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NUCLEAR REGULATORY COMMISSION

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IN THE MATTER OF:  
DUKE POWER COMPANY  
(Oconee-McGuire)

Docket No. 70-2623

Charlotte, North Carolina  
Place -  
7 August 1979  
Date -

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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In the matter of:

DUKE POWER COMPANY

(Amendment to Materials License  
SNM-1773 for Oconee Nuclear Station  
Spent Fuel Transportation and Storage  
at McGuire Nuclear Station)

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: Docket No. 70-2623

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Fourth Floor Board Room,  
Education Building,  
701 East Second Street,  
Charlotte, North Carolina.

Tuesday, 7 August 1979.

The hearing in the above-entitled matter was  
reconvened, pursuant to adjournment, at 8:30 a.m.

BEFORE:

- MARSHALL E. MULLER, Esq., Chairman,  
Atomic Safety and Licensing Board.
- DR. EMMETH A. LUEBKE, Member.
- DR. CADET H. HAND, Member.

APPEARANCES:

On behalf of the Applicant:

- J. MICHAEL McGARRY, III, Esq.,  
Debevoise & Liberman,  
1200 Seventeenth Street, N.W.,  
Washington, D. C.
- WILLIAM LARRY PORTER, Esq.,  
Associate General Counsel,  
Duke Power Company,  
Charlotte, North Carolina.

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1 On behalf of the NRC Regulatory Staff:

2 EDWARD J. KESCHEN, Esq.,  
3 RICHARD K. MORNING, Esq.,  
4 JAMES R. TOURBELLOTT, Esq.,  
5 Office of the Executive Legal Director,  
6 United States Nuclear Regulatory Commission,  
7 Washington, D. C. 20555

8 On behalf of the State of South Carolina:

9 RICHARD F. WINSON, Esq.,  
10 Assistant Attorney General,  
11 Office of the Attorney General,  
12 State of South Carolina,  
13 2000 Bull Street,  
14 Columbia, South Carolina 29201.

15 On behalf of Intervenor Natural Resources Defense  
16 Council:

17 ANTHONY E. ROISEMAN, Esq.,  
18 Natural Resources Defense Council,  
19 197 - 15th Street, N.W.,  
20 Washington, D. C.

21 On behalf of Intervenor Carolina Environmental  
22 Study Group:

23 JESSE RILEY, Charlotte, North Carolina.  
24  
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Witnesses                      Direct      Cross      Redirect      Recross

John P. Roberts )  
Darrel A. Nash )  
R. Daniel Glenn )  
Brett S. Spitalny)  
(Continued)

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Limited Appearance Statement

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Mike Fennell

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Exhibits

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Staff 23      Dircks memo to Chilk, 6/25/79      3202

P R O C E E D I N G S

CHAIRMAN MILLER: The evidentiary hearing will resume.

I think that Counsel had a conference this morning concerning procedures, scheduling, and the like. Do you have a report for the Board?

MR. MC GARRY: Yes, Mr. Chairman. I'd like to report to the Board.

CHAIRMAN MILLER: Very well, Mr. McGarry.

MR. MC GARRY: The parties met this morning at eight o'clock and we have arrived at an agreement and if I can read this into the record it can serve as a stipulation or an agreement or however you want to characterize it.

CHAIRMAN MILLER: Very well.

MR. MC GARRY: The parties agreed to having a further hearing in Washington (Bethesda) the week of September 10th.

The parties agree that the hearing will be completed that week.

All testimony will be hand-delivered by September the 4th.

The parties agree that upon completion of the August phase of these hearings that they will commence work on proposed findings. No proposed findings will be filed prior to the September 19th hearing. However, upon completion

of the September hearings, an abbreviated proposed findings schedule will be utilized, bearing in mind that we have all been working on proposed findings. And the dates we would suggest, if they are acceptable to the Board, would be that the Applicant would file its proposed findings on the 22nd; the Intervenor would file their proposed findings on the 23rd; the Staff would file its proposed findings on the 5th; and the Applicant would file any response that would be necessary on the 15th. All those filings will be hand-delivered.

There is one question, and we'll come to grips with this maybe at the recess, but it's a question of whether or not the Intervenor should be provided an opportunity to respond to the Staff, and if that be the case then they would file a response to the Staff's proposed findings on the 15th. And as I suggest, perhaps at the next recess Intervenor and ourselves can get together and resolve that. I'm just not sure whether or not the rules provide for that.

The parties agree that the hearings will be limited to those filings of September 4th.

The parties further agree that any objections to the testimony that is filed on September 4th will be made at the commencement of the September 10th hearing.

I would like to add at this point the State of South Carolina has a jurisdiction problem in that Counsel will be involved in a de-commissioning conference the 11th, 12th and

13th. South Carolina will be able to join us the 10th and the 14th. To accommodate South Carolina, the parties have agreed that South Carolina should be afforded an opportunity at the beginning of the 10th to conduct its examination.

So we would envision, as soon as the hearing is recommenced, to turn the floor over to South Carolina and let them **pursue their cross-examination** or examination, and then provide them a further opportunity on the last day of the hearing, the 14th, if that be the case.

Then upon the completion of South Carolina's case, the parties can then make whatever objections they have to the testimony so we can take care of that early on.

The parties all agree that this is a reasonable schedule and foresee no difficulty in completing the hearings.

There is one caveat at this point in time that we hope will be resolved today and that is that the Staff, at this point in time, is unable to firmly commit that its review of one of the outstanding items, that is, physical security, will be completed by the 4th. We hope that it will be, and they are not taking a position that it cannot be. They just don't know at this point in time.

The parties agree that any position or testimony related to physical security can be filed up until the day of -- the second to the last day of the hearing, September 13th, and that if that matter gives rise to any issue, the

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parties will be in a position to identify that issue on the 14th and we will resolve that issue on the 14th. In other words this will be the last hearing.

I believe I have summed up all the positions but I think it would be appropriate for the other parties to comment on whether or not I have accurately set it forth.

CHAIRMAN MILLER: We'll hear from all Counsel as to whether or not this is agreeable in toto to each.

MR. MC GARRY: Mr. Chairman, may I just say one other thing that is aside from the agreement, but it goes to a matter that we did discuss, and that is we think it would be appropriate to resolve the issue of proprietary treatment of the route question, and we would like to get a ruling from the Board in that regard.

So at some point today or tomorrow we would hope to present our arguments to the Board.

CHAIRMAN MILLER: We'd prefer to do it today if Counsel are prepared to.

MR. MC GARRY: We have some suggestions. Perhaps we could take that up immediately. But at least my view would be let's get on with the panel that we've had and finish them, and then at that point in time if the Staff chooses to put on their Transportation/Sabotage panel we can make those objections at that point in time.

CHAIRMAN MILLER: Very well.

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MR. MCGARRY: Thank you, Mr. Chairman.

CHAIRMAN MILLER: The proposed schedule and other matters of the stipulation sound reasonable to the Board. The timing is acceptable to all members of the panel.

Let us hear from Counsel for every party to be sure that we do have a stipulation and agreement as to all the items that you have described, Mr. McGarry.

Mr. Wilson?

MR. WILSON: As for the State of South Carolina, Mr. Chairman, the statement as Mr. McGarry related to the Board is in conformity with our understanding.

CHAIRMAN MILLER: Thank you.

Mr. Roisman?

MR. ROISMAN: Yes, we are in agreement with it as stated by Mr. McGarry.

CHAIRMAN MILLER: Thank you.

Mr. Riley?

MR. RILEY: We take no exception to Mr. McGarry's statement.

CHAIRMAN MILLER: Thank you.

The Staff?

MR. KETCHEN: Mr. Chairman, we are in agreement, with the caveat that we are checking with respect to the one open item which is physical security. We are checking with the Staff to see if the Staff can meet the proposed schedule

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set forth by Mr. McGarry with respect to that open item.

I want to be clear on the record -- And we should know the answer to that today, one way or the other I hope.

I want to be clear on the record that what the Staff is being asked to do is to commit to review something that they have not yet seen. It's my understanding that Duke Power Company will provide the information necessary for the Staff to complete its review toward the middle of this month. With that caveat, the Staff has no objection to this schedule.

MR. MC GARRY: I might note for the record that the Applicant will endeavor to supply the information to the Staff by the 15th, and the issue we're talking about is physical security at McGuire.

CHAIRMAN MILLER: Very well. The schedule as stated will be accepted by the Board. We'll regard it as stipulated to by all parties and Counsel.

MR. MC GARRY: Thank you.

MR. ROISMAN: Mr. Chairman, one matter not directly on the schedule. It has to do with the nature of the testimony to be presented on the 4th.

We will endeavor to get Department of Energy witnesses to come forward to testify on several of those issues that were identified in previous hearings. If we're successful in getting them to do it voluntarily we would simply ask that they prepare something in writing and submit

it by the fact.

They may or may not identify themselves. I suspect they will not identify themselves as witnesses of NRDC. They may ask to have some special status. And I assume, given the Board's attitude up until now, some flexibility will be given as to how they will be classified as witnesses.

CHAIRMAN MILLER: Yes. They can be regarded as Board witnesses actually. As a matter of interest to all, they are an arm of the federal government. We'd have no reluctance in designating them as Board witnesses to avoid any problems of protocol or otherwise.

MR. FOISMAN: If we are not successful in getting them to do this voluntarily, then of course we would seek a subpoena. Under subpoena they would not be obligated to, in advance, advise anybody of what it was they were going to say. Our request for subpoena would attempt to identify as best we could what areas we would want to question them on, and we would get the subpoena in to the Board in advance of September the 4th, so that if the parties objected, the Board could have the objections, our responses, and make a decision by September 4th so everyone would be on notice and there would or would not be witnesses from DOE, and if so, on what basis.

And I will get Dr. Cochran, who's in Washington this week, to begin immediately to open negotiations with

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DOE so that we can, at an early time, advise the Board if we're going to need subpoenas.

CHAIRMAN MILLER: Very well.

Anything further?

MR. KETCHEN: One comment on that.

The Staff, depending on how these witnesses are identified, would reserve the right to take witnesses' deposition if we desire.

CHAIRMAN MILLER: Well, depositions will be permitted provided it does not interfere with the schedule.

MR. KETCHEN: That's correct, we'd do it expeditiously.

CHAIRMAN MILLER: Very well.

Anything further?

(No response.)

The panel then may resume its place.

Whereupon,

JOHN P. ROBERTS,

DARREL A. NASH,

R. DANIEL GLENN

and

BRETT S. SPITALNY

resumed the stand on behalf of the NRC Regulatory Staff and, having been previously duly sworn, were examined and testified further as follows:

MR. KETCHEN: Mr. Chairman, at the close of yesterday's meeting Mr. Spitalny at one point-- yesterday, Exhibit 22, I indicated that I would provide copies. They're not here yet. When they're here we'll pass them out to the parties and to the Board.

CHAIRMAN MILLER: Very well. Thank you.

Mr. Roisman, are you ready?

MR. ROISMAN: Yes, Mr. Chairman.

CRC 5-EXAMINATION (Continued)

BY MR. ROISMAN:

Q Mr. Spitalny, when we recessed last night we were discussing the situation of the use of the McGuire pool for the storing of Oconee fuel, and the question of whether or not that could or should occur before or after the decision is made on the McGuire pool being reracked with poison racks.

What I would like to get out from you this morning if possible is some statement on your part of your understanding of the scheduling on which these various things would have to occur.

Let's begin with the given that we have from yesterday which is that the McGuire Unit Number 1 would begin commercial operation in October of 1980. Is that correct? Is that your understanding of the present schedule date?

A (Witness Spitalny) I believe it is August of 1980.

Q August, I'm sorry. That's right.

Q And when, if that happened, would McGuire under normal circumstances have its first discharge into its own spent fuel pool?

A One year later, August of '81.

Q All right.

Q And when in your judgment is the first date on which Oconee would have to transship spent fuel if it did nothing more to expansion of its fuel capacity than it has already got permission to do?

A Presently I believe with the present discharge schedule of Oconee I believe they would lose a full core reserve or be up to their full core reserve in June of 1982. The number of assemblies to be discharged at the next discharge-- For example, if they were going to discharge 60 assemblies they would have to ship 60 to accommodate that next discharge. The shipping rate is one per day.

Q I would have to look at the shipping schedule as to what month the following discharge would happen, and it would be 60 days prior to that.

Q So you're saying the discharges that are scheduled to take place in June of 1982 from the Oconee units, those could be accommodated in Oconee with the present keracking completed without loss of full core reserve.

Q It's the next discharge after June of 1982 that would begin to eat into the full core reserve. Is that correct?

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A I could tell you quickly if I could look at one particular table.

Q Sure, look at anything you want.

(Pause.)

A With the reracking which is presently going on, the discharge which takes place in May of 1982 would result with a capacity of 175 assemblies at the Oconee site. The full core reserve is 177.

Q So it would have to be -- At least two assemblies would have to have been transshipped --

A By May of --

Q -- by that time?

A That's correct.

Q Now you testified yesterday that the McGuire Unit No. 1 pool already had racks in it and that that would be a deterrent to the reracking of it with poison racks to some extent. Am I correctly remembering your testimony?

A Yes.

Q And I think, looking now at Staff Exhibit 19-B on page 10 at the bottom of the first paragraph of the page that still remains, the very first paragraph having been struck, you make essentially the-- Just hold that a second.

At the bottom of that first full paragraph on page 10 of Staff Exhibit 19-B, you talk about reracking at Oconee with poison racks in 1982 will require transshipment of fuel

WBE 2012 assemblies to an alternate site to allow working space for reracking.

My first question to you is would the reracking of the McGuire pool with poison racks, McGuire Unit No. 1, require the transshipment of the spent fuel from McGuire either to McGuire Unit No. 2 pool or to another pool offsite if you wanted to put poison racks in once you had started putting Oconee fuel in there?

MR. MC GARRY: May I raise an objection.

Mr. Chairman?

CHAIRMAN MILLER: Yes.

MR. MC GARRY: I thought about this yesterday, and upon reflection last night, my objection goes this way:

NRDC is a discretionary Intervenor. Its rights of cross-examination are strictly limited, pursuant to a stipulation that was entered into between the parties, among the parties, and attached to the Appeal Board decision which this Board is familiar with.

And I went through NRDC's contentions and I looked at Contention 3, which is alternatives. In Contention 3 the alternatives are the alternative of using Oconee as a last-on, first-off base loaded plant, the alleged economic cost of increased purchases of power, no technological or economic disadvantages of expanding spent fuel pool capacity at Oconee, and the fact that Applicant has not utilized all the potential



that it has to compact spent fuel at existing pools at Oconee.

I don't see anything in the alternative contention that relates to McGuire. Inasmuch as NRDC is a discretionary Intervenor, I submit that its cross-examination rights pursuant to the stipulation should be strictly confined to the contentions.

So my objection is that the question goes beyond the contentions and beyond the stipulation.

CHAIRMAN MILLER: Mr. Roisman?

MR. ROISMAN: Mr. Chairman, one of the contentions that has been admitted is NRDC Contention Number 1 which says in part, and I quote:

"The proposed action if taken will bias the final decision on whether to approve the program by foreclosing at reactors options at both Oconee and McGuire."

We have taken the position in discussion of Contention 1 that the actions of fuel moving from Oconee to McGuire were interfering with the options available at McGuire and that's of course the point which I'm attempting to pursue in this line of cross-examination. It deals with the foreclosing of options rather than the existence of alternatives vis-a-vis Oconee.

CHAIRMAN MILLER: We have considered that there was an issue of whether or not there was a foreclosure of

various options by conduct or decisions made at varying points in time from the present on. I think under that theory, Mr. McGarry, that this material would be relevant.

We will overrule the objection.

Proceed.

BY MR. ROISMAN:

Q Would you like me to ask the question again?

The question had to do with whether or not if you were going to rerack the McGuire pools with poison racks after you had put Oconee fuel in the spent fuel pool of Unit No. 1, would you have to move the fuel that was in there to another pool before you could do the poison reracking?

A (Witness Spitalny) It's very much dependent on the time frame in which shipments start. To ship the total of 300 assemblies to McGuire would take almost a year if one was to take place every single day. If they don't ship on week-ends it's going to take more than a year.

If there were 300 assemblies in the McGuire pool at the time they had decided to rerack the McGuire pool, the pool could probably -- and I would leave that to evaluate exactly what space was left for working space -- could probably be done without moving any fuel. It could be done in the same manner that is being used presently at Oconee where they are leaving fuel in the pool and doing it in increments.

agbl Q So then it's a factor of how much fuel is in the pool, not whether there happens to be just an assembly in the pool; it's not a radiation question, it's a physical problem?

A That's correct.

1.300 Q So the earlier you transship fuel into the McGuire pool the earlier McGuire would be faced with having to move fuel -- well, let me rephrase that. The sooner the Oconee fuel goes into the McGuire pool, the earlier the date would be on which McGuire would be forced to itself do transshipment if it were choosing to do poison reracking?

A That is true only to an extent. The critical date really is the operational date of McGuire in that McGuire would not be scheduled to discharge until August of 1981 meaning if 300 assemblies were to be shipped starting tomorrow and there was existing space available to work with 300 assemblies in the pool, you would have until August of '81 before McGuire's first discharge.

Q I understand. But going back to the principle that I think you enunciated yesterday and also back on the 29th of June, that there's an advantage -- quote: postponing as late as possible the decisional dates so you could always see what options are available at each point along the way.

It is true that you make a decisional date on when the McGuire pool would have to be reracked with poison racks

and it would have to occur earlier to the extent that you begin to fill the McGuire pool with Oconee's fuel. You could wait 'till a later date to rerack with poison racks if McGuire -- if you never put any Oconee fuel into it, assuming you wanted to avoid a transshipment out of McGuire, isn't that true?

A That's true.

Q Now let's go to this question on the reracking with poison racks at Oconee which you address on page 10 of Staff Exhibit 19B.

Is it still your position that a decision to rerack with poison racks in 1980 would require transshipment of spent fuel assemblies to an alternate site and, if so, could you give us with some precision exactly what you mean by that? Do you mean if the reracking starts in '80 or ends in '80 or proposed in '80, so we've got some clear parameters of what you're talking about.

A Yes. This particular paragraph that you have selected is discussing the use of poison racks as an alternate to high-density stainless steel racks, not used in series with high-density stainless steel racks.

Q Oh, all right. I didn't understand that. You can just stop right there. That's not an option which is still viable for Oconee.

A The testimony that you're reading from discussed

both of those options. We made assumptions if the stainless steel racks were installed prior to poison racks and we also made an assumption if the stainless steel racks were not employed prior to that. That particular paragraph you're reading is not using stainless steel racks.

Q Let's discuss the question even with Oconee as it is. Stainless steel reracking is completed. Is there a date on which the poison reracking, if that were to be done at Oconee, could occur without having to transship from Oconee to another site in order to accomplish that reracking and, if so, what's that date?

A Yes, there is a date.

I would have to -- I think I would like to reserve time over a break or something to actually do it.

Q Sure, that would be fine.

A It would be toward the end of 1981, I would imagine, or during 1981.

Q Okay.

When you do it, could you focus on the date on which you would have to make the decision that you did want to do the poison reracking, as well as the date on which the poison reracking would have had to be completed if you wanted to avoid transshipping at Oconee, so we know -- we can move it back to the so-called decision date.

A One other assumption. Do we want to maintain a

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weight full core reserve?

Q Yes, maintaining full core reserve.

Now looking at the bottom of page 10 of Staff Exhibit 19B, you refer to a problem that's created by the use of stainless steel racks before you decide to go poison re-racks. Essentially what you say is, if you use them, you alleviate the need to transship, then you incur duplicate costs, first the stainless steel racks and then the poison racks.

Is that now the situation that Cosco finds itself in? That is, if it were now to choose to go to poison racks, one of the things that it would lose is the costs incurred now having installed stainless steel racks?

A Yes, that does happen. But the use of the stainless steel buys them some time.

Q I understand.

A And that cost would be factored out because they are able to operate now with full core reserve.

Q Okay.

Did you do some -- have you done a balancing to find out from the perspective of the utility, looking for a moment only at economics and its scheduling and assuming you want to keep a full core reserve available at all times, which is more economical to do, to go directly to poison racks from normal racks or to transship from -- and to have to transship,

5 or to go from normal racks to stainless steel racks and stainless steel racks to poison racks and never transship? Have you tried to work those options out to see which works out the best?

A I have not really worked out a number of different scenarios and put a dollar cost on the different alternatives that they have. There are, in my mind, many alternatives that they really have. I have not broken them down.

Q And I assume that would be equally true then for McGuire as well, that you have not worked out from the McGuire perspective the economics of what's the -- again, assuming your goal is to always keep a full core reserve available, which is better, let it build up before you go to poison racks, if you do, and then transship if you decide to go to poison racks, or start with poison racks in the beginning?

A I have a working knowledge basically of what the costs are, but I have not done that particular analysis.

Q All right.

Now yesterday you testified that in McGuire, one of the deterrents to switching to poison racks at this point is the costs have already been incurred of installing stainless racks in McGuire Unit 1, is that correct?

A That's correct.

Q By the way, are the racks now in McGuire Unit 2, to the best of your knowledge?

A No, there are not.

Q There are none in there.

So insofar as McGuire Unit 2 is concerned, the first racks that went in it could be poison racks.

A That's possible, but I do not know if there are any contractual agreements that have already been made to purchase those racks.

Q I understand.

A Or they may be being delivered.

Q Are the costs associated with the removal of the stainless steel racks that are now in McGuire Unit 1 less if they are removed now before any spent fuel has gone in there versus removing them if spent fuel has gone in and then it's later decided to replace the stainless steel racks with poison racks?

A Yes.

Q And is it possible that if the racks have never had spent fuel in them that you might find another utility or another place within the utility system of Duke where you could use the racks, and that's an option that could not be available if spent fuel had been put in the pool?

A Again I haven't evaluated Duke's particular situation at Catawba and so on down the line. That situation you present could be used, it is a true statement.

Q I guess the point I'm trying to get at is, is it



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 the case that once you put spent fuel into stainless steel racks and they're in a pool, they can never be re-used because of the contamination and that the only ones that can be re-used are ones that have never been -- never had spent fuel put into them?

A I'm not sure of the answer to that. In many cases, when contaminated racks are taken out, they are disposed of. But I wouldn't go so far as to say if the racks were used for a short period of time and possibly some of them were really clean with the exception of having water around them, they may be able to be decontaminated to a level such that they can be shipped to another pool. I don't know, I haven't pursued that route.

Q Does anybody else on the panel know?

(No response.)

1.436 A (Witness Roberts) I can't recall.

CHAIRMAN MILLER: I think all the witnesses on the panel indicated that they either didn't know or did not recall.

Is that correct, gentlemen?

(Chorus of yes.)

CHAIRMAN MILLER: Thank you.

BY MR. ROISMAN:

Q Now Mr. Spitalny, let me direct your attention to Staff Exhibit 19C.

A (Witness Spitalny) Is this an appropriate time to ask you for a clarification?

Q Yes, sure.

CHAIRMAN MILLER: Go ahead.

WITNESS SPITALENY: Something was just brought to my attention that possibly you had mentioned, or in a question you had asked me, was if fuel had to be moved out of McGuire pool prior -- when we were discussing moving fuel out of McGuire prior to reracking, did you ask moving it to another pool or moving it to another site?

BY MR. ROISMAN:

Q I asked both. I asked either moving it to another pool or to another site.

A (Witness Spitalny) The discussion I was referring to was with regard to moving it to another pool. That of moving it to another site, they do have McGuire Unit 2.

Q I understand.

A -- which they could move to.

Q Let me just be clear. For my purposes, it didn't matter. I was simply leaving open the possibility of the utility for some reason deciding why go into the McGuire 2 pool, let's just use Catawba or some other place, obviously leaving that as an open option.

A Okay. There are tremendous advantages of going to McGuire 2 prior to going to Catawba.

Q I understand. But just for the record, what are the tremendous advantages?

A Duration of shipment, the shipment is much less costly -- not much less costly, but it is less costly due to not having to contract with Tristate or somebody to actually move it. The entire operation is basically an in-house operation which can be done around the clock as McGuire is working. It's just the flexibility that I'm really getting at.

Q Are there any health and safety advantages?

A The only difference that you see between moving on-site and moving -- transporting off-site is that to the drivers of the public, which is a very small number.

Q Is there also a licensing difference on-site versus going to off-site?

A Yes, sir, there is. They're allowed to do it under the Part 50 license.

Q If they just move it on the site?

A If they just move it on-site; that's correct.

Q Looking at page 4, now, of Staff Exhibit 19C, the first full paragraph that begins with the words "In general," I just want to be clear about this, the use of stainless steel racks before you use poison racks.

Do you feel that those costs are -- that they tend to reduce the viability of the option of using poison racks; that is, once the utility spends the money on the stainless steel racks, are you attempting to say in this paragraph on page 4 that, having spent that money, it will be less willing to then go to poison racks if there is another option available that is cheaper when you take into account that they've already sunk some money into the stainless steel racks? Is that essentially what you're saying?

A What I'm saying is, if, given a number of alternatives which all fall into the same ballpark environmentally, then the decision as to which alternative to choose can be based on economics or other considerations. If there is an alternative available which is more economical they can certainly choose that one.

Q All right. But--

A What I'm saying is, I have no objection to the use of poison racks. Generally the use of poison racks is a good technique. If Duke had come in with an application to use poison racks and they were following all the regulations that are normally followed, they probably would have been approved, the same way their recent rerack application was.

What I was just highlighting in this particular area is that there are also cost considerations that have to be realized. It's not as simple as saying: Well, pull those racks out and put in the other ones. There are some considerations that must be given. Assuming the alternatives are equal or environmentally sound, you choose which one is economical.

Q But I was thinking in this context: If one were back to sort of a clean slate and you were trying to project into the future the courses of action to follow: let's take your assumption that environmentally and from a health and safety standpoint transshipment, stainless steel racks, poison racks are all essentially equal. If you're starting from zero there's one set of costs that would be associated with immediately starting with poison racks and a different set of costs would be associated with beginning first with stainless steel racks and then deciding, when your stainless

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steel rack space was about to be used up, to either trans-  
ship or put in poison racks; isn't that correct?

A There are costs associated with that, yes.

Q And that the economic -- just the economics of  
which racking you would do at the beginning, you would tend  
to be -- the poison racks would tend to have the edge  
economically if you started with them. But after you had  
already put in stainless steel racks the edge would tend to  
go toward transshipment because it would cost only several  
thousand dollars per fuel assembly, but racking with poison  
racks would involve something like, if I remember the numbers,  
eight or nine thousand dollars an assembly on top of having  
already spent eight or nine thousand dollars an assembly on  
stainless steel racks; is that correct?

A Not necessarily. It could be, but what it really  
hinges on is how far out in the future you want to store  
fuel.

What I'm getting at is, if Duke had started  
construction at Catawba they'd have built the pools larger  
there than the normal design due to the spent fuel situation.  
There are no racks in the Catawba pools. I don't know what  
their intentions are presently. They had indicated an  
initial design for stainless steel racks. I believe that  
they are looking at poison racks at Catawba. They are con-  
sidering the same means for Cherokee-1 and 2, both the

possibility of stainless steel and the possibility of poison.

Someplace. . . If they wanted to store fuel indefinitely with the assumption that there would never be an APR or a repository or anything to ship to, then I would agree that the installation of poison racks at an earlier date would be more cost-effective.

If they wanted to ship fuel into the 1990's, possibly approaching the year 2000, economically they might be able to get by-- this is the dollar cost only --until the 1990's just by transshipment, which is cheaper than refitting with poison racks. If we set the parameters of what we're looking at, how far we want to go into the future, you could come up with possibly the best method to go. The choice normally is left to the utility, and we will stand back and evaluate which choice they select. But it could be done.

Q So those choices, those decisions are going to be affected by what you presume is going to be the future course of events through the eighties and nineties and into the next century?

A That's correct.

Q --in terms of waste handling and disposal.

A That's correct.

Q Now on page 6 of Staff Exhibit 10C you make the statement, as now corrected,

To provide additional spent fuel

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storage space..."

I'm sorry; it's the end of the first paragraph.

"To provide additional spent fuel storage space for its operating reactors, the applicant has increased the size of its spent fuel storage basin at those reactors it has presently under construction."

Are you referring there only to Catawba, or were you also referring to McGuire?

A McGuire-- Primarily Catawba. McGuire, however was built larger than the design basis of the normal reactor plant.

Q You mean the spent fuel storage basin?

A Yes. The normal design was 1-1/2 to 1-2/3 cores. At McGuire the pool is roughly 2-1/2 at each pool.

Q All right. That's assuming neither stainless steel nor poison racks, but... What are you assuming?

A That's assuming the way it's designed now, which is presently with stainless steel racks.

Q Okay.

Now, you talked back on the 29th of June a lot about pin packing. And if I understand what you said before, it was that as of June of 1979 pin packing was not a proven technology but it looked very promising from your perspective, and you would expect that it will be a proven technology in



the very near future.

Is that an accurate summary of your position on pin packing?

A It looks-- I don't know if I used the words "it looks promising." It looks like it's possible; it may come about. There are some problems with it that are still being incurred, but the technology may be able to be used.

Q The Staff does have an application pending, does it not, from Maine Yankee for pin packing?

A No. The submittal from Maine Yankee for pin compaction was-- Well, let me back up a bit.

It may have been in the form of an application but it was not a normal application. What it was was requesting permission to compact spent fuel assemblies under 10 CFR, the Code of Federal Regulations, Part 50.59, which allows an applicant or a licensee to perform experiments and modifications at that facility without approval of the Commission. That is what Maine Yankee had requested.

