshire, which
24	is located in the town of Nashua, we indicate is
25	approximately 5 kilometers upstream of the area proposed for
	2347 131

10.055 water withdrawal and discharge for these three sites. 1 mra6 2 BY MS. BURT: Thank you, Mr. Lehr. That's getting close. 3 C 4 Now where, exactly -- how close are sites -- are these sites on the river, from the towns of -- the major 5 city of Nashua? 6 A (Witness Lehr) Are you talking about direct 7 distance, straight-line distance? 8 Q Approximately. 9 A I believe the town of Nashua is approximately 10 four miles northeast of site 1, approximately three miles 11 north-northwest of site 2, and approximately five miles north 12 from site 2-A. 13 MR. LEWALD: Excuse me. Are we talking about the 14 town of Nashua, Massachusetts, or the city of Nashua, 15 New Hampshire? 16 MS. BURT: No. I had specified to Dr. Callihan that 17 I was speaking of Nashua, New Hampshire. 18 MR. LEWALD: You described it as a village. 19 MS. BURT: I did? 20 DR. CALLIHAN: Your question addressed "town of 21 Nashua," at least recently before our last dialogue. 22 Now, how large is the town of Nashua? 23 BY MS. BURT: 24 Q Mr. Lehr, do you know the population? 25 2347 132

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n71	DR. CALLIHAN: No, I want linear aerial dimer-
2	sions, or two linear dimensions of the town of Nashua, having
3	defined town yesterday.
4	WITNESS LEHR: I believe I just gave those figures
5	DR. CALLIHAN: I beg your pardon?
5	. WITNESS LEHR: I believe I just gave those figures.
7	BY MS. BURT:
8	Q Mr. Lehr, I believe Dr. Callihan's question was,
9	how big, is that correct, in area
10	DR. CALLIHAN: No, I don't want area, I want linear
11	dimensions. Two linear dimensions of the town of Nashua.
12	I'm trying to establish if these two or three miles
13	that you speak of are significant. We went to effort yesterday
14	morning to define a town in Massachusetts. Are we speaking of
15	Massachusetts?
16	MR. SMITH: No, it's New Hampshire.
17	MS. BURT: It is my understanding, Dr. Callihan, and
18	I think the Board can take official notice of it from a USGS
19	map, that these sites are located very close to the border
20	of Massachusetts and New Hampshire on the Merrimack River,
21	and the Merrimack River runs in a north-south direction at
22	that point, and Nashua, New Hampshire is north of the sites
23	in Massachusetts.
24	DR. CALLIHAN: I apologize. I thought we were still
25	in Massachusetts.
	2347 133

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1 So, your question has to do with the town of 2 Nashua? 3 MS. BURT: Or city of Nashua, I believe it is. 4 DR. CALLIHAN: Not a town in Massachusetts? 3 MS. BURT: Correct. 6 DR. CALLIHAN: I apologize, gentlemen. 7 WITNESS LEHR: The figure for the rough size of 8 the urban area known as Mashua is approximately five miles 9 by six miles. 10 DR. CALLIHAN: Thank you. But that question is now 11 moot, since we crossed the state lines somewhere unbeknowns : 12 to some of us. 13 (Laughter) 14 BY MS. BURT: Do you know where the state boundary -- how far 15 Q 16 the state boundary is from sites 1, 2 and 2-A, approximatel ?? (Witness Lehr) It is indicated on Figure 3, and A 17 also on Figure 4. You can see the relationship. We need a 18 moment to scale the distance, if you need a closer figure. 19 Q Now you state on page 4-6 of the FES on alternative 20 sites, that a recent report of the New England --21 22 MR. SMITH: Mr. Chairman, we are trying to get 23 you an answer. WITNESS LEHR: Are you interested in closer 24 figures? 2347 134 25

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mm9	1	MS. BURT: No, that was fine.
	2	BY MS. BURT:
	3	Q On page 4-6, you refer to a recent report of the
	4	New England River Basins Commission, which indicates that
	5	180 kilometers, the river in the basin will not meet class D
	6	water quality standards by 1983.
	7	Is that primarily because of the delay in the
	8	cleanup efforts on the river?
	9	A (Witness Lehr) The report did indicate a delay
	10	in implementation of pollution abatement measures.
	11	0 New 1983 is a federally mandated deadline, is it
	12	not?
	13	A Yes, sir.
	14	Ω Do you recognize the 1983 as the data under the
	15	Federal Water Pollution Control Act, which requires attainment
	16	of class A water quality standards for all rivers in the
	17	United States?
	18	MR. SMITH: Object.
	19	Asking for legal conclusion.
	20	CHAIRMAN LUTON: All right.
	21	Let the witness answer if he can.
	22	WITNESS LEHR: I understand that date to mean the
	23	attainment of a goal of fishable, swimmable waters, which is
	24	a term commonly associated with what is known as class B
	25	standards in many states.
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1 BY MS. BURT: 2 And 1983 is the current goal under the Federal 0 3 Water Pollution and Control Act, correct? 4 A (Witness Lehr) That's my understanding. 5 And the delay in the "cleanup efforts" referred to 0 6 on page 4-6, referred to delay in construction of major 7 municipal wastewater treatment plants, or industrial treatment plants. 3 Isn't that correct? 9 10 A The report did not go into great detail. It indicated a delay in implementation of pollution abatement 11 measures for both municipal and industrial supplies, or --12 excuse me, sources of pollution in the Merrimack basin. :3 0 Now, Mr. Lehr, that's interesting the delays in 1.4 report specifically refer, don't they, to slippages in 15 construction schedules for new treatment plants at Lowell, 16 Nashua and Ayer? 17 A I don't recall. 18 0 You don't recall? 19 A No. 20 Q Are you aware of treatment plants for treatment 21 facilities at those cities? 22 A Would you repeat the question, please? 23 Q Let me just rephrase the question. 24 Are you aware -- where is Lowell? 25

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1	Is the city of Lowell located on the Merrimack
2	River?
3	A Zes, it is.
4	Q And where is that located in reference to sites
5	1, 2 and 2-A?
6	A It is located downstream from these sites.
7	2 Downstream.
8	And Nashua, New Hampshire, we have established
9	is located upstream, correct?
10	A Yes.
11	Q And the City of Ayer, is that Massachusetts, or
12	New Hampshire?
13	MR. LEWALD: I'm going to object. There isn't any
14	city of Ayer, and this description or misstatement of the
15	political entities we are talking about is going to be
16	awfully confusing to the record.
17	CHAIRMAN LUTCN: Let's go ahead with it.
18	BY MS. BURT:
19	Q Mr. Lehr, are you aware, of your own knowledge,
20	where the municipality of Ayer is?
21	A (Witness Lehr) Yes, I am.
22	Q And where is that.
23	A It is located in the State of Massachusetts in
24	the approximate southwest direction of the sites 1, 2 and 2-A.
25	Q It's located southwest. 2347 137
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inm12	1	Is this municipality located on the Merrimack Riv r?
	2	A No, it is not.
	3	Q What river is it on?
	4	A Looking at this map I would say it is on the
	5	Nashua River.
	6	Q And from your description of the pollution problem
	7	on the Merrimack upstream of sites 1, 2 and 2-A, are you
	3	referring primarily to potential pollution sources from
	9	Nashua, New Hampshire industrial and municipal?
	10	A No.
	11	I would refer to just the upstream area.
	12	Q Does the New England River Basins Commission
	13	consider the Merrimack River in discrete segments?
	14	A The report as I recall, the report treated the
	15	Merrimack River Basin as a whole. I don't think the term
	16	"resource area" is quite correct, but they did consider it as
	17	a separate entity or a grouping for their own purposes. They
	18	divided New England up into several areas.
	19	Q And what is the area in which sites 1, 2 and 2-A
	20	are located?
	21	Does that have some kind of pseudonym; upper river,
	22	lower rive? Are you aware of what is referred to?
	23	A You mean in the New England River Basin
)	24	Commission's Report?
	25	Q Yes.
		2347 138

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mm13 1	A	It was located within the Merrimack River area or
2	basin.	
3	Q	And how long is the Merrimack River?
4	A	I don't know.
5	Q	You don't know?
6		MR. SMITH: The witness answered the question.
7		BY MS. BURT:
8	Q	Do you consider that Nashua's municipal waste and
9	associated	industrial waste are a principal source of pollution
10	for on	the Merrimack River which passed by sites 1, 2 and
11	2-A?	
12	3g e	MR. SMITH: Mr. Chairman, that question has been
13	asked and a	answered.
14		CHAIRMAN LUTON: I think so, but let's have it
15	answered a	g*in.
16		WITNESS LEHR: Yes.
17		BY MS. BURT:
18	٩	Does Nashua presently have secondary treatment?
19	A	(Witness Lehr) I do not believe so, based on my
20	recollectio	on of the information obtained in the reports.
21	Q	Do you know if it has any treatment?
22	A	I believe that they now have a primary treatment
23	facility as	vailable.
24	Q	Are you aware of plans pursuant to the Federal
25	Water Polls	tion Control Act, to install a new waste treatment
		2347 139

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ml4	-1 -	facility at Nashua?
	2	A I'm not aware of the dustils of the plans.
	3	I would tend to think that yes, they are under a
	4	mandate to achieve at least secondary treatment for their
	5	industrial and municipal waste.
	6	Ω You are aware of plans for the upgreding or
	7	installation of a new treatment plant at Mashua, is that
	8	correct?
	9	A No, I didn't say that.
	10	I said that from my knowledge of the requirements
	11	of the Pederal Water Pollution Control Act, that such plans
	12	I would expect such plans to be in existence. I have not
	13	studied such plans and I am not awars of the fact that a
	14	particular plan is scheduled to go in at a particular time.
	15	I do know that advanced water treatment facilities
	16	are not planned for the lower portion of the Merrimack live
	17	Basin in the State of New Hampshize. I say this based on my
;	18	analysis in the Seabrook case.
1	19	Q From the Seabrook Case.
2	20	And that was in connection with the Litchfield
2	1	facility the Litchfield site?
2	2	A That was a site that was located on the - proposed
2	з	on the Marrimack River.
2	4	Q And there were no where is Litchfield located?
2	5	How far above the Massachusetts border is Litchfield located?
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man15 1	A I don't know exactly.
2	I'm told it is 17 miles.
3	Q 1" miles.
4	So you are not aware strike that.
5	On page 4-5 of the FES, however, you refer to
6	delays in cleanup efforts.
7	You are not aware of a completion date for a new
8	Cacility at Nashua?
9	A No, I am nou.
10	Q You did not contact any state officials in Way
11	Sampshire to inquire of that matter?
12	A Not specifically for that matter, no.
13	Q Or EPA Region 1?
14	A No.
15	Q Mr. Masnik, turning for a moment to page 4-11, you
16	state at the top of the page, first full paragraph, you state
17	that the anticipated impact of the intake, on fish intake
18	at sites 1, 2 and 2-A due to impingement and entrainment, is
19	judged to be insignificant.
20	Is that not correct?
21	A (Witness Masnik) Could you tell me where you are
22	again, please?
23	Q First paragraph or it might look like the
24	second paragraph on page 4-11. I'll read you the sentence:
25	"The anticipated impact to the fish population
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an16	1	presently inhabiting the Merrimack Siver due to
	2	impingement and entrainment is judged to be
	3	insignificant primarily because of the present poor
	4	quality of the fishery."
	5	Do you see that sentence?
	6	A Zas, I do.
	7	Q Now, the intake and discharge for sites 1, 2 and 2-A
	3	excuse me, the intake only, would those all be located at the
	9	same point of the river for any one of those sites?
	10	A Based on what was supplied to us by the Applicant,
	11	the intake structure would be at approximately the same
	12	location on all three sites.
	13	Q And that location on the river possesses a gravel
	14	bar which you describe on page 4-11?
	15	A Based on my examination of the document prepared
	13	by the state which included a bottom survey, they measured a
	17	gravel bar in the vicinity of where the intake structure was
	18	proposed.
	9	It happened to be the only gravel bar for some
:	20	distande downstream, and since it was a state report there
3	21	was no information upstream which would have been in New
:	22	Hampshire.
2	23	So, my assumption was that the gravel bar was
2	2	a unique characteristic of that area.
1	5	Q Unique in what sense?
		2347 142

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ana 1, 7	1	A The fact that there just was not did not have
	2	any gravel boston type areas in the area for some distance
	3	downstream.
	4	Q And the significance of a gravel bar in terms of
	5	aquatics, is a potential spawning area, is that correct?
	3	A Potentially, depending on the figh species that
	7	inhabit the area, a gravel bar is often a preferred habitat
	8	for spawing.
	9	2 Now you are aware that Massachusetts has plans ac
	10	reestablish an anadronous fishery on the Merrimack River?
	11	A I'm aware of that.
	12	But I think I was als, corrected in the comments
	13	in that there are several other agencies in addition to the
	14	State of Massachusetts, that are involved in this restoration
	15	project.
	16	Q Your reference didn't bother the Commonwealth of
	17	Massachusetts.
	18	What species are planned to be reestablished in
	19	the Merrimack under this program?
	20	A Atlantic salmon and American shad.
	21	Q Do those species tend to lake gravel locations ca
	22	rivers for spawning?
	23	A The Atlantic salmon might. However, the river is
	24	quite large there, and it is questionable as to whether or
;	25	not the salmon may use this gravel bar, if it indeed still
		2347 143
	-	2347 145

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1	exists. Gravel bars in rivers have a tendency to appear
2	ard disppear.
3	Q Now you give a reference 34 as the source of
4	information that a gravel bar exists on that stretch of the
5	river.
6	34 is an Annual Progress Report, is it not, on
7	the Anadromeus Fish Project of the Marrimack River,
3	Anadromous fish Restoration Study?
9	A Yes.
10	Q Are you looking at the references on page 6-27
11	5 I am.
12	Q What is the date of that publication?
13	It is not indicated in the reference.
1.4	A There are two dates. One, 1 June 178, and the
15	second one, 31 May '69.
16	Q It appears to me to be in error, Mr. Masnik. It's
17	a little hard to go chronologically from June 1st.1978
18	to May31st, 1969.
19	Is that an error?
20	A I would agree that there is probably an error in
21	this case.
22	Q So June 1st, 1978 should be June 1st, 1968?
23	A Let me check to see if I have a correct reference
24	before I say anything further.
25	Q Perhaps I can help you. I think I may have the
	2347 144

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mm19 1	document.	
2		(Handing document to withess.)
3		Is this the proper document reference 34.
4		Could you identify the title on the cover?
5		MP. SMITH: Ms. Burt. could I see that?
6		MS. BURT: I'm sorry.
7		(Handing document to counsel)
8		
9		2347 145
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CR4780	1	BY MS. BURT:
.david	2	Q Mr. Manak, that that appear to be the
david 1	3	proper reference 34, tht document?
ake 2	4	(Pause.)
	5	A I would say that it appears that way, although I'm
	6	not convinced. I was inder the inderstanding that the
		one I had was a little more recent, but this could very well
	7	be the document that I reviewed.
	6	Q And would you please identify the document for the
	э	secord.
	10	
	11	is the mandar Progress Report of the Anadromous
	12	Fish Fish Restoration Study, Massachusetts AFS 7 for the
		period June 1, 1968 to May 31, 1969.
	:3	Q Doesthe title page indicate that that document
	14	was prepared by Peter H. Catis and Colton H. Bridges?
	15	A It does,
	:6	Q And are those the same authors of the study to
	17	which you refer in reference number 34?
	18	A They are.
	19	Q Mr. Masnik, how long has the anadromous fish program
	20	for the Merrimack River been in existence?
	21	A I don't know the precise date, but I would imagine
	22	since at least 1969.
	23	Q You don't know when it was begun?
)	24	A No, I do not. 2347 146
	25	
		Q And wat state agencies are associated with that

and the second	1.1	
david2	1	program?
	2	A The Fish and Wildlife Agencies of Massachusetts
	3	and New Har Jushire, the National Marine Fisheries Service,
	4	and the Fish and Wildlife Service.
	5	Q Lo from what document are you reading right now?
		A The final environmental shatement.
	6	Q What page?
	7	A A31.
	3	I'd like to correct that. That was the final
	9	supplement to the final environmental statement.
	0	Q Ard page A-31 contains the comments to the
	11	draft supplement of the Department the U.S. Department
	12	of Interior; is that not correct?
	13	A That is corract.
	14	Q When you prepar a draft supplement, were you
		aware of the agencies involved in this anadromous fish
	15	restoration program?
	16	A I was aware that the National Marine Pisheries
	17	Service and the State of Massachusetts were involved in it.
	18	Q Now, this program - you said an objective of
	19	this program is to reestablish and salmon and shad run
	20	on the Merrimack River, is that not correct?
	21	A That's correct.
	22	Q What parriers exist between sites 1-A 1, 2, and
	23	2-A to the migration of those species to the proximity of
	24	the site?
	25	Do you know that of your own knowledge, Mr. Masnik?
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Without consulting the other ambers --

2 I do know that there is a dam at Lowell. A There is a dam at issall; what's the name of 3 0 4 that dam? I think it's the Lowell dam, and there is also 5 A a dam, I believe, at Lawrence. 6 Lawrence. Do you recognize the Lowell -- jou's : 7 0 not certain what the name of the dam is at Lowell? 3 I was told it was Prwtucket Falls. 2 3 CHAIRMAN LUTON: That doesn't do any good; the: 's 10 too much whisparing going back and forth. 11 MS. BURT: Yes, would you please stop coaching 12 the witness. 13 CHAIRMAN LUTON: That was not the witness's 14 answer. Who told him? We have no way of knowing. 15 MR. SMITH: Mr. Chairman --16 CHAIRMAN LUTON: It's really difficult. 17 MR. SMITH: I know, but if Ms. Burt is interested 18 in information, if she sees that other parties have that 19 information, it's only fair that the information be brought 20 out by the person who has the knowledge, particularly 21 when they're asking names of dams and things like that. 22 CHAIRMAN LUTON: This isn't quite a round robin, 23 however. Ms. Burt ought to have some ability to cross 24 exaine in the manner which she likes; it's not inconceivable 25 that she might want to do something with a particular