The Staff has gone back to Maine Yankee and said, "You cannot do it under 50.59. We want some more information about how you're going to do it and why you're doing it. And we'll discuss it further."

Q Can you tell me what, if any, conclusion the Staff at this time has made about the use of pin packing as a way of storing spent fuel?

Let me withdraw that.

Have you been personally involved in the review of the pin packing question?

A No.

Q Has any member of the panel been personally involved?

A (Chorus of "No.")

CHAIRMAN MILLER: Can you tell us who has been?

WITNESS SPITALNY: I know an individual who is familiar with it by the name of Richard Clark. He is in the Division of Operating Reactors. I don't know if he is the licensing manager or not, but he is familiar with what is going on and can certainly direct you to the individual.

CHAIRMAN MILLER: Fine.

Have any other studies been made by the Staff, whatever the procedure that may have been followed in analyzing or otherwise looking into pin compaction? Do any of the panel members have any information on that?

(Chorus of "No.")

WITNESS SPITALNY: I don't know of any others, other than Maine Yankee. And then there were some contractors who were considering it, vendors.

CHAIRMAN MILLER: Have they been in touch with the NRC technical staff in that regard?

WITNESS SPITALNY: Not to my knowledge. I don't

know.

CHAIRMAN MILLER: Thank you.

You may proceed.

BY MR. ROISMAN:

Q If pin packing were available, what would it do to the storage capability at Oconee if it were used there? And would you have to have first gone to poison racks in order to utilize pin packing or could you use it and get the maximum from it with the stainless steel racks?

A (Witness Spitalny) Pin packing is-- The technique of pin packing is basically independent of the racks. However, there is an implication there. What pin packing does is put more fuel rods into the given area that the fuel assembly normally takes up. There have been two numbers that I have seen which range from 50 percent to 80 percent increase in capacity within a fuel assembly.

Now part of the problem is if you go to poison racks, which is creating a much more dense atmosphere of assemblies, and on top of poison racks you put in high density assemblies, compacted assemblies, you may have a criticality problem.

What I'm getting at is I don't know how far along poison racks and pin compaction in series-- If you can use both of them to their option of let's say 50 percent, I don't know that you can gain 120 percent over stainless steel racks.

It would be possible to possibly get 60 percent on the poison racks and another increase from compaction. I don't know how far down the line it would take you.

If you wanted to go that additional 60 percent it may be necessary to put some poison into the racks, possibly insert some boron rods into the assemblies, some neutron absorbing material because of criticality problems.

Q I think it was on the 29th that you discussed the question of whether or not Oconee might be able to handle the spent fuel storage problems on site using a combination of reracking and pin packing without building an independent spent fuel storage facility at the site and without transshipment. And I think at that time-- The page is 2757 to 2761.

Do you have a copy?

A No, I don't.

Q I can let you look at this one. All I really want to do is just ask you whether you've done any more analysis and can give us any more precision than you did here of the possibility of-- You can start along on this page. That was page 2757 to 2761.

Can you give us with any more precision now, particularly in light of the work that you did in Staff Exhibit Number 22, as to whether Oconee might be able to handle its spent fuel storage problem on site without transshipment if we assume pin packing is a viable option?

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If you want to take a moment and look at that,  
that's fine.

(The witness reading.)

CHAIRMAN MILLER: Mr. Spitalny, why don't you take  
a few minutes to peruse that and we can all have a cup of  
coffee.

(Laughter.)

We'll be in recess.

(Recess.)

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andon fls.

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CHAIRMAN MILLER: You may proceed, Mr. Roisman.

BY MR. ROISMAN:

Q Mr. Spitalny, have you now had an opportunity to look at those pages in the transcript on the pin packing?

A (Witness Spitalny) Yes, I have.

Q If I could remember what it was I wanted to ask you about.

May I have back my --

A It's on your table.

MR. KETCHEN: Mr. Chairman, while he's walking back, I just wanted to point out during the break we passed out copies of Staff Exhibit 22, and the Board.

CHAIRMAN MILLER: Let the record reflect that copies have been passed out, received by the Board and the parties.

BY MR. ROISMAN:

Q Okay. Mr. Spitalny, what I had asked you was whether you could, with any more precision than you had at this point in the transcript, discuss the extent to which the use of pin packing at Oconee in conjunction with whatever other measures might be used on-site could alleviate the need for off-site shipment of spent fuel from Oconee other than to a permanent repository.

I don't want you to repeat your testimony of the 29th, but have you done any more thinking on it, or can you

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give us any more precision on it?

A No, I cannot.

Q Now looking at Staff Exhibit Number 22,

Mr. Spitalay, am I correct in the following: that according to your calculation of the pool capacities at the various Duke reactors as they appear on page two of Staff Exhibit Number 22, assuming the use of poison racks, that Catawba, with the use of poison racks, would have more space available in it than it would need to handle a full lifetime discharge of spent fuel from those two reactors? Is that correct?

Just to help you through that, it looks like Catawba ends up with 4700 spaces. You show that to the year 2007, Catawba will need a maximum of about 3000 spaces, and by the year 2007 Catawba will have completed 23 years of operation with about seven years left to go.

It would appear to me that it's got enough space to handle a lifetime discharge with the use of poison racks. Does that square with what your calculation would show?

A Yes.

Q Similarly, if McGuire were reracked with poison racks, it would need to do something additional either on-site or off-site some time in the late 1990's assuming that all that it were handling was its own spent fuel and not from any other site.

A That's correct. I believe the date is 1990.

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Q 1996?

A Yes.

Q Now I just want to be clear now, do I understand that the Staff position is that the choice of how Duke handles its spent fuel as between using poison racks or stainless steel racks or transshipping among its reactors or building an independent spent fuel storage facility at the site of any one of its reactors, each of those would be evaluated on their own merits by the Staff if proposed. But, based on your present analysis, you see no significant environmental or health and safety difference between them and basically its an Applicant option to choose from among those options and it's none of your business to tell them that one looks more cost-effective than the other or that one gives them a better solution to the spent fuel storage problem for a longer time than the other, is that correct?

A Just about. The choice is up to the Applicant, yes, that is correct. I wouldn't say that it's none of our business to not question them or ask them if -- some way or other, if we saw something that didn't look proper we might question them on something, but the choice is theirs.

Q But your position is you think they are all, from what you've seen of them so far, environmentally and from a health and safety perspective acceptable and that it's really up to the Applicant to decide what you've decided,



that they're acceptable, which one they want to choose and that you're not ranking them in terms of -- or even ranking them in terms of their relative acceptability.

A That's correct.

Q Mr. Spitalny and Mr. Glenn, looking at Staff Exhibit Number 13 can you tell me, does this exhibit represent a summary of all of the alternatives which the Staff analyzed in any detail in conjunction with the proposed transshipment?

A Well I guess your use of the word "detail" -- yes.

Q All right, Mr. Glenn, can you tell me, what precisely was your job in all of this? I've been a little unclear on that and I've asked Mr. Spitalny most of the questions. First of all, what were you hired to do?

A (Witness Glenn) I was hired as a consultant to write the Environmental Impact Assessment or Appraisal.

Q So you were the principal author of the Environmental Impact Appraisal?

A That's correct.

Q And what exactly did you do with regard to alternatives?

A The alternatives, as written in the EIA -- initially I drafted the initial copy of that and then between Mr. Spitalny and myself and others we revised that initial

draft until we came up with what is now in the EIA.

Q How did you decide which alternatives to investigate?

A Initially it was based on a review of some generic Environmental Impact Statements that were available, and also on some site specific appraisals that were available to see what had been done previously and what alternatives had been considered.

Q Did you at any time sit down and attempt to start from scratch and say what are all the available alternatives that might be used here?

A Yes, after going through the generic statements, I then tried to decide if there were any others that had been omitted based on the knowledge that I had. And at that time, I did not come up with any.

Q Am I correct that in making an investigation of alternatives, one has to understand what is the problem that the alternatives are supposed to solve, would that be correct?

A Yes, that's correct. And at that time, the problem to be solved was the immediate storage problem at Oconee.

Q Now you say at that time. Does that mean that the input that now appears in the Environmental Impact Appraisal represents an analysis of alternative ways of meeting an immediate need for spent fuel storage capability for Oconee?

A I don't think that I could really give a yes or no answer to that. As originally drafted, the draft was to analyze the alternatives to meet the immediate storage needs at Coconee to assure that there would be adequate storage space for the continued operation of Coconee.

Q How about as it appeared in its final version, was that still its principal goal?

A Yes.

Q In the course of the analysis that you did and the work that you were contracted to do, were you at any time requested by the Regulatory Staff to look at the question what would be the alternatives available that were trying to solve the spent fuel storage problem for Coconee through the lifetime of the reactor, assuming that permanent waste disposal was not going to be available in the interim?

A I do not specifically remember being asked to do that.

Q Were you at any time asked to look at the spent fuel storage problem of Coconee and alternatives to it beyond 1983?

A We did look at --

Q First -- I'm going to ask you what you looked at, but first I want to know what the Staff asked you to look at, okay?

A Restate your question.

Q Were you asked to look at the spent fuel storage problem or solutions to it for Oconee beyond 1983?

A No.

Q Were you asked by the Staff to look at the implications of a solution to the Oconee spent fuel storage problem that it immediately faced on spent fuel storage at other Oconee -- excuse me, at other Duke Power Sites, like McGuire, Catawba, Cherokee, Perkins?

A No.

Q Did you on your own look at the problem and possible solutions and alternatives to the storage of spent fuel at Oconee through its lifetime assuming no waste disposal, off-site waste disposal was available?

A After the time that the appraisal was written and was in final form, other questions came to the forefront and at that time we did do additional analysis to see what some of these problems that you related to would be and this was essentially done by Mr. Spitalny and myself in visits that we had and over the phone.

Q All right.

And in terms of the nature of your investigation of that question and those questions that came up after the environmental Impact Appraisal, would you compare for me the type of work you did in depth and breadth and the nature of the analysis, as compared to the analysis that you did that

went into the written document, the EIA, on the alternatives that you looked at there?

A I would say that I probably spent more time after the EIA was written on alternatives than before in going over such questions as how long could Duke store fuel at its present sites, what would be the effect of poison racks, what would be the effect of an independent spent fuel storage installation. While nothing was actually written down, a great deal of work was done.

Q If you were contracted to prepare an appraisal of the solution to the Oconee spent fuel storage problem during the lifetime of the plant and alternatives to it, would you have done anything differently than what you actually did in the discussions and work that you did with Mr. Spitalny subsequent to the publication of the EIA?

A Yes, I would have simply because that's a different question than what I was asked to evaluate initially.

Q I understand that, but you told me that after you had completed the work that you were asked to do by the Staff, you and Mr. Spitalny then had discussions and did some analysis although it wasn't written down or wasn't a lot of it written down on the prior question what do you do about Oconee spent fuel for its lifetime and what are its options. And my question to you is, how much different was what you did after the publication of the EIA on that broader question than what

you would have done if the Staff had contracted with you and said we want for publication an analysis of the solution to the spent fuel storage problem for Oconee and alternatives to it. And I'm trying to get some idea of how those two analyses would have differed, if at all.

A The solutions that are discussed in the EIA or the alternatives are basically the ones that would have been used in the analysis that you're alluding to here except that we did not mention pin compaction and in our analysis of reracking, we did not specifically mention poison racks.

Our analysis of an independent spent fuel storage installation was based on the fact of a need for an immediate solution, that analysis would probably be somewhat different.

Q I'm sorry, I didn't hear your last word.

A Somewhat different.

Q Well. Isn't it true that your analysis of the alternatives was substantially controlled by your premise that anything that couldn't provide immediate relief to the problem was not a viable alternative and that you stopped substantially short of investigating thoroughly the option as soon as you determined that it couldn't come on-line soon enough to deal with the immediate problem, isn't that correct?

A Yes.

Q So that you would have done a much deeper analysis

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of the implications of the proposal if you had been freed of the constraint that they needed immediate relief and that you were looking at the permanent solution to the spent fuel storage problem at Oconee over the lifetime of the plant.

A I have trouble with your word "much." How much is much?

Q Well, I assume you would have looked at such things as whether or not a series of interim measures each one of which was designed to keep the option open to make a decision two or three years down the road on another interim measure versus permanently solving the problem now which was the right course of action, you would have looked at that, wouldn't you? You would have looked at whether you thought the interim measures were themselves going to ultimately have to be displaced by a permanent solution anyway, wouldn't you have looked at that question?

MR. KETCHEN: Mr. Chairman, objection.

CHAIRMAN MILLER: What grounds?

MR. KETCHEN: I would like to object to this whole line of questioning. I think we're getting far beyond the scope of the review, of the Staff review of the application for the proposed action and I would like at this time to renew or just for the record state again my continuing objection on the scope of the proceeding that I made during the last hearing. You noted that it was a continuing objection

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about the long-range evaluation of things that are going to happen 30 years from now, far beyond our theory of the scope of this case, to review a proposed transshipment action.

I make this specific objection on the specific line of questioning, and then renew my general objection to the broad scope of the hearing, where our position is -- and I emphasize, Staff position is -- a case where we view it as an environmental impact appraisal, not significant action. You don't have to search out speculative alternatives.

That ends my comments, Mr. Chairman.

CHAIRMAN MILLER: Are you finished?

MR. KETCHEN: Yes, sir.

CHAIRMAN MILLER: You may have your continuing objection, as we had noted previously.

Your specific objection, as well as your continuing objection, is overruled. As you know, the Board takes the view that there is an issue here, whether or not an environmental impact appraisal is sufficient and adequate under the circumstances.

That being an issue, evidence which addresses all positions with regard to its adequacy and sufficiency, are relevant, including Mr. Roisman's position, Mr. McGarry's and your own.

Therefore, the objection is overruled, and the interrogation as to the scope, extent and basis of the

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Staff's environmental impact study may go forward.

Proceed, Mr. Roisman.

BY MR. ROISMAN:

Q Let me go back, again, Mr. Glenn. I don't want to use any buzz words like "much" either. I tried to ask you to tell me what it was that's different about the review that you did and the review that you would have done if the question had been presented to you: What is the best solution to the spent fuel storage problem at Oconee, assuming it's not going to be able to permanently dispose of the nuclear waste offsite between now and when it ends its life?

Now, if there's a difference I'd like you to tell me what it is as precisely as you possibly can, and not try to anticipate what I want to do with the information I'm getting from you.

Just tell me how much differently you would have done the review if that had been the question that was asked, and include as part of your review any work that you did after you'd finished publishing the EIA that is produced in the form of testimony in this proceeding.

A (Witness Glenn) Insofar as shipment to an independent spent fuel storage installation would be concerned, I would have looked beyond the independent spent fuel storage installations that now exist, those being at reprocessing facilities.

I'd have looked in a little bit more depth as to what could be done to construct independent facilities, either government owned or privately owned.

As far as construction of an independent spent fuel storage installation by the Applicant, I would have gone into more detail on what the actual impacts of that construction would have been. I would have tried to define those better, rather than stopping at the point that said it was going to be five to six years down the line before such a facility could be built and, therefore, it wouldn't meet the needs of Oconee.

As far as expansion of the Oconee nuclear station's spent fuel storage capacity, meaning the basins themselves, I would have probably included more information on poison racks and would have probably mentioned pin compaction briefly.

I would have done nothing different with cessation of that reactor operation.

I would have done nothing different with shipment to another site, not owned by Duke.

I would have looked into the ramifications of shipment within Duke between more reactors than just the two I looked at.

Improved fuel utilization, I would have done nothing different there.

Q What about looking at rezacking? Would you have

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looked at reroading with poison racks and with stainless  
steel racks in more detail than you did here?

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Yes.

Q And would you have gone into more detail in sort of tracing out the various ways in which Oconee could get from here to the date of its ultimate cessation of operation, vis-a-vis the use of different options at different times, some of the sorts of questions that Mr. Spitalny and I went through? Would you have gone into that in more detail, to see what could you do for the first five years, and what could you do for the next ten, and work out different routes to get you to the same point?

A Yes, I would have done that based on the information that I had at hand at that time, fully realizing that it probably would not be as things would go, but . . .

Q Roughly how long did you spend on the analysis that you did of the alternatives section in the EIA? I'm not trying to pin you down to minutes and hours, or even necessarily days, but some rough idea?

A On and off, for months. That's all I can say.

You know, I've written it and rewritten it, and I've been through Washington, D. C. to discuss it with Brett. We've spent as high as -- including, you know, the travel to get where I was going to discuss it -- as high as a week on essentially alternatives at times.

So . . .

Q Does that include work also that you did after the

well.

Q EIA was published on alternatives as well?

A Yes. The work on alternatives was a continuing process over the -- well, since April of '78, off and on.

Q Would you say that if you now were to do this analysis, if the question presented to you for analysis were the spent fuel storage problem at Oconee through the lifetime of the plants and alternatives to it, would you think you'd spend about the same amount of time you've already spent putting together that analysis?

A Based on what I've already done, including work after the final draft of the EIA?

Q Yes.

A I would not spend the same amount of time. I wouldn't require that much time.

Q Sixty percent of it? Eighty percent? Fifty percent?

A I don't know.

Q Well, but you enter into contracts, don't you? You must make an estimate of how much time you would spend on it.

A Yes, but I don't make that estimate while I'm sitting on the stand and somebody's cross-examining me. I spend a sufficient amount of time to think out what's involved. And to make an estimate of what that would be is somewhat difficult.

Q But are you saying that you really don't have

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clearly in mind exactly what work you would have to do to answer that question? That is, to answer the question of what are the solutions to Oconee's spent fuel storage problem over the lifetime of the Oconee plants?

A Do you want me to write a draft of what that would be, or do you want it in final form?

The problem is, if I --

Q I want to know what's in your head so I can test the credibility of what you just told me about how much more work you would do on the spent fuel storage question if the question were expanded.

MR. KETCHEN: Mr. Chairman, I think I'm going to interpose an objection again to this line of questioning.

So what? I think we're here to test what he did do, not what he can do in the future.

CHAIRMAN MILLER: Well, the adequacy of what he and the Staff did do has some relation, some causal connection with what they didn't do, and that's what is being tested.

Your objection is overruled. Let's find out what was done and what wasn't done, and why. That's why we're here.

WITNESS GLENN: I'd have to estimate that it would take me a man month of effort.

MR. ROISMAN: All right.

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BY MR. ROISMAN:

Q Mr. Roberts, Staff Exhibit 16A. I'd like you to look at the top of page 3, the first sentence that starts on that page. It starts with the word, "Therefore."

Is that statement still factually correct?

A (Witness Roberts) I don't know.

Q From there to the end of the paragraph?

Would you read it and let me know if it is, and if it isn't, tell me how it needs to be changed?

A Do you want it aloud?

Q No, no. Just read it to yourself.

MR. KETCHEN: Excuse me. What page are we on?

MR. ROISMAN: Page 3, Staff Exhibit 16A.

(Witness Roberts reading document.)

WITNESS ROBERTS: The question?

BY MR. ROISMAN:

Q Is that statement still accurate?

A (Witness Roberts) I don't know. I assume that it's not, from what I have heard testified.

Q Were you the person responsible for writing it in the first place?

A I would say that this was done jointly with Mr. Spitalny, who was aware of the numbers and who has done the numerical analysis. I have not done the numerical analysis.

Q What was your contribution to Staff Exhibit 16A?

A Basically this was a discussion of conditions 1 and 2, and I would say that my contribution was more in the line of the conditions themselves, and with Mr. Spitalny operating with the detailed numerical analysis.

Q I don't understand that. The conditions 1 and 2 you're referring to are conditions 1 and 2 in the Commission's policy statement?

A Well, "The proposed action is therefore consistent with conditions 1 and 2 laid down by the NRC in promulgating criteria for approval of interim spent fuel storage."

Q What, exactly, is your involvement with conditions 1 and 2? I mean in terms of your responsibility, what do you do with conditions 1 and 2 that made you participate in the preparation of this piece of testimony?

A I would say knowing, and depending on Mr. Spitalny for the numerical analysis, assisting in evaluating the answer to conditions 1 and 2.

Q Well, I'm looking here at Staff Exhibit 16B, your statement of qualifications.

You've been a project manager for the Stone & Webster spent fuel storage design review, staff design review?

A Right.

Q It says here you're group leader in the Process Licensing in the Fuel Reprocessing Recycle Branch.



A There's a correction there. I believe as of about a week ago they've changed the title to Advanced Fuel and Spent Fuel Licensing Branch, is now the designation for the branch.

Q All right.

I just want you to sort of help me out here, then.

Let's start at page 2. What parts of these . . . are you the ones that are responsible for getting the statement at the top of page 2, the first full paragraph there? Does that come from you, from your knowledge?

A What? "In addressing..."

Q Yes, starting with that, to the end of that paragraph.

A I would say insofar as the statement is true, and the context of we evaluated, we were looking at this particular action, which I think has been restated by our counsel, that we looked at an individual action, that we did not include the proposed program identified as the DOE initiative.

Q I mean are you the one who recommended that that not have to be done? I'm trying to figure out what you did in this testimony, Mr. Roberts.

A I think that . . . let me see if I can word this a little more clearly.

My point, as I think I stated, is Mr. Spitalny has

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done the numerical analysis in this particular action. It's based, as in the EIA, on the shipment of 300 assemblies --

Q Can you speak up? I'm having trouble hearing you.

A As I say, Mr. Spitalny has done the numerical analysis. It was limited to the case of the transshipment of 300 assemblies. I worked with him in connection with him in evaluating, on the basis of what has been developed, the response to this particular contention regarding conditions 1 and 2.

Q What does that mean you did? You didn't check his numerical numbers, right?

A Right.

Q Did you advise him as to what you thought conditions 1 and 2 meant?

A I think we --

Q Did you provide a piece of testimony?

A I think that you're close to it, in the sense that we worked together, given that base of information, on evaluating a response to this contention with regard to conditions 1 and 2.

Q So you're the one who tried to decide whether, given the facts as Mr. Spitalny put them together, whether you thought the action would have a utility that was independent of its own, whether or not --

A I said we worked together. I can't separate out

671 058

wel 8

from his response, as I think you're trying to do. I'm sorry I can't. Because we sat down and we worked together. We discussed it together. We rewrote it together. And this is the final product.

You know, I don't mean to be unresponsive to what you're saying, and I know you're trying to get some clear difference here. But I don't think we can.

Q How much time did you spend on the testimony, roughly?

A Again, it was one of those on-and-off things over a period of a few weeks. But in excess, probably, of a week.

Q Now, page 2, at the bottom of the first full paragraph, it says:

"We adopt as part of the basis for our affidavit the analysis contained in the Environmental Impact Appraisal."

Have you read the Environmental Impact Appraisal?

A Yes.

Q And have you made an independent judgment on your own as to whether you think it is a reliable, competent document?

A Yes, I think it's a reliable, competent document.

Q Now, let's start with Factor 1 on page 2. What is your understanding of what that factor is intended to do?

671 059

1 I'm not asking, obviously, for any legal conclusion. I want  
2 to know --

3 A As an individual?

4 Q Well, as a member of the Regulatory Staff preparing  
5 this testimony what did you understand the requirement of that  
6 position to be?

7 A Okay. Just to read it aloud:

8 "It is likely that each individual licensing  
9 action of this type would have a utility that is  
0 independent of the utility of other licensing actions  
1 of this type."

2 I think the best way to express that, perhaps, is  
3 that an action that alleviates a storage capacity shortfall  
4 or incapacity, that would be a condition that would be -- and  
5 a licensing action that would have utility.

6 Now, independent utility of other licensing  
7 actions of this type, I guess I would interpret that, if we  
8 can go ahead and license this action and it alleviates the  
9 spent fuel storage capacity shortfall, then that meets the  
10 condition.

11 Q Is it very much dependent upon what you define  
12 as the problem that you're trying to solve, to determine  
13 whether or not it has independent utility?

14 A Yes.

15 Q So that if the problem were defined as finding a

wel 10

1 space to put two fuel assemblies for the next six months,  
2 something would have independent utility for that, but not  
3 have any independent utility if the problem were trying to  
4 find a place to put spent fuel assemblies for ten years, is  
5 that right?

6 A Let me think on that a minute, because I'm having  
7 a little trouble with the condition you're setting.

8 Q Well, all right, let me try to be more specific  
9 with it and sort of spell out the example.

10 A All right.

11 Q What I'm trying to find out is whether your  
12 understanding of the independent utility means that the  
13 action by itself will solve the problem? If that's what you  
14 mean by it, and I thought that's what you testified to a  
15 moment ago, then obviously what you define as the problem  
16 will determine whether something is an independent solution  
17 to it, or is only a partial solution and is dependent upon  
18 other solutions.

19 If we define the problem as a problem that has  
20 only a short run, then something that will solve it all by  
21 itself is going to be independent, as I understand your  
22 testimony.

23 A Correct.

24 Q If it's got a longer run, if the solution is  
25 going to, itself, peter out before that whole long term is

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we. 11

1 over, then it won't be independent. It will depend upon some  
2 other solution coming in to fill out the remaining time.

3 And I was just using a hypothetical. We could  
4 use one year versus ten years. You've got something that will  
5 store two fuel assemblies for one year, but it won't store  
6 two fuel assemblies for ten years. It doesn't have independ-  
7 ent utility, then, if the problem is a ten-year problem.

8 Is that right?

9 A I think we've got about three or four . . . do  
0 you want me to give you just a yes or no, or --

1 Q No, no. I sort of tried to give you a long-winded  
2 explanation of what I was talking about.

3 A Yes, I think I've got the context.

4 Q So you can give me a long-winded answer.

5 A Okay.

6 In the context of these conditions, and of the  
7 Commission's September 16, 1975 Federal Register Notice on  
8 this, we are talking interim solutions. We are, obviously,  
9 not talking a situation of carrying something out to ultimate  
10 disposal and beyond -- or you know, to include ultimate  
11 disposal.

12 It's clearly short-term actions, individual  
13 actions that the Commission is talking about in the context  
14 of their directions.

15 That would be the best answer I could give you.

A71 062

Q All right.

Let's say that hypothetically a utility came to the Staff and said, "We have a spent fuel storage problem coming up at one of our reactors, and our difficulty is that in May of 1980 we are going to lose our full-core reserve on the amount of one fuel assembly. We'll be one fuel assembly short. And we want permission to ship one fuel assembly to this sister reactor of ours that's located some 170 miles away from here."

Would you simply look at that, evaluate the one fuel assembly shipment, and not bother yourself with the question of what's going to happen at the next refueling, and give it independent utility as an action that has independent utility because it will, in fact, solve what the utility has defined as its problem?

A That's the application we will have received, and the answer is yes.

Q So you would allow the utility to define the problem for you, and not let the Staff attempt, on its own, to see if the utility was unrealistically fragmenting the issue into several subsidiary parts?

A I think that -- I don't intend my answer to be glib, in the sense that we would not, you know, we would ignore the surrounding circumstances.

I think that you don't want to be irresponsible

we 1

and not take a look at what's going on, to assure yourself in any review that there's not something missing.

But in the context that I think you've asked this, it is the responsibility, it seems to me, of the utility that is operating these reactors to operate them properly.

There's nothing wrong, as far as I can see, with them coming in with an application for an action like that, that would ruminates the situation.

Now, we might, in the process of review, ask them, "Say, gang, we know this is, you know, an interim action. We would presume you are contemplating other actions to -- you know, that you're looking at the future."

But I don't think that, unless there were some other circumstances that would get play here, that we would say, "You can't do this action."

WRB 113

671 064



WRB:ma  
r/s Lanton

Zb ebl                    Q            Keep in mind now the factors are not themselves --  
If you fail to get one it doesn't mean you lose; they're all  
balanced. So I'm not asking you to tell me if a utility  
comes in and says "I want to move one fuel assembly to keep  
my full core reserve until the next refueling outage," that  
the fact that you would say to them "I'm sorry, that doesn't  
have independent utility" is the equivalent of saying to them  
"I'm sorry, you can't do it."

                          I'm just trying to find out-- I'm trying to test  
the concept of independent utility.

                          A            As far as I'm concerned that would have inde-  
pendent utility. It would, you know, provide a problem --  
you know, an interim solution. It would have independent  
utility.

                          Q            And you ~~would~~ not worry about the fact that it  
would have to have another similar interim step taken with  
more fuel assemblies involved of course somewhere around a  
year later when the next refueling outage would occur?

                          A            I think I've essentially answered that question in  
my previous answer when I said that, you know, we would  
certainly -- that we're not going to put on blinders.

                          But as far as the action that they have requested,  
I would say I see no reason to deny it on the conditions that  
you have just laid out here.

                          Q            You see no reason to. That's the distinction I

671 065

want to make clear. Forget about denial. I'm asking you, you see no reason to say that that doesn't have independent utility?

A I think we're coming back to the same question. You're asking me, do I think it has independent utility? And the answer is yes, I do.

Q All right. That's what I wanted, rather than the denial.

Now let's take a look at the second factor which is printed on the top of page 4 of Staff Exhibit 16-A. What is your understanding of what that factor means?

A Okay. Just to repeat:

"It is not likely that the taking of any particular licensing action of this type during the time frame under consideration would constitute a commitment of resources that would tend to significantly foreclose the alternatives available with respect to any other individual licensing action of this type."

Okay. I'm going to say something. I don't mean this to be argumentative, so if the Chairman wants to say something....

CHAIRMAN MILLER: You say it first.

WITNESS ROBERTS: One of the things that has kind of concerned me in sitting here and listening to arguments

WRB/ab

with regard to options and foreclosing options has been the idea that was prominent back about a month ago when we were here, the idea that one would build a spent fuel storage facility for a specific reactor only, in other words say for the Oconee site only, and that would take care of the lifetime of the fuel.

This is precluding essentially the use of that facility by other facilities or something like that. That clearly seemed to me a case of foreclosure of any other option for the lifetime of the reactor. It was clearly foreclosure.

I can see, you know, in the context of building an independent spent fuel storage facility on the site of a reactor that might be shared by the remaining reactors of the system or, possibly, if that's the only reactor in the system or something like that. But this limitation that has come up, that seems to me to be a case of foreclosure.

Most other actions, and I can't-- You know, maybe if you question me further. Most other actions are not that final. Most other actions do not preclude a situation-- For example a transshipment action certainly doesn't preclude people from going back and rerecking Oconee. Most other actions that we think of are really these interim actions that are, you know, in the context of the situation and don't generally tend I think to significantly foreclose the possibility, the flexibility of taking other actions.

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NRB/ab4

BY MR. ROISMAN:

Q Let's look at the one you said seems to you to clearly foreclose.

A utility comes in, asks permission to build an independent spent fuel storage facility at Oconee for Oconee fuel, period.

A (Witness Roberts) All right.

Q Does that in your judgment tend to significantly foreclose reracking at Oconee?

A I'm making the assumption, and you may correct me if you wish, that when you're talking about building an independent spent fuel storage facility that we were talking in the context of building that facility for the lifetime of the reactor.

Q Right.

A In that case I would say yes, it would seem to me to tend to significantly foreclose it because -- perhaps I'm making a subsidiary assumption that since you have limited the use of that ISFSI to the fuel from that reactor site only that you are not talking about coming back and reracking the other pools at the reactor and then transshipping.

Now maybe I'm making a mistake. If that's-- But it seems to me that if you're not doing it in one case you're not doing it in the other, and maybe I'm making a gross -- you know, an erroneous assumption.

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WRB/eb5

Q But I take it that whatever the utility asks for in terms of permission to build an independent spent fuel storage facility at the Oconee site, if it did, it could subsequently ask permission to change a licensing condition. If it were originally permitted to only store Oconee fuel there, it could request permission to store Catawba fuel there if it wanted. Right? It would not preclude it from doing so just because the original application didn't have that as an option. Isn't that true?

4.090

A I think-- What you're saying is true. Okay?

Q All right. Now you want to explain. That's all right.

A But if they came in from that direction, indicating that it was for Oconee fuel alone and it was for the lifetime of the Oconee reactor, then in my mind my question would be why are you foreclosing, you know, all other options? I mean it is a foreclosure, in my mind.

Q Why is it a foreclosure? Couldn't they choose, for whatever their reasons are, to abandon the independent spent fuel storage facility and rerack instead at the Oconee site?

A What you're saying is right. But that's not what they're telling you, what you're saying they are going to do first. You know, I can't assume if somebody comes in and says "This is my licensing action" in a case like this, where

it forecloses the situation, that they're going to come back next year and amend it to unclose the action, if there is such a word. That's what I'm saying.

Q But we have that situation where, don't we, in terms of transshipment, companies come in and say "We want to transship 300 fuel assemblies." By asking for that they would appear to have foreclosed the possibility that they wanted to rack.

A No, I don't think so, because as I recall the testimony of Mr. Spitalny, the question was sent to them, "Hey, it looks like this racking is an option." And having looked at it further, we did question them about that.

Now at the time, as I recall Mr. Spitalny's testimony, there was a timing situation involved where it appeared that it would not be viable within the time frame that they were looking at and therefore, they were looking toward transshipment.

Q We seem to be talking about two different things now.

A Well, if you will restate the question I will try to answer it.

CHAIRMAN MILLER: One at a time. The Reporter can't catch both of you. We'll have it restated and let me know if you don't understand it.

BY MR. ROISMAN:

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NLS/eb

Q On the one hand you have the question of what you want to do to deal with the interim problem.

A (Witness Roberts) Right.

Q Okay. And if we just assume hypothetically the interim problem has to be solved by December 1979 --

A Okay.

Q -- and you come in and there may be five things that you could do to deal with the interim problem by December of 1979, --

A Right.

Q -- it certainly must be the case that whichever one you choose has automatically foreclosed the other four as being solutions to the problem on December 1979. Isn't that true?

A I think that the interpretation-- Okay. Let's say Yes, with an explanation.

Q Okay.

A The only think I'm saying, I guess you can say, is that when you pick a solution and proceed to go ahead and either buy the new racks or prepare to ship the fuel or something, at that point, having done it, I guess you have foreclosed an action but I don't think that that's really the context of foreclosure that we're talking about here.

CHAIRMAN MILLER: Let me inquire.

WITNESS ROBERTS: I mean it's a semantic thing, and

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RP/eb8  
it's subtle, I guess. But I see what you're saying, and I answered it Yes. I mean as soon as I decide to take an action as opposed to taking another action, I've decided to take that action.

CHAIRMAN MILLER: I want to be sure I understand you.

If you will, Mr. Roisman?

MR. ROISMAN: Surely.

CHAIRMAN MILLER: Is the foreclosure which ensues under those circumstances because of the timing involved, or is it because of the quality of the action, or is it both, or something else?

WITNESS ROBERTS: Well, it seems to me you have hit upon it when you say "quality of action." Once one decides-- You know, one has a bunch of options here and one decides to do one of them that, you know, to use the word "foreclose," forecloses the options.

But I don't think the condition we're talking about here is meant in that sense because then any action you ever take on anything predisposes foreclosure, and I don't think that's the context that it is meant.

If I choose to walk out the door on the left as opposed to the door on the right, you know, at that time in history I have foreclosed the option of walking out the door on the right.



WFB/ars  
CHAIRMAN HILLER: That's timing. I'm trying to understand in my mind is it because of the time or the combination of the time, as in the December illustration of Mr. Roisman, or is it other qualitative factors such as the selection of one, excluding the others, if they be mutually exclusive; that kind of thing.

WITNESS ROBERTS: I guess the thing-- I guess it is a mixture of both. As I say, it's a semantic question. And perhaps, falling back, the best you could say is if you have a problem and you finally arrive at -- you know, out of all the options you have you're going to do it this way, at that point, at least semantically, you have drawn a line; you have decided upon a solution and you're not going to do these other solutions.

That doesn't mean you couldn't. What doesn't mean if the next day, for some reason or other, it appeared that that solution was not a viable one-- For example, I guess the best example I can find is in this case.

Duke did come in for a rerack when they saw that there was **intervention** in this particular case, so they were not, obviously, foreclosed even though their decision had been to come in with an application for transshipment.

DR. LUEBKE: Doesn't the matter of money come in? Sometimes you've spent the money when you've made a decision.

WITNESS ROBERTS: I guess that's true, although --

WRB/eb1

DR. LUEBKE: Or the Applicant has spent the money.

WITNESS ROBERTS: Yes. Sometimes that's true, if you make that decision....You're right, in the sense that if you make that decision out of, say, a number of five decisions and at some point or another you get far enough down the road, you know the contracts are made and all the money is spent, it may preclude it, although in this case apparently it didn't.

DR. LUEBKE: You find some more money.

WITNESS ROBERTS: Yes, you may find some more money.

CHAIRMAN MILLER: So you might be comparing money with other value of a different kind whereby you then have a cost-benefit balancing.

WITNESS ROBERTS: Well, for example, if it turned out the option you had chosen, even though you've spent the money, it turned out you couldn't do it anyway, then you're faced with finding another solution.

CHAIRMAN MILLER: Thank you. That's been helpful to me.

Thank you, Mr. Roisman, you may proceed.

BY MR. ROISMAN:

Q Mr. Roberts, the tendency to foreclose, I want to go back to that because you often used the word here, "preclude," but "preclude" does not appear as a factor, does it? It's a tendency to "significantly foreclose" that

2c fls.

WRB/abll

you look for.

A (Witness Roberts) Right.

Q Now if I understand what you have said, you're saying that any action that you take will, at that moment in time, have foreclosed the other options, and your understanding of what this factor means is that it didn't mean to speak of that because then no action could be taken.

A Right.

Q I don't have any problem with that.

But the question then is does taking this action now tend to foreclose in the future another action that -- in other words, does it tend to narrow the available alternatives at a future time? Is that your understanding of what it means?

4.185

A I'd say so, yes. I think that's reasonable.

Q All right.

Now you've heard some testimony about, for instance, what happens at McGuire --

A Right.

Q -- if you transship spent fuel there before you rerack with poison racks. Then you treat that as an alternative at McGuire. Okay?

Did you do any analysis of whether or not putting the Oconee spent fuel in the McGuire spent fuel pool before it's reracked with poison racks would at some subsequent time

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WRE/eb.2

when the choice is between transshipping from McGuire to Catawba or reracking McGuire with poison racks, tend to tilt the choice of those alternatives differently than it would have if you hadn't put the Oconee spent fuel in there and the pool were clean at the time you're trying to make the decision?

A I have to think back at this point because your question has got several conditions in it.

I guess I have to say I honestly can't remember, mainly because you've laid out a number of conditions sequentially in this question. I know I have thought about the general question, but I'm not sure I've thought about it in exactly the way you phrased the question, if you follow me.

Q All right.

Do you at this point have a judgment as to whether you think it tends to narrow -- and I'm not using the exact words in the factor, I'm not asking you to give me a judgment as to whether it's significant or not significant; we'll get to that.

But does it tend to narrow the available options at McGuire for the future as to what to do with their spent fuel if you put the Oconee spent fuel in the pool before you have -- before McGuire makes the decision on which option to choose?

CHAIRMAN MILLER: Do you understand the question,

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NRB/eb 3

Mr. Roberts? It's a little complicated and I want to be sure we have it clearly before us.

WITNESS ROBERTS: I think I do.

The only thing that bothers me a little in the question is I'm not sure when you say "McGuire chooses," I'm not sure that the Applicant is choosing that particular option.

But if we drop that as the assumption and just make that as a hypothetical assumption, then I would say that it would probably be a negative factor. It would tend to narrow it somewhat.

BY MR. ROISMAN:

Q Isn't it true that all of the "tending to foreclose the future" alternatives have to involve some hypothetical? You don't have in front of you an assurance of what an applicant is ever going to do.

A (Witness Roberts) I'm just saying I'm not sure what the applicant intends to do.

Q That will be no different in any analysis you make. When trying to apply this factor it does require you to speculate a little bit.

A Yes.

CHAIRMAN MILLER: One at a time, gentlemen. You both are very quick, but our Reporter can't do it.

WITNESS ROBERTS: I'm sorry. Go ahead.

BY MR. ROISMAN:

671 077

WRB/eb1:

Q Have you finished what you were going to say?

A (Witness Roberts) Yes. I just didn't want to be in the position of attributing to Duke something that I wasn't quite sure-- You know, I just wanted to make that clear.

Q Now is that negative factor in part the fact that the costs of reracking once you put spent fuel in the pool are higher than they are prior to having put it in? Is that part of it?

A I'm sure that that's part of it; I don't know that that's all of it. I think there is a certain tendency that you've got an operating system, you ask yourself whether or not it may not be more economical to do another action. I think that any applicant would weigh a number of factors.

You know, it's simply the question of well, do I need to do this particular action. Economically I think it is potentially that transshipment on to Catawba might be more economical even as opposed to, say, just tearing out the racks before you put the Oconee fuel in. You know, it's that kind of gradation.

Q I understand.

But did you attempt to analyze just that very question you just stated, analyze whether it would be more economical, and what the margin of the economies would be to transship from McGuire to Catawba rather than to expand

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WRB/eb15

1 McGuire's capacity?

2 A No, I don't recall doing that.

3 CHAIRMAN MILLER: Mr. Roisman, we're going to take  
4 a short ten-minute recess. Is this a convenient point?

5 MR. ROISMAN: Yes, sir.

6 (Recess.)

7 CHAIRMAN MILLER: The Board believes we had better  
8 take up now the matter of the traffic issue because it might  
9 impinge on other matters, and it's something we don't parti-  
0 cularly want to let drag. So we'll suspend the examination  
1 of the panel at this time.

2 We will hear from Counsel as to the question of  
3 those things that are necessary for the Board to make an  
4 informed judgment.

5 MR. ROISMAN: Mr. Chairman, let me start by laying  
6 out what the --

7 MR. KETCHEN: Excuse me just one second.

8 May the panel step down?

9 CHAIRMAN MILLER: Yes, the panel may step down.

0 (Panel temporarily excluded.)

1 MR. ROISMAN: Let me just state what the position  
2 of the Natural Resources Defense Council is. These are our  
3 positions on certain key preliminary issues.

4 Number one, given the fact that the Staff intends  
5 to prepare but will not have prepared this week a written

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WRB/ubl6 1

2 statement on the question of the transportation routes and  
3 their impact on the Environmental Impact Appraisal and the  
4 Safety Evaluation Report, our position is that there is no  
5 reason to receive any oral, unpre-filed testimony on that  
6 subject at this hearing, except to the extent that the Board  
7 and the parties, just for informational purposes, want to know  
8 something about it.

9 But we feel we should not be expected to do any  
0 cross-examination at this time, particularly to do it having  
1 only heard the testimony orally for the first time.

2 Secondly, we believe that the question of what the  
3 routes are should be made public. And let me explain that.

4 We share the concern that the Commission has ex-  
5 pressed in its regulations and that the Staff has expressed  
6 here, that the knowledge of where the transshipments are going  
7 to go is a significant fact which could be useful in an attempt  
8 to sabotage spent fuel, and we agree with the underlying  
9 premise of the Commission's regulations which are that there  
0 is a genuine threat of sabotage of spent fuel.

1 The reason we think there is no reason to keep  
2 the routes secret here is that anybody will be able to figure  
3 them out, that the cat is already out of the bag. We know  
4 virtually 90 percent of what the route is going to be. It is  
5 all spelled out in public documents that are available in the  
6 transcript of the hearing record in this proceeding.

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WEB/sbl7

1                   What remains are three alternate routes around  
2 Charlotte. Now we don't know whether those alternatives start  
3 10 miles south of Charlotte or 15 miles south of Charlotte,  
4 but we've already heard I think yesterday that they are only  
5 a small piece of the total route.

6                   What that means essentially is that if we keep this  
7 session of the hearings in camera, in secret, the only people  
8 who will not know which route the spent fuel is taking are the  
9 public. Any potential saboteur will be able to figure it out.  
0 First of all, it has already been determined the trucks are  
1 going to be well marked. There are going to be three hundred  
2 of them moving one a day --

3                   CHAIRMAN MILLER: What size are they?

4                   MR. ROISMAN: Physically how large they are, I think  
5 Mr. Riley knows. They did some measurements on that.

6                   MR. RILEY: Well, the cask is 20 feet long, so you  
7 can start from there. The trailer is somewhat longer than  
8 the cask.

9                   CHAIRMAN MILLER: How wide are they? How are they  
0 marked generally?

1                   MR. RILEY: They have the usual three yellow seg-  
2 ments of annuli which-- Mr. Ketchen and the Staff can cer-  
3 tainly inform us further on that, but they are conspicuously  
4 marked normally.

5                   CHAIRMAN MILLER: All right.

671 081

WRE/eb18

You may proceed.

MR. ROISMAN: So it just seems to us that in this case -- and our position would be different if we were being told the whole route was still a secret and the question was whether to keep it a secret or make it public.

Third, we, that is, the Natural Resources Defense Council, has a practical problem with the use of an in camera session. Our two experts on the question of sabotage are Drs. Tamplin and Cochran. Over a period of years they have accumulated from public literature a substantial body of information dealing with some of the questions that would come up if we got into an extensive discussion of the merits of these routes.

The primary questions, as I see it, would be what is the likelihood that there would be some sabotage attempt taken against a truck along that route and therefore, to examine the measures that are being proposed to cope with that to see whether they're adequate.

That information, that is, the size and likelihood of the threat taking place is material which Drs. Cochran and Tamplin have in their head, and the materials we have in our office that are not classified in any way, and as far as we know are not subject to classification.

However, if they once go into an in camera session in which those issues are discussed, they will be required

671 082

WRB/ehl

1 in some subsequent public statement to demonstrate the know-  
2 ledge that they were imparting publicly had not been obtained  
3 in an in camera session. They have made the judgment and I  
4 have no way to persuade them differently, and I agree with  
5 them, that that is something they want to avoid. They do not  
6 want to be hamstrung. So they have, as a matter of policy,  
7 refused to go under security classification or in camera on  
8 security matters.

9  
10 That has gone to the point that Dr. Cochran, who  
11 is a consultant on the NNAS study, National Nuclear Alterna-  
12 tives Study that the Department of Energy is conducting on  
13 advanced breeder technologies, has, when requested to take a  
14 security clearance, get a Q clearance to look at material  
15 dealing with laser fusion which has some safeguard implications,  
16 refused to do so, and has had to sit out part of a session  
17 in order to avoid that. So it is not a frivolous problem for  
18 them, it's a very serious one.

19 That is a practical problem, and I think the Board  
20 basically has got to make a practical decision here. Do we  
21 have anything practical to gain by holding these sessions  
22 secret, and what we have practically to lose by making them  
23 public?

24 And I think the balance on the practicalities are  
25 that this limited amount of the route should be open and we  
should have this session of the hearing that deals with that

671 083

WRB/eb20

1 issue in public.

2 CHAIRMAN MILLER: The Staff?

3 MR. HOEFLING: Yes, Mr. Chairman.

4 Just to step back to yesterday, the approach that  
5 the Staff suggested yesterday was as follows:

6 We've had a change in routing from the time when  
7 the EIA was developed. The Staff proposed that it place its  
8 panel, its Transportation panel, the individuals who presented  
9 testimony on CESG's contention related to transportation on  
10 the witness stand and through some brief direct examination,  
11 demonstrate the Staff's position or demonstrate what the Staff  
12 will argue, that the change in route is inconsequential in  
13 terms of the impacts that were described in the EIA.

14 At that point I think legitimately the question of  
15 the public knowledge of the routes would come up, and I would  
16 like to respond at this point to what Mr. Roisman has said  
17 on that question.

18 The Staff's position is that these routes are  
19 information which should be treated in confidential fashion  
20 as they relate to security measures. The Staff position on  
21 this question has been articulated by Mr. Dirks, Office of  
22 Material Safety and Safeguards in response to a concern on this  
23 point that was raised by the Commission. And at this point  
24 I would like to have marked as a Staff exhibit for identi-  
25 fication Staff Exhibit Number 23, a memorandum for Samuel

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1 Callk from Mr. Dircks dated June 25, 1979, which I will now  
2 distribute.

3 CHAIRMAN MILLER: It will be marked for identifica-  
4 tion as Staff Exhibit Number 23.

5 (Whereupon, the document  
6 referred to was marked  
7 as Staff Exhibit 23  
8 for identification.)

9 CHAIRMAN MILLER: Let me inquire while you're dis-  
10 tributing this material, does it take into consideration the  
11 factual situation which pertains here, namely the fact that  
12 90 percent of the route or more has already been described  
13 in public documents as well as Staff studies, and that the  
14 remnants which it is proposed to keep in a confidential  
15 capacity in one form or another is extremely limited in terms  
16 of the proportion over-all?

17 MR. HOEFLING: I don't believe that that is an  
18 accurate characterization of the situation we have here.

19 I believe that we have a number of routes and com-  
20 binations of routes and that the characterization that a large  
21 portion of this route is already known may not be completely  
22 accurate.

23 CHAIRMAN MILLER: Well, is it or isn't it? We  
24 know that it's supposed to start from Oconee. We know where  
25 that is. We know where it's supposed to wind up.

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No, what proportion of it has been laid out and  
has been substantially intact from your own studies?

MR. HOEFLING: Let me confer for a minute.

CHAIRMAN MILLER: Please do.

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(Pause.)

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MR. ROEFLING: Mr. Chairman, two points: number one, the characterization that 90 percent of the route is already in the record is not a correct characterization. I am not at liberty to identify the percentage of the route which is in the public record, because that would tend to disclose the nature of the route. But the characterization that 90 percent of the route is in the public record is not correct.

CHAIRMAN MILLER: Well pardon me, now we've had extensive cross-examination by Mr. Riley as to what houses are located where along the routes in question, that's all in the transcript, it's all in the public record. I'm surprised at this point that the Staff is going to tell us now that you've got part of the information out on cross-examination which I suppose he felt was concluded at that time as to where various places were located, what the exposure was to the public, and now at this late date for the Staff to come in and tell us that they're going to try to rewrite history, that's what troubles us. The exhibit that you handed up we've looked at, that does not seem to be applicable to this factual situation which is what I'm asking you to address specifically.

MR. ROEFLING: In response to the Chairman's comment: the document which I distributed, the Dirks memorandum, is the articulation of the Staff's generic policy

as to the treatment of routes relative to the application of  
the --

CHAIRMAN MILLER: We realize that, that's what I've said. But you're past the point of generic application, because you've got a specific hearing which is in progress and where you've had a good deal of specific information, so all the generic discussion in the world is beside the point.

MR. HOEFLING: I disagree with that, Mr. Chairman.

CHAIRMAN MILLER: Well that's the thrust of it.

MR. HOEFLING: Let me try to relate it.

CHAIRMAN MILLER: You might save your time.

MR. HOEFLING: The Staff's policy is generic, obviously, as policy inherently is, and it applies to this situation as follows:

The presentation of the Environmental Impact Appraisal and the testimony and the cross-examination all dealt with impacts related to the primary route which was identified in the Environmental Impact Appraisal. That is no longer an acceptable route for these transshipments. Other routes will be utilized to make these transshipments. So the information has not -- the information relative to the routes that will be used for these shipments has not been placed in the public record and it is not in the public record



at this time. The Staff policy is that this information is confidential and should be withheld from public disclosure.

I think several points --

CHAIRMAN MILLER: Do you intend to camouflage this big truck that's coming down the highway with its size described and with the markings on it when it leaves Oconee as it's supposed to leave Oconee to come to McGuire; presumably like an elephant tiptoeing through the tulips, it'll be visible to everyone. Address yourself now concretely and practically to the problem.

MR. HOEFLING: I would like to address that point next.

CHAIRMAN MILLER: Go ahead.

MR. HOEFLING: The point made by Mr. Loisman is simply that if one wishes to make the effort, however substantial or insubstantial it might be, one could follow vehicles around and determine which route that vehicle took at a particular point in time. There are a number of alternate routes which would be available to the Applicant, one would not know at any point in time which route would be used for a selected shipment, and clearly one would have to make considerable effort to identify the routes in the first instance and then identify which one of the routes would be used for a particular shipment.

The Staff is not saying that the withholding of

that information makes it impossible for an individual to determine where the route might be, we're saying it makes it more difficult and that the interests in insuring security of these shipments warrants that additional safeguard.

More importantly, I would point out that there are regulations, specific Commission regulations which speak to this subject, and there is case law from the Appeal Board which speaks to this subject. The regulation is 10 CFR 2.790.

CHAIRMAN MILLER: What was that again?

MR. HOEFLING: 2.790, paragraph D, which speaks specifically to the withholding of information in the security area.

I point the Board to 10 CFR 73.37(a)(2),(3) and (4), which are the security regulations relative to spent fuel transport and which are specific to routing requirements.

And the purpose of these regulations was security, we have explicit regulations that deal with security in Part 73, and we have a rule under our Rules of Practice, 2.790, which indicates how this material is to be treated.

Furthermore --

CHAIRMAN MILLER: Just a minute. Why was not this position taken when the Staff, first of all, prepared the Environmental Impact Appraisal and, more importantly, at our last meeting when there was considerable examination as to the routes, the location of houses, stores and so forth along

specified routes.

Why does the Staff now, after having all that information in the record, now going back to citing security matters which have always been applicable but which the Staff did not either assert nor protect?

MR. HOEFLING: I think that can be understood by recognizing that we were caught in somewhat of a time trap. The Environmental Impact Appraisal was developed prior to the implementation or even the development of the Commission's regulations in this area.

The spent fuel transport regulations were not developed until this spring. The Environmental Impact Appraisal was prepared last year and issued, I believe, in the fall, considerably before the development and implementation of the security regulations. One had no idea when the EIA was written that these events would come to pass.

What has happened at the last hearing: we were faced with the Environmental Impact Appraisal, with a set of security regulations that were being implemented just at that point in time in a high state of flux.

And the way things have shaken out was: the primary route which was identified in the EIA is not an allowed route, there are other routes which have been approved which come within the ambit of those regulations and which the Staff, in responding to the Commission's concern in this

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as a, has formulated a position that this information should not be disclosed.

I would like to make one further point. This deals with prejudice or harm or injury to the parties.

We are not -- the Staff is not taking the position that the issues that are touched by this route selection should not be litigated or addressed in this hearing.

Mr. Riley has a contention on this issue. The Staff recognizes that and, as I say, is prepared to place its panel on the stand and demonstrate through some brief oral examination that this question of a route selection is really a no, nevermind, and to permit Mr. Riley to pick up on what cross-examination he wishes to pursue.

So there is no question of harm or prejudice to the parties by treating this matter in an in camera proceeding and pursuing it in that fashion.

I want to comment briefly on Mr. Roisman's concern, two concerns. First, his argument that his experts or associates, Drs. Cochran and Tamplin, might be hamstrung by such a procedure, namely the material that would be presented would be under a protective order and would not be available for public dissemination.

Again, I think what we have here is a balancing -- or what is required here is a balancing. The interest of Mr. Roisman is to be able to have his individuals to separate

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this information. In the Staff's view, the public interest requires that this route information be placed into a confidential category to fully implement the regulations that the Commission has promulgated and that the balancing would require that that be the case.

On Mr. Roisman's point concerning cross-examination, this puzzles me a little bit. The testimony that would be affected is the testimony of the Staff's transportation panel and is limited solely to the impacts which were identified in the Environmental Impact Appraisal.

There has been extensive cross-examination of that information by Mr. Blum acting for Mr. Riley in the past proceeding, but Mr. Roisman has not inquired into this area at all. He seems to be taking the position that the Staff's EIA is the small view, that it analyzes impacts of a small portion of what he feels is the bigger picture.

And he's really not -- or he has not evidenced by any cross-examination any interest in getting into the small, or what he categorizes as small analysis that the Staff has done in the EIA. His argument seems to be that the Staff should be looking at something else, not that what the Staff has looked at is not adequate and he has not crossed in that area.

So I find it difficult to understand what he has in mind now, since the Staff is not proposing to do anything

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more than to take the information upon which Mr. Boisman has  
not crossed and to update it to reflect the change in route  
analysis so the Board has a complete record at this point.

Again, I point out that the area is fairly  
straightforward in terms of what the impacts of this route  
change would be. The context of the cross-examination --  
the context of the issue is well-established through testimony  
and cross-examination.

This is something we can do orally and can do  
in a brief period of time. We have the hearing time available  
now to place these individuals on the stand to make the  
record and to permit whatever examination that Mr. Riley  
might have in his areas of interest.

I emphasize again that I don't see any harm to  
anyone in proceeding in an in camera fashion. And I would  
point the Board to the case law, the Appeal Board decisions  
in Diablo Canyon, specifically, ALAB 410 decided in June of  
1977 5NRCL398, ALAB 504 --

CHAIRMAN MILLER: What did that case hold?

MR. HOEFLING: That case held that the Licensing  
Board should use elaborate and extensive procedures to deter-  
mine what individuals are qualified to examine procedures and  
plans that relate to security.

CHAIRMAN MILLER: It was security of the plant,  
wasn't it?

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MR. HOEFLING: Security of the operating plant.

CHAIRMAN MILLER: Yes. What's the connection between that and the route question where you had considerable testimony?

MR. HOEFLING: The connection I make is this: I offer that case and the other cases which I would like to cite for the language that they contain indicating the seriousness with which the Appeal Board considers security questions and the seriousness with which it regards their treatment as confidential information. That's the point that I would make.

CHAIRMAN MILLER: But none of them address the so-called confidential information which has been made part of the record and part of cross-examination, isn't that the fact, none of them address that?

MR. HOEFLING: That's not the case we have here either. The routes we're talking about are not part of this record and are not part of the public record at this time.

CHAIRMAN MILLER: The interstate highways that were identified from South Carolina to North Carolina are no longer interstate highways, is that what you're telling us?

MR. HOEFLING: I'm saying that the routes that these spent fuel shipments would take are not in this record. The alternate routes that the Staff has approved for these transshipments are not in this record and are not a part of

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the public record.

DR. LUEBKE: May I ask, fuel shipments go on every month, do they not, in this country someplace somewhere?

MR. HOEFLING: Are you speaking of spent fuel shipments?

DR. LUEBKE: Spent fuel, yes. It happened, I mean, last month and the month before?

MR. HOEFLING: I think that's true with military spent fuel shipments. I'm not sure that there's that much commercial fuel shipped.

DR. LUEBKE: My question is, have these regulations you speak of been applied to those shipments? Is the regulation being operated?

MR. HOEFLING: This regulation, the policy that I've indicated that Mr. Dircks has established is being applied to all cases in which these regulations are being implemented; they're going to be applied across the board.

DR. LUEBKE: I'm speaking more of actual practice. I mean, to spent fuel on trucks rather than just talk at hearings.

CHAIRMAN MILLER: The question is what are the facts not military which we have no jurisdiction over? Do we have trucks going up and down the highway with the size and magnitude of the spent fuel loads that are being contemplated here with some degree of regularity, is that the present

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factual situation?