10.672 witness. It isn't simply a matter of getting the information. david4 1 Cross examination sometimes proceeds on the basis of 2 information that s known to the examiner for various teaso s. 3 MR. SMITH: But the Commonwe 14h --4 Ch. IR AN LUTON: I on't k of that's why five 5 get to let the Commonwealth do it the way that it wants to 6 do it. If Ms. Burt wants to put questions to any member 7 of the panel in particular, she ought to be able to do tha ; 8 if she just wants the information from any member of the 9 ganel who might have the information, she can put her wrst on 10 in that form. 11 But apparently she too is traubled by the 12 whispering that's going back and forth and she doesn't 13 intend to conduct her examination that way. 14 MS. BURT: Thank you, Mr. Chairman. Mr. Lehr, 15 would you stop coaching Mr. Masnik, 15 I would make it clear for the record that it 17 is not the intent of the Commonwealth to obsure the truth 18 in this matter, but rather to probe Mr. Masniks' 19 knowledge of the anadromous fish program. 20 CLAIRMAN LUTON: That's all right, Ms. Burt. 21 go ahead with your cross examination. And direct your 22 questions to one witness at a time if you want to and 23 let's get a response from that witness, 24 MR. SMITH: Mr. Chairman, you're ruling that 25 the panel cannot confer? 2347 149

david5 CHAINMAN LUTON: I's ruling that -- that that 1 ought not he -- when quastions are put to a particular 2: witnesses and answers are sought from that witness, that 3 ought to be the witness who answers. That's what I'm 4 ruling. 5 MR. SMITH: It seems that ruling is that they 6 cannot confact, then? 7 CIMPMAN LUTON: If you understand it that way, 3 I suppose it will have to be that way, 9 BY MS. BURT: 10 Mr. Masnik, from your knowledge of this 0 11 anadromous fish program -- excuse ne. Strike that. 12 From your consultation with the document: 13 identified as reference 34, did you read this study? 14 Document 34? A 15 Yes, the one that you -- the reference that you 0 :6 identified as document 34, the reference? 17 Yes, I did read it. A 18 This document contained a study of attempts to 0 19 reestablish -- I mean -- strike that, 20 Did this study evaluate the angler -- and by that 21 I mean fishery potential of the Merrimack River in 22 Massachusetts? 23 A I -- my recollection of the document was a 24 series of surveys done on the river which indicated what the 25 2347 150

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6	1	fishery at that time was in the river in part. I believe
	2	other sections of the document included the bottom survey
	3	as well.
	4	O You mentioned that there ware two dams
	5	On the Mernimack River downstream of this site of sites
	5	1, 2 and 2-A, Iowell and Lawrence; Lowall would be the
	7	closer dam to the sites is that correct?
	3	A I said I was aware of two dams.
	9	0 Which dam is closer to the site?
	10	A The Lowell dam.
	11	Q Then how far away is the Lowell dam from sites
	12	1,2, and 2-A?
	13	(Pause.)
	14	A About between 5 and 10 miles, I would say.
	15	Q Between 5 and 10?
	16	A Approximately.
	17	Q Could you give me a finer figure than that?
	18	A No, I cannot by that measurement.
	19	Q What were the conclusions of this study identified
	20	as reference 34 with respect to the potential as a fishery
	21	resource of the segment immediately above the Lowell
	22	dam?
	23	A My recollection was that the potential was there;
	24	however, there was a poor present quality of fish in that
	25	stretch of river.
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1	Q In comparison to the other stretches of the
2	river analyzed in the study, wasn't it the conclusion that
3	this segment had the highest potential for recovery?
4	A I did not review the other segments of the river.
5	Q You reviewed only this segment of the river?
6	A I reviewed this segment of the river.
7	Q Did you read the summary and conclusions of the
8	various studies reprinted in that document?
9	A I balieve I did.
10	2 And the summaries and conclusions refer to the
11	whole river?
12	A I have no recollection of whether or not it referred
13	to the whole river or other than the part I was interested
	in.
	Ω Wouldn't an objective of this study that was
1	trying to establish the recovery potential of the river
	Want to know what the comparative quality of the segments
	were?
	A I don't know if I feel qualified to answer what
	the potential someone else's potential in a study is.
	Q Mr. Masnik, with respect to restoration of
	the shad fishery on the Merrimack river, what are the extent
	what is the extent of the fishery present to date? What's
	being done?
	A The major effort is in the construction and
25	operation of fish passage facilities at the dams. This is
	2347 152
	2 3 4 5 6 7 8 9 10 11

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ivid8 1	coupled with efforts to reduce or improve the water
2	quality at these locations well, at on the river itself
3	to potentially support the shad population.
4	Ω Are shad eggs now being put in the upper reaches
5	of the river?
6	(Pause.)
7	A I'm not sure.
3	2 You do not know whether or not the shad aggs are
Э	being put in in Massachusetts at any point in the river?
10	A I can't specifically site a reference to where
11	these are being put in off the top of my head. It would
12	it would be a logical assumption that to restore fish you would
13	have to stock aggs in areas where they might become
14	established.
15	Q And the reason for that is so that the shad will be
16	imprinted I believe the word is to return to that
17	river from which they were spawned; is that not correct?
18	A That's correct. If the species is extirpated from
19	the body of water, the only way you can reintroduce them
20	is by stocking with eggs, in this case, eggs.
21	Q But you do not know whether or not shad eggs are
22	pesently being put into the Merrimack?
23	A I think I answered that already.
24	G Thank you.
25	
	DR. CALLIMAN: MS. Burt, a point of information, 2347 153

david9	1	please.
	2	MS. BURP: Pardon?
	3	DR. CALLTAN: Eas your recent question or series
	4	of questions referred to sites 1, 2-A and 2?
	5	MS. BURT: Yes.
	3	DR. CALLINAM: I would like to ask the staid
	7	therefore to locate the Merrimack with respect to site 1.
	3	Now, all I have found in the testimony is figure 3 on page
	9	4-7; now, is ther ein the testimony a composite map that
	10	locates the site 1 with respect to the other and have 2
	11	missed it?
	12	WITNESS LA ROCHE: Site 1 is directly west of
	13	the Marrimack River.
	14	DR. CALLTHAN: I would much rather would
	15	you go to figure 3 on page 4-7, because that we can carry home
	16	With us; the other we cannot.
	17	WITNESS LA ROCHE: It would be on the right; if
	18	you hold the booklet in order to read the map correctly, then
	19	it would be on the right side, about five miles
	20	DR. CALLIHAN: That's east? East of the imprint?
	21	WITNESS LA ROCHE: Yes.
	22	DR. CALLIHAN: East of the river; is that true?
	23	WITNESS LA ROCHE: Correct.
)	24	DR. CALLIHAN: East how far?
	25	WITNESS LA ROCHE: ABout five miles, five.
		DR. CALLIHAN: At that point, what's the direction
	-	2347 154

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of the flow of the Merrimack?	
WITTHENS LA ROCHE: North and south, from	north
to south, I guess it is.	
DR. CALLIHAN: So it's about five miles	from the
margine of the the eastern margin or the top mar	gin.
WITNESS LA ROCHE: Approximately.	
DR. CALLINAN: Five miles from the margi	a of that.
WITNESS LA ROCHE: Approximately.	
DR. CALLIMAN: Thank you.	
BY MS, BURT:	
Q You said in your earlier testimony, Mr.	Masnik, tha
two of the objectives of the fishery program were t	o establish
fish ladders concurrently with attempts to improve t	he
water quality of the river. Is that not correct?	
A (Witness Masnik) That's correct.	
Q To your knowledge, have the cities of Lo	well and
Lawrence been major sources of municipal sewage pollution of	
the Merrimack River downstream of the sites 1, 2 and 2-A?	
A I thinkthat question could be better ans	wered by
the water quality expert.	
Q I'll ask Mr. Lehr.	
A (Witness Lehr) You refer to Lawrance an	d Lowell
as being major sources of Municipal waste to the Merrimack	
River; is that correct?	
Ω In connection with the establishment	
reestalishment of the anadromous fish progra	m;
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	NITTERS LA ROCKE. Morth and south, from the south, I quest it is. DR. CALLTHAN: So it's about five miles and any of the the eastern margin or the top mark with the set of the the eastern margin or the top mark with the set of the the eastern margin or the top mark with the set of the the eastern margin or the top mark with the set of the the eastern margin or the top mark with the set of the set of the fishery proving the mark of the objectives of the fishery program were the the defers concurrently with attempts to improve the test of the objectives of the fishery program were the the hadders concurrently with attempts to improve the test of the fishery program were the fisher question of the sites 1, 2 and 1 (Mitness Masnik). That's correct. A full test Mark the destion could be better and to water quality expert. A full test Mr. Lehr. A (Mitness Lehr) You refer to Lawrance and statemy is that correct? A full test Mr. Lehr. A full connection with the establishment freestilishment of the andrenous fish program.

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Mr. Masnik has said that that program is to both ensure avidil 1 improvement of water quality and the establishment of 2 fish ladders on dams on the Marrine & River, 2 My question is: in the past, to year knowledge 4 of this river, have the cities of Lawrence - municipalities 3 of Lawrence and Iwell, Massachusetts been major sources of 2 pollution for the river? 7 I ballave that to be a true statement, yes. 2 8 Is it your testimony that these -- these are still 0 9 major sources of pollution to the Herminade River? 10 I cannot say for certain; I have no curment water A 94 quality data taken from point sources in either of these 12 cicias. 13 Are you aware of whether or not these two Q 1.1 cities have new secondary municipal waste water treatment 15 plants installed? 16 A I believe they're under construction; I'm not 17 aware of their status, though. 18 You're not aware of whether either one or both 0 19 are in operation at this time? 20 A That's correct. 21 Did you ever call the division -- Massachusetts 0 22 Division of Water Pollution Control to ascertain the fact? 23 I spoke with the Massachusetts Division of Water 24 A Pollution Corrol concerning the quality of the waters in the 25 2347 156

10,050 1 Merrimack River. cavid12 2 But you did not ask them with respect to Q treatment facilities at lowell and Lawrence? 3 4 A No, I did not. 0 Are you aware -- strike that. 5 Mr. Masnik has identified that there are two 6 dams as potential pasent barriers to the restoration of 7 the anadromous fish program. 8 He identified one as the Lawrence dam -- excuse me. 9 This is Mr. Manik; I would like to ask him a question. 10 You identified one as the Lawrence dam. 11 (Witness Masnik) No, I identified the fact A 12 that there were dams in the towns of Lawrence and Lowell; : 13 believe the name of the dam is the Lawrence dam .. 14 15 Are you aware of the new hydro -- low head hydro 0 15 project plan for the Lawrence dam? 17 No, I am not aware of it. A What is the current schedule of the anadromous 18 0 fish program's installation of fish ladders at Lawrence? 19 20 (Pause.) 21 I had discussions with someone at the state A 22 concerning sturgeon in the Merrimack, and it was my understanding that the fish ladder was not completed; however, the 23 indication I got was that it was going to be soon. I 24 don't have a precise date as to when it would be 25 2347 157

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completed.

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	Q Perhaps to be completed in the early 1990s is
3	that what he said?
4	A I would imagine that's reasonable.
5	Q Who did you speak to?
6	A Just a minute.
7	(Pacize.)
8	Mr. Russell Intencwicz.
9	Q Is that commendation referenced in the
10	references at the end of the IES?
11	A I believe they are. I believe it is,
12	Q Can you identify that for us?
	(Pause.)
13	The only communication, if it would be
14	(Pause.)
15	A That's reference 30.
18	
17	and pointing of the name that you gave ma
18	beofre you returned to that reference different than
19	that presented in reference 30? There's an R. Pernazi.
20	Did you have someone else that you had identified previously?
21	A I believe there were several phonecalls, initially
22	to Rusty Iwanowicz who referred me to Joe Pernazi.
23	Q And you spoke to Mr. Pernazi with respect to
24	the shortness of sturgeon.
	A I spoke to both individuals, but Mr. Pernazi had
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david14	1	the most information or had the datailed information that
	2	We needed at the time.
	3 1	Q On the shortness of sturgeon?
	4	A That's correct.
	5	9 When are the fish Ladders scheduled for
	6	complation at the Lowell dam?
	7	A I'm not sure; I I don't know.
	8	Q Any estimate? Five years before operation of
	9	the potential Pilgrin 2 at these sites, from 19 the
	10	predicte: 1986
	11	A Again, I don't know the status of the situation.
	12	Q Mr. Johnson, I'd like to ask you a question.
		Turning for a moment to pape 417 of the PES: I'm referring to
	13	the second portion, top of the page, which is a continuation
	14	of section 4.4.5 on hydrology.
	15	You conclude that with respect adequate water
	16	for a unit, a nuclear unit at any one of the three sites
	17	in question sites 1, 2, or 2-A that an augmentation
	18	reservoir would be required; is that not correct?
	19	A (Witness Jonsson) Yes, Either an augmentation
	20	reservoir or somet other means of flow elementation in
	21	addition to the reservoir.
	22	Q And what would "some other means" be?
	23	A Well, as an example, on on-site storage pond
	24	which is some sort of an augmentation reservoir. It isn't
	25	exactly, but say some kind of self-contained site structure
		2347 159

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which would pond enough tator so that the water could be avid15 1 relaased when nacessar 2 Also, another means of lugalization -- and I 3 believe that the applicant thinks that this may be possible 4 is that the reservoirs which are upstream could be regulated 5 such that the flow past the site would not impact any of 5 the downstream users. 7 That's also another possibility, and some other 3 means would be -- another means would be an augmentation 0 reservoir constructed on the main stream of the river -- well, 10 the Marrimack River or one of the tributaries to the 11 Merrimack upstream for -- from the site -- sites, 12 Now, your criginal conclusion, then, augmentation O. 13 reservoir would be the preferable means for providing water 14 for flow is because of competing water needs in the Merrimack 15 River; is that not true? :8 That is one of the reasons why the augmentation A 17 would be required, yes. 18 No, my question was not why it would be required, 2 19 but why you chose to suggest that an augmentation reservoir 20 would be the preferable means of providing adequate flow. 21 Well, I'm not aware of any other type of A 22 structure or system which could provide -- which could 23 provide sufficient water that could do something like this, 24 augment river flows. We're talking about quite a bit of 25

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avid16	1	water, not a small amount,
	2	Q A large amount o fwater would have to be impounded?
	3	A Probably, yes; if it were found if a detailed
	4	analysis were done and it was found that upstream reservoirs
	5	could not be rerouted.
	6	Q Is the Merrimank river presently a regulated
	7	river?
	3	A Very regulated, yes.
	9	There are about 350 dams
	10	Q Are regulated
	11	A No, no, most well, I won't say "most." Many
	12	of the dams are what are called run of the river dams. The
	13	water well, the outflow essentially corresponds to the
	14	inflow with very little time delay is essentially :
	15	what that means. But most of them are low head power
	16	dams which which store the water during the night and
	17	release it during the day.
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10,085 1 idelon C Are the dams immediately upstream from sites 1, Davia 2 mpbl 2 and 2A presently operational? 3 There are several dans on the Merrimack River A 4 upstream of sites 1, 2 and 2A which are operational, yes. 5 One example would be Amstead Dam which is, I believe, in 5 Manchester. 7 And Manchester where, where is Manchester? 0 8 That's in New Hampshire. 2 9 And is Manchester north or south of Mashus? 13 10 Manchester is north. A 11 0 Is that the closest -- the first dam that one :2 encounters going north of sites 1, 2 and 237 13 I don't think so. I believe that there are others. A 14 I think there's a dam at Nashua, I'm not 100 parcent sure. 15 In order for a river to provide -- strike that. 0 16 When we speak of an alternative means such as :7 low flow obligation, are you talking about the concept of a continuous release from dams during low flow periods of the 18 :9 river? 20 What I'm talking about, what I'm referring to A is essentially an impoundment which could replace the water 21 22 that would be consumptively used by a nuclear power plant such that the plant itself would not impact -- or that the 23 water use of the plant would not impact any downstream use, 24 such as fisheries, such as water supply, and also recreation. 25 2347 162

Q What about compatition of water supplies to upstream users, upstream of an augmentation reservoir?

3 2 I don't believe that any augmentation reservoir 4 would have a serious elfect on any upstream water users. The 5 reason for this is because any augmentation reservoir that 6 would be constructed would store water which was available 7 during high flow periods. The water would be -- for example, 3 during the spring the water would be stored from spring run-9 off and then released in the summertime during the low flow :0 months when it is most critically needed.

11 Q Now you have said that such a reservoir would have 12 to be quite big, you said.

A Well --

Q How big?

A First of all, there are several uncertainties in trying to predict the size of the augmentation reservoir, and it does require a very detailed analysis in order to do this. Some of the uncertainties that are involved would be first of all, in the Merrimack River basin, I don't think anyone knows exactly how much flow is required to meet all the needs of the basin.