MR. HOEFLING: Let me have one moment, Mr. Chairman.

CHAIRMAN MILLER: Yes, of course.

(Pause.)

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MR. HOEFLING: Mr. Chairman, when the Commission placed these regulations into effect all commercial spent fuel shipments were stopped. Since that time, individuals, entities that wished to transport spent fuel have had to meet the Commission's new regulations.

Carolina Power and Light has made a demonstration to the Staff with regard to the shipment of its spent fuel, it has received route approval. Those routes are confidential.

Duke Power Company has sought route approval from the Staff and has received route approval. Those routes are confidential.

One other action that we're aware of, shipments from San Onofre to GE, that's presently under Staff review. It's anticipated that any routes that are approved will be confidential in accordance with policy that is articulated in the document that I distributed.

CHAIRMAN MILLER: Insofar as you know or so far as the record shows we don't have large quantities of spent fuel shipments going up and down the highways of this country, whatever the state of the regulations at the present time, do we?

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MR. HOEFLING: In terms of commercial industry, we have some shipments relative to Carolina Power and Light, and that's the extent of it one could fairly infer, I think.

CHAIRMAN MILLER: Very well. I think that supplies the information.

MR. HOEFLING: Let me complete the citations, if I may.

CHAIRMAN MILLER: Yes. Go right ahead.

MR. HOEFLING: ALAB 504, again Diabale Canyon. SN C406, decided October 27, 1978.

ALAB 514, SNRC597, decided December 22, 1978.

That completes my response, Mr. Chairman.

CHAIRMAN MILLER: Thank you. Do you have anything further?

MR. HOEFLING: No.

CHAIRMAN MILLER: Thank you.

Mr. McGarry, we haven't heard from you, and then we'll hear from Mr. Riley.

MR. MC GARRY: I think the points that the Applicant would raise have already been addressed, so I will make my remarks very brief, Mr. Chairman.

We're cognizant of the Commission's positions. We're cognizant of the regulations. We're cognizant of Diablo Canyon. It seems to us, based on the present position of the Commission, that we as a licensee applicant are

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1 bound by the Commission's regulations and they require that  
2 this information be kept proprietary.

3 CHAIRMAN MILLER: Are you going to render un-  
4 proprietary that portion which is in the record and which,  
5 without reviewing it, might coincide with that which you claim  
6 to be proprietary?

7 MR. MC GARRY: It's an awkward situation, there's  
8 no question about it.

9 I guess again -- and let me just take a crack  
10 at it, Mr. Chairman -- the situation, of course, was at that  
11 time there were no regulations with respect to sabotage.  
12 And again I repeat, as I did yesterday, we never -- we take  
13 issue, perhaps, with that fact in and of itself.

14 So therefore, there was no security reason to  
15 prohibit us from identifying the route. It was only after  
16 the route had been identified that the Staff began to think,  
17 based on a Sandia report, that perhaps they ought to take a  
18 closer look at transportation and sabotage and then they  
19 promulgated these regulations.

20 All I can say is that was after the fact and now  
21 we have a current Commission position that anything to deal  
22 with identification of routes is proprietary. So what has  
23 transpired is -- what is past is prologue, I guess.

24 CHAIRMAN MILLER: Where do they say that? In  
25 Washington?

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MR. MC GARRY: I think I've seen it in Washington.

CHAIRMAN MILLER: Yes, you have, at the Archives

Building.

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MR. MC GARRY: I think that sums up our position. It is an historical fact, and we have to look at the record as it is today. And looking at the record, I appreciate the Board's problem that the record does reveal the proposed route and that there was cross-examination on it.

(I think, however,--

CHAIRMAN MILLER: Do you want us to strike that on the grounds of prologue-ness, or whatever?

(Laughter)

MR. MC GARRY: I think I would like the Board to reserve on that, and let's deal with that matter at the September hearing.

CHAIRMAN MILLER: All right.

MR. MC GARRY: Because it may be our position that quite a bit of that is good and maybe it isn't. But let's take that question.

CHAIRMAN MILLER: All right.

Mr. Wilson, I guess we haven't heard from the sovereign state of South Carolina yet on this point, have we?

MR. WILSON: Thank you, Mr. Chairman.

Just briefly, I, too, fail to perceive a very crying need for the confidentiality of this particular information, given the disclosure we've already had in the public forum. And, of course, the State would urge a full and complete public discussion of these issues.

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Of course, it's our natural inclination to continue on that course; however we are not in possession of the information about the particular routes and, therefore, we're not quite in a position to come right out and support either disclosure or confidentiality. And so we are left in the rather awkward position of being a public representative and wishing to have public disclosure, and yet having to bow to the discretion of another public body, namely, the NRC. And at this point we, I'm afraid, cannot take a firm stand and must rely on the discretion of the Board itself in determining the issue.

CHAIRMAN MILLER: Mr. Riley?

MR. RILEY: Speaking, of course, non-legally but as a member of the public, I feel that self-deception in such matters is a very unhealthy posture. And I think it's apparent to us all that any determined saboteur would shortly learn what the three alternative routes were.

Also, there's no public participation in the publication of the sabotage regulations, and I feel that they are probably deficient in that respect.

I can point out that if people did know, indeed, what the three alternative routes were, any competent saboteur would have to do studies on the grounds to see what the pattern of movement was, and the rest of it. And strange people along a route that was known to be a nuclear transport route

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could enable calling to the attention of the appropriate law enforcement authorities the fact of this suspicious behavior. So I'm not even sure that the regulation is productive with respect to its aims.

I will also say this: that Duke's route has long been public, and people with concerns have already written in to the Commission, as you know. The changing of the route would change the individuals who would become concerned in the sense of the passage of these materials near to them, and they have, in effect, been foreclosed the opportunity to make such representations.

I join with Mr. Roisman in his observations, except as they apply to his staff problems, where I don't differ, I'm simply not competent to say.

I'm sympathetic to what Mr. Wilson has said about the desire to disclose publicly matters that are presumably in the public interest.

CHAIRMAN MILLER: Anyone else?

MR. ROISMAN: May I make two points, Mr. Chairman, that relate primarily to the things that Mr. Hoefling said?

One, I don't think he quite understands what our proposed cross-examination might be. It's not to cross-examine with respect to the transportation accidents or the public exposures along the route, it's to cross-examine with respect to our still-pending contention on the question of

whether the applicant will be in adequate compliance with the regulations if it takes the routes proposed. And that is the area in which we'll be interested in doing cross-examination. And compliance with the regulations would in turn depend upon what you thought the threat was and how effective you thought the measures taken would be.

Secondly, he made the statement -- and I want to make this quite clear, because he was wrong, and I think irresponsibly wrong to make the statement that my experts are interested in having the routes available so they can make the routes public. I didn't say anything about such a thing. What I said was that those experts being forced into an in camera session to discuss issues of sabotage are then themselves inhibited in their ability to discuss what they already know about sabotage because some of what they heard would have come up in that in camera session.

We have no interest in publishing the routes or, necessarily, in having anybody know about the routes that these trucks are going to take, except to the extent that they directly affect this hearing or people who live along the route.

CHAIRMAN MILLER: Wait a minute. What do you mean by that?

MR. ROISMAN: Well I mean we do think the public has the right to know that they're going to have a shipment



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or spent five months moving near them. And we do think that this hearing has an interest in knowing where the routes are for purposes of making substantive decisions in the case. We're not interested in publishing in California where the routes are. Mr. Hoefling seemed to think we had some interest in broadly disseminating the information. We don't.

CHAIRMAN MILLER: You do contend that the people along the routes, whatever the proposed new, confidential routes are, have a right to know, and that right to know can only be established in some fashion in this hearing?

MR. ROISMAN: Oh, that's absolutely right.

But, as I said at the outset, I want to be clear. I think that's a right which you balance with the rights associated with the sabotage question. And that's how you get to the second point: Is the cat out of the bag or not?

I want to say two things on that.

Mr. Hoefling was implying that, well, maybe not so much of the route is really known because you don't know how much of it is going to be changed.

Yesterday at page 3046 of the transcript Mr. McGarry said, and I quote:

"I believe, for the record and the Board's edification, I believe Mr. Roisman is correct--"

I would like to stop right there, but I'll go on.

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"--what we're talking about here is avoiding Charlotte. For all intents and purposes the route that has been provided the Board previously in the EIA, for all intents and purposes is the same route except for that by-pass, at least in one or two of the alternatives. Three alternatives have been approved."

So that's No. 1.

No. 2, just to give the Board some graphic picture of how much of the route is really out, I'm going to show to the Board, and then I will circulate to the parties -- this was all given to us by the Staff -- a June 16th, 1978 letter from Duke Power Company to Clifton Smith, and that letter has attached to it responses to Staff questions.

Question No. 4, on page 6 of that document, is entitled, "Furnish exact road mileage for each leg of the proposed route to be driven between the Oconee nuclear station and the McGuire nuclear station."

The answer is a non-to-scale description of every route that the truck will travel, starting at the Oconee plant and ending at the McGuire plant.

I just think that the Staff is blinking reality in an effort to say that we don't know where the trucks are going to go. We know where the trucks are going to go, and we might as well recognize that for this plant the balance goes

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to other...

MR. RILEY: Also in regard to what I regard as a  
conrade, if I'm not mistaken, CP&L has the authority to use  
a rail car in shipment from it's plant to the plant on the  
coast. I have not heard any discussion of alternative routes.  
If you are tied to rail you very much narrow the options.

CHAIRMAN MILLER: Thank you.

MR. HOEFLING: Mr. Chairman, may I make a few  
comments?

CHAIRMAN MILLER: Yes, you may.

MR. HOEFLING: Concerning Mr. Riley's comments,  
he made one statement which I think I would just like to  
discuss briefly.

He indicated that to a determined saboteur the  
confidentiality of these routes would not pose a serious  
obstacle.

CHAIRMAN MILLER: I think he said "a competent  
saboteur," because I was charmed by the description.

MR. HOEFLING: A competent saboteur. But the  
point I wish to make again is that the intent of these regu-  
lations and their application is to reduce to as low a  
level as possible the risks that might be associated with  
these shipments. And I think it's clear that, the Staff would  
argue that it's clear that the less knowledge an individual  
has regarding these shipments and the routing, the more

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d. difficult it is for him to get that information, the higher  
the level of risk that's avoided.

Turning to Mr. Roisman, I think that we may have  
a communications problem here. The panel that the Staff  
proposes to put up would discuss strictly route-related  
impacts, environmental, radiological. The panel that the  
Staff would propose to put before the Board is not in a posi-  
tion to present to the Board the results of the Staff's review  
to see whether the Part 73 regulations concerning the sabotage  
have been met. This review was completed last Friday, but we  
are not prepared to go forward on that issues, if indeed  
there is an issue.

Mr. Roisman has said several things to me in the  
past to the effect that if the route doesn't go through  
Charlotte there's no issue. That seems to be a little dif-  
ferent than what he is suggesting now. But, in any event,  
that review would be documented, as I mentioned yesterday, in  
a Staff supplement, and is not going to be -- or would not  
be proposed to be the subject of examination and cross-  
examination of the panel the Staff would put up. The Staff  
panel is solely to present to the Board what the effect  
of going to these alternate routes, what the effect is on the  
analyses in the EIA from the environmental and radiological  
perspective. And Mr. Roisman has shown no interest in that  
at all.

CHAIRMAN MILLER: Is this the so-called in camera testimony that you are proposing?

MR. HOEFLING: If we're going to get into specific routes, that would be correct, right.

CHAIRMAN MILLER: Well, wouldn't it be a little difficult to discuss environmental, safety and other results of routes unidentified?

MR. HOEFLING: Yes, Mr. Chairman, I agree.

CHAIRMAN MILLER: So then aren't you suggesting that we should go into an in camera session here and now?

MR. HOEFLING: With the transportation matter, that's correct.

CHAIRMAN MILLER: Well what work remains to be done by the Staff so that we can go into this whole transportation question in a meaningful way once and for all? You mentioned supplements. There has been some suggestion that there's additional written information, that the Staff is to provide a written statement on routes and perhaps other matters. What's necessary before we get our ducks in a row so where we can hear it once and for all?

MR. HOEFLING: I see two areas. The first area deals with the effect of the alternate routes on the judgments and the calculations in the Environmental Impact Appraisal. We had Mr. Glenn, Mr. Spitalny and Dr. Hodges respond to the CMSG contention No. 2. They were on the stand, they were

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cross-examined in the area of environmental impacts, doses to people, radiological effects. This is an area that the Board should have the benefit of updating and additional testimony on. That's Area No. 1.

Area 2 deals with compliance of the Duke proposal not only in the routing area but in the whole security area, compliance of the Duke proposal with the Commission's new Part 73 regulations. That's a different question. Has Duke met those regulations? That review---

CHAIRMAN MILLER: Are these new regulations that you're referring to?

MR. HOEFLING: New regulations, new in the sense that they became effect I believe toward the end of June or the beginning of July.

CHAIRMAN MILLER: Thank you .

MR. HOEFLING: Compliance with these regulations. That review was completed last Friday. It has not been documented: there is no written material available.

This was going to be the subject of a supplement, and there was a possibility that it would be a contention, or an issue in this hearing. Mr. Roisman raised a contention in this area. We've had numerous fleeting conversations as things have gone along, and we may still have a contention in the area. But that's a separate area that we're not prepared to go forward with in this hearing.

1 B. So those are the two areas that I see as remaining  
to be treated before we close the record.

CHAIRMAN MILLER: Well the Board intends to con-  
sider the matter at our lunch recess which we'll declare  
shortly. We'll make our ruling at one-thirty when we return.

But let's have, once and for all, what else is  
it that's going to have to be done, whether it be supplements,  
supplements on supplements, or whatever. Each time we have a  
hearing we start dragging out more things.

You've identified, I think, those that seem to  
be transportation-related. We have those in Ind. The  
transcript will show those.

Now what else is there? What other surprises  
do you have for us?

MR. ROTSMAN: Could we get a clarification of  
what he has just identified? Is he saying that there is, for  
purposes of this hearing this week, the so-called transporta-  
tion panel, and that they -- and that he was proposing that  
there be an in camera session this week, or is he talking  
about a panel that would also be presented at the hearings  
in the September 10th to 14th period?

CHAIRMAN MILLER: I think both.

MR. HOEFLING: Mr. Chairman, the panel on the  
transportation question is ready now. Basically what they're  
going to say is, they're going to talk about the EIA and how

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the route alternatives affect the EIA.

CHAIRMAN MILLER: The route alternatives?

MR. HOEFLING: The alternative routes.

CHAIRMAN MILLER: That means, then, that you're saying in camera.

MR. HOEFLING: Yes.

CHAIRMAN MILLER: The Board doesn't think we're going to hold any in camera sessions at this hearing. We think it's too important to the public, that nuclear energy is too important for us to go retiring into some in camera session. So as far as it being done this week, I think we can say we don't intend to do that.

Now this doesn't say what impacts there may be upon the motions that you have made, the Staff position and the like, which we want you to consider. But obviously we're talking about the future on that.

MR. HOEFLING: Have I responded to your concern, Mr. Roisman?

MR. ROISMAN: Yes. I just wanted to be clear that you were talking about not only two different panels but that you were proposing two different times.

MR. HOEFLING: That's correct.

MR. MC GARRY: May I be clear, Mr. Chairman? The Board is saying, then, that this whole discussion we've been having concerning alternate routes and the compliance



with Part 73 will take up the September hearing?

CHAIRMAN MILLER: We'll take it up in the future. We'd like to give it some thought. We'd like to be able to do it in September. But you're going to have to put this now into your computer, too, because this is a factor we didn't have. Perhaps you did when you proposed the schedule. We'd like to be able to do so, but we also want to be sure once and for all-- Now this is not an OJ proceeding, this isn't something where you're going to drag along with supplements. We tried to make this clear, and we don't seem to be successful.

We want to know now what else besides this, which we will discuss as a discrete matter with you, what else is there that is not ready to go at this hearing now in Charlotte.

MR. MC GARRY: May I say your inquiry is very helpful, and we're interested to see if there's anything else. We think the consensus of the discussions this morning before we commenced the hearing was that everything that is remaining in this hearing will be filed on September 4th, and that's it.

CHAIRMAN MILLER: We would certainly hope so. But be careful now about what is it that is under what shell. All these things have come up suddenly to us, because we've had no advance notice. And this has happened every time we've

WR: 13  
1 sat down at this hearing, the first week, the second week when  
2 we were here before, and now. There has to be an end to it  
3 somewhere.

4 We're not going to go into a secret session now.  
5 We want you to think about it over the lunch hour. Whatever  
6 is not resolved, whatever little surprises you might think  
7 you're going to have in store for us, get the surprise element  
8 out and put it on the table so we can address it squarely and  
9 schedule ourselves, hopefully in September but at some finite  
10 period of time when everything is heard and we're in a posi-  
11 tion to rule intelligently.

12 Fair enough?

13 MR. MC GARRY: Absolutely, Mr. Chairman.

14 MR. WILSON: Mr. Chairman, before we break, might  
15 I just briefly ask Mr. Hoefling a question?

16 CHAIRMAN MILLER: Certainly. Go right ahead.

17 MR. WILSON: Regarding the Part 73 aspect and the  
18 application of these regulations to the particular action here,  
19 does the Staff intend to present a panel for that purpose at  
20 the September 10th hearing?

21 MR. KETCHEN: Well, Mr. Chairman, no, we don't. We  
22 would present a report on the physical security matter. There's  
23 no contention in the area. We would just present it as infor-  
24 mation. You can call it anything you like. You can call it  
25 a report to the Board in the nature of a response to a question.

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1 There is no issue.

2 We would do the same thing with the other item that  
3 we know is outstanding, the cash handling thing, as a report  
4 on that subject matter. Since there's no issue-- Normally  
5 we address ourselves with panels to issues. Since there's no  
6 issue, no specific question we need to address, we wouldn't  
7 propose to put a panel on on those questions.

8 CHAIRMAN MILLER: Mr. Wilson, does that answer  
9 your question or not?

10 MR. WILSON: I'm afraid it does, and in that  
11 respect --

12 CHAIRMAN MILLER: That means you're going to have  
13 to be in Washington, doesn't it?

14 MR. WILSON: Not only that, but it also I think  
15 would be appropriate at this time to note the fact that back  
16 in June when we first had this initial meeting, I believe it  
17 was on Saturday, the 24th of June, or the 25th, we did note for  
18 the Board's and for the Staff's edification that we were  
19 in fact very interested in seeing an exploration on the record  
20 of the physical protection aspects of the sabotage question.

21 We understood at the time that there were a couple  
22 of contentions which did seem to touch on it, and their  
23 disposition I believe at this point is still uncertain.

24 But the State does indeed desire a treatment on  
25 the record of this aspect. However, it should not be simply

WRL/eb 1 on a report, take it or leave it, type of aspect. The Staff,  
2 we understand, does have the individuals who could do this  
3 in a rather expeditious manner and we just simply need the  
4 opportunity to get those people under oath and address them  
5 so that we can see that the public interest has been protected  
6 by the proper application of these regulations.

7 CHAIRMAN MILLER: As I understand it now, as an  
8 interested State you're suggesting this is an issue which  
9 should be explored of record, that the State is not required  
10 to frame contentions but the absence of framed contentions  
11 does not narrow the scope of the inquiry as you see it.

12 You are therefore requesting that the Staff address  
13 it. Is that the state of the record?

14 MR. WILSON: That's absolutely correct.

15 MR. MC GARRY: May I make one observation,  
16 Mr. Chairman? There may be some confusion here on the part of  
17 South Carolina.

18 The physical security that is remaining is physical  
19 security at McGuire in the State of North Carolina. That's  
20 what that issue is we're talking about.

21 MR. WILSON: I understood that before, Mr. McGarry.  
22 It was the initial aspect we discussed this morning in the  
23 attorneys' conference and I had no problem with that.

24 But now I discovery that the Transportation panel  
25 is to be proffered some time later today and it's going to

W. J. a. 4 1 be narrowed to exclude the physical protection aspects along  
2 the route as well.

3 As far as McGuire is concerned that's another  
4 story but when we're talking about the route and the shipment  
5 through the State, we do indeed see a necessity to explore  
6 this for the public record.

7 CHAIRMAN MILLER: Well, we're not certain we're going  
8 to hear the Transportation panel today or while we're here.  
9 I thought that we were trying to get the transportation issues  
10 which may encompass in part let's say generic matters and in  
11 part route-specific matters and the like at one time in one  
12 session.

13 So I believe that what we were thinking about would  
14 be in the September hearing, or in the future, and hopefully  
15 in the September hearing.

16 MR. WILSON: That's perfectly all right with us,  
17 as long as we do get to address the issue. That's my concern.

18 CHAIRMAN MILLER: I see.

19 Well, then is there anything further you need to  
20 alert the Board and the Staff to in order to have appropriate  
21 inquiry from the State of South Carolina as an interested  
22 State, given the present state of the record?

23 MR. WILSON: I believe I've stated our position  
24 fully in that respect.

25 Are you inquiring as to particular witnesses that

W 3/at 3 might be available -- that we might desire be available?

CHAIRMAN MILLER: Yes. Either now or after the recess, if you'd like to confer with Staff Counsel, but we'd like to have the matter concretely set forth in the record, and perhaps that will be appropriate. You'll have a chance to confer with each other.

MR. WILSON: That will be fine.

CHAIRMAN MILLER: Anything else?

MR. KETCHEN: Mr. Chairman, responding to Mr. Wilson, it's the semantics of it again that are tossed out. When he said "physical security," as Mr. McGarry was referring to one of the open issues --

MR. WILSON: For the record, Mr. Chairman, if I could break it down semantically, what I am intending to address is the regulations, the Part 73 regulations, the physical protection of the spent fuel shipments as they are applied to this specific action.

CHAIRMAN MILLER: I see.

MR. KETCHEN: And I was answering the question about the physical security plan at McGuire, so we missed each other.

CHAIRMAN MILLER: I see.

MR. KETCHEN: We don't intend to --

CHAIRMAN MILLER: Will you tell us when you get back what the record --

NRB, sb1 1 MR. ROISSAN: Could he now tell us if he is putting  
2 on a panel on compliance with Part 73 at the September hearing?

3 CHAIRMAN MILLER: Do you want to fragment it or do  
4 you want to take it up after you have all had a chance to  
5 reflect, cogitate and have lunch?

6 MR. KETCHEN: No, the physical security plan at  
7 McGuire, no.

8 CHAIRMAN MILLER: We will recess until 1:30. Please  
9 get together and we'll hear from you at 1:30.

10 (Whereupon, at 12:00 noon, the hearing in the  
11 above-entitled matter was recessed to reconvene at  
12 1:30 p.m. the same day.)  
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AFTERNOON SESSION

(1:30 p.m.)

CHAIRMAN MILLER: We'll resume the evidentiary hearing.

With reference to the matter that the Board heard from counsel this morning, that is to say the transportation routes and request for confidentiality of the memorandum for Mr. Chilk dated June 25, 1979, that the Staff presented, together with the arguments and citations of the Staff, the Board has concluded that as far as this Licensing Board is concerned, we do not believe that confidentiality or in-camera sessions should be followed.

It is our belief that there has been widespread information as to the routing, which has been widely publicized both in South Carolina and North Carolina. This information has been made public, it has been the subject of examination and cross-examination in this proceeding, and has been the subject even of some limited appearance statements.

The indications are, further, that the transportation by the vehicles in question are not going to be performed in a stealthy or surreptitious manner but, rather, by vehicles which are large, sizeable, plainly marked, and the like.

As far as this Board is concerned, we adhere to the view which we stated this morning, that nuclear energy is



1 too important to engage in secret sessions unless and until  
2 it's absolutely imperative.

3 However, we are also cognizant of the fact that we  
4 are a trial Board or a Licensing Board, but it is subject to  
5 the rules of higher authority, by which I mean the Appeal  
6 Board, the Commissioners, or possibly a court.

7 For that reason, we are going to stay the effective-  
8 ness of our ruling for 30 days. We won't go into transporta-  
9 tion matters, we won't go into anything that impinges upon  
10 them, for a period of 30 days. You will note that 30 days  
11 is prior to September 10th, when we resume the hearings.

12 Now, the Staff or any affected parties will have  
13 full and ample opportunity to seek the intervention of the  
14 Appeal Board, the Commissioners, or whatever remedies are  
15 available to them. There is certainly plenty of inherent  
16 power in the higher authorities of the Nuclear Regulatory  
17 Commission, and in fact, we encourage them to do so, because  
18 we recognize the position that the Staff is in, confronted  
19 with certain regulations.

20 It is our belief that those regulations do not  
21 apply to this situation. The ruling we're making is not  
22 intended to nor designed to set any precedents. There  
23 aren't going to be any or very many future cases where you  
24 have widely publicized routes, and then in the midst of it  
25 you say it's become confidential. We have the feeling and

1 the belief that through our notices, through the conduct of  
2 this hearing, we've told the people of North Carolina and  
3 South Carolina that we were going to hold a hearing that was  
4 an open and public hearing, that it pertained in part to the  
5 proposed transportation of nuclear wastes along these routes  
6 or alternative routes that are clearly identified in  
7 publications. We have in mind the statements made yesterday  
8 by counsel for the Applicant as to the nature and extent of  
9 the changes which have been effected in recent days.

10 We don't mean to put anybody on the spot, but we  
11 do believe that the changes are of a fairly limited nature.  
12 The public interest requires public analysis of these matters  
13 in accordance with the practice which we've followed in our  
14 past hearing when there was examination and cross-examination  
15 by Mr. Riley and others.

16 That is our ruling. You'll have 30 days in which  
17 to stay it by appropriate actions through higher authorities.  
18 This means, therefore, we don't want to go into any transpor-  
19 tation matters or route matters, one way or the other,  
20 because we want to preserve intact the rights of the parties.

21 Any questions?

22 (No response.)

23 All right. I guess, then, we're ready, unless  
24 someone has something else, to resume the panel's testimony.

25 MR. WILSON: If I may at this point, Mr. Chairman,

1 prior to our returning from lunch, we did discuss with Staff,  
2 and I believe they have agreed at this time to present a  
3 panel on the regulations at the resumption of the hearings  
4 in September. At that time they will present a panel. It  
5 has not been identified at this stage, but as I understand  
6 from our discussions with Mr. Hoefling, they do intend to  
7 address the thing.

8 CHAIRMAN MILLER: When the hearing is resumed  
9 September 10?

10 MR. WILSON: That's correct. So it would conform  
11 to what you've just said.

12 CHAIRMAN MILLER: Fine. Thank you.

13 MR. KETCHEN: Mr. Chairman, I would ask the panel  
14 that was up this morning to resume their positions, take  
15 their seats.

16 Whereupon,

17 JOHN P. ROBERTS

18 DARREL A. NASH

19 R. DANIEL GLENN

20 and

21 BRETT S. SPITALNY

22 resumed the stand as witnesses on behalf of the NRC Regulatory  
23 Staff and, having been previously duly sworn, were examined  
24 and testified further as follows:

25 MR. KETCHEN: While the witnesses are taking

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1 their seats, I just wanted to raise another matter of  
2 clarification and suggest a procedure. I think I was a little  
3 confusing about the Staff's point of view on the physical  
4 security plan.

5 I'm not talking about transportation. I'm talking  
6 about on site at McGuire, which is still an open item.

7 CHAIRMAN MILLER: Is that an issue?

8 MR. KETCHEN: No. But it's a subject of one of  
9 those reports that the Staff is going to produce.

10 In addition to that, there is another open item,  
11 the cask handling subject matter. On those, we propose,  
12 in accordance with the stipulations, to produce that document-  
13 ation according to the dates and with the caveats that we  
14 expressed this morning.

15 Our suggestion is that if any of the parties have  
16 any interest -- the reason we say this is that on that point  
17 we would not propose to present a large panel, other than to  
18 introduce it, maybe -- if anyone has any questions that they  
19 would like to ask, I think the procedure I'm going to suggest  
20 is that they just let me know if they want to talk about  
21 physical security, or let me know if they want to talk about  
22 cask handling, and we will arrange to have the appropriate  
23 persons available at the hearing to respond to the particular  
24 questions.

25 CHAIRMAN MILLER: Well, that seems to be reasonable

1 to the Board. Let us ask counsel and parties to indicate to  
2 the Staff if they wish to have evidence put on along those  
3 lines, and I think that will protect the interests of everyone.  
4 If you wish it, request it of the Staff.

5 Very well, you may proceed.

6 I believe that Mr. Reisman was cross-examining.

7 CROSS-EXAMINATION (Resumed)

8 BY MR. ROISMAN:

9 Q Mr. Roberts, we were trying to get some further  
10 understanding of your understanding of the second of the five  
11 factors that the Commission has identified to be looked at  
12 and balanced in deciding on these interim measures.

13 The major point that I think we had reached is a  
14 recognition of the fact that time was a factor in terms of  
15 a tendency to foreclose an option, and that your under-  
16 standing of what this factor meant was not that at the moment  
17 you made the decision would you by making the decision tend  
18 to foreclose another option for the same time period, since  
19 that would obviously happen every time you made a decision.

20 But the question was whether in the future you  
21 would be narrowing or widening the options available.

22 Do I have a correct summary there of where we  
23 were on that point?

24 A (Witness Roberts) I think that's generally correct.

25 Q All right. Now, what I'd like to do with you is

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just go through some of the situations as I think the record discloses them, but for simplicity's sake we're going to call them hypothetical, so you don't have to endorse something. The record will be whatever it is, and we'll work with hypotheticals.

A All right.

Q One of them that we discussed is the hypothetical that you put spent fuel in the McGuire pool at an early date, and that made it necessary later when you were trying to decide how to expand the McGuire spent fuel capability to consider that the pool was already contaminated as a factor in deciding whether you wanted to transship from McGuire, or whether you wanted to rerack with poison racks at McGuire.

The second one I'd like you to focus on, if you would, relates to this broader question of something which I'm sure you've heard during the course of the hearing, the cascade plan.

In your analysis of whether the proposed action here would tend to significantly foreclose the alternatives available, did you look at the cascade plan as part of what was now being done by the Applicant in transshipping to the McGuire facility? Did you consider this to be a part of the cascade plan?

A I'm trying to think back, because, as you realize-- I think you've used the word yourself -- a blizzard of paper

1 has gone through the process.

2 At the time I think, of the preparation of this,  
3 and I believe it's still my understanding, there was knowledge  
4 that the intervenor might plan or had some option at least  
5 open, on to Catawba. And I think that was as far as it went,  
6 as far as a cascade. And I don't think there was a, you know,  
7 on out to the end of the century or beyond type thing.

8 I think that was the only thing that we had  
9 knowledge of at the time.

10 Q Well, let me ask you, just in terms of the process  
11 by --

12 A Well, I was just going to say, you wanted to raise  
13 the hypothetical question, from your statement earlier, so I  
14 was going to say if you want --

15 Q That's right. I haven't gotten to the hypotheticals  
16 yet. I just want to lay the foundation.

17 Tell me, in the context of the process by which  
18 you go about doing the job of figuring out whether a proposal  
19 that's presented to the Staff is or is not one that's likely  
20 or would tend to significantly foreclose alternatives, how  
21 do you determine -- or do you even attempt to determine --  
22 whether the Applicant is telling you the truth, the whole  
23 truth and nothing but the truth, in terms of what they really  
24 intend?

25 Do you make an effort to find that out?

1           A       Yeah, I think that we can say we do.

2                    The case I can cite is the fact that a letter was  
3 sent to them requesting more information on the potential for  
4 rerecking at Oconee.

5           Q       All right.

6                    Let's take the cascade as an example. You are aware  
7 that the Applicant has made the Catawba pools larger than what  
8 it had originally planned the Catawba pools to be, are you  
9 not?

10          A       I know it has made it larger than the standard  
11 size. I'm not quite clear in my mind if, you know, at the  
12 time, or have read. But what I'm saying is I don't quite  
13 recall if there was a point where somebody said to me, or I  
14 read someplace, that their original size was planned to be --  
15 I know it's larger, much larger than standard.

16          Q       Okay. Let me ask you, Mr. Spitalny, just so Mr.  
17 Roberts will have it.

18                    Is it a fact that the Applicant made a decision  
19 to make the Catawba pool larger than it had originally  
20 intended the Catawba pool to be at some time during the  
21 construction phase of the plant?

22          A       (Witness Spitalny) I'm not sure that that's the  
23 case. It is the case that they have made those pools larger,  
24 again, as I understood, for the purpose of storing this fuel.  
25 But that may have been their original decision back quite



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1 some time ago.

2 Q I'm sorry. For the purpose of storing -- you said  
3 "this" fuel. Which fuel did you mean?

4 A The fuel that we're discussing, Oconee and McGuire.  
5 I'm not sure when the decision took place.

6 Q Okay. Let's take that as a starting point, Mr.  
7 Roberts, that they did make these pools larger for the purpose  
8 of storing this fuel from Oconee. That is, that the next  
9 phase of the cascade plan was in their head.

10 Did you, in evaluating what the Applicant told you  
11 it intended to do, did you take into account what it appeared  
12 that they were actually doing? In other words, were you  
13 influenced by the knowledge that they did appear to, in fact,  
14 be attempting to expand Catawba to accommodate Oconee fuel?

15 A (Witness Roberts) In what sense do you mean?

16 Q Well, in trying to decide -- remember, we talked  
17 earlier about the question that the proposal --

18 A Does it foreclose, you mean, or --

19 Q Well, let's just start with the premise before  
20 that, that what the proposal is that's on the table will help  
21 you decide whether you're tending to foreclose options, and  
22 also whether or not you have an independent utility.

23 So you have to know what's being proposed. And  
24 that, in turn, depends upon what's the problem that you're  
25 trying to solve. Isn't that correct? We agreed to that this

1 morning, didn't we?

2 A Well, I think you have to distinguish here that,  
3 number one, their application to us is for a specific action,  
4 okay?

5 Now, what you're saying is that we're cognizant  
6 of, in some manner or other, other information that is  
7 available to us that they are planning other actions, or  
8 something like that.

9 I guess from my point of view it's hard for me to  
10 see that they are necessarily foreclosing an option.

11 Let me say I guess in part this is because the  
12 Catawba licensing action involves an environmental impact  
13 statement, and, therefore, storage of fuel from other sites  
14 must be evaluated, you know, in an alternative -- full  
15 alternative sense, it would seem to me. At least it's in an  
16 environmental impact statement. We wouldn't be licensing  
17 that reactor in our shop, but somebody in NRC would.

18 Consequently, that action would receive, I must  
19 presume, a thorough evaluation.

20 Therefore, given that, and given also that the  
21 space is available for Catawba fuel, presumably whatever the  
22 outcome of the action, by the granting of the license of  
23 Catawba, assuming granting that license, I'm not sure ...this  
24 is what I guess I'm not following, perhaps, the thread of  
25 your argument that it would foreclose options. I could see

1 where it would leave things looser, as it were, but I don't  
2 know that it would tighten down on specific things.

3 I guess what I'm trying to say is you have raised  
4 the question in previous questions with regard to poison racks  
5 at McGuire, and this establishes increased capacity at  
6 McGuire. The Catawba action, which we, as I say, I have the  
7 caveat that we are not licensing here, the Catawba action, in  
8 effect, does that for Catawba in the sense at least that it  
9 does provide increased storage.

10 Admittedly it's my understanding that the intent  
11 is to move fuel from Cooness and McGuire, but I don't know here.  
12 You know, it's speculative to me, that that future action  
13 would be granted by some licensing board in that action.

14 Q Okay. I think part of the problem we're having  
15 is that you are attempting to figure out what is the reason  
16 I'm asking you the questions, and to some extent I'm  
17 attempting to keep you from knowing that.

18 What I want you to do is just to answer my  
19 questions sort of straightforwardly, and not anticipate.  
20 I wasn't trying to ask you about foreclosing options here.  
21 I'm trying to understand the process that the Staff uses in  
22 gathering data and evaluating the data in order to make  
23 decisions about tending to foreclose options, and in order  
24 to make decisions about whether an action has independent  
25 utility or not. And all I want you to focus on for the

1 moment is simply how do you evaluate the bona fides of what  
2 an applicant tells you? An applicant is free to tell you  
3 whatever it wishes, and in this case what the applicant has  
4 told you, as I understand it, is that they want to ship 300  
5 spent fuel assemblies from Oconee to McGuire -- period, and  
6 they've asked you to evaluate the impacts and appropriateness  
7 of doing that -- period. All right?

8 What I'm trying to find out from you is: Do you  
9 make any effort to find out whether they -- not to put any  
10 gloss on it, but whether they told you the truth or not,  
11 whether that's really all they really are about? Or are they  
12 really asking you to do step one of a multi-step plan?

13 A Well, I think that I've answered yes, we do  
14 attempt to, you know, verify, at least to some extent.

15 Q Now, the next thing I was doing was trying to  
16 see how good you are at verifying, okay? What kind of  
17 process you go through. So I have given you as a fact that  
18 we knew -- and Mr. Spitalny can affirm this -- that the  
19 Catawba facility to which no transshipments are being  
20 proposed in this license application, was expended in part  
21 to accommodate spent fuel from Oconee. I ask you how did you  
22 factor that into your thinking about whether the Applicant  
23 really only had on the table a proposal to send 300 spent  
24 fuel assemblies from Oconee to McGuire, and that's where  
25 we are. I want you to answer for me now: How do you factor

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that into your decision as to what it is that's really being proposed to you?

A I think I tried in my previous answer to point out the fact that the licensing of Catawba involves a full environmental impact statement, and these facts are in the record there. It's my understanding they are. And, therefore, I don't think that the Applicant can end run the NRC regulatory process, if that's what . . . well, I don't think the Applicant can end run the process, since the facts are on the record and it has to be evaluated in the full environmental review.

Q Okay. But isn't it the case that the wisdom of putting the spent fuel from Oconee and, of course, McGuire also, at the Catawba plant, will be affected by the fact that you've already moved 300 assemblies from Oconee to McGuire at the time that you evaluated the wisdom of moving some assemblies from McGuire and Oconee to Catawba?

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1 A I think the problem I have here, it would seem to  
2 me what you're saying-- Well, maybe I don't want to phrase  
3 it that way.

4 If you mean licensing an action because you found  
5 that action is proper and therefore might have some potential  
6 influence in some similar licensing action --

7 Q No, that's not what I mean.

8 A Okay.

9 Q I wasn't talking about precedent. I was talking  
10 about the fact that the presence of the 300 fuel assemblies  
11 at McGuire and the failure to have taken more onsite actions  
12 at Oconee when time is still available to take them would  
13 create a greater need to use the Catawba space than you would  
14 have had if you never approved the transshipment in the first  
15 place and Oconee had been compelled to choose a different  
16 course of action to deal with its interim spent fuel storage  
17 problem and McGuire had been freed of the burden of holding  
18 300 of the Oconee spent fuel assemblies. That's what I was  
19 getting at.

20 A Well, I don't see that chain of logic because the  
21 Applicant has a separate application which has been approved  
22 now for reracking of Oconee, so it doesn't seem that it has  
23 foreclosed things in that sense.

24 Q Isn't it true that the reason that application  
25 went in was because they hadn't gotten approval of this one?

WEL Feb 2

1           A       Well, I think this just shows the system is open.  
2 I mean I think in discussing this more generically this  
3 morning we were talking about, you know, you have a variety  
4 of options and if you make a decision to go one way and if it  
5 turns out subsequent factors have, you know, an influence on  
6 that, then the remaining options are remaining open and you  
7 go that way.

8           Q       No, but let's assume for a moment that the trans-  
9 shipment proposal had been approved in December 1978 concu-  
10 rent with the publication of the Staff Evaluation and recom-  
11 mending its approval.

12                   What's your judgment as to whether the Applicant  
13 would have put in in February of 1979 an application to re-  
14 rack the Oconee units? Do you think it's as likely they would  
15 have or less likely that they would have?

16           A       I don't think I can honestly answer that because  
17 it gets into areas that are particularly speculative since  
18 we have just had, you know, some schedule changes on these  
19 facilities.

20                   CHAIRMAN MILLER: Did you have any judgment? If  
21 you don't have it, it's a fair answer to say you don't, but  
22 if you do, then give us the benefit of it.

23                   WITNESS ROBERTS: I think that the point I'm  
24 making is if you want to ask a more specific question ruling  
25 out some of the speculativeness of it, I'll try to give you

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1 a judgment, hypothetically anyway, but the thing right now  
2 that I look at is Catawba has just been delayed and there are  
3 a number of other factors, and you're asking me to go back to  
4 February, and you know, it gets pretty speculative.

5 BY MR. ROISMAN:

6 Q Well, let me rephrase it and put it differently.

7 One, let's assume that the situation is as it was  
8 in February of '79, what we knew existed then.

9 And two, just tell me which way you think it would  
10 tend to cut, that the Applicant in December of '78 had gotten  
11 approval of transshipment.

12 Would you say that that would have tended to have  
13 made it more likely that an Applicant would have sought the  
14 reracking in February of '79 with the conditions as they were  
15 in '79, or less likely?

16 A I think less likely.

17 Q All right. That's the thing I wanted to get at.

18 So by the same token, if the transshipment is now  
19 approved would you say that it is more likely or less likely  
20 that the Applicant would seek permission to rerack with poison  
21 racks at Oconee? What does approving transshipment now tend  
22 to do in your judgment with the Applicant's likelihood to seek  
23 a poison reracking approval at Oconee?

24 A Well, --

25 MR. KETCHEN: Mr. Chairman, may I object? I've been



1 listening to this line of questioning and I think the problem  
2 that the witness is having is the same one I'm having. It's  
3 a conceptual one, and it's a relevancy objection.

4 We're regulators -- I'm speaking for the Staff --  
5 and this witness is being asked to render judgments on the  
6 intent in the mind of the Applicant, the business decisions  
7 of the Applicant, and things of that nature. And I don't  
8 think he knows that.

9 However, if the questions were framed as what his  
10 judgment on the two factors in issue in the generic environ-  
11 mental impact statement on this action are, I think that's  
12 a different kind of question he can ask. But my objection  
13 is to beyond the scope -- relevancy, and beyond the scope of  
14 his expertise as to what the business judgments and decisions  
15 are that the utility has to make.

16 CHAIRMAN MILLER: Well, it's overruled as to  
17 relevancy.

18 As to the other objection, however, I believe it  
19 is up to the witness. I've asked him before, if he does have  
20 a judgment he may give it. If on the other hand he does not  
21 have a judgment as to whether action by the Applicant under  
22 the same circumstances with one exception is more likely or  
23 less likely, he can answer. If he doesn't honestly have a  
24 judgment we'll accept that.

25 So I think we'll leave that to the witness who knows

WEL/eb

1 better than we do as to his competency in that aspect.

2 BY MR. ROISMAN:

3 Q Do you need me to restate the question?

4 A (Witness Roberts) Yes.

5 Q This question is related to let's assume that the  
6 transshipment proposal that is now proposed by the Applicant  
7 is approved at some time in 1979. In your judgment, would it  
8 make it more likely or less likely that the Applicant would  
9 seek to expand spent fuel storage capability at Oconee by  
10 reracking with poison racks.

11 A Okay. Let me think about that a minute.

12 (Pause.)

13 I think that the problem we're having here is that  
14 we're in a period of time when a lot of things seem to be  
15 changing in the spent fuel area, and I just don't think at this  
16 point I could honestly throw out an answer.

17 It's somewhat similar to the answer I gave you  
18 before. If you want to set up a hypothetical case with certain  
19 specific assumptions I'll try to give you a judgment. But  
20 if it's a kind of wide open reality of today, there are  
21 factors that I can kind of think of in the back of my mind,  
22 well, this might happen. And you know, it's just too open to  
23 make -- you know, for me to honestly make a yes or no state-  
24 ment.

25 Q You mean without sitting down and giving it a lot

WEL, ab6 1 of thought?

2 A Well, even there the uncertainty of the situation,  
3 it seems to me-- You know, I can think of a number of things  
4 that may or may not happen.

5 CHAIRMAN MILLER: You're asked to take the situa-  
6 tion as it is. The only hypothetical aspect is one, so what-  
7 ever uncertainties are in your mind are those that exist in  
8 the real world.

9 WITNESS ROBERTS: That's the problem. I can't  
10 answer yes or no with the uncertainty.

11 CHAIRMAN MILLER: All right, that's an answer. I  
12 understand.

13 BY MR. ROISMAN:

14 Q Am I correct in assuming that you have not, in  
15 preparing and analyzing this application and preparing the  
16 Staff position to the extent you participated in it on this  
17 application, you have not done any analysis in the form that  
18 I now just put the question to you:

19 Does the transshipment, if approved, increase or  
20 decrease the likelihood that the Applicant would ask for  
21 reracking with poison racks at the Oconee facility? That's  
22 just not an analysis that you've addressed?

23 A I don't recall doing anything like that, no.

24 Q What about with regard to the approval of trans-  
25 shipment now and the likelihood that the Applicant would or

WEL/eb7

1 would not seek to get poison reracking at the McGuire facility?

2 A I don't specifically remember thinking about that.

3 Q And how about the likelihood that approval of trans-  
4 shipment now would increase or decrease the likelihood that  
5 the Applicant would get poison reracking at the Catawba  
6 facility?

7 A I know I didn't think about poison reracking at  
8 Catawba.

9 Q Now in your testimony in Exhibit 16-A on page 4,  
10 almost right in the middle of the page the sentence begins,  
11 "Since the spent fuel storage...." et cetera. Do you see that  
12 sentence?

13 A Yes.

14 Q Is that a sentence that you were primarily respon-  
15 sible for, or should I be asking Mr. Spitalny about that?

16 A I think you should be asking Mr. Spitalny about it  
17 since it's based on numerical projections.

18 Q Okay.

19 Mr. Spitalny, in this sentence were you attempting  
20 to say-- Well, strike that.

21 Were you attempting to rely on the existence of the  
22 capability of the Applicant using the cascade plan as a  
23 justification for your statement that the approval of the  
24 transshipment now wouldn't seriously interfere with the use of  
25 the availability of spent fuel storage space at the McGuire

WEL/ab8

1 facility?

2 A (Witness Spitalay) Yes, this is referring to Duke  
3 as a system, and including the full capacity of the Duke  
4 system for the storage of the fuel.

5 Q All right.

6 A As I'm rereading this, I would add one additional  
7 comment. It's talking about the-- Excuse me just a minute.

8 (Pause.)

9 I'll leave it alone like it was.

10 Q Okay.

11 I was going to ask you to tell us what you were  
12 going to say.

13 A I will if you want.

14 Q The record is just full of stuff that you were  
15 going to say. I don't want to give you any more chances.

16 A I've got a lot more.

17 CHAIRMAN MILLER: We have enough.

18 (Laughter.)

19 MR. ROISMAN: I feel some moral obligation to wrap  
20 you guys up in 30 or 45 minutes. I don't think I can do that  
21 if I let you have that answer.

22 BY MR. ROISMAN:

23 Q Let me ask all of you with the exception of you,  
24 Mr. Wash, with all due respect, but the other three:

25 If you look back on page 3 of this testimony, 16-A,

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NEL'eb9

1 Staff Exhibit 16-A, the very first sentence of the first full  
2 paragraph says:

3 "The transfer of 300 assemblies as pro-  
4 posed in this licensing action would alleviate the  
5 immediate shortfall of storage capacity at Oconee."

6 All right, I'm going to ask you a question and I  
7 want you to really think about it, and I want each one of you  
8 to answer.

9 Isn't it true that for a substantial period of time,  
10 at least until February of 1979, your analysis of this pro-  
11 posed action was based on the assumption that the reason  
12 the transshipment proposal was desirable was because it was  
13 the answer to an immediate shortfall of spent fuel storage  
14 space at Oconee to which you saw no other feasible alterna-  
15 tive?

16 And for the moment I want it to be a Yes or No,  
17 but if you want to think about it you can. And we'll start  
18 with you, Mr. Roberts.

425 19 A (Witness Roberts) I'm just thinking about your  
20 choice of words there, not trying to, you know, get around  
21 them. I just want to make sure in my own mind.

22 I'd say yes.

23 Q Mr. Spitalny?

24 A (Witness Spitalny) I'm having the same trouble he  
25 was having. I'd like you to repeat the question.

WEL/sb181

Q All right.

2 MR. ROISMAN: Since we have an answer already, with  
3 deference to the Reporter, I'd like him to read the question  
4 back.

5 CHAIRMAN MILLER: All right.

6 (Whereupon, the Reporter read from the record  
7 as requested.)

8 WITNESS SPITALNY: Yes.

9 BY MR. ROISMAN:

10 Q Mr. Glenn?

11 A (Witness Glenn) Yes.

12 Q Anybody want to explain?

13 A (Witness Spitalny) Yes.

14 It's true that for a long period of time, which  
15 is why I asked it to be read back, the primary intent and  
16 thing I had in my mind was that this would alleviate the  
17 immediate problem that Ocone had.

18 As the proceeding came about and we knew some  
19 time in August I believe of '78 that we were going to get into  
20 a hearing -- we had the first prehearing conference in October  
21 of '78 -- at that time I started to evaluate exactly what  
22 position we were in. That's what prompted the reevaluation  
23 of reracking in October and prompted the letter back to Duke  
24 at that time.

25 So my only qualification at this point was your

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WEL/eb11

1 reference to February of '79. The thinking may have started a  
2 little bit earlier, to take into account what the repercussions  
3 of this action meant.

4 A (Witness Glenn) I would just like to state that  
5 was essentially the same problem I was having, was when did  
6 we finally determine that was actually feasible. We had  
7 started thinking about it much earlier than that.

8 Q You mean that there was a feasible alternative?

9 A When it was actually feasible. You know, we had  
10 started --

11 Q You keep using "it."

12 A The alternative reracking was feasible. I'm sorry.

13 Q Now on page 5 of Staff Exhibit 16-A, the last two  
14 sentences of the carryover paragraph from page 4--

15 Mr. Roberts, should this be you or Mr. Spitalny  
16 primarily? Are you primarily the one who wrote those two  
17 sentences?

18 A (Witness Roberts) Let me read the sentences to make  
19 sure I've got the correct ones.

20 "Thus, the proposed action is unique in  
21 the physical sense in that it would commit little,  
22 if any, material resources to a commitment that  
23 cannot be reversed. The Oconee spent fuel can al-  
24 ways be moved at a later time from the available  
25 McGuire space if such a decision requires it."



WEL/eb12

1 The last two sentences?

2 Q Yes.

3 A Okay. I would say that both of us-- Perhaps the  
4 second sentence I would say perhaps I think I would say was  
5 more mine.

6 Q Okay, that's the one I'm more interested in then.

7 Is it the assumption that underlies that sentence  
8 that moving the spent fuel out of the McGuire pool is itself  
9 an item of little or no environmental or health and safety  
10 consequences and therefore, because that could be done, you  
11 do not feel that not putting the Oconee fuel in the McGuire  
12 pool makes much of a commitment?

13 A I would tend to agree with the first part of what  
14 you've just said, namely, that the impacts were small.

15 I think my thinking at the time, going back to that  
16 time, in looking at that was more along the lines of -- let  
17 me see if I can phrase this.

18 If an eventuality arose which I didn't foresee,  
19 that somebody for some reason might have to move the fuel, then  
20 it could be moved.

21 Q You mean physical possibility rather than environ-  
22 mental or economically difficult?

23 A Yeah. I didn't quantify why anybody would want to  
24 move it, but I guess it's more along the lines of I did not  
25 see a reason that it could not be moved at such future time.

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WEL/ab13 1

Q All right.

2 I guess-- Well, let me just show you.

3 MR. ROISMAN: I'm going to show the witnesses a  
4 letter dated August 23, 1978, a copy of which was provided to  
5 all the witnesses, I believe by the Staff. It's from Duke  
6 Power. It's addressed to Clifford Smith and it attaches to  
7 is a response to a NRC letter of July 21, 1978. This is  
8 "Applicant answers to Staff propounded questions."

9 CHAIRMAN MILLER: Has that been given an identifi-  
10 cation number?

11 MR. ROISMAN: No, it hasn't. I'm only going to  
12 ask him about the questions actually. I don't happen to have  
13 a copy of the July 21 letter from the Staff here with me.  
14 It's just a couple of words in the questions that I want to  
15 ask him about.

16 BY MR. ROISMAN:

17 Q Mr. Roberts, you're the closest one, but any of  
18 you can answer my question on this.

19 Just for the record, read what's number 1, which  
20 purports to be in this a true copy of the Staff's questions  
21 to the Applicant in the July 21 letter from the Staff to the  
22 Applicant. Would you read it out loud?

23 A (Witness Roberts) "Number 1. The minimum  
24 center-to-center spacing between fuel assemblies  
25 and the storage racks should be specified.

671 146

WEL/ab14 1

2 Consideration should be given to the closest possible  
3 position between adjacent assemblies in the racks."

4 Q All right.

5 Now can one of you tell us who-- Is any one of  
6 you primarily responsible for having propounded that question  
7 to the Applicant?

8 A (Witness Spitalny) I can tell you where it came  
9 from.

10 Q Okay, Mr. Spitalny.

11 A That was furnished by a member of the Staff who  
12 was doing a criticality analysis and it was his purpose to find  
13 out exactly at what point-- There's a little bit of tolerance  
14 between where an assembly fits down into the rack, and he  
15 wanted to find out exactly how close two assemblies could get  
16 so that he was allowed to make some assumptions for his  
17 criticality analysis.

18 Q So when he uses "Consideration should be given to  
19 the closest possible position...." he wasn't meaning "closest  
20 possible" assuming some different configuration of storage,  
21 he was meaning closest possible with the configuration of  
22 storage that the Applicant was then proposing?

23 A That's correct.

24 Q Okay. All right.

25 Now the next one is number 4 on page 2 of the attach-  
ment to the previously identified letter. It's just this one

WEX/eb15 1 sentence. Would one of you just read it so it's in the record?

2 A "Confirm the cross-section is 15-1/2 by  
3 15-1/2 inches."

4 Q Okay.

5 Are you familiar with the origin of that question,  
6 Mr. Spitalny?

7 A Yes, it is the same origin for the same purpose.

8 Q Okay.

9 What is meant or what was intended when you say  
10 to the Applicant, "Confirm"?

11 A We at the time were evaluating the Safety Evalua-  
12 tion of this particular licensing action. In evaluating the  
13 action we used the Final Safety Analysis Report which was  
14 supplied under the 50 Jacket for the McGuire facility.

15 There had been some discussion I believe on making  
16 distinctions between the racks at McGuire and those at Oconee.  
17 I don't not remember the exact conversation that took place  
18 but we were led to believe that it was 15-1/2 inches at  
19 McGuire. I believe the FSAR does say that.

20 But because of some conversation or something that  
21 we had that put some doubt into it, we wanted to go be  
22 back and say "Confirm that is indeed the spacing."

nd Landon  
1 1 fls.

23

24

25

1 Q So the way in which you used "confirm" there  
2 was intended to mean reassert that this is the number you're  
3 claiming rather than prove to us that this is the actual  
4 inches, is that correct?

5 A That's correct, yes.

6 MR. ROISMAN: Mr. Chairman, I have completed my  
7 cross-examination of this panel. But I have a procedural  
8 question to ask, and I'm going to ask the question in a way  
9 that I hope I prejudge the answer.

10 As I understand the rules of the Commission, a  
11 party is permitted to move to strike testimony either prior  
12 to its introduction, following cross-examination or at the  
13 time of the filing of proposed findings of fact and conclusions  
14 of law.

15 There is a substantial amount of the testimony  
16 contained in the Staff exhibits which have been the subject  
17 of this cross-examination, particularly in the series 10,  
18 which I would move to strike on the grounds that it is  
19 conclusory and outside the area of expertise of the witness  
20 and shouldn't be included.

21 To identify it all now and then have each argued  
22 about and individually ruled upon, in my judgment, would  
23 take a substantial period of time. It is not uniquely  
24 dependent upon something that has been said in cross-examination,  
25 it's in the nature of the way it was proposed in the first

POOR ORIGINAL

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wzb/agb2  
1 place.

2 Your failure to allow it to be stricken would not  
3 produce in me an immediate desire to continue cross-examination  
4 on it. I would like to simply reserve, and file with my  
5 proposed findings of fact, an identification of those portions  
6 of those exhibits that I think shouldn't be in evidence in  
7 this proceeding. If that's acceptable, there is nothing more  
8 that I will do at this time.

9 CHAIRMAN MILLER: I think as far as the Board  
10 is concerned that we would give counsel the right and the  
11 opportunity to move to strike testimony either (a), when  
12 it is filed or perhaps more appropriately at the conclusion  
13 of cross-examination.

14 I'm very dubious, however, about allowing it as  
15 late as the filing of proposed findings of fact and con-  
16 clusions of law because by that time the evidentiary record  
17 has been closed.

18 It may well be that some of the stricken testimony  
19 could be reframed, redrafted and subject to the calling of  
20 another witness which would then be precluded by such a  
21 condition subsequent.

22 So I think in fairness -- I don't think it is  
23 covered specifically or at least in a binding fashion by  
24 the regulations. But having in mind the procedural due process  
25 and essential fairness which is what we're all trying to

wrb/agc3  
1 achieve, we would permit you to make your motion as late as  
2 the conclusion of cross-examination but not later than that,  
3 because we think that all parties are entitled to know the  
4 state of the record before the panel is dismissed or before  
5 Staff or anyone else closes his or her case.

6 MR. ROISMAN: In that case, Mr. Chairman, let's  
7 begin.

8 CHAIRMAN MILLER: We don't have to begin right  
9 now because there's other cross-examination. You just finished  
10 yours.

11 MR. ROISMAN: Okay. Well, while it is now  
12 fresh in my mind I will go, I think, more swiftly if I do it  
13 now but I will wait if you like.

14 CHAIRMAN MILLER: Well in the first place,  
15 Dr. Luebke has a question.

16 MR. ROISMAN: Okay.

17 DR. LUEBKE: This is a clarification of the  
18 answer that you got to your first question, a clarification  
19 of the answer from Mr. Spitalny on your first question about  
20 the first date Oconee would have to ship fuel considering  
21 reracking and without loss of full core reserve. And I  
22 think the answer came back May, 1982.

23 Am I correct then at that time you would want  
24 to be in a position of unloading 177 assemblies and you would  
25 have to make room for 177 and must I subtract approximately

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wrb/ gbd  
1 180 days or six months from May, 1982 going backwards to get  
2 the answer?

3 WITNESS SPITALNY: No. May of 1982 will result  
4 with 175 available spaces.

5 DR. LUEBKE: Oh, they would then be available?

6 WITNESS SPITALNY: They would then be basically  
7 at the limit of full core reserve, any future discharge would  
8 eliminate the full core reserve.