The Merrimack River has been studied by many state and federal agencies, and to the best of my knowledge I don't believe that any state or federal agency has ever come up with a number which says that "X" amount of cfs would satisfy the

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needs of the basin.

	needs of the basin.
2	Also, anoth z factor which enters into this is the
3	Applicant would have to conduct some sort of cost-benefit
4	analysis such that they would determine which drought or
5	what period of drought or what frequency of drought that the
đ	augmentation reservoir would have to be designed for.
7	One other factor that enters into the thing is
8	plant operational modes. It could well be that the most cost
9	beneficial thing to do would be to shut down the plant during
10	periods of low flow. I don't know that that would be the
11	most desirable, but that is an option.
12	And also the location of the reservoir would also
13	affect its size.
14	Now what I can do for you is during the Seacrook
15	review in studying the Litchfield site we did use an example
16	of flow augmentation which was proposed for the Perkins Nuclear
17	Plant which is in South Carolina North Carolina, on the
18	Yadkin River, Y-a-d-k-i-n River. And we do have that and
19	that was in the Seabrook testimony, and it gives you a rough
20	idea of what size of reservoir would be required based upon
21	three different flow requirements that were proposed for the
22	Yadkin River. And I can get that if you'd like.
23	Q Without referring specifically to the document or
24	getting to that level of detail, do you recall from your
25	testimony in the Seabrook case the range of size of

mpb4 impoundment that would be required? 2 A Well, off the top of my head, I believe that the 3 impoundment, were about 100 feet high on the averages and 4 stores like on the order of 10,000 acre-feet of water. Now 5 I should point out that was for two units, so that this 6 reservoir would not have to be that large. Probably -- if I 7 had to guass, and I support that's mat you want, is a rough 8 JUESS? 9 0 Yes. 10 I'd say about 50 feet high and impound 5- to A 10,000 acre-fast of water. An acre-foot of water is about 11 -- it's 43,000 cubic fact of water, if that helps you. 12 13 I wonder if you could reduce that to a concept 0 that I can grasp in my simple mind. What's that in square 14 15 miles? Okay. 5000 acre-feet would be -- Well, a 50 acre 16 A pond 100 feet deep --17 18 0 All right. Thank you. 19 A -- as an example. 20 Now that impoundment, of course, would have to be 0 uostream of sites 1, 2 and 2A, is that not correct? 21 22 It could be downstream -- Well, I think the most A preferable place would be to put it upstream, because if 23 you put it downstream it would be a stretch of the river which 24 would have the flow reduced, depending on where you put it. 25 2347 165

1 So if you put it upstream, if you knew the plant was using 2 30 cfs or so, then you could put that back in from upstream. 3 Now such an area of an impoundment could poten-0 4 tially conflict with current land uses upstream of sites 1, 3 2 and 2A, is that not correct? 6 A I would think that would be possible, yes. 7 Did you investigate the closest area upstream of 0 3 sites 1, 2 and 2A that might have land area available or that 9 was not densely populated? :0 A No, I did not. What town is immediately north of Tyngsboro and 11 2 12 Dunstable, Massachusetts? 13 A What town is immediately north of ---What municipality, either in Massachusetts or 14 Q 15 New Hampshire? I would think that would be Nashua, New Hampshire. 16 A And immediately thereafter, what municipality 17 Q follows up on the Merrimack River going north? 18 I believe Manchester, I think. Concord? I'd 19 A 20 have to consult a map. 21 (Pause.) Immediately upstream of Nashua there are several 22 A small towns. There's Litchfield, Merrimack, Reeds Ferry on 23 the east side of the river. On the other side of the river --24 Q What's immediately across the river from those 25

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ĩ mpb6 towns that you have mentioned? 2 A The interstate highway. 3 Q Is that right along the river? 4 A Yes. 5 Now you said that one of the major uncertainties 0 G of the Merrimack is that it's not yet -- the needs, the 7 water needs of the Merrimack have not yet been identified in 2 quantity. 9 Is it a fair statement to say that the amount 10 of competing water needs is substantial on the Merrimack 11 River? 12 I would say that given the fact that the flow does A 13 drop to very low levels in the summertime, yes, there are 14 competing uses of the river. 15 Can you give me a few examples of those competi-Q 16 tive uses? 17 One of the uses is water supply. For example, A 18 there is some talk of diverting water from the Merrimack 19 River to Boston as part of the Boston water supply. There 20 are efforts, as we discussed here before, to establish the 21 fisheries in the Merrimack which would require clean water. 22 There is also a recreation potential for the river, swimming, boating, fishing, et cetera. 23 24 Q What about water supply in New Hampshire? 25 What do you want to know about it? A

10,090

1 mob? 2 Do the cities of Nashua, Manchester or Concord 2 use the Merrimack for water supplies? 3 A I believe -- I'm not 100 percent sure, but I 4 believe they use groundwater as their water supply. 5 Q Do you know if they have plans to use the 6 Merrimack as a drinking water supply? 7 A I don't know that they specifically have plans. 8 But based upon one of the references that I've read, there 9 are plans to use the water upstream of the plants also. 10 There are plans. 11 0 Thank you. 12 Mr. LaRoche, you were responsible for assessing the terrestrial ecology and land use of sites 1, 2 and 2A, 13 14 is that not correct? (Witness LaRoche) Yes, that's correct. 15 A Turning for a moment to page 4-12 of the FES. 16 0 17 A Yes. Under Section 4.4.2 is a description of sites 1, 18 0 2, and then on the following proje is 2A. 19 You state on that page that sites 1 and 2 would 20 require preemption of a wildlife habitat. What kind of a 21 22 wildlife habitat is that? Just the normal wildlife in New England, the 23 A rabbits, squirrels and various bird species, amphibians, 24 reptiles. 25 2347 168

		10,092
8dq	1	Q has how did you decommine that?
	2	A Just by knowledge of the general ecology of
	3	New England.
	4	Q Now sites 1 and 2 are identify as both having
	3	prime farmland of state and local importance on those sites.
	6	A Correct.
	7	Q What is the significance of that designation?
	8	A This is just a way of classifying land for
	9	potential use by the scil conservation service of the
	10	United States Department of Agriculture.
	11	Q And the designation of "prime" means what in that
	12	ranking?
	13	A That is the best familiand available.
	14	Q And how does land acquirs the designation of
	15	state and local importance?
	16	A This is done on a local level. Within each state
	17	the Soil Conservation Service and the local farm agencies
	18	establish which soil types will be so designated.
	19	Q Now in the earlier description of the site,
	20	beginning on page 4-8, site 2 is identified as having prime
	21	farmland in orchards which bay be classified as "unique
	22	farmland".
	23	What is the meaning of the designation "unique"
	24	farmland?
	25	A Unique farmland is land that is capable of
		2347 169

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mpb9	1	supporting	a very specialized crop, such as cro	handa
	2		ogs and blueberries.	1102 (4.5 7
	3	0		
	4		Mr. LaRoche, Dr. Callihan had asked	
		identify on	n Figure 3 the location of the Merrim	ack liver,
	3	correct?		
	S	А	Yes.	
	7	2	And you had identified the river as	existing
	3	approximate	ly five miles to the east of the sit	e?
	9	А	That's correct.	
	10	2	And that would be on the top of the	page as
	1	ic appears?		
1	12	А	Correct.	
1	13	Q	Can you describe for me the topogram	phy or the
1	14	terrestrial	significance, or just a description	Would you
1	5	please desc	ribe for me the land between the east	tern boundary
1	6	of the site	on site 1 for five miles until you of	get to the
1	7	river?		
1	8	A	Rolling hills.	
1	9	Q	Now site 1 is proposed for natural of	lraft cooling
2		tower system	ms, is it not?	
2	1	A	That's one of the options.	
2	2	Q	In addition to a spray pond?	
2	3	Α	I'm not sure if it's a spray pond, i	it's just a
2	4	reservoir p	ond.	
2	5	٩	A reservoir pond.	2347 170
	1			

POOR ORIGINAL

asbio 1	II a cooling toyer is used on the side toyald
2	allas raquine approximately fire ailas of pipe to rouch the
3	Varrinaak River from size 17
4	A Convect.
5	9 And that would require subrampial obtainant of
5	right of any ar nocear on those colling mills?
7	λ Correson.
3	a for damp would those gipes more to be burnles?
Э	2 Camit show.
10	C muching for a memory to page 4-10.
11	on. 3012N: Shah paga?
12	08. SURF: 4-13 of the FES.
13	ey wa. Bury:
1.1	G Ton state in the description of St's outbut in
15	the description under site 2A that the potential inpact
16	I'm looking at the very last paragraph under section 4.4.5.3
17	- cher will be a potential impact on the onsite areas list-
13	ad in he State Gutdoor Recreation Flan.
19	What are those plans, Mr. LaRocha?
20	A This is Dr. Sykoski's area.
27	A (Witness Sykoski) Would you repeat the question?
22	Q Dr. Bykoski, would you identify for me what those
23	Two areas were in the State Cutdoor Recreation Plan?
24	A Li the next sentence the description is a small
25	area located on Pond Street, which is a campground and pionic
	2347 171

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mpbll 1	area, and Black Brook is a small area of conservation land.
2	Q And these both exist on site 2A?
3	A Yes.
4	Q Turning for a moment I'd like to speak back
3	with Mr. LaRoche, please.
6	Mr. LaRoche, in your assessment of terrestrial
7	impacts and land uses, you did not provide an assessment of
3	the impact of cooling tower pipes to the Connecticut River,
9	did you, from site 1?
10	A (Witness LaRoche) Site 1 is quite a ways from
11	the Connecticut River.
12	Q I mean the Merrimack River, excuse me.
13	A No, I did not.
14	Q Turning for a moment, Mr. LaRoche, to Table 11,
15	which is the very last table appearing in the PES, appearing
16	just following page 4-60.
17	Now this table provides a comparison of the
18	various disciplines and factors of the alternative sites
19	with the Pilgrim Rocky Point site, does it not?
20	A Yes, it does.
21	Q Turning for a moment to the column under site 1,
22	2 and 2A, turning your attention to the left-hand column to
23	number 7 under Terrestrial ecology and land use under
24	transmission lines, and there is a designation of a negative
25	or inferior for site 1, inferior to Pilgrim 2 for site 2,
	2347 172

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mpbl2 1	and equal for site 2A, is that not correct?
2	A Correct.
3	Q Where in the description of sites 1, 2 and 2A did
4	you provide an assessment of transmission lines?
5	I'd like Mr. LaRoche to answer the question, if
6	you can.
7	A (Witness Scaletti) Could I answer that, because
3	I'm responsible for number seven under this Terrestrial
9	ecology and lard use.
10	Q Mr. Scalatti, can you tall me, curning a moment
11	to page 4-12 of the FES Will you turn to page 4-127
12	Under the section under Terrestrial Ecology and
13	Land Use, can you tell me where in that section, which goes
14	from page 4-12 to the top of 4-13, there is a discussion of
15	transmission lines?
16	A There is no discussion of transmission lines.
17	
1. 19.545	
18	from page 4-6 through 4-19 there is a presentation for the
19	assessment of the impact of transmission lines on sites 1, 2 and 2A?
20	이 것은 것은 것은 것이 같이 있는 것을 것이 것 같은 것이 같이 가지 않는 것을 것을 수 없다.
21	A There is no discussion of the impact related to
22	transmission lines anyplace in the document
23	Q Thank you.
24	A except under the description of the Pilgrim
25	site, which says there will be no additional transmission
	2347 173

mpb1.3 1 lines needed. These ovaluations related to number seven in 2 Table 11 come from the fact that the submittal of the 3 Applicant, where they gave us information with regard to the 4 number of acreages that would be required for additional 5 transmission lines at all of the sites considered in the 6 1974 siting study and for Montague, Millstone and Seabrook. 7 0 Thank you, Mr. Scaletti. 3 Now with respect to your assessment of trans-9 mission lines, are you assessing only the ecological and 10 land use aspects of transmission lines in this particular 11 chart? 12 I am only assessing that there would be acreages A impacted at each of these sites that have a negative rating. 13 14 The zero ratings would indicate there would be -- that the Applicant believes there would be no impact because trans-15 mission rights of way go through the site. And this is all 15 based on the fact that Pilgrim requires no additional trans-17 18 mission lines. 19 0 Thank you. 20 Mr. Scaletti, would the existence of the Pilgrim 2 transmission line create a necessity on the grid system for 21 22 an additional line? 23 A Anyplace in the grid, the New England grid? 0 Yas. 24 I can't answer that. To the best of my knowledge A 25 2347 174

1 it might require some reinforcement. I couldn't tell you nobl4 2 where, I don't know. It does require the inclusion of some 3 circuit breakers. I can't answer that, though. 2 Did you study that matter, Mr. Scaletti? 0 5 I looked at the submittal, yes, I reviewed the E 6 submittal by Boston Edison Company. 7 Mr. Scaletti, is your opinion that the necessity Q 3 of the Walpole-Needham line has no relationship to Pilgrim 2 9 at a11? 10 I can't answer that. A 11 CHAIRMAN LUTON: We need to take a recess. 12 MS. BURT: If I could, Mr. Chairman, on this part, if I could ask one more question? 13 14 CHAIRMAN LUTON: All right. 15 BY MS. EURT: 16 Mr. Scaletti, turning your attention to Table 11, Q for the comparison of factors on Table 11, is there any 17 factor for sites 1, 2 and 2A which offers any environmental 18 advantage, and by that I mean a designation of a plus sign, 19 a superior over the Pilgrim 2 site in any one of the categor-20 21 ies listed? 22 MR. SMITH: Mr. Chairman, that's evident from the table. 23 CHAIRMAN LUTCN: Yes, it is. 24 The witness can tell us that it's evident from the 25 2347 175

mpb15	1	table, I suppose.
	2	WITNESS SCALETTI: Am I supposed to answer that?
	3	It's very obvious from the table that there are
	4	no pluses under 1, 2 and 2A.
	5	MS. BURT: Thank you very much, Mr. Scaletti.
	6	CHAIRMAN LUTON: All right.
	7	We'll recess now for 15 minutes.
	8	(Recess.)
Elws	9	2217 170
	10	2347 176
	11	
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	13	
	14	
	15	
	16	병수가 많은 것이 많은 것이 같은 것이 많은 것이 같은 것이 같은 것이 없다.
	17	
	18	
	19	법수 방법 등 사람들은 것이 같아요. 그는 것이 가지 않는 것이 같아요. 이 것을 받는 것이 같아요.
	20	
	21	
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	24	
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P4 MELTERS		CEAIRMAN LUTON: All right, let's go shead.
2		Ms. Burt?
3		BY MS. BURT:
4	Q	I'd like to ask a question of Mr. LaRoche.
5		Mr. LaRoche, if you would please turn to page 4-37,
6	the begins	ing of the description of sites 19 and 20.
7		Under section 4.7, entitled Description of Sites 19
8	and 20, ye	ou describe these sites as located on Buzzards Bay.
9		Where how big is Buzzards Bay?
10	А	(Witness LaRoche) I can't give you an actimate.
11	Q	Where are these sites where is Buszards Bay on
12	the East (Coast of Massachusetts?
13	λ	It's on the Massachusetts East Coast just south of
14	Cape Cod.	
15	2	And Buzzards Bay includes approximately how many
16	miles, per	chaps in a straight line from Cape Code, south?
17	A	About 10 miles.
18	Q	About 10 miles.
19		Mr. LaRoche, where would you like to correct
20	your answe	er?
21	A	Maybe 15.
22	Q	15 miles.
23		From what point on Cape Cod? Where is your starting
24	point?	
25		Maybe identify it by municipality.
		2347 177
Start Strates		양상 사람들은 것 같은 것 같은 것은 것은 것은 것은 것이 나는 것이 같이 나는 것이 없다. 나는 것이 나는 것이 같이 나는 것이 없는 것이 없다. 것이 없는 것이 없다. 것이 없는 것이 없다. 것이 없는 것이 없 않는 것이 없는 것이 않는 것이 없는 것이 않는 것이 없는 것이 없는 것이 않는 것이 않이 않이 않이 않이 않는 것이 않이

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mm2	1		A	From the town of Warsham to the town	of Fair	haven.
	2		Q	And Warsham would be the northernmost	t town o	£
	3	Buzza	rds Ba	ay?		
	4		A	On the west side of Buzzards Bay, yes	5.	
	5		Q	Turning for a moment to Figure 6.		
	6			Figure 6 provides a map of site 19.	That's	
	7	page	4-29.			
	з		A	Yes.		
	9		Q	Now the map does not indicate where,	on Buss	ards
	10	Bay,	this	site is.		
	11			Can you describe that for me?		
	12		A	It's in the northern portion of the	Buzzards	Bay.
	13		Q	How much north?		
	14		А	The very northern portion.		
	15		2	It's the very northern portion.		
	16			In • what town is site 19 located?		
	17		А	It's in the town of Wareham.		
	18		2	And Wareham is the northernmost town	of Buzz	ards
	19	Bay?				
	20		A	As far as I know, yes.		
	21		Q	That is the last town before the ent	rance to	o the
	22	Cape	Cod o	anal?		
	23		А	From what is indicated on this map i	t is, ye	es.
	24		Q	Turning from this map here, from	Pigure	67
	25		A	Yes, Figure 6.	2347	178
					2341	170
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mun 3	1	Q And how do you know that from Figure 67
	2	A Well, the canal begins right at the approximately
	3	right middle of Figure 5. And this is the town of Wareham.
	4	Q And the beginning of the Cape Cod Canal is where
	5	in relationship to site 19 itself? Can you describe it for us?
	6	A It's just east along that dashed line that you
	7	see, that divides that they have Plynouth County-Barnstable
	з	County line, that dashed line is approximately where the canal
	9	ia.
	10	Q Is that a county line or is that the route
	11	A That's a county line. Actually the county line, but
	:2	that's also where the canal is.
	13	Q That is the navigation channel of the Cape Cod
	14	Canal?
	15	A That's correct.
	16	Q Indicated by that dotted line?
	17	A That's not the purpose of that dotted line, but that
	18	happens to be in other words, the purpose of the dotted line
	19	is to show the boundary between Plymouth and Barnstable
	20	Counties. But it also happens to be the channel of the Cape
	21	Cod Canal.
	22	Q I see.
	23	So if we follow that line down to the bottom of
	24	the page, it sort of shoots up to the left at the end of the
	25	Stony Point Dike. 2347 179
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	1		1997년 전 1997년 1 1997년 1997년 1997
ma. 14	1		Is that not correct?
	2	Α	Correct.
	3	Q	And is that also the line which goes up to your
	4	left from -	- I can't read it. Does it say Abiels Ledge or
	5	something a	t the end. What is that nomenclature right at the
	6	end of the	Stony Point Dike?
	7	A	Abiels Ledge, A-b-i-g-l-s.
	3	Q	Abiels Ledge.
	9		The dotted line which proceeds in a northwest
	10	direction,	also the Canal route of Cape Cod Canal?
	11	A	No, it is not.
	12	Q	Where does the Cape Code Canal navigation channel
	13	proceed?	
	14		Is this or is it not the navigation channel?
	15	A	It is approximately the navigational. It may be
	16	a few feet	to the right of it. But it continues in a
	17	southerly,	southwesterly direction, I believe.
	18	Q	So Cape Cod Canal, the channel goes southwest
	19	from Abiel	s Ledge?
	20		Is that your testimony?
	21	А	Approximately, yes.
	22		(Witness Kantor handing document to Witness LaRoche)
	23		MS. BURT: Mr. Kantor, would you please let
	24	me ask the	witness a question.
	25		MR.SMITH: Let the record show that a map was
			2247 100
		1	2347 180

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mms5 1	handed to the witness. No conversations.
2	MR. LEMALD: Can I suggest that this inquiry could
3	be better had in relation to Figure 1, which gives an
4	overview, rather than to take a segment figure, which is
5	Figure 3.
6	MS. BURT: What page is Figure 1, Mr. Lewald?
7	MR. LEWALD: Page 3-3.
8	BY MS. BURT:
Э	Q Now, Mr. LaRoche, does Figure 1 indicate where the
10	Cape Cod Canal is?
11	A (Witness LaRoche) No, it does not.
!2	MS. BURT: I think it maybe is not of much use,
13	Mr. Lewald.
14	MR. LEWALD: It certainly shows the entire Bussards
15	Bay area.
16	BY MS. BURT:
17	Q And where on that map is the southernmost enter-
18	sion of Buzzards Eay, Mr. LaRoche?
19	A (Witness LaRoche) There is no indication. It is
20	not labeled as such.
21	Q I see.
22	And so I would not be able to tell on this map the
23	town which you identified as the southern portion of Buzzards
24	Zay?
25	A Not from Figure 1, no. 2347 181
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10,105 1 Inta 6 0 Mr. LaRoche, where is site 19 in relationship to 2 site 20? 3 A It's northeast. 4 It's northeast? 0 That's correct. 5 A ô MR. SMITH: For the record, that may be helpful in using Figure 1. 7 BY MS. BURT: 8 Q I see. 9 Now far is that from -- how far is site 19 from 10 site 20? 11 A (Witness LaRoche) About 2 to 3 miles. 12 0 Mr. LaRoche, do you have a guadrangle or USGS map 13 with you, where it would be a little bit more easy to 14 identify the proximity of these things? 15 I'm having a very hard time to describe it. It 16 is going to take a very long time, and I would like to 17 understand. 18 Yes, I have. (Indicating) A 19 0 Do you have. any extra copies of those, Mr. LaRoche? 20 A Yes. 21 Is the map indicated by Figure 6 and 7 Meroxed 0 22 from a USGS guadrangle? 23 A I would assume so. 24 Q It might facilitate the questions. I used the 25 2347 182

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m7	1	downent yesteriay, and I ar really just toying to be able
	2	to ask the questions about the environment, to use the map
	3	that I used yesterday so everyone could have it and be able
	4	to look at it.
	5	I am meterring to a document entitled Chapter 5,
	6	Massachusatts Coastal Region and Atlas of Resources.
	7	Mr. LaRoche, have you examined this document before?
•	8	A I have perused it.
	9	Q You have perused it before.
	10	Did you look at this in connection with your
	11	evaluation of the coastal zone Management program for these
	12	sites?
	13	A I used mostly the written document.
	14	Q And by the written document, you refer to what
	15	document?
	13	(Pause)
	17	A The Massachusetts Coastal Zone Management
	18	Program Pinal Environmental Impa & Statement, 1978.
	19	Q But you have looked at this document before,
	20	corract?
	21	A Very briefly.
	22	Q I show you the page of this document and by
	23	that I am referring to the Atlas, Resources Massachusetts
	24	Coastal Region identified earlier. And I show you Plate
	25	No. 40.
		2347 183
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1	MR. SMITH: Ms. Burt, ve don't have a copy. :
2	lon't think the Board has a copy.
3	MS. SURT: I'm hampered by only having three
4	copies of these, which as I indicated yesterday was as many
5	as I could obtain from the Coastal Jone Management Program.
6	They are out of print. I think it is a fair indication.
7	It is my hope that perhaps, if it would not be
8	objectionable to Mr. Smith and Mr. Lewald, if they might
э	look at a copy at the same time, we would be abla to have the
10	Board and the witness and other counsel be able to look.
11	Would that be permissible, Mr. Chairman?
12	CHAIRMAN LUTON: I'm not sure I follow you.
13	You have one for the Board and one for Mr. Lewald
14	and one for the witness?
15	MS. BURT: For the witness to look at, and then
16	I could ask some questions from it, if everyone wants a copy
17	while I'm asking questions.
18	Would that be permissible?
19	CHAIRMAN LUTON: I think so, if that's the best you
20	can do.
21	MR. LEWALD: Unless this is marked for identification.
22	the record is going to be kind of meaningless.
23	MS. BURT: I intend to.
24	MR. LEWALD: Yesterday we had extensive use of this.
25	MS. BURT: I would like to identify that as
	2347 184

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18 1	Commentwealth Exhibit No. 108 for identification.
2	CLAIRMAN LUTC All right, ad will be so marked,
3	Commonwealth's 198 for identification.
4	(The document referred to was
5	marked Commonwealth Exhibit No. 108
6	for identification.)
7	B! MS. BURT:
3	0 Mr. LaRoche, returning to an earlier question
9	that I had, can you tell me where, on Commonwealth's Exclusion
10	for identification 108, Plate 40, can you identify the
11	channel of the Cape Cod Canal?
12	A Yes, I can.
13	Q Is that indicated in the brown line which parallels
14	the Stony Point Dike?
15	A Yes, it is.
15	Q Mr. LaRoche, I wonder if you could hand that
17	document to Mr. Masnik.
18	(Document passed to Witness Masnik)
19	Mr. Masnik, can you describe for me in terms of
20	marine biology in a descriptive manner, the bay indicated on
21	Plate 40 between sites 19 and 20?
22	Or, can you describe
23	A (Witness Masnik) Can you be a little bit more
24	specific?
25	Q Can you describe for me the coastline which appears
	2347 185

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1	on Plate 40 between site 19 and well, first of all, can
2	you identify for me on that plate, where site 19 is located?
з	A Well, where Stony Point Dike joins the land mass.
4	Q And the land mass is site 19?
5	A Well the land mass has been is where site 19
6	had been proposed.
7	2 And can you identify for me on Plate 40 where site
8	20 1s?
9	A It's approximately west of site 19 in the vicinity
10	of the area labeled Great Hill.
11	Q And Great Hill is a peninsula?
12	A Yes, it is.
13	Q Can you identify for me the river which extends
14	from Buzzards Bay immediately north of site 20?
15	A There are two rivers that empty into Buzzards Bay
16	in the vicinity of site 20 or between site 20 and site 19.
17	Weneic River, and Wareham River.
18	Q Is it fair to characterize the coastline between
19	site 19 and 20 as a bay? Would that be a proper designation?
20	A I guess you could say it's a bay. I would say
21	probably more like the mouth of two rivers into Buzzards Bay.
22	Q Looking a minute on Plate 40, can you identify
23	for me the protruding peninsula just south of site 20?
24	Does that have a generic name?
25	A Sippican Neck is what it is ref erred to on the map.
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10	1	Q Now the geographic area between Sippican Nect
	2	and Stony Point Dike, would it be fair to characterize that
	3	area as a fairly enclosed bay?
	4	A That's an awful general term. It is enclosed to
	5	some extent. I don't know whether it is fairly enclosed.
	6	There is some restriction as it enters Buzzards
	7	Bay.
	8	Q What would be the distance of the opening between
	9	the end of Stony Point Dike and the Sippican Neck?
	10	Approximately?
	11	MR. SMITH: Mr. Chairman?
	12	CHAIRMAN LUTON: Yes?
	13	MR. SMITH: Just to get an understanding of the
	14	line of cross, and maybe there is a way to get to the end
	15	at some point
	:6	CHAIRMAN LUTON: I would hope so, because I
	17	don't know where it is going aither.
	18	MR.LEWALD: Could we inquire, Mr. Chairman, it
	19	would appear that the Assistant Attorney General has just
	20	stepped into the Commonwealth for the first time, and we
	21	obviously know that's not so.
	22	MS. BURT: Mr. Lewald, I object to that
	23	characterization. I intend to pursue a line of questioning
	24	to which this is relevant, and I hope that will be readily
	25	apparent in my next two questions.
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1	CHAIRMAN LUTON: All ri ght.
2	BY MS. BURT:
3	Q Can you answer the question, Mr. Masnik?
4	A (Witness Masnik) Can you repeat the question,
5	please?
5	Q I asked you approximately what the distance
7	was between the water opening between Stony Point Dike and
9	the Sippican Neck.
9	
10	MR. LEWALD: Perhaps it would be helpful if you
11	advise the witness as to what the scale is on the exhibit
12	for identification you have given him.
	MS. BURT: I have just asked him the question
13	generally. He can, for the record, say that the witness
14	is looking at a USGS map presently.
15	CHAIRMAN LUTON: Can the witness answer the
16	question about the distance? How far, either with reference
17	to the map or without reference to it, if you happen to know
18	it otherwise?
19	Can you answer?
20	WITNESS MASNIK: Based on the USGS map I have
21	before me, the distance is approximately 1.2 miles.
22	MR. SMITH: Mr. CHairman, for clarity of the
23	record
24	
1	CHAIRMAN LUTON: That should be marked as well?
25	MR. SMITH: Either marked, or give the same
	2347 188

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7. STA	······································
	20,112
aml2 1	distance based on the document that has been marked.
2	BY MS. BURT:
3	Q Would you please identify the map?
4	A (Witness Masnik) This is a USGS 7 1/2 minute
5	quadrangle onset, Massachusetts, dated 1967.
5	CHAIRMAN LUTCN: We will mark that Commonwealth
7	10%.
8	(The document referred to was
9	marked Commonwealth Exhibit
:0	No. 109 for identification.)
11	MS. SURT: That, for the record, has been marked
12	as Commonwealth Exhibit 109. And I would ask that it ba
13	moved into evidence.
14	I can provide copies. I don't have them now.
15	CHAIRMAN LUTON: Any objection to the receipt of
16	this particular map?
17	MS. BURT: To be accepted as being provided with
18	copies next week.
19	MR. SMITH: Fine with me.
20	MS. BURT: Do you have any objecction to that,
21	with copies being provided next week, Mr. Lewald?
22	MR. LEWALD: You want to introduce it into evidence
23	MS. BURT: Yes.
- 24	I wonder if it can be accepted
23	MR. LEWALD: Certainly. 2347 189

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10,113 -MS. BURT: Would you like to inspect the document, mm13 2 Mr. Lawald? 3 MR. LEWALD: No, I don't think so. 13 WITNESS MASNIK: I have a correction to make. I misread this scale. It is 2.2 miles, instead of 1.2 miles. 5 6 CHAIRMAN LUTON: Let me receive that map in evidence. as Commonwealth Exhibit 109. 7 8 (The document heretofors marged 9 Commonwealth Exhibit 109 for 10 identification, was received 49 in avidence.) 12 BY MS. BURT: Q Mr. Masnik, turning for a minute to page 4-31 of 13 the FES ---14 MR. SMITH: For clarification of the record, could 15 you refer to it as the final supplement? 15 MS. BURT: Final supplement. 17 DR. COLE: Or, Staff Exhibit 53. 18 BY MS. BURT: 19 2 -- final supplement, page 4-31. 20 About three-quarters of the way down that page, 21 Mr. Masnik, you characterize Buzzards Bay as being biologically 22 highly productive, and may constribute substantially to the 23 Cape Cod Bay fishery. 24 What specific fish species are found in Buzzards 25 2347 190

		10,114
mm 1.4	1	Bay?
	2	A (Mitness Masnik) If you turn to page 4-22
	3	I'm sorry, that's incorrect 4028, I provide a brief
	4	discussion on some of the species that occur in Buzzards Bay
	5	in the second and third paragraph from the top.
	6	Q I see.
	7	Is that the paragraph in which you refer to
	3	studies conducted from 1976 to '79, that paragraph?
	3	A And the preceding one as well.
	10	Q Isee.
	11	Did you examine any other marine fishery documents
	12	in terms of fishes found in Buzzards Bay other than those
	13	that were identified on page 4-28?
	14	A Yes, I did.
	15	Q And what other species can you identify for us
	16	today that are in abundance in Buzzards Bay?
	17	A There are quite a few typical bay species that
	18	would be found there; things like Atlantic Silverside,
	19	different species of top minnows.
	20	I'm sure there is striped bass, there is bluefish,
	21	white perch, different species of drum.
	22	Q And populations of these species are also found
	23	in abundance in Buzzards Bay?
	24	A Yes, they are.
	25	2347 191

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. mm		10,115
vid	1	
rid 1	2	Now, staying for a moment on page 4-28 of
		the final supplement, you make a reference to reference
ta 3	3	53; I believe that is, is it not, a document of the
	4	Massachusetts Department of Fisheries entitled "Progress
	5	Report, Biologic Investigation in northern Buzzards Bay
	6	and the Cape Code Canal for the Canal Electric Company:
	7	Project Report Number 4."
	8	Is that correct?
	9	A That's correct,
	10	Q Now, the Cape Cod Canal Electric Company; where
	11	is that located?
	12	MR. LEWALD: Where is the company located?
	13	BY MS, DURT:
	14	Q Where is the Cape Cod Canal excuse me.
	15	Strike that.
	16	What where is what is the purpose of this
		report, to your knowledge to your recollection?
	17	A To the best of my recollection, this was a survey
	13	that was conducted by the utility or its consultants of
	19	the Cnal station on the fishes inhabiting well, on the
	20	fishery resources of the Cape Cod Canal, I would imagine
	21	with the ultimate aim of preparing for a 316
	22	determination.
	23	Q You would assume that? Do you know if the Gual
	24	Electric Company presently maintains an energy generation
		facility on Cape Cod Canal?
	25	07.17.100
		2347 192
and the second second		

	1	A Whether the repeat the question, please
rid2	2	Q To your knowledge, the does the Canal
	3	Electric Company presently maintain an operating energy
	4	plant on the Cape Code Canal?
	5	A I know that there is a fossile power station
		on the Cape Cod Canal. I'm not sure that the present owne
	8	of the station is the Canal Electric Company, and cwnershi
	7	can change.
	8	I have no knowledge
	9	Q You have read reference 53, 2 presume?
	10	A Yes, I have.
	11	0 Do you know the purposes for which that study
	12	Was prepared?
	13	A I examined the document with the understanding
		that I would extract the data that dealth with the
	14	possibility of impacts associated with sites 19 and 20. I
	15	did not spend a considerable amount of time reviewing the
	16	purpose of the document,
	17	No. T monthland and in the
	18	As I mentioned earlier, I'm under the
	19	assumption that it may be for a 316 demonstration. That's
	20	why normally power companies do these sort of studies.
	21	Q Now, a 316 demonstration is what, Mr. Masnik?
	22	A A 316 demonstration is a procedure by which a
	23	utility gets certifization from the Environmental Protectio
	24	Agency or a permitting state to allow them to continue
	25	2347 193

	10.117
david3 1	using once through cooling in the case of a 316 A determination
2	and that the 're using the best available technology that's
3	economically feasible as far as the intake structure is
4	concerned for the 316 B determination.
5	Q Now, Mr. Masnik, are you aware that the
6	Massachusetts Department of Fisheries requires annual
7	monitoring of the Pilgrim 2 facility and by that I mean
3	biological or aquatic monitoring.
9	MR. SMITH: Mr. Chairman, I object.
10	MR. LEWALD: I think you said Filgrin 2, Ms. Burt.
11	I think you meant to say the Canal Plant.
12	MS. BURT: Thankyou, Ms. Lewald. I stand
13	corrected on that. It's Pilgrim 1.
14	WITNESS MASNIX: I'm aware that the state does
15	require some monitoring.
16	BY MS. BURT:
17	Q Are you aware that the state requires semi-annual
18	operational monitoring reports for impacts on fisheries on
19	Pilgrin 1?
20	A I'm not aware of the frequency which the state
21	requires the utility to submit monitoring documents.
22	Q Do you recollect if reference 53 is a document
23	performed pursuant to requirements of the Massachusetts
24	Department of Fisheries for continuing operating and
25	monitoring fisheries for the Cape for the Canal Electric
	2347 194

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david4	1	facility on Cape Cod I mean on the Canal, the Cape Cod .
	2	Canal?
	3	A Again, as I mentioned earlier, I reivewed the
	4	decument for the express purpose of deermining whether
	5	or not the data that was supplied in that report would
	6	shed any light on the impacts associated with sites 19 and
	7	20.
	3	I did not review the document from the standpoint
	9	of the impact that the station had on the fishery or the
	10	purpose for which the document was presented.
	11	And I as I mentioned earlier, felt that
	12	possibly the document may have been developed because of the
	13	316 determination.
	14	Q Do you have that document with you today?
	15	A No, I do not.
	16	MR. SMITH: Mr. Chairman I withdraw it.
	17	BY MS. SURT:
	18	Q Now, you indicate in the c second paragraph on
	19	page 428 that the largest concentration of lobster larvae
	20	reported on the east coast of the United States are have
	21	been are believed to be in northern Buzzards Bay; is that
	22	not correct?
	22	A That's hat is stated there, yes.
	24	Q And you obtained that information from reference
	25	53 to which we were referring previously? Correct?
		2347 195
	1	

		10.12.9
david5	1	A Yes.
	2	9 Now in the next paragraph you indicate that
	3	studies conducted from 1976 to 1978 again referring
	4	to refeence 53 have reported various spects of ichthyplaakton
	5	from Buzzards Bay, Cape Cod Canal and the mouth of the Canal
	6	in Capa Cod Bay. Correct?
	7	A Shat's correct.
	8	2 Now, what that was the same document that you
	9	used for obtaining information on lobster larvae; is that
	10	not correct?
	11	A Yes.
	12	O pour recall if that document had indicated the
	13	location of any sampling stations at the Stony Dyke
	14	right next to Stony Dyke?
	15	A As I merioned there, I believe there was one
	16	station located in the vicinity of Stony Point Dyke near
	17	on figure 6 near the Mashnea Island between where it
	18	says Stony Point and Mashnee Island; I believe that was the
	19	approximate location of the sampling site.
	20	Q I see. And you provide in that paragraph various
	21	percentages from collection; was this percentage as between
	22	a two year period or a three year period two year period
	23	collection of various species?
	24	A Well, based on the pooling of the ichthyoplankton
	25	that was collected, the cunner, tautog and yellowtail that
		was collected, comprised 79 percent by number of all the
		2347 196

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1 eggs collected, and as the sentence goes on, cunner and 2 tautog comprise 23 per ent and 14 percent respectively, 3 egain by number of all the large could collected. 4 0 What was the large count for lobster large 5 at the Stony Point compling station? 6 A I don't have the precise number, although it 7 Was stated -- as was stated in the previous paragraph -- that

s they were unusually large numbers.

13 There --

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14 Q Excuse me, Mr. Masnik; I'm afraid that's not
 15 responsive to the question.

A Yes it is, because I have to -- the mare. fact that you take a point on the map -- if the larvae tend to flow through the canal, any point on the map will hav the same concentration of larvae at some time, since the larvae are moving through the canal.

Q I'm interested in knowing if the count at Stony Point Dyke was high for lobster larvae compared to other sampling stations at that site.

A That would depend on the time at which that particular station was sampled in relation to the others.

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And I, off the top of my head, do not know the precise number of larvas that were collected at the 2 station, but it's really not that critical to the 3 discussion because the lobster larvae would pass by the 4 point at some time during the life cycle anyway, so the 5 fact that they sampled at a period when it was perhaps at 6 a low number really is unimportant. 7 I turn your attantion, please, to page 4-31 of Q 8 the final supplement. You stated about three-quarters of 9 they way down that page that even with closed cycle cooling 10 at sites 19 and 20, it would still result in a significant 11 adverse impact to the fisheries; is that not correct? 12 That it may result, yes. 13 A Q Can you please indicate for me on the figure 5, first. 14 that refers to site 19 where the proposed intake and discharge 15 proposed by the applicant are located for site 19. 16 A The figure -- on figure six there was a second 1 . parallel dyke that was to be constructed to the left of the 19 Stony Point Dyke; this was going to be a spray pond. The 19 intake structure location would be towards the end, I 20 believe, of the Stony Point Dyke. 21 Q Which end? 22 A The southern end. 23 Do you think the intake will be on the southern 0 24 end? 25

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I believe the map that you might have -- the A topo map would have the location.

That would be the discharge pipe or the intake? Q 4 I'm -- by the figure that I have before me --A 5 this shows the makeup water intaks and blowdown, which is 8 the discharge line at the approximate location of the 7 words "Stony Point" on the site 19 map. 3

I see. So if the -- can you identify the Ő. document from which you're reading?