9 DR. LUEBKE: But when will you have started  
10 shipping? That was the question.

11 WITNESS SPITALNY: The shipping I think you're  
12 referring to is for the installation of racks, now when would  
13 that have to start?

14 DR. LUEBKE: No, with the assumption of the  
15 reroacking having been done, as I understood the question,  
16 and providing for full core reserve, when would you start  
17 shipping fuel from Oconee to McGuire?

18 MR. ROISMAN: Would you mind if I jumped in?  
19 I think I know what Mr. Spitalny's problem is, I think it is  
20 remember that this was the hypothetical in which we assumed  
21 that the Applicant was going to use transshipment to deal  
22 with its problem after the current reroacking had used up all  
23 of the space. And the question that I was putting that  
24 Dr. Luebke, I think, wants clarified is when do you have  
25 to begin to transship at the latest date, what's the latest

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wrb/lybb  
1 date you have to begin transshipping assuming you're going  
2 to transship one a day in order to keep your full core reserve.

3 Is that right, Dr. Luebke?

4 DR. LUEBKE: Right. I want to know is it May,  
5 1962, or is it six months before May, 1962? Two options.

6 WITNESS SPITALNY: At the May discharge of 1962  
7 we are at just about 175 versus 177 basically at the full  
8 core reserve.

9 DR. LUEBKE: You have the spaces, but to make  
10 those spaces you will have started shipping --

11 WITNESS SPITALNY: No, you haven't shipped  
12 anything yet.

13 DR. LUEBKE: That's what I want to clarify.

14 WITNESS SPITALNY: What I want to say is, the  
15 next discharge comes up in September of 1962.

16 DR. LUEBKE: So you took the six months from  
17 September to get May?

18 WITNESS SPITALNY: No, you're not following me.

19 In May of 1962, we will have used up all the space  
20 up to a full core reserve. We now are at the Cocnee site  
21 with the full core reserve. We have another discharge from  
22 Cocnee Unit Number 1 in September of 1962, it's a discharge  
23 of 72 assemblies. We will have to accommodate that discharge.

24 To do that, we have to ship 74 assemblies off-  
25 site prior to that discharge, which means prior to September

wrb/ags6  
1 of 1982 we now want to back up 74 working days which brings  
2 you almost back to May, June, that time frame to start  
3 shipping.

4 DR. LUEBKE: So the answer is May.

5 WITNESS SPITALNY: AT that time, shipment would  
6 have to become a regular basis just to keep up with the  
7 discharges.

8 DR. LUEBKE: And is it really hypothetical that  
9 reracking having by a approved that the Applicant might  
10 install it? It isn't so hypothetical, is it?

11 WITNESS SPITALNY: No, that isn't. I don't  
12 believe that's directly related to the hypothetical situation  
13 Mr. Roisman proposed.

14 MR. ROISMAN: What I meant hypothetical, maybe  
15 wishfully so, is that transshipment would be approved.

16 DR. LUEBKE: That's all. Thank you.

17 CHAIRMAN MILLER: Any more examination or  
18 cross-examination of the panel?

19 Mr. McGarry?

20 MR. MC GARRY: I believe Mr. Riley has some.

21 CHAIRMAN MILLER: Mr. Riley?

22 BY MR. RILEY:

23 Q Mr. Spitalny, please refer to your Exhibit 22.  
24 I'd like to be sure that we all understand it. And on page  
25 three, two-thirds of the way down there are headings for

wrb/agh7  
1 Oconee, McGuire, Catawba, Cherokee. An arithmetic operation---  
2 On the first line, after some arithmetic, you show the  
3 number 113.8. Have you found that?

4 A (Witness Spitalny) Yes.

5 Q What are the units for this particular number  
6 which would identify the table and its significance?

7 A Yes.

8 Basically, I would preface this by referring  
9 back to the time when this was introduced as an exhibit,  
10 at which time I made the reference to the in-service inspection  
11 and said that the in-service inspection would change my  
12 numbers slightly for allowing for time that the units will  
13 shut down for each inspection. I at that time pointed out  
14 that I believed that I had an error on here and I wanted to  
15 make some changes, that's what resulted in the scribble that's  
16 in the middle of the page.

17 The thing that's at the bottom, I have not gone  
18 back to confirm whether or not that was correct or not, and  
19 that's why I kind of left it out in my discussion yesterday.  
20 I said it would be there.

21 But to continue what it is, the units on the  
22 113.8, for example, is assemblies.

23 Q Assemblies per what?

24 A It's assemblies.

25 Q I still don't understand, so if you would simply

wrb/cjs  
1 elucidate the context of assemblies. Assemblies that will  
2 develop in a year?

3 A What I was trying to do here was to determine  
4 how many assemblies would not be produced for the period of  
5 time that the unit is shut down for in-service inspection.  
6 The number 9/12ths, for example, relates to nine months which  
7 comes from three units, three months apiece being shut down,  
8 so it's basically 9/12ths of a year, 3/4ths of a year.

9 The 177 is the number of assemblies which would  
10 be discharged a year, assuming a design capacity factor of  
11 80 percent.

12 The number 12/14 changes that design capacity  
13 factor from 80 percent to 68 percent. What that does is  
14 show me the number of assemblies that would not be discharged  
15 during that nine-month period of time.

16 Q Now if this were used as a correction factor,  
17 it would then change the number of assemblies produced by  
18 the Oconee Plant at a given future year.

19 A Yes.

20 Q Are you able to tell me what the -- well, let me  
21 ask first, on Sheet 1 of Staff 22, did you assume that 177  
22 assemblies would be produced per year?

23 A No, I explained this also yesterday, the 177,  
24 the total at the bottom of the page where you see 5500 --

25 Q Yes.

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wrb/1389

A -- that assumes a discharge as a result of an 30 percent capacity factor. The number 4800 is the number which relates to the 68 percent capacity factor. I thought I had explained that the table allows for both assumptions to be made.

Q Now this then suggests that you would revise the EIA which, I believe, referred to discharging 177 assemblies a year?

A It's possible that it said that. The number 177 would end up being a conservative number when you are talking about allocating space in that the actual number would be somewhat less than that.

In most cases in the EIA, we have tried to be conservative wherever we could. We have either used regulations, numbers coming from regulations, rather than what the real number might be.

And the same thing here. We've used the 177 which is a full core if Oconee was up to design capacity factor.

Q Do you recall in your prefiled testimony you used a different formula for calculating the number, and at that point you came out with 152 assemblies per year.

A I would like to see where you're drawing that from. I don't recall the numbers.

Q Given a moment, I will try to lay my hands on it.

671 157

wrb/agb10  
1 CHAIRMAN MILLER: While you're looking it up,  
2 I think we had a request for a limited appearance.

3 I think that I negotiated seven minutes, did I not?  
4 You wanted ten, I offered five and we settled for seven.  
5 Immediately after our recess, you may have your seven minutes,  
6 sir. We'll be having a recess soon.

7 Mr. Riley, would this be a good time to recess  
8 and maybe you can get some of your papers in order and then  
9 we'll have the limited appearance statement and you may then  
10 resume your cross.

11 We'll take a ten-minute recess at this time.

12 (Recess.)  
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3b WRB/cbl

CHAIRMAN MILLER: On the record.

Will the gentleman who wanted to make the limited appearance statement come forward, please?

I would like to have the record show that Mr. Goodhope and Mr. Grossman, whom we've identified to you as panel members, are going to make an inspection of the site for their own purposes and edification tomorrow morning at 9:00. This will not affect in any way the hearing, but I would rather put everything on the record so that you know that the Applicant, not Mr. McGarry but someone from the company, will I believe arrange for transportation and for a tour of the facilities for Mr. Grossman and Mr. Goodhope.

Is that correct, Mr. McGarry?

MR. MC GARRY: That's correct.

CHAIRMAN MILLER: Does anyone have any objection?

MR. ROISMAN: Could I just ask, are they going to look at Oconee, McGuire, the route, or everything?

CHAIRMAN MILLER: I think they are just going to look at the plant to see-- One of them has never seen a plant, either in operation or close to it. It's simply for educational purposes. It has no relation to this proceeding.

MR. ROISMAN: But it's McGuire, not Oconee?

CHAIRMAN MILLER: Did I say Oconee?

MR. ROISMAN: No, you didn't say which. You just said "the plant" and I didn't know which one you meant.

671 159

WRB/eb: 1

CHAIRMAN MILLER: McGuire, the close one.

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MR. ROISMAN: I was going to give them some gratuitous cautions if they were going down to the one of them that was running. McGuire is relatively benign.

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CHAIRMAN MILLER: We appreciate your consideration for the health, welfare, and environmental and I trust welfare of the members of the Board.

8

9

May we have your name and address for the record, sir?

10

11

LIMITED APPEARANCE STATEMENT OF MIKE FENNELL,  
8517 MONROE ROAD, CHARLOTTE, NORTH CAROLINA

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14

MR. FENNELL: My name is Mike Fennell. My address is 8517 Monroe Road, Charlotte. And I'm a member of the Safe Energy Alliance of Charlotte.

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I should say that the Board's ruling earlier casts a somewhat different light on what I was about to say, as you probably know. I do feel, though, that the relevancy of what I have to say it still here in that I feel like it should be said as a part of the record in order to supply the record of this hearing with as much possible pertinent evidence as it can have, especially from the lay public whom I, in a small part, represent.

23

24

25

First I should say that the basic opposition that many of us have to the nuclear power program is the knowledge that expansion of that program will inevitably lead to



WRB/ab3

1 infringements on our civil liberties under the pretense of  
2 security.

3 I think that this has come out and I believe that  
4 the Staff has all but said that that's exactly what they would  
5 like to do, in saying that their proposition to keep the  
6 waste transport route, at least a small part of it around  
7 Chaxlotte, secret. It goes against our most basic constitu-  
8 tional rights and that's the right we all have to protect our  
9 lives and protect our property.

10 Obviously if we do not or cannot identify the  
11 danger with which we are faced, we can't effectively oppose  
12 it.

13 This also bears on the fact that Duke Power will be  
14 required to notify safety officials, fire departments, police  
15 departments, et cetera, in the different towns that they will  
16 be passing through on the waste transport route. This we do  
17 not feel is effective in protecting the public because of  
18 course there will be no guarantees that the officials will be  
19 notified that the route will even be going through there at  
20 any particular time.

21 It also does not guarantee that those officials  
22 will take effective action to protect people.

23 Now we feel that the reason behind the secrecy move  
24 or the lack of public record on the part of the move or the  
25 transport route is simply a proposition on the part of Duke

HRB/eb41

Power to skirt any public opposition that may come up.

2 I would just like to say from my own personal per-  
3 spective that that's simply impossible. As a matter of fact  
4 as everyone knows, the opposition here in Charlotte has been  
5 strong and it has been maintained over a long period of time  
6 and in having the transport route moved away from Charlotte  
7 it has been quite effective.

8 There's no reason to believe that that same effec-  
9 tiveness could not be carried over to smaller towns through  
10 which an alternative route might pass.

11 I would also like to point out in dealing with  
12 what Jesse Riley just said about the ease with which one would  
13 be able to find out what the route was, I think the gentleman  
14 from the Staff mentioned that a person with a significant  
15 amount of effort could find out where the trucks were passing  
16 through. I don't feel that it would take a significant amount  
17 of effort under any circumstances. I think it's only a matter  
18 of knowing when the truck will be coming up I-85, which we  
19 will probably know, and following it.

20 And I know that almost immediately we will know  
21 where the truck is made and I would like to notify the people  
22 on the Staff as well as this hearing that we will make that  
23 public as soon as we do know, simply because we feel a very  
24 strong urgency to warn the public against these kind of things.

25 And when the routes are made public we will of

WRM/eb5

1 course maintain the open opposition that we've had to this  
2 program all along, only of course we will be doing this in the  
3 localities through which the transport route will go.

4 I believe that the time factor, that is, the time  
5 factor between whether we know the route now or whether we are  
6 forced to make -- forced to find out for ourselves is the only  
7 real difference in whether it's secret or made public, and the  
8 time factor in this, my assumption, is about one week if we  
9 have transport every single day.

10 I feel like as a matter of general interest it's  
11 becoming ever more obvious to the people in Charlotte and the  
12 people in North Carolina that the lunacy of the nuclear prog-  
13 ram is there, and it's obvious, and I think that any small,  
14 rather juvenile effort on the part of Duke Power to hide that  
15 simply cannot work.

16 It's just too big of a mess for anyone to hide with  
17 one simple proposition such as keeping a small thing like 20  
18 miles of the transport route secret when at least 90 percent of  
19 it is not secret anyway.

20 Thank you.

21 CHAIRMAN MILLER: Thank you.

22 Mr. Riley, I believe you were cross-examining.

23 Will you resume, sir?

24 MR. RILEY: Thank you, Mr. Chairman.

25 BY MR. RILEY:

WRB/ab6

1 Q Mr. Spitalny and Mr. Roberts, will you please refer  
2 to Exhibit 16-A of the Staff?

3 On page 2, the last full paragraph at the bottom of  
4 the page discusses the fuel cycle changes in going to 18 months,  
5 1 and 2, while holding 3 on an annual cycle.

6 I believe Units 1 and 2 will be discharging fuel  
7 assemblies at a rate of 72 every 18 months. That works out  
8 to 48 times 2 every year, 96.

9 And Unit 3 will be discharging at a rate of 96  
10 every 12 months. That adds up to 152. Is that correct?

11 A (Witness Roberts) I'm sorry, would you repeat that?

12 Q Yes.

13 I say the total that you have here adds up to 152  
14 spent fuel assemblies a year, in your testimony on page 2.

15 A Yes, it does.

16 Q All right.

17 This then is a considerable change. It's a change  
18 of about 16 percent from the 177. Is that correct?

19 A (Witness Spitalny) I believe they are in different  
20 contexts, but the two numbers are different, that's correct.

21 Q Well, we do store fuel assemblies in the real world.

22 A You're absolutely right.

23 Q And which is the real world of these two, 177  
24 required annually or 152?

25 A I think I mentioned numerous times now that the 177

WRB, ab7 1 is the design for discharge. The experience of Oconee is on  
2 the order of 65 percent capacity factor. The real world is  
3 exactly what Oconee is discharging.

4 If you look this tends to confirm-- These two calcu-  
5 lations were done at different times and they back up each  
6 other perfectly, and I will expound on that if you would like  
7 me to.

8 Q I would like to ask you whether the 152 then con-  
9 tains the same correction factor as you were working on on  
10 page 3 of Exhibit 22, the 113.8 that you mentioned addressed  
11 capacity factor. This seems more to me to address schedule.

12 A Well, that's true, but schedule is derived from  
13 your discharge and your discharge is derived from the capacity  
14 factor the unit is operating at. One is directly proportional  
15 to the other. I do not see any inconsistencies.

16 Q Would it be correct then to say that your  
17 testimony on page 2 of 16-A reflects actual Duke capacity  
18 factors as opposed to the 80 percent capacity factor assumed  
19 at the time of initial application?

20 A I would have to look at the application again to  
21 see where the 177 was used and how it was used.

22 Q Didn't you just say that 80 percent was the assumed  
23 capacity factor for 177?

24 A What's right. Yes, 80 percent is the design  
25 capacity factor. That's correct.

1 Q Continuing with your Exhibit 22 on the second page  
2 you have a list of full core requirements, or full core  
3 requirements -- let me put that differently:

4 Is the plant so designed that one-third of its  
5 full core would be discharged each year if the plant operated  
6 at the design capacity factor?

7 A Yes.

8 Q So that by multiplying the 177 for Oconee here  
9 by three-thirds for three units and by 30 for the number of  
10 years involved, we would get the maximum number of probable  
11 spent fuel assemblies?

12 A No. The 177 comes from the three units over an  
13 annual period of time, each unit discharging a third of a  
14 core a year.

15 Q That's why I said three-thirds, Mr. Spitalny.

16 A I thought you had said three times 177 times 30.

17 Q No.

18 As a result of this calculation -- well, one  
19 other question:

20 Is 30 years the license operating period for  
21 Oconee?

22 A The license is a 40-year period of time from the  
23 issuance of the construction permit.

24 Q What is your own interpretation of the 40-year  
25 period of time, do you believe that's realistic?

wrb/agb2 1 A I'm not going to supercede anything the Commission  
2 has come out with.

3 Q I appreciate that. But in earlier portions of  
4 the hearing, we frequently heard different periods of time  
5 discussed with respect to the operating period of the plant,  
6 hence of the requirements for spent fuel assembly storage.  
7 And 30 years has been mentioned. And I would appreciate your  
8 informing us of your best knowledge about what a reliable  
9 figure would be, what you consider the most probable figure.

10 A We got into this a little bit at the close of the  
11 last session we had, where there was some misunderstanding as  
12 to whether or not we were using 40 years or 30 years.

13 I had done a calculation while I was on the stand  
14 at that time and I had done it for 40 years. I then came back  
15 and corrected that calculation and dropped it down to 32  
16 years because of the assumption of, at that time I chose  
17 eight years for construction. So my assumptions then were  
18 saying that we would have 32 years of operating time.

19 Q That's very helpful. Thank you.

20 Going further down the same page, you indicate  
21 full capacities with poison racks. And for Oconee 1 and 2,  
22 the two numbers you indicate add up to 2,083, is that correct?

23 A That's correct.

24 Q And for McGuire, the two numbers used add up to  
25 2,100.

wrb/agb3

1 A That's right.

2 Q For Catawba, the two numbers add up to 4,700.

3 A That's correct.

4 Q For Cherokee, 3,450.

5 A Assuming Cherokee 3 comes on-line.

6 Q That's right.

7 And for Parkins, 3,450.

8 A That's correct.

9 Q If we multiply out now 177 by 30, we get approxi-  
10 mately the same number if we multiply by 32, we come out with  
11 about 5,310 spent fuel assemblies.

12 A I'll take your word for it.

13 Q And if we multiply out for McGuire a corresponding  
14 number of spent fuel assemblies for a 30-year operating period  
15 subject to, say, several years error, we come up with about  
16 3860, is that correct?

17 A I haven't performed the calculation. Again,  
18 I'm taking your word for it.

19 Q All right.

20 If we add together those two numbers, we get  
21 about 9,170, approximately 9,000 spent fuel assemblies to  
22 deal with over the lifetime of the plant being conservative  
23 assuming an 80 percent capacity factor. Does that sound  
24 about right?

25 A Yes. You're using the word "conservative" here



wrb/agb4  
1 a little differently, but yes.

2 Q Well when I say conservative, I mean getting your  
3 full 80 percent, and actual assembly requirements would  
4 presumably be less unless you hit the 80 percent level.

5 A That's correct.

6 Q Now if you poison reracked Oconee, you would get  
7 2,083 spots, according to the midpage calculation. And if you  
8 put in poison racks at McGuire, 2,100 and Catawba 4,700. And  
9 when you add those numbers together, interestingly enough,  
10 you come out with 9,000 again.

11 And I call your attention to the good fit between  
12 full life operation for Oconee and full life operation for  
13 McGuire and the planned fuel pool capacity with poison racks  
14 of the Oconee-McGuire-Catawba units.

15 Had you made an observation of this relationship  
16 before this time?

17 A No, I have not.

18 Wflws  
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3C WRV/wbl

1 Q All right.

2 We note, then, there is a match in these two  
3 numbers. Are you familiar with the forecast electrical demand  
4 for Duke's power system over the years through the period of  
5 the Oconee, McGuire, Catawba license?

6 A No.

7 Q You are not aware of any discrepancies between  
8 actual peaks and peaks forecast in the earlier period for  
9 which the applications are made?

10 A It's my understanding that Duke is not seeing  
11 what was anticipated as far as power demand. But that is  
12 out of my expertise.

13 CHAIRMAN MILLER: Mr. Riley, let me inquire.  
14 This is not really the time or place to go into anticipated  
15 power demand, is it?

16 MR. RILEY: Yes, it is, Mr. Chairman. Let me  
17 explain why.

18 CHAIRMAN MILLER: Please explain.

C9 19 MR. RILEY: If Duke's peaks stabilize at a level  
20 very near their present demand it will never be necessary  
21 to operate Catawba as a nuclear generating station. What  
22 I'm saying is, the factual evidence we have here is that their  
23 spent fuel capability with poison racks will see them through  
24 the full life of operation of their Oconee and McGuire plants,  
25 period.

WRB/wb2

1 CHAIRMAN MILLER: Well I can see that you're  
2 interested. But, on the other hand, frankly we have so many  
3 more problems that we don't really want to get into need  
4 for power, which is really what we're headed for, Mr. Riley.

5 MR. RILEY: What I'm trying to get at is the  
6 number of assemblies that will be required, and the number of  
7 assemblies required are going to be very intimately related  
8 to the need for power.

9 CHAIRMAN MILLER: We regard it as peripheral.  
10 This is a collateral matter. And we're not going to go into  
11 it. We will allow you maybe two more questions if you want  
12 to make your record, but I don't think that we deem it  
13 either relevant or significant to our decision-making in this  
14 hearing, sir.

15 I want to be courteous to you, I want to give  
16 you an opportunity for two questions to make your record on  
17 it, and then we will rule you should go on to another  
18 subject.

19 MR. RILEY: Thank you.

20 CHAIRMAN MILLER: You're welcome.

21 BY MR. RILEY:

22 Q In the real world of the future, Mr. Spitalny,  
23 the provisions that must be made for spent fuel assemblies  
24 will correspond to the actual amount of power produced in  
25 the applicant's nuclear units; is that correct?

WRB/wb3

1 Yes or no will do.

2 A (Witness Spitalny) Would you repeat it?

3 Q Yes. I said: In the real world of the future  
4 the provision for spent fuel assemblies that the applicant  
5 must make will be related to the amount of power it produces  
6 by nuclear generating means?

7 A Yes.

8 Q And is it true, Mr. Spitalny, that in your  
9 review, and in any other NRC Staff review of the require-  
10 ments in the future for spent fuel assemblies storage capacity  
11 no consideration was taken of the discrepancy between Duke's  
12 forecast and its actual experience since approximately the  
13 year 1970?

14 MR. KETCHEN: Objection.

15 CHAIRMAN MILLER: He may answer. Or they may  
16 answer, if it's addressed to the panel. And if they know.

17 WITNESS SPITALNY: There was no analysis done in  
18 this review. That I believe comes under the Part 50 license.

19 BY MR. RILEY:

20 Q Dr. Nehemias testified the other day using a  
21 figure of a little over \$51 million for an independent  
22 facility for storage of 1500 assemblies, stating that he  
23 was using a number you provided him; is that correct?

24 A (Witness Spitalny) That's right.

25 Q And that works out to a little over \$3400 per

WRE/v/b4

1 assembly; is that correct?

2 A Thirty-four five hundred, I believe.

3 Q Right.

4 Now the question has come up earlier in testifying  
5 as to the incremental cost the poison racking would impose  
6 on the applicant; is that correct?

7 A Yes.

8 Q Do you recall your own testimony in Exhibit 19B  
9 with respect to anticipated costs per assembly in 1979 dollars?

10 A Would you just tell me where you're making  
11 reference to?

12 Q 19B, the third line from the bottom of page 3.

13 A I have where you're talking about. Would you  
14 please restate your question?

15 Q Yes.

16 What was the anticipated expenditure for poison  
17 racks per assembly made in this portion of your testimony?

18 A For the acquisition of the racks it was 2500 to  
19 3500 dollars per assembly.

20 Q All right.

21 How much were the installation costs?

22 A Approximately \$3000 per assembly.

23 Q Can you provide us your basis?

24 A Yes, I can.

25 I'm taking that number off of Staff Exhibit 13.

WRB/vb5

1 That particular number relates to some experience  
2 that has been seen for the installation of these racks. As  
3 pointed out in Footnote 8 to that particular document, it  
4 does not reflect conditions within the Duke system nor the  
5 labor or overhead, or the charges that Duke sees in this area.  
6 It does relate to experience rather than to Duke.

7 Q Is that to northeast experience, west coast  
8 experience, midwest experience?

9 A The NRC is nationwide.

10 Q I know it is. I'm talking about where your  
11 experience came from.

12 A I work in the Washington headquarters. We have  
13 everything. Everything is handled through us.

14 Q I don't know whether you're intentionally mis-  
15 understanding me, Mr. Spitalny, or not. But what I'm asking  
16 about is the site locations from which these dollar values  
17 came. Were they northeast locations, midwest, west coast?  
18 And, if they weren't what were they?

19 A It was a random selection basically of the  
20 utilities that had installed poison racks. I would say that  
21 the majority of operating reactors tend to lean toward the  
22 east rather than the west side of the country. But it was  
23 a random selection. We were going through files, pulling out  
24 documents as we came to them, trying to break out the numbers.  
25 We got through about twenty, and that's where we quit.

wrb/ugbl  
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1 Q Are you aware of the relationship between Duke's  
2 construction costs for a given level nuclear project and the  
3 construction costs for the rest of the country?

..000

4 A It's out of my expertise to know exactly what  
5 the charges are that Duke has incurred. I have been -- or  
6 I understand that Duke has been running significantly lower  
7 than many of the other utilities.

8 Q That's what I have in mind.

9 So you think the \$3000 has a good chance of  
10 being a high number?

11 A I don't know that. Duke has come in with a higher  
12 number than that \$3000. Their high number that they have  
13 chosen as an estimate may be high. They have the basis  
14 for their number. I can't make any statement here to give  
15 you an idea of what it might be, I'm just putting down a  
16 number based on experience.

17 Q On your \$51 million value for a 1500-assembly  
18 plant, what type of racks are contemplated?

19 A This number that was supplied to Dr. Nehemias  
20 from me was supplied to me by Duke. That number relates to  
21 \$34,500 per assembly. It's a number furnished by Duke which  
22 corresponds to \$51,750,000 for the construction of that  
23 facility.

24 Q What kind of racks?

25 A I believe -- I'm not sure, but I don't believe it

wrb/agh2  
1 makes much of a difference. We're talking total number. The  
2 total number is 1500. The price of racks, whether they are  
3 stainless steel or poison, are very close to the same cost.  
4 So if you are supplying a specific capacity of 1500 assemblies,  
5 the cost, the dollar cost will not vary very much.

6 Q That wasn't my question. My question, Mr. Spitalny,  
7 was what kind of racks?

8 A I don't know.

9 Q Can you find out?

10 A Mr. McGarry?

11 MR. KETCHEN: Mr. Chairman, I'm going to object.  
12 The witness said he didn't know. During this proceeding  
13 questions are asked and if the witness doesn't know, he's  
14 asked to generate more information. It's sort of like a  
15 continuing discovery type of thing. I don't know whether it's  
16 important or not, but I don't think we're required to create  
17 information on the spot if the witness doesn't know. He  
18 gave his basis for the evaluation --

19 CHAIRMAN MILLER: Objection sustained.

20 MR. RILEY: Mr. Chairman, this is ground-level  
21 information.

22 CHAIRMAN MILLER: The objection has been sustained.  
23 Mr. Riley.

24 MR. RILEY: Well please advise me on the ground  
25 rules, Mr. Chairman. If you're a little bit slow in speaking



wrb, lgh3 1 before the Chairman, do you lose out on arguing the objection?

2 CHAIRMAN MILLER: No. It's just that you have  
3 to be right. If you're not right then we sustain the objection  
4 and ask you to ask another question.

5 MR. RILEY: Mr. Chairman, is it permissible to  
6 find out from the applicant what type of rack was--

7 CHAIRMAN MILLER: This isn't the time or place.  
8 You're cross-examining a given panel who have testified to  
9 certain things.

10 MR. RILEY: Yes, he has given a dollar value.

11 CHAIRMAN MILLER: Mr. Riley, we're permitting you  
12 to ask questions fairly broadly and liberally, but we're  
13 not going to conduct an open-ended deposition of non-witnesses.

14 Now please comply with the Rules of Practice.

15 MR. RILEY: I would like to. But I would also  
16 like to generate the best record I could in this area.

17 CHAIRMAN MILLER: Please don't argue. It's my  
18 responsibility as Chairman to conduct hearings in accordance  
19 with the rules of evidence. We're trying to do so, and we're  
20 trying to be courteous to all parties.

21 We don't wish to engage in debate with you or  
22 anyone else. We just ask you to go ahead with your inter-  
23 rogation. We'll rule upon the questions.

24 MR. MC GARRY: Mr. Chairman, I might--

25 CHAIRMAN MILLER: Do you have the information?

WRB/abl

1 MR. MC GARRY: No. I'm not going to provide the  
2 information. I have a comment.

3 CHAIRMAN MILLER: Well, what's the nature of your  
4 comment? What's the relevancy of your comment?

5 MR. MC GARRY: This has to do with the cross-  
6 examination by Mr. Riley. I believe we all remember in the  
7 last hearing in June that Mr. Blum had indicated that he was  
8 going to withdraw from the case. And to accommodate CEBG  
9 the Board permitted Mr. Blum to conduct cross-examination of  
10 this panel.

11 CHAIRMAN MILLER: Yes.

12 MR. MC GARRY: And I just want to bring that to  
13 the Board's attention. The Board did indicate on 2877 of  
14 the transcript that they will not preclude Mr. Riley from  
15 further cross-examination, "but we won't want to have  
16 repetition," and you didn't expect that it would be lengthy.

17 I submit on page 2857 Mr. Blum got into exactly  
18 the point we're talking about now, about the cost of -- the  
19 per assembly cost of an independent spent fuel facility,  
20 and that took several pages of the transcript.

21 So my comment, my observation, may be in the way  
22 of an objection that we have plowed this ground once and it  
23 appears to be repetitious.