This is volume C of the 1974 siting study. 11 And can you identify the table or figure 0 12 to which you are referring?

A I believe it's figure VI-29.

That figure indicates site 19 with a proposed Q 15 spray pond, does it not?

> A That's correct.

17 And you identified the intake and blowdown 0 18 discharge as appearing right now the words "Stony Point" on 19 the tip of site 19, correct?

The words "Stony Point" that appears closest A 21 to the words "Mashnee Island."

And Mr. Masnik, isn't the site also proposed Q 23 for closed central cooling towers?

(Pause.)

On page 431 you identified this as the sentence

		17,123
david)	1	I had read to you first; you said that even with closed
	2	cycle cooling in this region
	3	A I do not believe that the site was proposed for
	4	cooling towers. The spray pond system is a closed
	5	cycle system.
	6	MR. LEWALD: In an effort to move this along a
•	7	little, can I refer both of the parties to applicant's exhibit
	8	14-C and figures VI and 28 and 29, which contains a
	9	layout of the prospective of the or the plant sites in
	10	graphic form that might be easier for the interrogator
1.	11	and the witness to refer to.
	12	CHAIRMAN LUTON: Would that be useful to you,
	13	Ms. Burt?
	14	MS. BURT: Yes, it is. And thank you, Mr. Lewald.
	15	I have before me three figures which identify the applicant's
	16	proposed location of intake and discharge for sites 19 and
	17	20 and I would identify then for the record.
	18	They are in evidence.
	19	MR. SMITH: Does the witenss have the exhibit?
	20	MR. SCALETTI: No.
	21	MS. BURT: It's applicant's exhibit 14. It's
	22	connected to volume C and they are figures VI-29, VI-28 and
	23	VI-30.
	24	MR. SAITH: I want to see if they have it; if
	25	they don't
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13.445		1

 4. EMALS: And VI-28. MITTIMERS HARMIX: VI-28 is a fossile plane design, which was one we did not review. BY MS. BUAT: 0 So, it's your testimony that site 19 is present only to your knowledge proposed with a spray pend? A by testimony is that the rovie that 1 onducted based on that supplied to me was for a spray pend site, a nuclear site, site 19. 0 And it would be a cooling tower only for site 207 10 A Again, what I reviewed was the cooling tower stat, but my review was performed on a cooling tower stat, but my review was performed on a cooling tower 14 A Sumption? 15 A Assumption? 16 Mr. Masnik, what are the you have statimed the canal Electric Company study with respect to the northern Buzzards Bay. What are the average superatures in that section of northern Buzzards bay in the summertime? How hot doe it get? 15 MR. SHITH: Are you talking about the abisents there or the water? 16 MR. SHITH: Are you talking about the abisents there or the water? 17 MARTINES MASHIK: J can't give you a presize 			1.0,1 24
 plant design, which was one we did not review. BY MS. BUAT: 9 So, it's your testimony that site 10 is present only to your knowledge proposed with a spray point 8 So it's your testimony is that the review that 1 is onducted based on that supplied to ma was for a spray point site, a nuclear site, site 10. 9 A fait would be a cooling tower only for its to 201 9 A fait, what I reviewed was the cooling tower its its 10 is present its is planned, you know, I can't answer its to be a wooling tower. 9 A fait would be a reviewed on a cooling tower 9 A fait would be a solelay tower only for its its is planned, you know, I can't answer its to the tower its planned, you know, I can't answer its to the northern Buszards Bay. What are the average is the northern Buszards Bay. What are the average is the northern Buszards Bay. What are the average is the northern Buszards Bay. What are the average is the summarized its is northern Buszards Bay. What are the average is the northern Buszards Bay. What are the average is the summarized its is northern Buszards Bay. What are the average is the summarized its is for the summarized its is northern buszards Bay. What are the average is in the summarized its is northern buszards Bay. What are the average is in the summarized its is northern buszards Bay. Bay and the issue of the summarized its is is in the summarized its is issue its issue its	avid10	1	MR. EWALD: And VI-28.
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 23 24 25 23 23 24 25 25 25 25 		22	MR. SMITH: Are you talking about the
24 WITNESS MASNIK: I can't give you a precise 25		23	ambients there or the water?
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2747 201		25	WITNESS MASNIK: I can't give you a precise
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10,125 value of themaximum summer temperature. david11 1 BY MS. DURT: 2 Well, is it 'airly warm? 6 3 I think it probably gets up to fairly --4 A Q Maybe as nigh as 85 degrees? 5 I really dan't answer that. A 6 Q Now, this portion of Buzzards Bay is very 7 shallow, is it not? 8 A That's correct. 9 Do you expect warmer waters to exist -- exist 0 10 when there is very little dopth in the summertime? 11 MR SMITH: I object. There's no definition 12 of "warmer waters"; warmer than what? 13 CHAIRMAN LUTON: Well, it sems like that 14 one can be answered about as generally as it's asked. 15 Could you expect warmer waters? 16 MS. BURT: I can make the question more 17 specific, Mr. Chairman. 18 CHAIRMAN LUTON: Okay. 19 BY MS. BURT: 20 Comparatively speaking, are the waters in Ω 21 northern Buzzards Bay considerably warmer than those 22 in other portions of Buzzards Bay? 23 A I can't address that. 24 You don't know? 0 25 2347 202

10,126 david121 A I do not know: I think you're corract. 2 Normally when you have shallow water and high solar 3 insulation, you generally have localized heating of 4 the water in areas of shallow ---5 Q Turning your attention, please to 4-31 of the final supplement, you state under the paragraph, 6 7 third paragraph from the bottom that the discharge effects that you consider, the impacts associator 3 9 the impacts b on aquatic biota associated with thermal 10 loading, cold shock or discharge of bicoides and 11 other compounds, at cataia; can you read that sentence? 12 Do you want me to read it? A Do you -- no, I say have you located 15? 13 0 A 14 Yes, yas. Is it your conclusion on page 4-32 that 2 15 there is less of a problem in terms of the thermal 15 effocts at Pilgrim 2 at Rocky Point than at sites 17 19 and 20? 18 A I think in my view -- well, to point out that 19 if this plant should -- or if this location should be 20 proposed for a plant site and a license request came in, 21

there would be detailed thermal monitoring -- thermal modeling done on the location that would provide us with a fairly good flea of what the thermal plume and the location of the thermal .plume would be.

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In the absence of that, it's difficult to really critically evaluate the impart of the thermal plume or the local fisheries.

4 That's why I think in conclusion I say 5 that there may be an impact on the overall balance of 6 the plant.

7 Q Mr. Masnik, I understand that site specific 8 studies would be able to bring this forward with 9 greater precision, but what I'm interested in is your 10 appearant on page 4-31. You are able to include 11 that with respect to the intake, that there be a 12 significant adverse impact to the fisheries now with respect to discharge, I'd like to know what your 13 14 assessment is of the thermal effects of such discharge.

Would the thermal effects be significant? 16 2 I think that's impossible to answer in this 17 case because we're getting down to the relam at which 18 thermal impacts may have an effect in some situations; 19 where the volume of water is great and the thermal 20 discharge is small, it's easy to say that there won't 21 be any impacts.

22 When you get to the situation where you 23 have biologically highly productive areas and you have a discharge of a thermal plume directly into the 24 mainstream of reported repopulation of lobster lawae, 25

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in the realm where detailed, size-specific information 3 would be required to make that determination. 4 But based on that level of reconnaisance 0 5 data, what would you r bast prediction be? 5 A Hy best pr fiction --7 MR. SMITH: Mr. Chairman, I object. 3 What data are you referring to? 9 MS. BURT: He's just described a series 10 of reconnaisance level data that he's consulted and 11 not able to come up with a conclusive answer, and I'm 12 sayin gthat based on that data which he has reviewed, 13 what's his best pradiction. 14 WITNESS MASNIX: My prediction is I think 15 that would be of some concern and we would have to --15 we would have to explore later. :7 BY MS. BURT: 13 Q Thank you, Mr. Masnik. 19 Mr. La Roche, you state on page 4-32 of the 20 final supplement in the description of sites 19 and 20 --21 excuse me; I'm referring you to the wrong page -- 23 --22 I'm-referring to 4-28, the general description of both 23 sites is described completely within the coastal sone; 24 is that not correct? 25 2347 205 RORIGINAL

there may be a significant intest; there is no way

that I can say yes or no at this point because waire

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idl5	1	A (Witness LaRoche) That's correct,
	2	Q Is that the designated coastal zone of the
	3	Massachusetts Coast Zone Management Program?
	4	A That's correct.
	5	Q And that's part of a federal program? Is
	6	that pursuant to a fruital program?
	7	A Yes.
	8	0 And what isthat federal program?
	9	A Coastal Zone Management Program.
	10	2 Adminiscored by what agancy?
	11	A I believe it's NOAA; I'm not positive.
	12	Q You indicated earlier that you have reviewed
	13	the final environmental statement for the Massachusetts
	14	Coastal zone Management Program, is that right?
	15	A That's correct.
	16	Q Turning for a moment to figure 6 on site
	17	19, can you tell me what the Massachusetts I'm going
	18	to refer to it as CZM. That's the way we refer to
	19	it in Massachusetts, representing Coastal Zone Management.
	20	Can you tell me what the Massachusetts CZM
	21	intends, if anything, for the Stony Point Dyke.
	22	MR. SMITH: I object. Are you asking the
	23	witness to look at something or to his knowledge?
	24	MS. BURT: No, based on his review of the
	25	final environmental statement of the Massachusetts
		POOR ORIGINAI 2347 206

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davidly Call program

i's asking ... whether or not he knows of 2 any plans of the Massachisatts program with respect to 3 site 19. 4 WITNESS LA ROCHE: Yes, I de . 5 DY MS. BURT: 6 And what are CZN's present plans? 1 7 They propose it as a public area. 1 8 The entire site? 0 9 Δ No, the point, the entire point. :0 As a public area for what purposes? 2 11 A For recreation. :2 0 Primarily? :3 A Yes. 14 Do you know what type of access they would 0 15 have for that site? :6 They would have to have some land access to A 17 it. 18 0 Across site 19? 19 A Yes. 20 Is it fair to assume that if a nuclear 0 21 power plant were built on site 19 that the dyke would 22 be preempted? 23 A I can't answer that. 24 Turning to page 4-28 under the description Q 25 2347 207

		10,131
avid17	1	of size 20 in the second paragraph under section 4.7.2
	2	you indicate that the site contrins two large swaps
	3	north . ? Delano Road and the entire coastal portion
	4	of the site has been designated as a wetland protected
	5	district of the Marion Conservation Commission.
	6	Can you tell me the significance of that
	7	designation?
	8	A Well, according to the Massachusetts Wathind
	9	Act, each town can designate areas as wetland protected
	10	areas, and it's that's all I can tell you about it,
	!1	that they can be so designated.
	12	Q Doesthe designation indicate that the land is restricted from
	13	MR. SMITH: I object; it's calling for a
	14	legal conclusion.
	15	MS. BURT: Pardon?
	16	MR. SMITH: It's calling for a legal conclusion.
	17	MS. BURT: I'll rephrase the question.
	18	BY MS. BURT:
	19	Ω Doessthe designation permit major industrial
	20	development of that area?
	21	MR. SHITH: Same objection.
	22	CHAIRMAN LUTON: Overruled. If the witness
	23	can answer it, he may, if he knows.
	24	WITNESS LA ROCHE: As far as I know, the
	25	POOR ORIGINAL
		2347 208

	10,132
1	purpose of the Act is to identify wetlands in a
2	state andho efully to son these iside, but as far as f
3	know, this is not pron bit their use for other
4	Proposes other than just as wetlands.
5	BY HS. BURT:
5	C Mr. aRoche, where did youfind out about
7	this designation?
S	J I'm sorry. I didn't hear you.
9	Q What was the source of your information
10	that you obtained that this area was designated as
:1	a wetlands protected district? What was the source of
!2	your information?
13	A
14	Marion has a map that designates the areas within the
15	town as wetlands.
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18	POOR ORIGINAL
19	2347 209
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	2 3 4 5 6 7 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

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adelon	1	2 Thank you.
David	2	그는 그는 것은 것이 없는 것은
npbl	3	I have a question of our socioeconomic analyst,
	4	Mr. By coski.
		A (Witness Sykoski) Yes.
	5	2 Turning for a moment to page 4-36 of the Final
	6	Supplement, and I am referring to Section 4.8.5.1, which is
	7	a description of the socioeconomic impacts of site 19.
	8	On page 4-36 you indicate that the expected
	9	the second paragraph, you indicate that the natural draft
	10	cooling tower and associated plame at sits 19 would be
	11	visable from various points on that northern Buzzards Bay,
	12	isn't that correct?
	13	A Zes.
	14	2 Now from the area so described and your knowledge
	15	of the area, is it fair to say that your judgment is that these
	16	will cause a significant aesthetic impact?
	17	A They would be visable from a number of the
	18	communities surrounding the surrounding communities.
	19	Q How high would the towers have to be, approximate-
	20	ly? How high would you expect them to be?
	21	A I believe they're over 500 feet. Someone else
	22	might be able to better answer that, if you would like a
	23	more precise number. Perhaps around 550.
	24	Q I was interested in your assessment since you
	25	were the one who came up with the aesthetic judgment, the
		2347 210

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10,134 1 judgment of the aestnetic inpact. npb2 2 Tou say approximately 500 feot? 3 2 Gver 500 feet. 2 Now these cooling towers would be saltwater cool-2 3 ing towers, coviously, is that not correct? 6 I assume so. A 7 Did you assume that they would be saltwater? 0 3 Well, I assumed that there would be a natural A 9 draft gooling tower. 10 I have a question of Mr. LaRoche. 01 11 Mr. LaRoche, in your accessment of the terrestrial 12 land use impacts, did you assess the potential impacts of salt 13 deposition associated with saltwater cooling towers at sites 14 19 and 20? 15 (Witness LaRocho) Yes, I did. A 13 Where is that in the FES? 0 17 A It's not. 18 C It's not in the FES. 19 It's true that the saltwater cooling towers can cause considerable icing and fogging, is that not true? 20 I can't answer that. That's a meteorologist's 21 A 22 question. 23 Can salt or salt deposition from natural draft 0 cooling towers impact terrestrial areas surrounding sites 24 19 and 20? 25 2347 211

	10,135
mpb 3 1	A It could.
2	Q is the effect of salt What is the effect of
3	salt on cranberry bogs, the effect of such salt deposition
4	on cranberry bega?
5	h I don't know specifically.
ð	Q Mr. LaRoche, are you aware of the Seabrook
7	alternative sites analysis?
9	A Yes, I am.
9	Q Are you aware of the detailed cooling tower air
10	dispersion analysis that was parformed by the Staff in that
11	study?
12	A Yes, I am.
13	Q Are you aware that there was an assessment in
14	that study of the saline the impact of saline drift on
15	land and land uses?
18	A Yes.
17	Q Why was such an examination or description not
18	done in this case?
19	MR. SMITH: Object.
20	CHAIRMAN LUTON: It's a question of relevancy?
21	MR. SMITH: Yes.
22	CHAIRMAN LUTON: Well, there ought to be a reason
23	for it. We'll lat the witness answer it.
24	Overruled.
25	Why was not such a study done in this case?
I	2347 212

		19,200
apb4	1	WERNESS TA ROCHE: I don't know.
	2	BT MS. BURT:
	3	Q are you aware of the Staff's assessment of spray
	4	ponds or spray canals in the Seabrook study?
	5	WR. SMITH: Object, unless she can be more specific.
	5	T MS. BURT:
	7	Q I will identify it with respect to an assessment
	3	of the environmental impacts of various closed-cycle cooling
	9	systems.
	10	Are you familiar with that?
	11	A (Witness LaRoche) No, I'm not.
	12	Is there anyone on the panel who is familiar with
	13	that study?
	14	Mr. Levine?
	15	A (Witness Levine) With respect to the impacts of
	:6	various types of cooling systems, there are many factors
	17	involved. Principally the nature of the cooling tower, for
	18	instance, the topography which it's affecting, the nature of
	19	the wind fields as well as temperature, and things like this.
	20	So that a site specific analysis is really required to really
	21	get a feel for what potential impact exists, if any.
	22	Q Mr. Levine, you participated in that aspect of
	23	the study at Seabrook, did you not?
	24	A Yes, I did.
	25	Q And it was the Staff's conclusion in that study,
		2347 213

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1 was it not, that spray canals or spray ponds on coastal sites āciam 2 was not a realistic alternative? And I mean by that for all 3 sites considered in the alternate sites study that were coastal. 4 I believe it was a determination based on the A 5 area that would be needed to have an effective and efficient 6 type of cooling system with that type of facility. 7 Q Now there's some generic problems associated with 8 saltwater spray ponds and spray tanals, are there not? 9 My suspicion is there would be problems with 1 10 salt corrosive nature and that sert of thing. 11 Q I'd like to ask a question of dr. Mantor, please. 12 Mr. Kantor, could you plasse refer to Figure 6 13 of the Final Supplement? 14 Now Mr. LaRoche has identified that line on which the Plymouth-Dunstable Counties are divided as the approximate 15 boundary of the navigation route of Cape Cod Canal, is that 16 17 not corract? (Witness Kantor) I think it was identified as the 18 19 approximate center line of the canal. MR. SMITH: It might be easier to -- I believe 20 this is a USGS map, marked as Commonwealth 109. 21 WITNESS KANTOR: Yes, and the USGS topo map 22 marked USGS 109, the Cape Cod Canal is shown in there. 23 BY MS. BURT: 24 Now in the assessment of potential construction 25 Q

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mpb6	1	impacts it	is stated that there may be considerable dredging
	2	required.	
	3		So you remember that portion in descriptions of
	4	site 19?	
	5	A	So, I'm not familiar. I wasn't involved in that
	6	portion.	
	7	Q	Oh, I'm sorry.
	8		Mr. Masnik.
	9	A	(Sicness Masnik) Yes.
	10	Q	You were responsible for assessment of the
	11	construction	a impacts?
	12	A	Normally construction impacts are handled jointly
	13	by Mr. Lehr	and myself.
	14	Q	Now I may be asking the wrong person. I'm
	15	interested	in strike that.
	15		You indicate on page 431 that there will be
	17	substantial	dredging for the preparation of piping facilities
	18	and construct	ction of intake and discharge structures, is that
	19	not correct	?
	20	A	Could you give me a reference?
	21		CHAIRMAN LUTON: Where is that?
	22		MS. BURT: It's on the top of page 4-31.
	23		BY MS. BURT:
	24	Q	The question is that with respect to the
	25	dredging act	tivities for the intake or discharge structure at
	11		2347 215

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sile 19, is it reasonable to assume that Cape Cod Canal waffic will have to be rerouted during construction?