24 CHAIRMAN MILLER: Well, as the Board does recall,  
25 we let Mr. Blum proceed out of order for, I think, a little

WRE:wb2 1 over an hour's cross-examination because of the fact that he  
2 had participated and the fact that we wanted both him and  
3 his client, Mr. Riley, to be represented.

4 We do feel that certainly the bulk of it was gone  
5 into then, and we're not going to preclude Mr. Riley as such.  
6 But we don't want to either proceed unduly into matters that  
7 have been covered or those which are unnecessary or those  
8 which are beyond the scope of the witnesses.

9 So we'll proceed more quickly, Mr. Riley, if  
10 you'll operate within the parameters, the way we have to  
11 operate.

12 MR. RILEY: I will be able to proceed.

13 CHAIRMAN MILLER: All right.

14 BY MR. RILEY:

15 Q A hypothetical. That is, let's assume the  
16 \$51 million cost was premised on stainless steel high density  
0.190 17 racking, and that we got a \$34,000 apiece per assembly cost  
18 that way. High density racking is shown to give you about  
19 half the capacity of poison racking, and that's already in  
20 the record. That means that if you take out a stainless  
21 high density rack and replace it with two positions of poison;  
22 that where you had 1500 positions before, you now will have  
23 3000 positions. And if you divide the original cost per  
24 assembly, \$34,000, add to it 6,000 and get 40,000, it does  
25 show that with the poison racking you could get a per

WRB/wb3

1 assembly spot of \$30,000, which is a great savings with  
2 respect to the initial \$34,000; is that correct?

3 A (Witness Spitalny) I'm sorry; I'm having a little  
4 trouble recalling the exact figures, the prices of the racks.

5 Q May I help you?

6 Your testimony was \$2500 to \$3000 for the hardware,  
7 for poison. The installation was 3000 per position. That  
8 adds up to approximately 6000.

9 CHAIRMAN MILLER: Let's take it a step at a time.  
10 Do you agree so far?

11 Take it a step at a time, Mr. Riley, and I think  
12 we'll be able to get a little more precise answer.

13 Are we in agreement so far?

14 WITNESS SPITALNY: I was just trying to think.

15 (Pause)

16 I don't believe we're in agreement.

17 CHAIRMAN MILLER: Where do we disagree?

18 WITNESS SPITALNY: The difference where it comes  
19 up is whether or not you are assessing a given pool if you have  
20 a specific area in that pool, and in that area you can either  
21 put stainless steel racks or in that same area you could put  
22 poison racks. In a given area you can increase the capacity  
23 of that pool by a factor of about 65 percent by going to poison  
24 racks from stainless steel.

25 The way we are talking about the dollar cost

WRB/b4

1 presently, we are talking per fuel assembly not per square  
2 foot. The difference would be \$1500 worth of-- excuse me;  
3 1500 assemblies worth of stainless steel racks will cost  
4 about the same for 1500 assemblies of poison racks. The  
5 difference is that the building to house 1500 assemblies in  
6 a poison rack building could be smaller than that for stainless  
7 steel.

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BY MR. RILEY:

Q What we were considering, Mr. Spitalny, was reracking a plant that already had stainless steel in it and the thrust of my question to YOU was would we not get ourselves a great bargain, cost per position, auxiliary services and everything else included by spending the \$6000 per assembly to go from the situation where the initial cost was \$34,000 per spot to a cost position where it was \$20,000 per spot?

A (Witness Spitalny) That was not my understanding.

MR. KETCHEN: Objection.

CHAIRMAN MILLER: Sustained.

BY MR. RILEY:

Q Mr. Spitalny, do you have available to you Applicant's Exhibit Number 1?

A (Witness Spitalny) I don't have it in front of me, no.

MR. RILEY: Could Mr. Ketchen provide it to the witness?

MR. KETCHEN: Yes, but it'll take me a couple of minutes to dig it out.

MR. RILEY: Well if I may, I would like to approach the witness with this material, Mr. Chairman.

CHAIRMAN MILLER: Yes, you may.

MR. KETCHEN: Mr. Chairman, it didn't take me a couple of minutes after all, I have good assistants. We do

wrb/agh: 1 have a copy that I can provide the witness.

2 CHAIRMAN MILLER: Thank you.

3 (Document handed to the witness.)

4 BY MR. RILEY:

5 Q Mr. Spitalny, will you turn to page two of the  
6 document that's in front of you, which is under the general  
7 heading, "Cost of an IFSF with Capacity of 1500 Storage  
8 Spaces, Racks 15.5 Inches Center-to-Center."

9 15.5 inches center-to-center, is that high  
10 density?

11 A (Witness Spitalny) If I can give you some per-  
12 spective, they may range from on the order of 13 inches to  
13 21 inches, stainless steel racks.

14 Q Is that high density?

15 A It's higher than 21, yes.

16 Q In the context of this proceeding, is that high  
17 density racking in the context that I asked the question?

18 A I have seen them referred to as high density.  
19 I personally might refer to the 13-inch as high density.  
20 I haven't put a name on it up until now.

21 Q All right.

22 The next line is, "Cost per additional spent fuel  
23 storage space." How much is it?

24 A \$37,200.

25 Q All right.

vrb/ago3

1                   Let's take a look at the next group there,  
2 "Cost of an ISFSP with a Capacity of 3000 Storage Spaces,  
3 Racks 10.5 Inches Center-to-Center." Would that be a poison  
4 rack situation?

5           A       Yes, it would.

6           Q       What's the cost per additional spent fuel storage  
7 space there?

8           A       \$20,300.

9           Q       CESG's Contention 1A was a preferable alternative  
10 to transshipment of Oconee fuel was modification of the  
11 existing Oconee spent fuel pools to provide additional  
12 storage capacity. You and Mr. Glenn responded to that in  
13 your Exhibit 19C, is that correct?

14                   Mr. Spitalny --

15           A       Yes, that's correct.

16           Q       Would you also please provide yourself with the  
17 Environmental Impact Appraisal page 52?

18           A       Okay.

19           Q       I will read one paragraph at the bottom of that  
20 page:

21                   "The physical expansion of the Oconee  
22 spent fuel storage pools would require a breach  
23 of the existing pool integrity. Such breachings  
24 cannot be accomplished when the pool contains spent  
25 fuel, and therefore, expansion of pool volume is



wrb/agh4

1 not possible."

2 Now, referring to your Exhibit 19C:

3 "The physical expansion of the Oconee  
4 pools is not possible (EIA page 52). The existing  
5 pools" --

6 A Excuse me. Will you tell me where you are,  
7 please?

8 Q Yes, I'm on page two, the middle of the page,  
9 midparagraph, "The physical expansion."

10 Do you have it?

11 A Okay.

12 Q "The physical expansion of the Oconee  
13 pools is not possible (EIA page 52). The existing  
14 pools, both Unit 1 and 2 share a pool and the Unit-3  
15 pool, were not constructed with the intent of ex-  
16 pansion and, therefore, there is no capability  
17 to breach the integrity of the pools. Since the  
18 Oconee 1 and 2 and Oconee 3 pools contain spent  
19 fuel, such an action is not feasible."

20 Is that pretty much your testimony in this area?

21 A Yes, it is.

22 Q Who made the decision that it wasn't possible?

23 Who made that finding?

24 A I don't know of any technology that would allow  
25 for it. The decision --

wrb/agb

1 Q I'm sorry, that's not responsive to my question.

2 MR. KETCHEN: I'm going to object to it, Mr.  
3 Chairman, the question has been asked and answered. He was  
4 asked if that was his testimony. It seems to me if that's his  
5 testimony it's his decision as well.

6 CHAIRMAN MILLER: That doesn't follow. We have a  
7 panel which has joint testimony. Now let's get some ground  
8 rules in.

9 Try to give a responsive answer. If you're  
10 asked where you have a joint product, do the best you can  
11 to give the information.

12 Mr. Riley, like any other cross-examiner, may  
13 disclaim an answer which is not responsive. It is not a right  
14 given to a direct examiner, but it is to a cross-examiner.  
15 And I would like to have it exercised in moderation, but  
16 nonetheless we're trying to get the direct questions and the  
17 answers and we'll move along speedily and as fairly as we  
18 can.

19 Now what is your question on, Mr. Riley?

20 MR. RILEY: My question was -- May I ask the  
21 Reporter to repeat the question?

22 CHAIRMAN MILLER: No. Please, I did it once to  
23 show you that it can be done, but it's an imposition upon the  
24 Reporter because we're using the mask tape system, so please  
25 rephrase it.

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wrb/agb  
1 MR. RILEY: My problem is that I'm not sure I  
2 will rephrase it precisely.

3 CHAIRMAN MILLER: Well you were asking who, I think,  
4 was responsible for that particular portion that you were  
5 reading. You wanted to know who rather than, as was stated  
6 in answering your question, when he said it was his testimony  
7 therefore it is his. I've given you the right to find out  
8 who so far as the panel can tell you is responsible for that  
9 particular conclusion. That was your question.

10 BY MR. RILEY:

11 Q The Chairman has phrased the question correctly.

12 A (Witness Spitalny) The decision -- as it stands  
13 in the testimony, it was probably my decision to put it in  
14 here, possibly as well as my -- or discussions with Dan Glenn  
15 to put it in the EIA.

16 The source of the decision, I cannot point a  
17 finger at anybody for it. I started to respond to your  
18 question by saying I don't know any technology available to  
19 do that.

20 I have, in the evaluation of G.E. Morris, which  
21 has equipped their pool with an expansion gate primarily  
22 for the purpose of physical expansion, become aware of what  
23 is involved to physically expand a pool.

24 In discussions with other members of the Staff  
25 in different branches and areas of the Staff, it's the general

wrb/agb7 1  
2 consensus that it cannot be done.

3 Q Who would have the expertise to make a judgment  
4 of this sort?

5 A I would imagine that -- in the regulatory process  
6 the way I'm accustomed to it is the decision to do something  
7 on that order would be made by a utility or the owner of the  
8 facility.

9 And talking about GE possibly, they would have  
10 to come up with a technique in which they could actually  
11 breach the integrity of the pool which contains spent fuel,  
12 a method of maintaining water in that pool while they're  
13 breaching the pool and prove to the Staff that it's an adequate  
14 and acceptable method. At that time, we will evaluate it.

15 Q Let's hypothesize that you're the utility person  
16 with this problem. You've got engineering skills such as you  
17 have, but you feel that they don't cover this problem but  
18 you very much want to do it. Where would you go?

19 A Realistically, if I have the capabilities that  
20 I hypothetically have, I would probably not attempt it.

21 Mr. Riley, I guess what I'm getting at, to break  
22 the integrity of a pool, you have to come up with a means of  
23 installing a caisson or something in the pool to stop the  
24 water from flowing out when you break that integrity.

25 If you realize what we're talking about in both  
of these paragraphs, the physical expansion of a pool is

wrb, ags3  
1 cutting out a passageway or a gate or a wall or something  
2 in that pool. And the expense alone in doing something like  
3 that probably does not even warrant consideration. I have not  
4 considered it, it has not been shown to be a viable idea  
5 anywhere.

6 Q But has anybody ever tried to show that it was?

7 A Not to my knowledge.

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8 Q So it is hardly persuasive then, is it, that  
9 nobody has shown it?

10 CHAIRMAN MILLER: We'll have to sustain the  
11 objection to that, Mr. Riley.

12 BY MR. RILEY:

13 Q Mr. Spitalny, are you familiar with the sort of  
14 operations that are accomplished by tunnel builders underwater  
15 joining separate ends, for example, tunnels built  
16 simultaneously from two ends?

17 A (Witness Spitalny) Not totally.

18 Q Let me try out a scenario on you and let's get  
19 your critiquing of it.

20 With respect to building just such an extension  
21 on a fuel pool, step one is that you excavate for the addition  
22 to the pool. Step two is that you do all those normal things  
23 for tying an existing concrete structure to a new concrete  
24 structure, which means making appropriate borings, putting in  
25 your rebars and the rest of it. You lay your rebars, you pour,

wrb/sgb9  
1 you put in for the new pool the stainless steel liner that  
2 it will require. You then fill the new pool with water,  
3 which takes care of the differential pressure problem.

4 At that point, because there is a space between  
5 the steel, the stainless steel liner and the cement, you  
6 insert an appropriately strong 3/4-inch steel or stainless  
7 steel plate which corresponds to slightly more than the area  
8 of the gate you want to cut in the wall and at that point.

9 You then use -- an atomic hydrogen torch will  
10 cut cement like butter. You cut your shape out, you remove  
11 the cement that you have to get rid of. The sharp delineation  
12 is with the atomic hydrogen torch, the rough stuff you can do  
13 with jackhammers underwater.

14 And then you do a further extension and underwater  
15 welding jobs so as to mate up the stainless steel of your  
16 addition and the other stainless steel. And when you have  
17 made that seal, you cut out that section of stainless steel  
18 which keeps you from having a clear channel.

19 CHAIRMAN MILLER: Is there a question?

20 MR. RILEY: Yes, I want a comment on it.

21 MR. KETCHEN: Objection.

22 CHAIRMAN MILLER: A comment is not really a  
23 question.

24 What's your question, Mr. Riley?

25 MR. RILEY: Mr. Spitalny had no awareness that

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there could be scenarios about how this could be done with reasonable dispatch and economy. And pretty much off the cuff it was possible to describe such a scenario, and I think it greatly enhances the credibility of that approach and I'm trying to show there's a deficiency in the Staff review in this respect.

CHAIRMAN MILLER: Do you intend to put on proof to that effect?

You've made a description now. Are you going to put on some expert witnesses who will testify that it is as you have hypothesized it.

10.170  
MR. RILEY: I would be delighted to. I suppose it would take some funding that will be an additional problem, so I can't answer off the cuff.

CHAIRMAN MILLER: Well let me inquire.

--- This question which he is propounding to you, is it within the area of the expertise of any of you gentlemen? Do you know?

WITNESS SPITALNY: No.

WITNESS ROBERTS: No.

WITNESS GLENN: No.

WITNESS NASH: No.

CHAIRMAN MILLER: I think you're beyond their competence at any rate, so perhaps that's the short answer.

MR. ROISMAN: Mr. Chairman, in light of the

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1 answer that the Staff witnesses just gave to the question that  
2 you put to them, I'd like to move to strike the portion of  
3 the testimony in which Mr. Spitalny speculated for us about  
4 the feasibility to make an addition to a spent fuel pool.  
5 It's apparent that he nor any other witness on this panel  
6 has the foggiest idea of any expertise about that.

7 And that will include the portions of the  
8 Environmental Impact Appraisal, when it's offered, and the  
9 portions of Staff Exhibit 135 where this appears.

10 I see no reason to allow the witnesses to give  
11 their off-the-top-of-their-head ideas on this, testify about  
12 it and assume if someone attempts to testify that they have  
13 any expertise.

14 CHAIRMAN MILLER: Well the point is I think the  
15 question as propounded assumed a good many things. Now  
16 that's a far cry from saying whether or not these witnesses  
17 can testify within the scope of their competence as to the  
18 conclusions or the descriptions that they made. That's a  
19 wholly different subject. You may or may not be correct,  
20 we don't know.

21 MR. ROISMAN: I don't agree with that, Mr.  
22 Chairman. Let me just make a point a little further, if I  
23 can.

24 In the direct testimony -- I don't have, of course,  
25 the transcript in front of me -- the statement is made that

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wrb/agbl2 1 the physical expansion of the pool would require a breach  
2 of the existing pool integrity. Such breachings cannot be  
3 accomplished when the pool contains spent fuel.

4 Now if the witnesses don't have the expertise  
5 to even answer whether or not Mr. Riley's hypothetical is a  
6 feasible way to breach it, how could they possibly tell us  
7 with any expertise that they don't know that they pool --  
8 that they know the pool can't be breached?

9 What I'm saying is, the witnesses simply dreamed  
10 up something they wish were so. They have no expertise to  
11 dream it up, and I want to have stricken from the record any  
12 statements of opinion on that subject.

13 CHAIRMAN MILLER: You're still talking about  
14 apples and oranges. Mr. Riley is not cross-examining them  
15 on what they stated as to the basis of it. He is, rather,  
16 propounding a long hypothetical question with a good many  
17 assumptions as to which there's no background that such a  
18 thing ever existed and asks them whether they can have an  
19 opinion. They say no.

20 MR. ROISMAN: They said they didn't have the  
21 expertise.

22 CHAIRMAN MILLER: -- to answer that particular  
23 question.

24 MR. ROISMAN: Which means they don't have the  
25 expertise to discuss ways in which it's feasible or not

wrigh. 2 1 feasible to breach the containment of the pool.

2 CHAIRMAN MILLER: It's a leap forward in logic.  
3 They may or may not, they haven't been asked that.

4 We'll permit him to ask a question as to what  
5 their conclusion was based on. That's not what we're  
6 ruling. We ruling upon a scenario that comes up for the first  
7 time with nothing to back it up, in effect, and I asked  
8 him if he was going to put on any evidence sustaining the  
9 technical feasibility and all the rest of it of his hypotheti-  
10 cal question. Now that's a different matter.

11 We will, however, permit him to interrogate as  
12 to the basis of any testimony, including the breach of the  
13 pool.

14 MR. MC GARRY: I might note so we head off any  
15 repetitious cross-examination that Mr. Spitalny made reference  
16 to his familiarity with the Morris facility and their  
17 spent fuel pool and the integrity of that spent fuel pool.

18 CHAIRMAN MILLER: I recall such testimony from  
19 Mr. Spitalny.

20 Do you understand where we are, Mr. Riley?

21 MR. RILEY: Yes, I do.

22 But I would like to note with respect to  
23 Mr. McGarry's remark that that was where the provision was de-  
24 signed in to expand. In our case here, it's quite different,  
25 it's where the provision was not designed in.

wrb/ugbl4 1 And I think we have already established in the  
2 record that Mr. Spitalny and the Staff did not go beyond their  
3 own expertise and resources in making this judgment.

4 And I would like to join Mr. Roisman in moving  
5 that this portion of the record be struck. They really  
6 didn't -- they didn't with diligence and concern search out  
7 the matter. They stopped inside their own shop.

8 CHAIRMAN MILLER: At this point the motion of  
9 both of you will be denied. This is without prejudice to  
10 assert it if, at a particular point in the examination or  
11 cross-examination, you feel that the record will sustain it.  
12 We don't feel that that point is reached now. We don't feel  
13 that point is reached on the basis of your hypothetical  
14 question.

15 Now that does not mean you cannot examine as to  
16 the conclusion expressed by the witness and the underling  
17 basis or reasoning for it.

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3E WRB/wbl 1 CHAIRMAN MILLER: A recess has just been requested.  
2 We'll take about a 10-minute recess.

3 (Recess)

4 CHAIRMAN MILLER: We'll be on the record.

5 MR. KETCHEN: Mr. Chairman, during the break  
6 something was called to my attention by one of the panel  
7 members up here. I don't know whether it's a misunderstanding  
8 or what, but I would like to cut it off at the pass, if I may.

9 CHAIRMAN MILLER: Very well.

10 MR. KETCHEN: It was reported to me that  
11 Mr. Roisman made a comment to one of the witnesses on the  
12 panel that the witness interpreted to be threatening to him  
13 and his testimony in response to Mr. Riley's questions.

14 I frankly think-- If I am incorrect I will stand  
15 corrected, but if it is true as reported to me I think it is  
16 unprofessional and I think we ought to bring it out right  
17 now and deal with it. I just don't think it's appropriate in  
18 this kind of a proceeding.

19 We have proceeded courteously and in a gentlemanly  
20 and lawyerlike and professional way up to now. I hope it  
21 doesn't break down into some kind of other situation.

22 I want to call that to your attention for your  
23 consideration.

24 CHAIRMAN MILLER: Well let's find out what we're  
25 talking about. We, too, would like to proceed without

WRB/ab2 1 distractions.

2 Mr. Roisman, do you know what the subject matter  
3 is?

4 MR. ROISMAN: Yes. I told all three of the  
5 witnesses who are sitting to the left, the ones who have been  
6 answering Mr. Riley's questions or participating in it, that  
7 I thought that they were messing around with Mr. Riley and  
8 taking advantage of the fact that he's not a lawyer, and that  
9 I wanted them to know -- and I don't consider it a threat --  
10 that I would seriously consider becoming counsel for the CESC  
11 in order to ask them this line of questioning in order to make  
12 sure that they did not mess around, and that I do not think  
13 it is fair or reasonable for witnesses to take advantage of  
14 unrepresented intervenors. And I do not. And I feel that  
15 Mr. Riley is not being given equal treatment by the witnesses,  
16 that they feel they have more latitude with him.

17 I had in particular in mind the witnesses'  
18 responsiveness or lack thereof, of responsiveness, to this  
19 question of their expertise or non-expertise on the question  
20 of the breaching of the physical barriers of the spent fuel  
21 storage pool. And what I was hearing them say, and what in  
22 effect Mr. Spitalny confirmed to me they were saying, is that  
23 they could comment on whether or not such a thing could occur.  
24 Well, as I pointed out to them, yes, I can comment on any-  
25 thing. I mean, people are capable of doing that. But they're

WRB/wb3 1 under oath, they're witnesses, they're experts, and they  
2 shouldn't do it. And I wanted them to understand that I do  
3 not consider this proper conduct, and that I felt they were  
4 taking advantage of Mr. Riley and I didn't think they ought  
5 to continue to do that.

6 I don't think that's threatening. But that is  
7 essentially what I told them.

8 One of the witnesses, Mr. Glenn, then said to  
9 me that he felt that I should apologize to him because he  
10 hadn't said anything.

11 WITNESS GLENN: With the expletives that you have  
12 now deleted, I don't mind what you have said now.

13 WITNESS SPITALNY: Very well put.

14 WITNESS GLENN: Very well put.

15 CHAIRMAN MILLER: Let me bring this to a conclu-  
16 sion.

17 Mr. Roisman, we think you were wrong. We think  
18 as a lawyer you shouldn't have spoken to the witnesses who  
19 were on the stand except in the presence of the Board. So  
20 we think you were wrong in that regard.

21 MR. ROISMAN: Very well.

22 CHAIRMAN MILLER: We accept, however, the fact  
23 that you do have a right in open session to make comments upon  
24 responsiveness of witnesses, provided it's done in a  
25 professional manner.

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1 Anything that has happened here we would like  
2 to have it -- not stricken from the record because it's not  
3 on the record, but we would like to go back to ground zero  
4 both with the witnesses -- we understand the situation: you've  
5 heard our ruling. --Mr. Roisman, Mr. Riley. We would like  
6 to proceed openly and professionally, and we would much prefer  
7 to have no personalities involved of any kind.

8 Is this clear and understood by all?

9 MR. ROISMAN: I understand, Mr. Chairman.

10 CHAIRMAN MILLER: Very well.

11 Mr. Ketchen?

12 MR. KETCHEN: I'm betwixt and between. I'm  
13 happy with the Board's ruling. On the other hand, it's like  
14 in a jury trial, telling them to forget what they just  
15 heard.

16 I just want to make clear to my witnesses -- and  
17 I believe that that's the scope of your ruling -- that they  
18 are not to be intimidated, and they are to give their forth-  
19 right best judgment as representatives of the NRC Staff, and  
20 try to forget any interpretation that they may have had of  
21 those comments.

22 CHAIRMAN MILLER: This is true of all witnesses.  
23 It's true in this proceeding. We would like not to have any  
24 matters now that are extraneous, because we're all trying to  
25 get the facts established for the record.

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MR. KETCHEN: Thank you, sir.

MR. RILEY: May I make one comment?

CHAIRMAN MILLER: The comment may not be necessary. Ask your questions.

MR. RILEY: The comment is necessary. That is, it's not the usual demeanor of witnesses to smile and exchange glances with one another when they're being cross-examined.

CHAIRMAN MILLER: Mr. Riley, I'm trying to avoid personalities. Please help us. I'm asking you to please help us. Let's everyone refrain from anything that could be construed or misconstrued as deviating from a sincere and honest search for facts.

As we've indicated, and we know you all share, nuclear energy is very important, it's very important to the public, it's very important to the Board, it's important to all of you. And the more we get ourselves distracted by these things, whatever the cause, the less we're achieving our purpose, which is to develop a full, fair record of facts, and, since we do have experts, opinion testimony.

Now let's just think of that. Ignore or forget whatever might have happened. Fortunately it's not of record. But let's go with what we're here for.

MR. RILEY: That's fine with me, Mr. Chairman.

CHAIRMAN MILLER: If you'll just proceed we'll try to have everyone cooperate. I think that the witnesses

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WKB, wbs

1 are trying to be cooperative. They've had some things that  
 2 have troubled them, and so forth. I don't want to get into  
 3 the merits of it. But let's go for the purpose we're here  
 4 for. That's why we're spending a lot of time and energy of  
 5 all of you. It's important and significant.

6 Hew right to the line.

7 MR. RILEY: Just as Mr. Ketchen indicated he had  
 8 a problem, I indicated that I had a problem.

9 CHAIRMAN MILLER: Can we take one at a time?

10 MR. RILEY: I'm perfectly happy to stop at this  
 11 point, and I'll resume questioning.

12 CHAIRMAN MILLER: Fair enough. Proceed.

13 BY MR. RILEY:

14 Q Mr. Spitalny, would you refer, please, to page 2  
 15 of Exhibit 19C, and the paragraph we were discussing before  
 16 the break. And I'll read a phrase from that-- I'll read a  
 17 part of a sentence from that.

18 "The existing pools, both Units 1 and 2  
 19 share a pool, and the Unit 3 pool, were not con-  
 20 structed with the intent of expansion."

21 What is your basis for making that statement?

22 A (Witness Spitalny) My basis for this statement  
 23 is the walls of the pool were not constructed such that they  
 24 could be expanded at a later date. They do not have an  
 25 expansion gate employed in there in the make-up of the wall.

WRB/wb7 1 The systems that support the Oconee pools were  
2 not designed, have not been constructed to accommodate  
3 physical expansion of the pool. Specifically I'm referring  
4 to, mostly, the cooling system, which is not adequate to cool  
5 an additional volume that would be considered under this  
6 aspect.

7 Q Is it true, Mr. Spitalny, that additional cooling  
8 capacity can be added, in fact has been under consideration  
9 for certain other pools where poison racks are being put in,  
10 the thermal load is greater than that for the original  
11 design?

12 A Certainly they can be modified.

13 Q All right.

14 So that would be a rather readily repaired  
15 deficiency in comparison, in your reading of it, to attaching  
16 a pool addition physically?

17 A At some cost, yes.

18 Q When you were confronted with CESG's contention  
19 that the pool could be added-to physically, what text with  
20 respect to this kind of engineering did you, or people on  
21 the Staff, refer to, since it was a new kind of problem?

22 A I did not refer to a text such as a structural  
23 handbook or strength of materials or anything. I referred to  
24 what experience, again, members of the Staff have had in that  
25 area. We talked about the feasibility of such an operation.

WRB/wb3

1 Q Would it be correct to conclude that since this  
2 proposal has not been made before, that there was no Staff  
3 experience in this respect?

4 A There is no Staff experience in that area.

5 Q Would I be correct in recalling some of your  
6 early testimony in which you say that collectively speaking  
7 the involved Staff did not have expertise in the area of  
8 this proposal?

9 A What I'm referring to is, the Staff maintains  
10 expertise in construction, they maintain expertise in  
11 strength of materials, statics or dynamics, construction,  
12 that type of thing.

13 I wanted to clear up just the previous question  
14 to this, and then I will continue here.

15 When I said the Staff didn't have any experience  
16 in this area, again I was referring to the fact that we have  
17 not received any applications, nobody has come in with any  
18 techniques or any ideas about doing this type of thing. And,  
19 again, it's not the fact that the Staff does not have the  
20 capability of evaluating such a technique as you have just  
21 suggested.

22 With regard to the expertise comment that I had  
23 made earlier, I had said that-- When I made the statement  
24 that that was not my expertise, I was implying that I am not  
25 in the construction end of this area. I'm not familiar with

WRB/wb9 1 what is required necessarily to cut out all the concrete,  
2 how you would necessarily-- what type of torch you might use  
3 to cut out the stainless steel liner.

4 I am familiar with, however, what procedures would  
5 be used to -- well, the normal procedures that might be used  
6 to undertake such an operation, or what the requirements are;  
7 that is, the maintaining the seismic quality of the pool,  
8 the spent fuel that's in there, maintaining the cleanliness  
9 of the pool such that you are not throwing debris into the  
10 pool from this job that you're undertaking.

11 I'm aware of problems, or can envision the  
12 problems that would be received in trying to go down and  
13 trying to cut out a stainless steel liner. From your explana-  
14 tion, we have a 3/4-inch steel plate on the other side of it.  
15 You have to do something to maintain the strength between the  
16 two 3/4-inch plates. Now since you have two separate pools  
17 you have to have something between those two separate pools.

18 Q May I interrupt you just one moment, Mr. Spitalny,  
19 because you're in error there. There would be a hydraulic  
20 balance, because the second pool is filled.

21 A And what you're telling me is there are two  
22 3/4-inch plates next to each other, so that the two pools  
23 are separated by an inch and a half?

24 Q No; there's one 3/4-inch plate between the liner  
25 of the first pool and the original wall, which is the point to

WRB/vb10

1 he cut out.