A (Vitness Marik) I don't know how that could be evaluated at this point. It would really depend on the type 5 of intake structure, the location of the intake structure as c posed to shoreline versus offshore, and that would depend on a 3163 type of review which would have to take into 8 account a lot of different factors.

9 So I don't think at this time we can say with 10 any degree of certainty where precisely the intake structure would be. And, of course, therefore we cannot say with any 11 degree of precision as to whether or not traffic would have 12 to be marouted through the Cape Cod Canal. 13

May I ask Mr. Scaletti a question? 0

Mr. Scaletti, did you request anyone on your 15 staff to specifically assess whether or not there would have 16 to be rerouting of Cape Cod Canal based on the proximity of 17 the intake at Stoney Point to the Cape Cod navigational 18 route? 19

(Witness Scaletti) No. I didn't believe that 20 A was reconnaissance level information. 21

Do you know if there is any alternative route 22 Q into Cape Cod Canal other than that designated by the line 23 shown? 24

25

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I don't know. I can't answer that. Perhaps

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1 Bedar someone alse could. 2 of your knowledge there is to alternative 13 3 antrance into the Capa Cod Janal at Stoney Point? 4 My knowledge is I'm unaware. I don't know the 14 5 answer. 6 Q Oksy. Thank you very much. 7 Mr. Kantor, I do have a question of you now. 8 CHAIRMAN STON: Lat's take a recess before we 9 get to another vicness. :0 Lat's recurs for ten minutes. 11 MR. SMITH: Mr. Chairman, at the and of the recess could we possibly discuss scheduling? 12 13 CHAIRMAN LUTON: Yos. 14 (Racess.) adelon CHAIRMAN LUTON: Okay. Let's resume now. 15 MR. Smith, you indicated that you wanted to talk 16 about scheduling, I guess. 17 MR. SMITH: Yes, I did. 18 If we don't finish today I can bring back all of 19 the witnesses except Mr. Kantor. What I would like to do is 20 even if we don't get to Board questions, if they think there 21 are some witnesses that they just would not have any more 22 questions for -- maybe not even today, but let us know so 23 that we don't have to bring them back --24 CHAIRMAN LUTON: You mean for Board questions? 25

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10.141 1 no's9 MR. SMITH: Mas. 2 CHAIRMAN LUTCN: All right. 3 U.R. SMITH: The other scheduling item is popula-4 cion. I know that we're not going to start cross-examination 5 today on population. 6 Our witness is not available the week of dine 11th 7 to 15th. I might have rentioned yesterday he has military 8 duty, and unless we call the president _ don't think wo'll 9 have any chance of getting him here. 10 And I had also understood that Mr. Wright, the 11 is going to conduct the cross-examination, will not be 12 available. And I'll lat him speak to that. 13 CHAIRMAN LUTON: This is for the period of June 14 11 to June 15? 15 MR. SMITH: Yes. :6 So I don't know what we would do during that 17 week. MR. WRIGHT: With respect to population, Mr. 18 Chairman it just seems that it makes all the sense in the 19 world at this point to defer the one particular screening 20 the way we do with the evacuation contention which, as I 21 understand it, you're now thinking about doing some time in 22 August. 23 CHAIRMAN LUTON: That's right. 24 MR. WRIGHT: I think we can all agree that 25 2347 218

mpb10 1	population and evacuation are intimately related. And it
2	might make all the sense in the world to do it at that time.
3	SMITH: We have talked about that and the
4	Staff can see that it might not be so out of context that it
5	would prohibit a. restrict pross-examination.
6	CHAIFMAN LUTON: Now about the Applicant?
7	MR. LEWALD: Well, I think the problem we have,
8	Mr. Chairman, is that we don't have any data for emergency
9	planning aspects. And our concern is that this is now an
10	open-ended matter. And if we add more things to the open-
11	ended matter it just means a delay of the completion of the
12	hearings. And that is our concarn.
13	While there possibly may be some overlap in the
14	population end of the alternate site issue and emergency
15	planning, there doesn't really have to be.
16	
17	MR. SMITH: That's true. But I don't have our witness available June 11th.
18	CHAINMAN LUTON: And Mr. Wright won't be available
19	either.
20	MR. WRIGHT: The only other alternative, of
21	course, is to try to slip it in as we're dealing with need
22	for power in July. I just think that it and I could do
23	that. It just seems to me it would make much more sense to
24	do it in August.
25	With respect to Mr. Lewald's problem about
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mpbll 1	contantions, I would think that would be one of the very				
2	first onse we could do next week when we get our contentions				
3	together. I don't expect a ing problem with that. We'll				
4	get it in th 'lle and we'll be ready to go in August				
5	MR. LaWALD: We had initially scheduled hearings				
8	the weak of July ? and I gathered that schoduling of				
7	hearings for these miss meant dound availability for those				
3	dates.				
9	And I think our request would be if it appears				
:0	that nothing can be done from Juna 11th to the 15th, that				
:1	we start hearings on July 9th on what we would have taken up				
12	June 11th through the 15th				
:3	MR. WRIGHT: Excuse the				
14	MR. LEWALD: and then finish that matter and				
15	go to need for power the following week, if that is suitable				
15	with the Board.				
17	MR. WRIGHT: I thought we were beginning				
13	When I said I'd be available in July, I was thinking of that				
19	particular week that has now been set aside. That's July				
20	16th, I believe.				
21	MR. LEWALD: I think, Mr. Chairman, we have				
22	accomodated the personal plans of the Assistant Attorney				
23	Generals here sufficiently in other respects, and we at				
24	least ought to be abla to pick scmething a month ahead.				
25	And if Mr. Wright can't be here, we certainly have enough				
	2347 220				
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apb12 1	Attorney Generals at the table to go ahead.
2	MR. SHITE: Mr. Chairman, the Staff would maybe
3	Lad it reasonable to go that week of July 9th.
4	CHAIFMAN LUTON: July 9th and 16th as well.
3	MR. SMITH: Maybe we can have Mr. Herr
ő	We would be emenable to that, Mr. Chairman.
7	MR. WRIGHT: With all due respect, I would just
8	say that it seems to me that it makes sense to deal with
9	population during the time of the evacuation issue. That
10	would be point number one.
11	Point number two, and I apologize that it is a
12	personal matter, but nevertheless I would not be available
13	the week of July 9th, and I'm the person who has been
14	assigned the responsibility with respect to population
15	issues.
15	I said that I could be available during the
17	July hearings, but I was assuming, of course, that we were
13	talking about the week of July 16.
19	MR. SMITH: Mr. Chairman, I think all would
20	agree that week will be needed for need for power.
21	MR. WRIGHT: All right. If that is the case,
22	I would suggest we go with that first.
23	CHAIRMAN LUTON: What were you talking about?
24	MR. SMITH: July 16th, the entire week is going
25	to be need for power.
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2	(The Board conferring.)
	CENTRAN LOTON: How about June 18 as the time
3	for finishing this and population?
4	MR. WRIGET: Once again I'm sorry to say, sir,
5	that starting this coming Ruesday I am going to be gone for
8	si: weeks.
7	CHAIRMAN LUTON: All right. That gives is the
3	dimensions of the problem.
9	MR. WRIGHT: If Mr. Lewald is worried about
10	dragging this thing on, I don't know what to say other than
11	the fact that we'll be ready to go in August. We'll got the
:2	two matters straightaned out, that of avacuation and that of
:3	population, and that will be the and of it.
14	We're going to have to go into August any ag
15	because of this evacuation contention. The population issue
16	that I was prepared to work on today is going to take me
17	perhaps three hour's worth of cross-examination, and then
:8	we have Mr. Herr for cross-examination, and that will be it.
19	Hopefully we can do that in a day, one day in August for
20	that. And the rest of the time, of course, will be devoted
21	to evacuation.
22	(The Board conferring.)
23	DR. CALLIHAN: Mr. Smith, when is your witness
24	not available?
25	MR. SMITH: The week you set aside, the week
	2347 222
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June 11 to June 15.

2 WITNESS KANTOR: It's June 2nd through 1684. 3 DR. CALLINAN: Thank you. 4 CHAIRMAN LUTCN: I could make a speech about how 5 reluctant we are to do it and all that, but I won't. 6 We will consider the population portion of this 7 alternate sites question in August. And we hope to have some 8 dates in August pretty soon. It's just something that I 9 think we will resolve pre ... ; quickly. We will consider it 10 at the time, or during the same session that we consider 21 the issue of emergency planning. 12 We would ask the parties to work guickly by way 13 of formulating a contention on the emergency planning matter. 14 MR. SMITH: Mr. Chairman --15 CHAIRMAN LUTON: How soon do the parties think they will have that contention prepared? Have they talked 16 at all yet about it? 17 18 MR. WRIGHT: No, we haven't. 19 CHAIRMAN LUTON: You may not have had ar oppor-20 tunity. 21 MR. SMITH: We really haven't had a chance. I would give it two weeks. We'll start next week, but I would 22 say within two weeks. 23 24 CHAIRMAN LUTON: Within two weeks? MR. SMITH: I'll try to have it sconer than that. 25 2347 223

mpb15 CHLIFMAN LUTON: All right. 2 Well, lat's have it formulated and submitted to 3 the Board within two weeks from today. 4 MR. SHITH: Fine. 5 Mz. Chairman? 3 CHAIRMAN LUTON: Yes? 7 MR. SMITH. May I suggest in this August hearing --3 actually two weeks have been set aside. I'm not sure how 9 long it will take, _st I think it would be a benefit to all 10 parties that we set aside no weeks, although it may not take that long, in order to finish up all outstanding issues and 11 12 resolve anything that may come up in the interim. 13 Ms. Burt talked about the unresolved safety questions, and there's a couple of Staff issues on sabolage. 14 And I really think in fairness to all parties that we should 15 have a two week span, which wouldn't have the time constraints, 13 et cetera, that unfortunately we encountered at the session 17 18 this time. 19 CHAIRMAN LUTON: Two weeks may not be possible. 20 MR. SMITH: Or that two weeks be set aside at some time. It wouldn't have to be consecutive. 21 22 CHAIRMAN LUTON: I'm sorry, you say they don't have to be consecutive? 23 MR. SMITH: It would be nice to have consecutive, 24 but if it's not I think it would be okay. 25 2347 224

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mpble 1 CHAIRMAN LUFCN: That relieves some burden. 2 Okay. We'll leep that in mind. 3 (The Board conferring.) 4 CHAIRMAN LUTON: I hope the parties understood 5 me to say that we expect the emergency planning contention 6 to be formulated and submitted to the Board no later than 7 two weeks from today. 8 MR. SMITH: I understood it that way. 9 CHAIRMAN LUTCN: All right. 10 Is there anything more we can say about schedules at this time? 11 (No rasponse.) 12 CHAIRMAN LUTON: I didn't think so. 13 You stated yesterday, Mr. Smith, that it would be 14 well if we could finish with Mr. Kantor today. 15 MR. SMITH: It won't be possible, it's population. 15 CHAIRMAN LUTON: Oh, it's population. I see. 17 Well, let's resume the cross-examination. 18 MS. BURT: Thank you, Mr. Chairman. 19 BY MS. BURT: 20 I'd like to ask a question of Mr. Masnik. 0 21 MR. LEWALD: Could I just ask a point of inquiry 22 of how long the non-population cross-examination is going to 23 last? 24 MS. BURT: I intend to try to finish by today. 25 2347 225

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mpb17 1	
	CHAIRMAN LUTCN: Try to Sialsh by today?
	MR. LEWALD: In ?(minutes?
3	MS. SURT: I think I can stiffine my questions to
4	20 minutes.
5	CHAIPMAN JUTCN: Fine.
6	MR. LEWALD: Thank you.
7	MS. BURT: IS our clocks are synchronized.
3	BY MS. BURT:
9	Q Mr. Masnik, it's true, is it not, that there is
10	a significant vinter flounder population which spanns in
11	the Veweantic River next to site 20?
12	A (Witness Masaik) It's my understanding that
13	there is a population of winter flounder that spawne in the
14	vicinity of the Weweantic River.
15	9 Is it a significant winter flounder population?
:6	MR. SMITH: Object, unless there's a definition
17	of "significant", how it's being used here.
18	MS. BURT: I withdraw the question.
19	BY MS. BURT:
20	Q Mr. Masnik, it's true, is it not, that for the
21	coastal parameters of site 20, the entire coastline contains
22	considerable shellfish, is that not true?
23	A (Witness Masnik) I am unaware of the shellfish
24	resources in the vicinity along the coastline.
25	Q Thank you, Mr. Magnik.
	2347 226

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TANK BURN

	10,150
mpb13 1	Now you said before that you sere aware of a
2	fossil unit on Cape Cod Canil. That is correct, is it sti
3	A Yes, I am.
4	Q What type of cooling system is employed at this
5	facility?
6	A Once-through cooling.
198 7	
8	2347 227 .
9	2341 221
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	10,151
RELTZER	
rm1 '	G And where is that losated on the Cape Cod Canal
2	just descriptively.
3	A I believe it is cowards the Cape Cod Bay portion
4	of the crial. It's precise location I'm not aware of.
5	Q That would be north?
5	A It would be at the northeastern end of the canal.
7	2 ine northeastern canal?
8	A End of the canal.
9	? Are you aware of any fishery monitoring programs
:0	that are required for the operation of that facility?
11	A I believe
12	MR. LEWALD: I'm going to object. The question
:3	was asked and answered before.
14	MR. SMITH: I have the same objection.
15	CHAIRMAN LUTON: I wasn't paying any attention.
:6	I'm sorry.
17	MS. BURF: I withdraw the question.
:8	CHAIRMAN LUTON: Thank you.
19	BY MS. BURT:
20	Q Mr. McMullen, please?
21	A (Witness McMullen) Yes.
22	Q Mr. McMullon, on page 12 of the Staff Supplemental
23	Testimony relating to alternative sites, under description
24	under your name, you indicate you visited four sites on
25	the Connecticut River in Morthern Massachusetts.
	POOR ORIGINAL 2347 228

mm2 1

What sites were those?

-	
2	A One was the Montague site, and the others were
3	some that were listed i. the New England 1 and 2 Environmental
4	Report.
5	There was one several miles south of Montague, and
6	there were several several miles north of Montague.
7	Q Now the one that was identified, you said, in the
3	New England Report, by that do you mean the New England
9	Power Company Report for Charlestown?
10	A Yos. The alternate sites.
11	Q The alternate sites.
12	That would be their Zavironmental Report on
13	Alternative Sites?
14	A Yes.
15	Q And which site specifically did you examine
15	that is proposed as an alternative to Charlestown in that
17	report?
18	A I believe it was the Gill site and the Erving site,
19	and the Whately site, I believe.
20	Q And the Whately site would be that one which was
21	south of Montague?
22	A Yes.
23	Q And Gill and Erving sites were located north of
24	Montague?
25	A Yes, to the north. 2347 229

			10,153
n3	1	a	Now Ear north from Montague?
	2	A	I don't recall. It was on the order of dive miles
	3	or so.	가슴 옷에 가 물건 것 같아? 그는 것 것 같아? 것 같아? 가 많다.
	4	2	And the Whately site was approximately how far
	5	south of M	ontague, do you thin ? The Monta :: site?
	6	A	About the same distance to the south, as I recall.
	7	2	Now the Whately unit was considered as an
	9	alternativ	e to the Montague unit, is that not correct?
	9		Or, was it also considered as an alternative to
	10	Charlestow	m?
	:!	A	I don't remember. I thought it was the New England,
	12	but it mig	ht have been the Montague Alternate Site Report.
	13 1		Now the fourth site that you examined, which you
13	14		as several miles north of Montague, would that be a
1	15	site that	is in the 1974 siting study?
	16	λ	The Boston Edison?
	7		I don't know,
1	8		Was it in the Montague Final Environmental Statement?
1	9	A	This is the Gill, Brying
2	20	Q	I apologize, I have identified the Whately, the
2	1		rving sites, and Montague, and I thought that was
2	2		e four sites that you visited?
	3	A	No, there were some more.
	4		These were areas rather than specific sites, I
2	5	think.	
			2347 230

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10,154 1 1 Q What area did you visit north of the sites which 2 you have identified? 3 I'm not sure about the sites. I den't want bo 4 violate the proprietary nature, and I'm not sure which sites 5 were included in that and in these other environmental 3 reports. 7 Q Well, were the sites to which you visited, which we are seeking to ascer in those which were identified in a 3 propriatary document of Boston Edison, a proprietary siting 10 3tudy? 11 MR. SMITH: I think the witness answered, he wasn't sure in which documents it existed. 12 13 MS. BURT: I see. CHAIRMAN LUTON: Is that your enswer? 14 WITNESS MC MULLEN: We looked at a number of areas 15 there. The team leader had knowledge of these areas and we 16 looked at it at his request. 17 BY MS. BURT: 18 Which team leader was this? 0 19 A (Witness McMullen) Jan Norris was the team leader 20 at that time. 21 Q I see. 22 Can you describe in miles, how far away from the 23 Montague site you were looking? 24 Were you looking in Massachusetts or Vermont, on 25 2347 231

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	2.2	

1	the Connecticut River
2	A South of the Vermont line, but I don't recall
3	the miles be number of miles.
4	Q Mr. McMullen, you say that the Gill and Erving
5	site ware considered as alternatives to the Charlestown proposal
6	Is that not correct?
7	A Yes
8	Q And you have examined the environmental report
9	submitted by New England Power Company in that application?
10	A I analled the description of these sites.
11	C These two sites you described as five miles north
12	of Montague, are they directly across the river from one
13	another?
14	A Yes.
15	Q Are you aware that New England Power has selected
16	these two sites as qualifying as candidate sites candidate
17	site alternatives to the Charlestown facility?
18	A Well, I assumed they were since they were in the
19	report.
20	Q These had reached a candidate site selection
21	status through a screening process, is that correct?
27.	A I think so. Yes.
23	Q And in that anvironmental report, it's true, is it
24	not, that New England Power considered Gill and Erving
25	site nearly equivalent environmental preference to the
	0747 070
1	2347 232

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Charlestown site? 1 inm 6 2 MR. SMITA: Mr. Chairman, I think this is not 3 zelavant. CHAIRDAN LUTTON: It doesn't seem to me to be 4 relevant. Perhaps it is. 5 MS. BURT: Could I just ask him if he knows? 6 C'AIRMAN LUTON: Well, there's an objection. I 7 can't ignore it. 3 I'll overrule it in the interests of moving on. 9 Can you answer the question, or do you need to 10 hear it again? 11 WITNESS MC MULLEN: I simply read the descriptions 12 of the sites in their report. I didn't read now they 13 rated them with the Charleston site, 14 BY MS. SURT: 15 Q Thank you, Mr. McMullen. 16 I have a question of Mr. Masnik. 17 Mr. Masnik, would you please turn to page 4-49 of :8 the final statement, final supplement, excuse me. 19 (Witness Masnik) Yes. A 20 Referring to the fourth paragraph, last sentence 0 21 of that paragraph stated: 22 "On November 28, 1979, N.Fr. . ." --23 -- which means National Marine Fisheries Service --24 ". . . replied stating that the th reshold examination 25 'revealed a probable impact' the species but 2347 233

		10,157
mm7	1	the data available were 'insufficient to form a
	2	complete biological opinion'."
	з	Is that in reforence to the probable impacts of
	4	the Montague units on the shortnosed sturgeon of the Holycka
	5	3col?
	5	A That's correct.
	7	DR. CALLIMAN: Let the record show the reference
	3	was deted 1977, not 1979.
	9	BY MS. DURT:
	10	4 And the shorthosed sturgeon is an endangered
	19	species, is it not?
	12	A (Witness Masnik) That's correct.
	13	Q Now in this sentence that I just referred to you,
	14	you make a reference 79, which identified a letter from
	15	William E. Gordon, REgional Director, U.S. Department of
	16	Commerce, National Oceanic and Atmospheric Administration,
	17	National Marine Fisheries Service, Gloucester, Massachusetts,
	18	to William H. REgan, USNRC, Subject: Holyoke Pool Fish
	19	Community and Water Quality Classification, November 28, 1977.
	20	Is that correct?
	21	A That's correct.
	22	MR. CHAIRMAN: Mr. Chairman, I think the process
	23	would move along if things in the record would be just
	24	stated as in the record, instead of reading them.
	25	2347 234

		10,153
inta 8	1	BYMS, BURC:
	2	Q Mr. Masnik, I show you a letter and ask you
	3	whether or not that is the same letter to which you have
	4	referred in the record I have just cited?
	5	A (Witness Masnik) That is correct.
	6	(Counsel distributing document to Board and Parties.)
	7	MS. BURT: I ask that this document be identified
	8	as Commonwealth's Exhibit 110 for identification.
	9	CHAIRMAN LUTON: All right.
	10	So marked.
	11	(The document referred to was
	12	marked Commonwealth Exhibit
	13	No. 110 for identification.)
	14	MS. BURT: If there are no objections, I would
	15	ask that that be accepted into the record, be moved into the
	16	record.
	17	CHAIRMAN LUTON: Is there any objection to our
	18	receiving this letter?
	19	MR. LEWALD: I would like some background of
	20	this.
	21	Is this some interagency exchange?
	22	BY MS. BURT:
	23	Q Mr. Masnik, is it your understanding that this
	24	letter was sent to well, can you explain what this
	25	letter is in connection with?
		2347 235

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eam 9	1	MR. LAWALD: Explain what the latter is?
	2	We've got the letter in evidence.
	3	I have no objection, just to move this along.
	4	ibre the letter in evidence.
	5	CHAIRMAN LUION: The letter is received,
	3	Commonwealth's Frbibit 110.
	7	(The docum at herstofors marked
	3	Commonwealth Exhibit No. 110
	5	for identification, was recieved
	10	in svidence.)
	11	BY MS. BURT:
	34 ¹	Q On the fifth paragraph of page 4-49, in the
	13	final supplement, you make a reference to a response in April
	14	of '78 from EPA concerning the shortnosed sturgeon in the
	-15	second sentence.
	16	Can you identify that sentence?
	17	A (Witness Masnik) I identify the sentence. Yes, it
	18	is my sentence.
	10	Q Now that sentence is extracted from an EPA
	20 Ì	response identified as reference 80?
	2:	A Yes.
	22	Q And that was a letter from a Mr. Landry of the
	20	Power Plant Review Group of EPA Region I, to Bernard Fox,
	24	Project Manager of Northeast Utilities Service Company.
	25	Is that not correct? 2347 236

		10,160
m10	1	A Yes.
	2	Q Is it your understanding that this correspondence
	3	was sent from EPA Region I to Northeast Utilities in connection
	4	with its application for a discharge permit for Montague
	5	units 1 and 2?
	5	A Yes.
	7	I believe it was a part, or involved a 316
	а	demonstration that was being prepared at the time.
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	10	0717 077
	11	2347 237
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nt m	10,151
d 1	Q I show you this document and ask whether
1 2	or not it is the same that you referred to as reference
9 3	80?
4	(Pause.)
3	A I agree; yes, it is.
6	Q It is the same letter.
7	MS. BURT: I ask that the letter be identified
3	as Commonwealth's Exhibit 111,
9	CHAIRMAN LUTON: So marked.
10	MS. BURT: If there are no objections, I
11	ask that it be moved into the record.
12	CHAIRMAN LUCCN: Any objections?
13	The exhibit is received, Commonwealth's
14	Exhibit 111.
15	(The document referred to was
16	marked Commonwealth's Exhibit 111
17	for identification, and received
18	in evidence.)
19	BY MS. BURT:
20	Q Mr. Johnson, I ask you a question and it
21	may be my last.
22	Mr. Johnson, turning for a moment to page 5-4.
23	this would be of the draft I mean the final
24	supplement. This is the comment of the staff identified
25	POOR ORIGINAL 2347 238

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A (%itness Johnson) Yas, I see that.
 Q You see that.

Now, y I say that the statif has examined the flow rates in the Deerfield River in that paragraph; did you visit the site know: as the Bear Swamp site? A No, I did not.

3 0 In the second paragraph you state that it's
9 staff's understanding that the commonwealth of
10 Massachusetts Energy Fieldity Siting Council has
11 reservations as to the reliability of the Deerfield
12 River for large scale power reduction -- production.
13 A T did --

MS. BURT: I found a correction. It should
15 say "production." From the water availability perspective.
16 Is that in reference to the Bear Swamp site, what is
17 called the Bear Swamp site?

WITNESS JOHNSON: I did not author this
particular setence; however, I believe that the
sentence is derived from a letter which was written
by the Commonwealth, and I'm not sure who it was
sent to, but I believe that the letter did state the
Commonwealth's reservations about the water availability
in the Deerfield.

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Now, is that what you refer to as Appendix D 2347 239

	1			10,163
david3	1	to the fin	al supplament?	
	2	4	Tes, that is porrect.	
	3	Q	And that is the that document is	just a
	4	letter. W	as there in attachment to this latte	r?
	5	Ä	I'm I'm personally not sure. Mr	. Scaletti
	6	says yes.		
	7	2	You're not personally sure.	
	a		Nov, that letter is that expresse	is the
		opinion of	the siting council staff, does it n	07?
	9	А	Yes.	
	10	Q	And not necessarily the thinking of	tho
	11	siting cou	ncil itself; is that not true?	
	12	Λ	I think that's correct.	
	13	Q	Now, the context of this letter, wa	s it not,
	14	was in res	ponse to questions from the NRC staf	
	15		the Bear Swamp facility I mean t	
	16	Swamp site		
	17	λ	I don't understand the question, I	really
	18	don't unde	rstand what the qustion is. Would y	
	19	it?		ou ropeat
	20	Q	Are you aware of your own knowledge	what
	21		r to the NRC to Ronald Bower was in	
	22		esponse to	connection
	23	A a		
	24	*	I'd like Mr. Scaletti to answer that	t, please.
	25	A	(Witness Scaletti) Yes, it was in	response
			2347	240

and the second second

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		10,154
david4	1	to an inquir, of the NRC staff to the energy facility
	2	siting council staff on the throp sites: Gill,
	3	Irving and vo. These sites were in connection with
	4	the New England Power application for the Charlestown
	5	site.
	6	Q Did you write this particular response,
	7	Mr. Scaletti?
	8	A Which particular response?
	9	Q I mean excuse me. The staff's comment
	10	5.15?
	11	A I perhaps put it down with the assistance
	12	of Mr. Johnson as to the flow rates on the Deerfield
	13	River. As far as the inclusion of this reference
	14	Appendix D, yes, I included that-
	15	Q Now, you included a letter; was there an
	16	attachment to that letter?
100	17	A Yes, there was.
	18	Q And what was that attachment?
	19	Can you tell us?
	20	A The attachment was a multipage attachment
	21	which gave the energy facility siting council's
	22	staff conclusions with regard to sites on the Deerfield
	23	and also the Connecticut River, and I believe
	24	basically it was inland siting of any large facility
	25	would be extremely difficult in the Commonwealth of
		2347 241
has been all		같은 것 같은 것은 것 같은 것 같은 것 같은 것 같은 것 같은 것 같

1 Massachusetts. 2 Q bear Swamp is being considered by New England 3 Power Company as an alternative to the Charlestown 4 for two units, is that not true? 5 I believe it is, yes, A 6 0 Now, Mr. Scaletti, when the siting council wrote 7 this, this report that is now attached as Appendix 8 D, which appears to be just a cover letter, did the 9 siting council assume that the proposed intake and 10 discharge for a facility of -- at Bear Swamp was to be 11 in the river or in the upper reservoir of the Deerfield 12 River? 13 A I really don': recall. 14 Now, the Deerfield is a fully regulated Q 15 river, is it not? :6 (Witness Johnson) There are several dams 2 17 on the Deerfield River, yes. 18 And what is the dam immediately above the 0 19 Bear Swamp site? 20 The dam above the Bear Swamp site I think A 21 is the -- I believe that's the dam that's associated 22 with the Yankee Rowe plant, I think, 23 And how far is that from the Bear Swamp 0 24 site? 25 I believe it's about five miles, five river A

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		10,155
vids	1	miles, I think. I'm not positive. That's that's a
	2	guess.
	3	Q low, the flow rates that are presented in
	4	the staff's response are collected at Fairmont Staticn;
	3	that is 10 miles downstream of Bear Swamp, is that
	6	correct?
	7	A That's correct.
	8	Q It's true, is it not, that the proposed
	9	intake and discharge for the Bear Swamp site proposed by
	10	New England Power Company is in the upper reservoir
	11	and not the lower river?
	12	A I do not know. I did not examine the
	1.3	Bear Swamp.
	14	Q And you do now know that the assumptions
	15	were of the siting council staff when they wrote the
	16	submission identified as Appendix D, do you?
	17	A I personally do not know.
	18	Q Did you ever call someone on the siting
	19	council?
	20	A I did not.
	21	Q Mr. Scaletti, did you ever call anyone on
	22	the siting council staff with respect to this issue?
	23	A (Witness Scaletti) No, I did not.
	24	Q Mr. Scaletti, would you please turn to
	25	
		2347 243

		10,167
david7	1	page 5-2, comment of the staff, 5.6.
	2	You indicate in the staff's response that
	3	the in the Seabrook raview and that I assume is
	4	the Seabrock alternative sits review was not
	5	carried out was carried out without an applicant's
	6	siting study and therefore fid not follow the star fard
	7	review plan.
	3	Do you see that sentence?
	9	A Yes, I to.
	10	Q You reviewed the Seabrook alternative site
	11	study?
	12	A Somewhat, yes.
	13	Q And various members of the I'm just
	14	going to be direct about what I want.
	15	I would like at this point for the board
	:6	to take official notice of the Seabrook alternative
	17	site study, and there has been much testimony from
	18	various witnesses who have been on the staff, the
	19	comparison, and I would like to the board to take
	20	official notice of that document, if I've identified
	21	it correctly.
	22	MS, MULKEY: Would you state for what
	23	purpose that they're supposed to take offic.al
	24	notice or in what manner?
	25	MS. BURT: In what manner? 2347 244

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	10,163
davids 1	I'd like to offer it for comparison in
2	terms of the methodology and screening assumptions used
3	in that document.
4	CH. "PMAN LUTON: ""m sorry; comparison of
5	what? Would you say that again?
6	MS. BURT: Comparison of the methodology and
7	screening principles employed in that study.
8	CHAIRMAN LUTON: Comparison with what? What
9	was done h re in this case?
10	MS. BURT: The screening principles employed
11	by the staff in this case. Not screening, excuse me.
12	The analytical the alternative sites analytical
13	principles employed by the staff in this case.
14	It is a NUREG document.
15	(Board conferring.)
15	CHAIRMAN LUTON: It is a NUREG document?
17	NS. BURT: Yes, it is; it is NUREG 0501.
18	It's entitled "Seabrook Alternative Site Study, NRC
19	staff testimony relating to alternative sites to
20	Seabrook Units 1 and 2, Public Service Company of
21	New Hampshire, December 1978."
22	CHAIRMAN LUTON: Is there any objection to
23	our noticing this NUREG document?
24	MR. LEWALD: I it appears that this is
25	attempting to be introduced for impeachment purposes.
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1 I'm further advised that the prepared 2 cestimony that was filed in that proceeding was 3 supplemented and changed in some respects, altered 4 in some respects by the witnesses who gave the testimony 5 So it -- under oath. 5 I don't think it represents a final position of the -- the lirect testimony represents the final 7 3 position of the witnesses. 9 But I would further object, again on the groundsthat this is in some way trying to impeach the :0 supplemental FES in the testimony that has been presented 11 in this proceeding, and we submit that you don't do it 12 by shoving in the record pieces -- pisces of the 13 record of another proceeding. 14 CHAIRMAN LUTON: Okay. I wonder whit 15 really the board would be expected to do with a 16 comparison that it might make. 17 Presumably, your point, Ms. Burt, is that 13 the staff acted differently in two different cases 19 here. But then that raises the question of "So What?" 20 Is there something that compels us to find 21 what was done in that case was the way to do it as 22 opposed to the way that it was done here? 23 I'm not sure of what you -- what 24

you expect us to make of that information.

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david10 ¹	MS. BURT: Well, the Commonwealth has a
2	contention here, and it has and I've been cross
3	examining a good deal on methodology of the staff
4	in terms of the screening principles that it has
5	employed.
6	I can ask a further foundation question, but
7	I believe that this staff thisstaff review group
0	has employed certain analytical principles that were
9	also employed in Seabrook, and I was offering was
10	requesting official notice to se how, comparatively,
11	those principles ware employed.
12	DR. COLE: Are you putting the Seabrook
13	testimony forward as a model?
14	MS, BURT: I'm saying that that there
15	are certain common analytical methods between the
16	present staff's final analysis of thePilgrim case
17	and those principles that were used in the Seabrook
18	case.
19	And I would like official notice to the
20	Seabrook case for the purposes of how well those
21	analytical principles were aplied and if they were
22	applied consistently.
23	MR, SMITH: Mr. Chairman.
24	CHAIRMAN LUTON: Yes, Mr. Smith.
25	MR. SMITH: We have been examining some of
	2347 247

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avidll the index of care liw, and I guess we cold not say 2 you could not take official notice of a NUREG document. 3 We agree with Mr. Lewald. Our problem would be also 4 for what purpose. 3 And right in the document it says that 5 this testimony, therefore, represents the staff's 7 specific response to ALAB 471 and subsequent Commission 8 orders. The staff intends to perform further analysis 9 of this approach before it adopts general alternative 10 site review procedures for other proceedings. 11 That statement alone shows -- I don't know what 12 you could use it for in this proceeding, 13 CHAIRMAN LUTON: It's a difficulty I have 14 with it, Ms. Burt. I don't believe it would be 15 helpful to us. 13 d 9 2347 248 17 b fls. 18 19 20 21 22 23 24 25

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MS. BURT: Mr. Chairman, there is correspondence 2 on the racord of this proceeding that the Pilgrim alternative 3 sites reveiw was deferred for a substantial amount of time 4 because of the Seabrook alternative sites study. And one of 5 the reasons that I have been told by the -- Well, I can't 6 make false representations of the intention of the NRC, but 7 there was an attempt to apply some basic analytical methods 3 which are the subject of the, for example, the Draft Standard 9 Review Plan which I understand is now final which are also the same subjects of rulemaking to which Ms. Mulkey referred earlier.

12 And I think it is of significance to this Board in evaluating the adequacy of the Staff's job in this case to 13 be able to see how the same analytical principles were applied 14 15 in another case.

CHAIRMAN LUTON: I'm sure a comparison could be 16 made, but then there would come the question of the standard 17 to be applied, and you haven't given me an answer to that. 18

19 If We compared the two we'd come away with a 20 comparison, but no basis for concluding, really, that either one was superior to the other or closer to the standard, 21 22 whatever the standard may be.

23 MR. WRIGHT: Mr. Chairman, I don't know if you want any more comments. 24 2347 249

CHAIRMAN LUTCN: Go ahead.

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	2. 2. 2. 19 2 2. 11. 11. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
1	MR WRIGHT: It just seens to me that as will
2	become apparent when we submit our proposed findings of
3	tact in this case that our main concern here is the method-
4	ology that was employed by the Staff in arriving at the
5	conclusions it did in the Final Supplement. And I think
6	that any halp that this panel can get from other models
7	that have been developed within MPC would decilitate your
3	decisionmaking.
9	CHAIRMAN LUTON: Now you do put the Seabrook the
10	MUREG document forth now as a model.
11	ER. WRIGHT: A model in the sense that, as Ms.
12	Burt said earlier, that this particular environmental state-
13	ment, the final supplement was defeared. And presumably,
14	as I understand it, one of the reasons was so that these
15	problems could be worked out in the Seabrook proceeding.
16	And I would only suggest, sir, that I mean, we're obviously
17	not going to make people read the whole thing, but that maybe
18	portions of this document will be helpful to us in proposing
19	to you the shortcomings of this particular work that this
20	Staff team has done.
21	We're not holding this thing out as the way it
22	shculd be done, but I think we would like to be in a position
23	of making argument based on that, that a cartain procedure

of making argument based on that, that a cartain procedure
used in Seabrook was not followed here and that that procedure
that was employed in Seabrook would be far more effective in

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1 mpb3 getting to the bottom of whatever the issue was that was 2 being addressed. 3 CHAIRMAN LUTCH: All right. 4 Couldn't you make the same argument without 5 reference to Seabrook? Couldn't you see whatever was done 6 in Seabrook, leave that out, and then describe what was in 7 fact done and assert that it was not done in this case? . 8 I don't see that the record for Seabrook adds 9 anything. 10 MR. WRIGHT: I don't think that we proposed that 11 what was done in Seabrook has to be followed here. 12 CHAIRMAN LUTON: No, I understand that. But that 13 wasn't what I suggested to you. 14 MR. WRIGHT: I would think it would be helprul 15 both to us and to the Board as well if comparison could be 16 made to some other proceeding. That's all. 17 CHAIRMAN LUTON: Why does it have to be a proceeding, since our determination is going to have to be made in. 18 19 terms of this case and the reasonableness of what was done in 20 this case, really quite without reference to another case. So it's the acts, whatever was done, that's important, not the 21 context of case. It doesn't have to be in a case setting. 22 23 Consequently if a particular methodology was utilized somewhere else, it seems to me you could put that 24 before us without bothering to tell us that it came from 25 2347 251

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mpb4	someplace else, because the determinent factor is the
	2 reasonableness of what was done, not the case in which
	3 whatever was done might have been done.
	4 MR. WRIGHT: What this represents here I
	5 agree with you 100 percent.
	6 What this represents here is at the very least
	7 another way that something could have been done. So rather
	8 than the Commonwealth being in a position of having to propose
	9 that something be done and the Staff saying No, we couldn't
	do is that way, at least we will have evidence to the alfeot
	that indeed it was done that way in the Seabrook proceeding.
	CHAIRMAN LUTON: Which will simply show that
	3 there is more than one way of doing anything.
1	MR. WRIGHT: And that it's feasible of doing it
1	15 that particular way.
	Now in the absence of some evidence that it had
1	already been done that way, we wouldn't be able to make that
	assertion.
	CHAIRMAN LUTON: I wonder how much the case we
:	will be helped by showing that it was in fact done another
2	way. It seems to me to argue in this particular case that
;	2 what was done could have been done another way, even though
:	it had not been done in fact someplace else would be about
1	the same thing. And the fact that it might have been done
:	in another case doesn't really strengthen it at all, I wouldn't
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1 mpb5 think. 2 MR. WRIGHT: At least it does establish that it 3 was feasible that it could have been done that way. And for 4 that purpose --5 CHAIRMAN LUTON: Okay. I think I understand. And 6 thank you. 7 (The Board conferring.) 3 CHAIRMAN LUTON: We decline to take official notice of the document, not because of any doubts about our 9 ability to do so, but because we're not of the belief that it 10 would serve a useful purpose in this proceeding. 11 MS. BURT: I have no further questions of this 12 13 panel. CHAIRMAN LUTON: All right. 14 That brings us, then, to the end of this -- I'm 15 sorry, Applicant, would you like to cross-examine? 16 MR. LEWALD: We have some cross. 17 I might inquire whether the Staff has redirect, 18 and whether these witnesses are going to have to be brought 19 back at some other time? 20 We have gotten to the one o'clock closing time 21 today. If that be the case, I would further defer the 22 cross until that time. 23 MR. SMITH: Wall, I guess if we could determine 24 now from the Board if they believe cartain members of the panel 25

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mpbő	2	could be excused at this tits, and then see if Mr. Lewald
		could have cross on the other members, I do have some redirect,
	3	but the still have some pross.
	4	CHAIRMAN LUTON: Which ones would you like to have
	5	excused now?
	6	MR. SMITT: Well, I think that at least Mr.
	7	McMullan, maybe Mr. Bykoski on the socioeconcaic and geologist.
	8	I think at least those two.
	9	CHAIRMAN DUTON: Would you have anything of them,
	10	Mr. Lewald?
	11	MR. LEWALD: Mail, I guess under these circumstince
	12	I would like to ask a general cross-examination guestion of
	13	the antira panel.
	14	CHAIRMAN LUTON: All right.
	15	SY MR. LEWALD:
	16	Q I would ask the panel its collective judgment and
	17	individual judgment:
	18	Was there anything in the testimony of the panel
	19	which was filed in this proceeding or with respect to the
	20	answers that the panel individually gave to cross-examination
	21	questions this morning and yesterday, would any of the
	22	the panel's judgment foreclose any of the alternate sizes
	23	ancompassed in the final supplement to the FES as potential
	24	licenseable sites?
	25	A (Witness Scaletti) We're going to have to confar
		2347 254
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10,173 1 mpb7 a moment. 2 (The panel confurring.) 3 (Witness Scaletta) 1 have polled the panel and A 1 at least to their disciplines their conclusions remain the 5 same that all of those sites are still potentially licenseable. 6 MR. LEWALD: I have no further questions. 7 MR. SMITH: Mr. Lewald, would you mind, I think maybe it would clarify the record if each nember did give 8 their statement. 9 10 MR. LEWALD: Cortainly I don't mind that. But I 11 would accept Mr. Scaletti's speaking for the panel. 12 CHAIRMAN LUTON: I think it's been adequately covered. We don't need to poll it and have it said ten times 13 14 over. We heard it. 15 MR. SMITH: Thank you. 16 CHAIRMAN LUTON: Does that complete crossexamination, Mr. Lewald. 17 18 MR. LEWALD: Yas, at this point. 19 CHAIRMAN LUTON: This completes your cross for today, I didn't mean for all time. 20 21 MR. LEWP.LD: Yes, sir. 22 CHAIRMAN LUTON: All right. 23 Mr. Smith, you want to have two gentlemen excused? 24 MR. SMITH: Well, I would like to have more, but I don't wat + resclude the loard -- in fact if the Board 25 2347 255

1 Sdge thinks everybody should be back, we'll bring them back. 2 CHAIRMAN LUTCH: Okay. 3 DR. COLE: We have a couple of Board questions 2 before you excuse anybody who might be involved in those 5 answers to the questions. 6 EXAMINATION BY THE BOARD 7 BY DR. COLZ: 3 Mr. Scaletti, you can pass these questions on to G whoever in your panel would be appropriate. 9 10 On page 1 of the supplamental testimony, on line 21 -- actually the sentence that begins on line 20, page 1. 11 12 The sentence reads as follows: "The review started with the BECo service 13 area and expanded along resource areas (Mater bodies) 14 until a decision was made that a sufficient number 15 of sites could be identified within the area of 16 search. * 17 Who made the decision and at what level -- What 18 were some of your considerations there, Mr. Scaletti? 19 (Witness Scaletti) When you say "who made the 20 A decision", is that for Boston Edison or? 21 Well, you referred to a decision there: 0 22 "... a decision was made that a sufficient 23 number of sites could be identified ... " 24 Who made that decision? 25 2347 256

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çbə	;	A That was a decision of the 1974 siting study.
	2	It i cluded the decision in that document that they could
	3	identify a reasonable number of sites, or enough sites that
	4	they did not have to proceed farther until or areas within
	3	
	6	those areas they identified sites with the understanding that
	7	if they did not find enough they could again then expand
		further.
	8	Q So that United Ingineers and Constructors ande 18?
	9	A Yes.
	10	Q Did you probe the rationale for that decision
	11	with them?
	12-	A Yes, we discussed it. We asked questions with
	13	regard to the justification of the region of interast. They
	14	submitted to us responses, I believe. There were initially
	15	two that we asked.
	:5	9 All right, sir.
	17	Do you want to turn to page 2, the first sentence
	18	on that page? This is still in the NRC Staff Supplemental
	19	Testimony.
	20	Mr. Scaletti, in that first sentence there you
3	21	indicate that the Staffdependently reviewed the Applicants'
3	22	methodology in several areas. And in the next sentence you
:	23	indicate that:
:	24	"The Staff supplemented its review where
3	25	appropriate with data gathered independently."
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With respect to the statement that the Staff independently reviewed the applicants' aethodology, do you mean by that methodology and the data that was collected by their using their methodology, or did you purposely use just the word "mathodology"?

6 No. We reviewed the methodology from the stand -A 7 point of the approach that was taken in the type of site 3 search that they employed, from the standpointof whether we 9 thought it was reasonable that this radial approach -- although 10 it is an approach that we do not specifically dictate a 11 type of muthodology thich an applicant can use in looking for 12 sites. We also took into consideration through the course of the review the type of information that the applicant collect-13 14 ed in selecting and screening the sites in the various areas 15 that I have listed.

16 So would it be fair to say that you also reviewed 0 not only the Applicants' methodology but also the data they 17 18 collected?

19 In some regards we utilized the data that they A collected. And, as I said, in some regards we collected data 20 on our own. There were some areas, which Mr. Lehr can address, the areas of water quality, which he felt that they collected 22 data or researched this area and a lot of information from 23 the Applicant is his own. 24

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Tll Mml:	G In your testimony you indicated that you visited
LTZBR 2	each of the major alternate sites that you considered.
3	Is that correct, sir?
4	A Yes.
5 .	Q You, or members of your team?
6	A Yes. Every person on the team. I believe, visited
7	all of the alternatives that were listed in the final
8	supplement.
9	We also visited, as I stated I believe, two site
10	that were listed in the 1976 propriatary study. We visited
11	Whatley, Gill, Erving which were elternatives to Montagua
12	and New England on the Connecticut River.
13	Q Have you made any estimate of the number of man days
14	of effort that was associated with the alternative site study
15	for Pilgrim 2?
16	A It was considerable, but I have not.
17	MR. LEWALD: Is that a matter that could be
18	supplied?
19	BY DR. COLE:
20	Q Mr. Scalletti, is that a number that could be
21	supplied or estimated?
22	A (Witness Scaletti) Well, at the beginning of
23	the Pilgrim review, we had 100 percent effort for as long
24	as we were on the raview. And at various times throughout
25	1978 we were everybody had 100 percent priority relegated
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mm2 1 to Pilgrim. 2 I'm sure that I could develop the number in some regard if I went back and looked through the records. 3 4 Well that might be helpful, if it wouldn't be 0 5 too inconvenient. MR. SMITH: It will be supplied. 6 7 BY DR. COLE: Mr. Scaletti, Boston Edison Company, Applicants --8 2 principally Boston Edison Company did not make any attempt 9 at ranking of sites in the 1978 study. 10 Is that correct? 11 (Witness Scaletti) In the 1978 -- the proprietary A 12 study? 13 I believe -- reevaluation of the '74 sites and 0 14 any additional information. Well, let's say in any information 15 that they supplied to you since January 1978, none of that 15 information gave any indication as to how they ranked sites. 17 Is that correct? 13 No. We asked specifically -- well, we asked for A 19 information. We did not ask them to rerank the sites. 20 The Staff felt that it would individually compare 21 each of the proposed candidate sites listed in the 1974 siting 22 study with Pilgrim, and that would avoid the necessity of 23 having to rank these sites. 24 Also, I do believe though that in previous testimony 25 2347 260

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3 :	that was filed, they did make a comparison of one of the sites
2	with Pilgrim, back in the earlier alternative site
?	testimony.
4	Q Did the Staff make any attempt at retking the sites?
5	A In the final supplement?
6	Q In whatever documents
7	A No, we have not.
8	Q Was cost a consideration in any of your comparisons
9	of alternative sites?
10	A Cost was not a factor in our evaluation of
. 71	alternative sites in the final supplement. No.
12	Q In a real-world comparison of alternatives, is
:3	economics a consideration?
14	A Zes, I believe it is.
15	Q Could you then explain to me how you would justify
16	not having consideration of economics in any comparison of
17	the real world usage of alternative sites?
18	A Well, I believe that it is an important factor. I
19	believe it is an important factor. I believe it is very a
20	great deal of importance is placed upon this factor with
21	regard to Applicant's consideration of alternative sites.
22	I believe that the positionof the Staff, the
23	Staff presently and I think that that probably will change
24	or has changed with regard to the proposed rule, the feelings
25	about the proposed rule.
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mm4	1	Q What proposed rule are you talking about?
	2	A This is the proposed rule on alternative sites.
	3	Economica is a viable consideration. However, this was done
	4	strictly , rely from the environmental standpoint, our
	3	review of the alternatives to Pilgrim.
	6	A (Witness LaRoche Could I add tothat, please?
	7	Q Certainly. Dr. LaRoche, is that right?
	8	A Yes.
	9	The latest CEQ guidelines suggest that first you
	10	evaluate the site from an environmental point of view, and
	11	then if one of them shows a superiority from an environmental
	12	point of view, then you then consider the cost involved
	:3	in placing a site on that alternate rather than on the
	;4	proposed site.
	15	This is one of the reasons why we didnt we did
	16	the environmental review first, and none showed up to be
	17	superior to the proposed site, and therefore there was no
	18	need to do this cost comparison.
	19	Q Does that rationale appear in the documents that
	20	are before us?
	21	A I don't know if the CEQ guidelines have been
	22	submitted.
	23	CHAIRMAN LUTON: What are the CE-2 guidelines?
	24	DR. COLE: CEQ, Council of Environmental Quality
	25	Guidelines.
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1	1 CHAIRMAN LUTON: Ch, I see.
2	BY ER. COLN:
3	Q So then is it the Staff position that in view of
4	the fact that none of the alternative sites that were considered
5	could be demonstrated to se superior to the Pilgrim 2 site
6	as proposed by the Applicant, then a cost comparison is
7	not required and would not be required under the National
8	Environmental Policy Act?
9	Is that the Staff position?
10	A (Witness LaRoche) That's correct.
(1	Q Thank you.
12	DR. COLE: I have no further questions.
13	(Board conferring.)
12	DR. CALLINAM: I am not a party to this 1:00 o'clock
15	adjournment. But once it having been established, however,
:6	I feel that one should honor it icoause plans, No doubt,
17	were made. I think it is a little unfortunate that the
18	Board is put under some pressure, if it truly was.
19	T have a number of general questions, but I think
20	they would much too long to go into today. However,
21	Mr. Smith, I do say this, that the questions posed thus
22	far by the Board have been fielded very well by your project
23	manager almost exclusively, and that might be true in the
24	future.
25	So at whatever time this issue is reopened, may I
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suggest that you consider having the project manager available
rather than the whole panel.

How you run your case is obviously your own business,
but I am somewhat reluctant to be responsible for bringing
back a dozen people.

6 MR. SMITH: Well, a lot of time has been spent 7 on this particular project and I think -- and it was the 8 Board's concern. And I think, at least my position now would 9 be that I wouldn't want to restrict the Board in any way in 10 obtaining information. And I think we probably will bring back 11 the panel. And I don't feel the Board is in any way imposing 12 upon the staff by doing it.

DR. CALLIMAN: With that I really disagree. My statemant is well considered and firmly stated, so I will not be a party also at this time to requesting that the panel be returned.

I think your project manager can adequately
 cover the questions that I have.

MR. SMITH: All right.

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20 DR. CALLIHAN: Thank you.

21 CHAIRMAN LITON: Is thre anuthing else to be raised 22 before we adjourn by any of the parties?

MR. SMITH: I did have some short redirect. I can
 do it now --

CHAIRMAN LUTON: Okay, we will get tothat.

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mm7 1 Anything else? Ms. Burt, you were going to say 2 scmething? 3 MS. SURT: I just feel, I'm slightly on the edge, 4 Mr. Chairman. 5 Is it fait accompli that it cannot be extended 6 today. I have no idea of how much longer -- it would certainly add to the efficiency of this hearing if we could have finished 7 this issue, this part of this issue today -- we will be 3 coming back much later. Is that a -- I don't mean to 9 impose, but is that a firm conflict with the Board? 10 CHAIRMAN LUTON: Well, we set the time with 11 full recognition of what we were doing. 12 It is meaningful to us, of course. 13 MR. LEWALD: Mr. CHairman, could is guggest -- it 14 was prescheduled that we spill over, if you will, from 15 today's session. It awas originally intended to be picked up :6 on June 11th to the 15th. We do have -- I think the continuing, 17 I wouldn't call it issue, of bringing in the attorneys who 18 have made opinions, or stated opinions with respect to certain 19 matters that are contained in the FES; and we could bring 20 these forward at that time, June 11th and finish in, I think, 21 a more orderly fashion with this panel, than trying to do 22 everything at the last minute, where everyone is compromising 23 a little bit on what he otherwise might have pursued. 24 Just finish up. And that would be our suggestion. 25

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10,139 fls. mm 1 CHAIRMAN LUTON: That June 11 be usel for avida 2 the purpose of -id 1 3 MR, LEWALD: Of finishing with this panel, e 12 4 except for the population witnesses who have aliendy 5 been moved to another date. 6 (Beard conferring.) 7 CHAIRMAN LUTON: Nell, it's the desire of 8 the board to accept Mr. Lewald's suggestion, that 9 we continue with this panel of witnesses on June 11, so we'll do that, except of course for Mr. Kantor. He'll 10 not be able to be with us, but he'll not be needed 11 12 . at that time anyway, I take it. Or will he? MR. SMITH: I'm sorry. I didn't hear your 13 last sentence. 14 CHAIRMAN LUTON: Mr. Kantor, he won't be 15 able to be with us at that time. 16 MR. SMITH: And I don't think I'll need 17 Mr. Soffer. Also on population --18 CHAIRMAN LUTON, Well, then, Mr. Smith, 19 complete your redirect, and then we'll adjourn. 20 BY MR. SMITH: 21 Mr. Masnik, have you reviewed the impingement 0 22 data from Pilgrim Unit 1? 23 24 A. Withess Hasnik) Yes, I have. 25 And how does the impingement data found 0 2347 266

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avid2	1	at Pilgrim Unit 1 compare to the predictions found
	2	'n the 1974 FES for Pilgrim Unit 2?
	3	MR. LEWALD: Mr. Chairman, might I interrupt?
	4	Vy suggestion was that we could adjourn now. We're
	5	already well past the well, redirect could be
	6	tak n up on June 11 along with whatever other matters.
	7	MR. SMITH: That's acceptable to staff,
	8	because I'm sure I'll bring Mr. Masnik with ma.
	9	(Board conferring.)
	10	CHAIRMAN LUTON: Are we going to need to have
	11	this panel of witnesses back?
	12	MR. SMITH: Pardon?
	13	CHAIRMAN LUTON: Do any o.º the parties
	14	believe that we'll have to have the antire panel
	15	of witnesses back or not? Dr. Callihan has indicated
	16	that he can get by with the project manager alone.
	17	MR. SMITH: Mr. Chairman, you know I think
	18	that I don't want to personally, I don't know if
I	19	we have to bring the whole panel back. I'm not sure
	20	if the geologist, the socioeconomic need the
	21	parameters although they're important as the
	22	environmental parameters represented by the other
	23	disciplines, I don't know what Dr. Callihan's questions
	24	are. And I don't want to restrict him on it.
	25	Mr. Scaletti is well aware of what went on,
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10,201 avid3 but we do have certain expert witnesses, and I have 1 no objection to bringing them back, 2 CHAIRMAN LUTON: All right. So if matters 3 are left as they currently are, then you intend to .4 Ť bring back the panel. 5 MR. SMITH: Yes. 6 CHAIRMAN LUTON: All right, okay, good 7 enough. 8 Well, then -- and with that perhaps we 9 ought to have you defer your redirect, if you wouldn't 10 mind, until the next time, that next time being June 11. 11 And we'll issue an order setting the time and place. 12 We expect it will be 1:00 o'clock in the afternoon as 13 far as time is concerned, and we also expect that it 14 will be here, but we will let you know by formal 15 order. :6 Thank you all for your participation. 17 We are adjourned. 18 (Whereupon, at 1:38 p.m., the hearing was 19 adjourned, subject to the call of the Chair.) 20 21 2347 268 22 23 24 25