2 A Okay.

3 Q That's it. There's a hydraulic balance.

4 A What I'm getting at is what happens when you cut  
5 out your concrete of that original wall.

6 Q You have no problem. You have hydraulic balance.

7 A I disagree. You have a stainless steel liner  
8 with water on one side.

9 Q Water on both.

10 A Excuse me; if I could explain it the way I envision  
11 it.

12 CHAIRMAN MILLER: Yes, explain it as you under-  
13 stand it.

14 WITNESS SPITALNY: The spent fuel pool on this  
15 side with water in it; the stainless steel liner; 3/4-inch  
16 stainless steel plate; the existing wall. You've just con-  
17 structed a new pool, which means you have another 3/4-inch  
18 stainless steel plate.

19 BY MR. RILEY:

20 Q No second plate.

21 A Just the stainless steel liner for the second  
22 pool?

23 Q Right.

24 A Well then you have the thickness of the wall  
25 between the first 3/4-inch stainless steel plate and your

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1 stainless steel liner.

2 Q Correct.

3 A You have to take out that concrete.

4 Q Right.

5 A How do you maintain your strength of the 3/4-inch  
6 plate and the stainless steel plate when you pull out that  
7 concrete?

8 Q You fill your 3/4-inch cavity temporarily with  
9 water to get a hydraulic balance.

10 MR. MC GARRY: I hate to jump in here, Mr. Chairman,  
11 but this really is getting beyond what should be characterized  
12 as cross-examination. It's an interesting discussion, but  
13 it appears to be more appropriate to come through a witness  
14 for CESH.

15 CHAIRMAN MILLER: Well he's entitled to cross-  
16 examine as to conclusions stated. And the Board may be wrong,  
17 but we thought that there was testimony to the effect of the  
18 feasibility or non-feasibility of constructing a physical  
19 addition to an existing spent fuel storage pool.

20 MR. MC GARRY: My objection didn't go that,  
21 Mr. Chairman. I don't dispute that. It seems to me just  
22 that now we're getting into an example, and we're discussing  
23 all the particulars of this example; which I suggest is  
24 more in the nature of a hypothetical question. And it appears  
25 to me it has been protracted. So now it's getting somewhat

WRB/wb12 1 argumentative and--

2 CHAIRMAN MILLER: Well, we will rule against  
3 any argument. On the other hand, we have not had a clear,  
4 final bit of testimony by the witnesses as to the feasibility  
5 or non-feasibility, or their knowledge thereof, on this.

6 Have you completed your answers?

7 WITNESS SPITALNY: No. My comment is that there  
8 is not a hydraulic balance. That's my comment.

9 CHAIRMAN MILLER: That's his testimony.

10 MR. RILEY: Well, Mr. Chairman, the record will  
11 show that I did not introduce the content of this scenario  
12 at this point. The witness did.

13 WITNESS SPITALNY: No; I'm following yours.

14 CHAIRMAN MILLER: Now, now. The testimony is  
15 there. Now you have to ask questions. That's the end of it.

16 MR. RILEY: Right. And I'm very definitely  
17 prepared to do it.

18 CHAIRMAN MILLER: Very well.

19 BY MR. RILEY:

20 Q Did you seek consulting engineers with high level  
21 reputations for innovative engineering, as opposed to standard  
22 operating procedure modes, with respect to evaluating this  
23 proposal?

24 A (Witness Spitalny) No, I did not

25 Q Did you have a literature study made with respect

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to the possibility of undertaking such an endeavor?

A No, I did not.



1 Q Mr. Spitalny, in your earlier testimony you said  
2 that in being confronted with this proposal that you drew on  
3 Staff expertise, is that correct?

4 A That's correct.

5 Q Would you tell us the nature of that drawing on  
6 Staff expertise, like whom did you talk to, how long, how long  
7 a think period the individual experts you talked to had in  
8 regard to dealing with it?

9 A I could tell you the types of people I talked to.  
10 To list them all might be fairly large. During the  
11 preparation of this, number one, I had reviewed other  
12 documents of similar nature. I was familiar with G.E. Morris,  
13 the spent fuel pool there. I reviewed the safety evaluation  
14 report for Barnwell. I reviewed a number of in-house documents  
15 that speak to alternatives. I reviewed the generic environ-  
16 mental impact statement.

17 The people who were involved with it were those  
18 people who were related to those documents. First of all,  
19 Mr. Roberts, who is the project manager of the G.E., I guess,  
20 on spent fuel.

21 I talked with the project managers for Barnwell,  
22 and people who had worked at G.E. before I was there.

23 This is all within my one particular branch.

24 Outside of my branch we talked with the project  
25 manager for McGuire and people who had done work in the

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1 McGuire evaluation.

2 We talked in the Division of Operating Reactors  
3 with individuals there who have been evaluating reracking  
4 proposals.

5 We passed around the draft document that we came  
6 up with for concurrence from the other divisions, so that  
7 they could evaluate what we had and make comment to it, and  
8 we would make changes as we saw fit.

9 There was a wide spectrum of people that we talked  
10 with. It was done over the duration of preparation of this  
11 document. We haven't stopped looking at alternatives yet.

12 Q Except for the G.E. Morris plant, where provision  
13 has been made for later increase of pool capacity, which of  
14 these individuals would have expertise from a prior dealing  
15 with a breach problem, that is, an attachment problem to an  
16 existing fuel pool?

17 A I have not found anybody who has that experience.

18 Q In the last paragraph on page 2 of the same exhibit,  
19 it reads: --

20 MR. ROISMAN: Mr. Chairman, I'd like to renew my  
21 motion that the portion of the testimony be stricken where  
22 witnesses testified that they don't have the expertise and  
23 no one on the staff had the expertise or the experience to  
24 know how one would go about breaching an already built and  
25 used spent fuel pool, to determine whether or not it's

1 feasible. And yet they make the statement in here that it  
 2 isn't. They say -- in fact, they go on that, "there is no  
 3 capability to breach the integrity of the pool."

4 I do not believe the witnesses have demonstrated--  
 5 and they've been given every opportunity to do so -- that they  
 6 have any reliable basis to make that statement.

7 I therefore move that it be stricken, and the  
 8 previous phrase, that the Units 1, 2 and 3 pools were not  
 9 constructed with the intent of expansion, I think the record  
 10 is rather clear on the fact that the Staff doesn't purport  
 11 to have any knowledge about what the Applicant's intents  
 12 were, and that portion ought to also be stricken.

13 CHAIRMAN MILLER: Such motion is premature. We  
 14 have not completed the examination of the panel, including  
 15 the possibility of examination by other counsel and redirect.

16 I think we have ruled that we would hear your  
 17 motions to strike -- any or all motions -- when we concluded  
 18 the examination, and you've indicated you had a number of  
 19 other areas.

20 MR. ROISMAN: I'm sorry, I didn't understand you  
 21 to say that that was the only time. This seemed to be the  
 22 most --

23 CHAIRMAN MILLER: Not the only time, but you don't  
 24 want to do it piecemeal and then --

25 MR. ROISMAN: No, no, that's right. But remember,

1 I said that the other motions that I had related to motions  
2 to strike which would not depend upon what was already in the  
3 transcript, whereas this would depend upon what was in the  
4 transcript.

5 With the Board's leave, I'd like the opportunity  
6 to raise it tomorrow after we've had one break, in order to  
7 be able to point the Board to the portions of the transcript.  
8 Transcript delivery is now being made in the morning at the  
9 time the hearing begins, and that's why I'd like to wait  
10 until the morning break.

11 CHAIRMAN MILLER: Well, we'd like to hear such  
12 motions all at one time. We don't particularly care when.  
13 So if it's more convenient for you to make them then, fine.  
14 We want to have the panel's examination, which is both cross-  
15 examination and redirect, if any, completed at such time as  
16 the motions are made to strike any portions thereof. We'll  
17 do it following that sequence.

18 Mr. Riley, I guess it's your interrogation.

19 BY MR. RILEY:

20 Q Referring to page 53 of the EIA, Mr. Spitalny,  
21 the reracking of spent fuel pools is discussed, and the  
22 estimated delay time is estimated or put at -- and I read:  
23 "...completing the reracking of this pool is 15 months."

24 When would the clock start on that 15 months?

25 A (Witness Spitalny) We spoke to that number in the  
past, but that was from the start of considering reracking in

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1 the initial design and bids for contract.

2 Q Would that be from the time that Duke started  
3 considering it, or from the time that you started considering  
4 it?

5 A From the time the Applicant started considering it.

6 Q Do you recall what Duke has given as the estimated  
7 completion date of present reracking?

8 A 100 days from the authorization of the action.

9 Q Does that seem like a tighter schedule than 15  
10 months? Do you know when Duke first seriously undertook --

11 A I believe this entire topic was discussed in the  
12 transcript, and --

13 Q Well, my apologies. I don't have access to the  
14 transcript, but I don't think my memory would be that good  
15 anyway. So if you could provide it, I'd appreciate it.

16 CHAIRMAN MILLER: What was the question, Mr. Riley?

17 MR. RILEY: The question was: How did the actual  
18 time from Duke's firm desire to put in reracking take to their  
19 estimated completion time, which is 100 days from the time of  
20 application, which Mr. Spitalny just showed us, in comparison  
21 with 15 months of the EIA?

22 CHAIRMAN MILLER: How does "X" time compare with  
23 15 months?

24 MR. RILEY: Yes. How does the real time compare  
25 with the 15 months estimate. I'm trying to get a sense of

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1 reliability of these estimates.

2 We're going to have some more estimated times  
3 coming up.

4 CHAIRMAN MILLER: Well, the only question in my  
5 mind is whether this is a matter that should be addressed to  
6 witnesses on behalf of the Applicant, Duke Power Company. I  
7 don't know.

8 Well, let me ask:

9 Mr. Spitalny, do you or your panel have knowledge,  
10 factually, of the length of time that either could be taken  
11 or has been taken?

12 WITNESS SPITALNY: I do not have knowledge of the  
13 total time that has been expended, but I have knowledge of  
14 a portion of it, which is in excess of 12 months, and am  
15 certain that from when I found out about it, it could not  
16 have been the very beginning of it.

17 So . . .

18 CHAIRMAN MILLER: Who would have that information?

19 WITNESS SPITALNY: The Applicant would have the  
20 details.

21 CHAIRMAN MILLER: It does appear to be a matter,  
22 Mr. Riley--you made your point, I mean there's apparently a  
23 time variance here, and I think to be more precise that  
24 you're pressing beyond their actual knowledge and that you're  
25 into the area where probably you're going to have to get it

1 From the Applicant.

2 BY MR. RILEY:

3 Q In the following paragraph of the same page, Mr.  
4 Spitalny, when you say:

5 "The Applicant has estimated that the cost of  
6 reracking ... will be \$6,000,"  
7 that includes, as in our earlier interchange, both the cost  
8 of the rack and the installation cost?

9 A (Witness Spitalny) That was their estimate.

10 I would note, also, that we are presently preparing  
11 a second errata sheet, which I believe we discussed possibly  
12 yesterday morning. That errata sheet will change that number  
13 \$6,000 to \$8,300, which is Duke's present estimate.

14 Additionally, that 150 was in the sentence  
15 below that would change to 76, which was their estimate.

16 Q In the following paragraph will your errata sheet  
17 also indicate that the time required to rerack the basin,  
18 15 months, is greater than the time remaining before the  
19 shortage of spent fuel storage space at Oconee impacts --

20 CHAIRMAN MILLER: Mr. Riley, we can't hear you.

21 MR. RILEY: I beg your pardon.

22 BY MR. RILEY:

23 Q "The time required to rerack the basin, 15 months,  
24 is greater than the time remaining before the shortage of spent  
25 fuel storage space at Oconee impacts on production of

1 electricity."

2 The question was: Will that also impact your  
3 errata sheet?

4 A (Witness Spitalny) No, it will not.

5 Again, I would address or reference you to the  
6 transcript, that 15 months in this particular paragraph was  
7 addressed by Mr. Roisman in its entirety, and I think we spoke  
8 to the entire scheduling of it.

9 I can respond a second time if you'd like, but it  
10 is or has been spoken to.

11 Q All right.

12 In terms of the matter of scheduling, how long it  
13 will take to provide, by reracking, an increment of capacity,  
14 did you consider the possibility of, as complications arose --  
15 I will name one of them -- the fact that Duke's casks are not  
16 operable at the present time due to a hold on the license --  
17 in that context did you consider the possibility of going  
18 over, in the process of reracking fuel pools 1 and 2, from  
19 the initial high-density substitute for the original racks to  
20 poison racks? Because the thing that you would do there  
21 would be to have a more rapid rate of increasing available  
22 capacity, bearing in mind, of course, that the original  
23 contract was not for poison racks but for high density?

24 A Did I address the replacement of high-density --

25 Q Did you consider --

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1 A -- racks, and then poison racks?

2 Q Yes. Well, a mix. In other words, at the earliest  
3 date you could get poison racks, or the Applicant could get  
4 poison racks, going ahead with the poison racks so that he  
5 would end up with a higher capacity at an earlier date.

6 A If I understand what you're asking correctly, the  
7 testimony of myself and Mr. Glenn, both to CSSG and to NRDC,  
8 discussed that of installing poison racks prior to the  
9 installation of stainless steel racks, or after the installa-  
10 tion of stainless steel racks.

11 Additionally, Staff Exhibit Number 13, which is  
12 a comparison of the alternatives, does the same, in that it  
13 has a comparison of poison racks without prior stainless  
14 steel reracking, and poison racks with prior stainless steel  
15 reracking.

16 Q We understand that you did consider all high-  
17 density stainless steel or all poison.

18 I'm saying did you consider the advantages of a  
19 mix during the present circumstances?

20 A No, I didn't. It was briefly brought up at the  
21 last proceeding in some questions, I believe.

22 I don't see anything specifically to be gained.

23 Q On page 4 of the same exhibit, Mr. Spitalny, the  
24 paragraph at the top reads:

25 "In general, the Staff would agree that use of

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poison racks might be considered a --

CHAIRMAN MILLER: Just a moment. We don't have the document.

MR. RILEY: I'm sorry. It's 19C. That's the document: --

CHAIRMAN MILLER: 19C? What page?

MR. RILEY: Page 4.

CHAIRMAN MILLER: Let's be sure the witness has it.

WITNESS SPITALNY: I'm with you.

CHAIRMAN MILLER: Proceed.

BY MR. RILEY:

Q The paragraph at the top reads:

"In general, the Staff would agree that the use of poison racks might be considered a reasonable means of ameliorating the shortfall of storage space, but in this situation is not considered cost effective."

Now, this originally was, I believe, also the content of an affidavit. And what I'm getting at, two questions: I'll ask the one separately:

What was the date when this testimony was prepared?

A (Witness Spitalny) This testimony was a direct result of the affidavit I believe you're referring to.

Q Was that May 10th or May 24th?

A I would have said the date was May 11th.

Q May 11th was Mr. Ketchen's transmittal letter date.

1 That will do fine.

2 A It was prepared just prior to the transmittal.

3 Q Right.

4 Have you reconsidered that conclusion in the light  
5 of changing events?

6 A (Pause.)

7 I don't know that I've reconsidered. If you mean  
8 have I changed my mind or come up with a different conclusion,  
9 the answer is no. I believe that's a very accurate statement.

10 Q Is that also in light of what we just read into  
11 the record, that although the dollar values will be somewhat  
12 different there will be a parallel? You showed that a high-  
13 density pool in Applicant's calculations would come at \$37,000  
14 per position, whereas poison racks would come in in the  
15 twenties.

16 Wouldn't you consider \$20,000 per assembly more  
17 cost effective than \$37,000?

18 A That was not the intent of that particular  
19 statement. We were not talking about the construction of a  
20 new facility.

21 Q True. But there is sunk capital in that fuel  
22 pool.

23 A That's a true statement.

24 Q And would it not enhance the value of that sunk  
25 capital to approximately double its fuel assembly capacity?

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1 A (Pause.)

2 Q -- Beyond what high-density racks will give?

3 A If I -- personally -- I can't tell you what Duke  
4 is going to do, but if this was Spitalny Power & Light I  
5 could tell you what I would do.

6 Q Well, I didn't ask that, Mr. Spitalny. I asked  
7 you whether you still regard this as a not cost effective  
8 situation?

9 A Installing poison racks in an independent spent  
10 fuel storage installation, versus high-density racks, yes,  
11 could be cost effective.

12 Q In this context?

13 A This context is not discussing an ISPSI.

14 Q I know it isn't, but it's comparing the use of  
15 poison racks in place of what is in there.

16 A I believe I just stated in the use in an independ-  
17 ent spent fuel storage installation, the use of poison racks --

18 Q But that's not what I --

19 CHAIRMAN MILLER: Wait a minute now. Don't argue.  
20 Just state your question.

21 WITNESS SPITALNY: Repeat it, and maybe I can --

22 BY MR. RILEY:

23 Q The question is: In this context do you consider  
24 the use of poison racks not cost effective?

25 A (Witness Spitalny) In this context I am comparing

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the use of poison racks to that of transshipment. In this  
context I believe it is a true statement.

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Q Is the statement that occurs a few lines below that on the same page, "The shipment of spent fuel will still be required to accommodate the installation of poison racks," still true?

A I would address you to one sentence above that which -- two lines above that. The sentence begins:

"Due to the timing required in procuring and licensing this option and assuming that Duke does not install stainless steel racks as presently being pursued, the shipment...."

This is what you quoted --

"....of spent fuel will still be required to accommodate the installation of poison racks."

That's a true statement.

Q Would that be true if you started out with the available stainless steel racks and phased in poison racks as early as they can be delivered?

A Phased out the high density?

Q You wouldn't have to phase out the high density, you'd just get more capacity by finishing the job with poison.

A I'm losing --

MR. KETCHEN: Mr. Chairman, I'm having trouble following the questions myself. We've got to get specific here. This colloquy between the witness and the questioner is just not specific, and I think that's where the confusion

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WEL/ab2

1 is.

2 CHAIRMAN MILLER: Mr. Spitalny, do you understand  
3 the question?

4 WITNESS SPITALNY: No, I do not.

5 CHAIRMAN MILLER: Then rephrase it.

6 BY MR. RILEY:

7 Q You retain your conclusion about the installation  
8 of poison racks would not be time effective in terms of when  
9 Duke would have more assemblies than would permit a full  
10 core reserve.

11 CHAIRMAN MILLER: Wait a minute. Is that a ques-  
12 tion?

13 MR. RILEY: It's framing the question, background.

14 CHAIRMAN MILLER: Well, see if the witness concurs.  
15 Break it down so he knows.

16 BY MR. RILEY:

17 Q Do you concur, Mr. Spitalny?

18 A (Witness Spitalny) I agree with what you said so  
19 far.

20 Q All right.

21 One may install poison racks or part poison racks  
22 in a situation where one started with high density stainless  
23 steel racks. And in the context of a sequence where you put  
24 in steel racks until you can get your earliest delivery on  
25 poison racks, in that context would this statement still be

1 true?

2 A The statement we're referring to now is that of  
3 the shipment being required or --

4 Q Right.

5 CHAIRMAN MILLER: What statement is it that you're  
6 asking the witness whether it would still be true, Mr. Riley?

7 MR. RILEY: There is a sentence saying, concluding:

8 "...the shipment of spent fuel racks  
9 will still be required to accommodate the installa-  
10 tion of poison racks."

11 CHAIRMAN MILLER: That's the statement that you  
12 want to know, given the considerations you enunciated, whether  
13 it would still be true?

14 MR. RILEY: That's correct.

15 CHAIRMAN MILLER: Do you understand, Mr. Spitalny?

16 WITNESS SPITALNY: Yes, I do.

17 CHAIRMAN MILLER: You may answer.

18 WITNESS SPITALNY: The availability of poison racks  
19 would not come about until a year or so down the line from  
20 whenever they made the decision, 12, 15 months. During that  
21 time Duke would have to be installing the high density racks  
22 just to maintain their full core reserve.

23 I ought to actually look at the discharge schedule  
24 again, but I would envision that one year from now they will  
25 probably have installed -- This is really I guess



WEL/abj

1 an educated guess at this point -- but 50 percent of their  
2 racks just to maintain an operating status.

3           However, this particular proposal of installing  
4 one module of high density racks today and another module of  
5 high density racks next month and another one a few months  
6 down the line would not be considered cost effective.

7           BY MR. RILEY:

8           Q     Well, you've given us a scenario there. Your con-  
9 clusion is dependent on your scenario?

10          A     I believe the scenario I've given you was rephrasing  
11 yours.

12          Q     I didn't talk about monthly module installations.

13          A     I interpreted what you said as that they installed  
14 the racks as they needed until poison racks are available.

15          Q     That's right. On the other hand, that is subject  
16 to planning, is it not, the arrangements that Duke could make  
17 with the poison rack supplier?

18          A     That's correct.

19          Q     Going on to the last sentence of the same paragraph:

20                     "The method of contending with the  
21 shortage of storage space at Coonse by transship-  
22 ment and reracking as proposed by the Applicant has  
23 been shown to be cost effective and results in negli-  
24 gibly small, and therefore insignificant,  
25 impacts on the quality of the human environment."

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1 Now, I'm addressing only the negligibly small  
2 impact on the human environment.

3 This is predicated then on the correctness of that  
4 phase of the analysis in the EIA that basically assumes no  
5 material releases from the cask of assembly content during  
6 transshipment.

7 A I would prefer a joint response in this particular  
8 area with Mr. Glenn.

9 Q I'd be happy to have one.

10 A The impacts that we've addressed in the EIA have  
11 been determined to be insignificant. The EIA does evaluate  
12 a release and still draws the conclusion that the impacts are  
13 insignificant.

14 Q That release was one part in 1,000 of coolant, if I  
15 recall correctly.

16 A I'd prefer you to address this to Mr. Glenn.

17 A (Witness Glenn) Well, there was actually two --

18 Q If I may interrupt, the worst case was a fire in  
19 a turnover accident. Is that correct?

20 A Yes, with essentially a breach of the cask; that's  
21 correct.

22 Q And a release of one part in 1,000 of whatever  
23 would come out.

24 A No, that was not the worst. You release 10 percent  
25 of the-- You breached 10 percent of the fuel rods and

WEL/eb7

1 released the noble gases and hallogens contained in the fuel  
2 pin gap, and those rods, plus some fraction of the particulates  
3 in those rods, which is a more severe accident than the one  
4 that you're discussing, the loss-of-coolant accident. You're  
5 saying that we released a tenth of a percent, and that bounds  
6 the accident that you refer to as a hundred percent release  
7 of coolant.

8 And that's what I tried to get across in previous  
9 testimony in cross-examination:

10 Q If you would help clarify for me, Mr. Glenn, one  
11 of the accidents described involved cask turnover and a  
12 simultaneous fire. What was the coolant release in that  
13 accident?

14 A Okay. Could I discuss both accidents in the first --

15 Q I'd be pleased if you'd answer that one first.

16 A Well, I'm not sure which accident you're talking  
17 about because both accidents resulted in a fire and a release  
18 of coolant.

19 The first accident released a -- was postulated to  
20 release a tenth of one percent of the coolant as a result of  
21 heating of the cask by fire.

22 The second accident scenario assumed a breach of  
23 the cask, the 100 percent loss of the coolant, and also a  
24 breach of 10 percent of the fuel rods.

25 Q Would you please refer to page 35 of the EIA which

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WEL/eb3 1 is concerned with this matter?

2 Read the second sentence.

3 "The cask cavity would overpressurize  
4 and the pressure relief valve would operate to re-  
5 lieve the pressure, resulting in the release of 0.1  
6 percent of the cavity coolant."

7 Is that a correct reading?

8 A Yes.

9 Q "The cavity coolant would contain  
10 radioactivity, due to transportation of assemblies  
11 and assuming 0.12 percent release of free gases."

12 A That's true.

13 Q Now would you care to relate that to what you just  
14 said?

15 A Okay. That's the cask overpressurization accident.

16 The second accident that I referred to is under  
17 Section 6.1.4, "Extra Severe Collision or Overturn Accident,"  
18 and on page 37, the fifth line down, it says:

19 "Of the fuel rods, 10 percent would be  
20 perforated and 100 percent of the cavity coolant  
21 would be released."

22 Now that's the second accident that I referred to.  
23 And what I'd like to get across is that these two accidents --  
24 the second accident bounds the conditions of assuming that the  
25 accident under Section 6.1.3, the cask overpressurization

WEL/eb9

1 releases 100 percent of the coolant.

2 Q And the dose commitments are shown on Table 5.3  
3 on page 38.

4 A That's correct.

5 Q You compare two population centers, a maximum  
6 individual. Are you to deal with these dose commitments as  
7 a sum in which we add them all up? It says a bone dose  
8 commitment --

9 A No, you would not add the population centers to-  
10 gether.

11 Q It adds up to 13,000 man-rem for the greatest ex-  
12 posure, bone in population center B.

13 A You would end up with-- That's correct. To the  
14 11,000 students you would end up with a 50-year dose commit-  
15 ment of 13,000 man-rem.

16 Q And that would just bring you to the edge then of  
17 one mortality criterion, or we take a BEIR basis of 65 --

18 A I'm sorry, go ahead.

19 Q -- where we use a ratio of something like 65 to  
20 120 cancer mortalities per million man-rem exposure.

21 A The number that-- You're mixing apples and oranges  
22 again. These are terms that have been used here a lot. That  
23 refers to the total body exposure and the total body exposure  
24 in this case is 370 man-rem.

25 Q Do you have a relationship then between man-rem,

WEL/eb10 1 bone dosage and man-rem, bone cancer incidence?

2 A That has been testified to specifically by the  
3 Applicant's witness -- I forget the gentleman's name.

4 Q Dr. Hamilton perhaps?

5 A Dr. Hamilton, yes. He spoke to that question. I  
6 do not have the expertise.

7 Q Then going back to the question we started with in  
8 this area, predicating this as the maximum possible effect  
9 as the basis for your concluding that the impact on the human  
10 environment would be negligibly small, is that correct?

11 A Yes.

12 Might I say that during the 50 years that we're  
13 talking about here to these 11,000 students, their man-rem  
14 exposure from naturally occurring sources would be on the  
15 order of -- I'm doing this calculation in my head -- around  
16 six or seven thousand man-rem.

17 Q Well, timing has something to do with it. Wouldn't  
18 it be your personal desire, Mr. Glenn, to avoid, if possible,  
19 anything that resulted in your death prior to that brought  
20 about by natural causes?

21 A I'm sorry, I didn't understand your question.

22 Q Well, you point out that the ratio of expected  
23 mortality/morbidity of your postulated accident here is  
24 small compared to consequences of environmental ~~normal~~ <sup>250</sup> radia-  
25 tion exposure. Is that correct?

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WEL/eb11

1 A Yes.

2 Q And what I asked you was that you, as a person,  
3 would you find it acceptable to encounter something that  
4 caused your premature morbidity or mortality? Not discussing  
5 odds now, but your personal experience?

6 A The only way that I can answer that is that I  
7 encounter those types of things daily and they're not radio-  
8 active.

9 Q I wasn't talking about risk; I was talking about  
10 consequence.

11 A The actual shortening of my life?

12 Q Yes.

13 A And I'm saying that I encounter those types of  
14 things daily. I walk down the streets of Charlotte at rush  
15 hour and the carbon monoxide and the pollutants from automo-  
16 biles that I breathe in I'm convinced shorten my life. They  
17 reduce the efficiency of my lungs as a result.

18 So what I'm saying is that I encounter the types  
19 of things that you're talking about daily, both radioactive  
20 and non-radioactive.

21 Q Well, is this a source of personal satisfaction?  
22 Do you feel the better for it?

23 A I do not live in a large city. No offense against  
24 Washington, D. C. or any large city, but I wouldn't live in  
25 a large city because of the problems that I've alluded to

671 ~~scribble~~  
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WEL/abl2 1

and also on-- Well,....

2 Q And referring to the last paragraph on page 4 of  
3 the same exhibit, was this written with a knowledge of the  
4 Stone and Webster proposal in mind? Had you had exposure to  
5 it, and did you take it into consideration?

6 A Excuse me. Are you relating that question to --

7 Q To whcever will answer, including Mr. Spitalny  
8 or yourself.

9 A (Witness Spitalny) Yes, we were aware of the Stone  
10 and Webster.

11 Q And you did give it explicit consideration?

12 A Yes, we did.

13 Q In your discussion of alternatives you looked at  
14 them pretty much one at a time, the high density rerack,  
15 the poison rerack, and to build an independent fuel storage  
16 facility.

17 At any point did you look at combinations of those  
18 alternatives to see what benefits they might have?

19 A I believe ,the combinations really have been  
20 addressed throughout the proceeding.

21 Q Would you be explicit about that, Mr. Spitalny?

22 A Yes.

23 We have talked about, on numerous occasions, what  
24 the capability is for Duke storing spent fuel. We have  
25 broken up Duke into v rious --

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WEL/ehl3

1 Q Permit me to interrupt. It's quite true that we've  
2 done what with respect to distributing fuel between Oconee,  
3 McGuire, Catawba and so forth.

4 I'm saying did you consider the possibility of  
5 several alternatives suggested just at Oconee, namely the  
6 combination of poison reracking with either the extension of  
7 fuel pool 3 or the building of an independent storage facility  
8 at Oconee?

9 A I can't see any advantage to doing any combination.  
10 It has been considered indirectly throughout this, but the  
11 alternatives --

12 Q Is your answer that you didn't consider it?

13 A No, because they have been posed in questions so  
14 I have considered it.

15 Q Has that been subsequent to the filing of your  
16 testimony?

17 A Subsequent to this, and it may have been prior to,  
18 also, as a result of interrogatories.

19 Q Can you specifically say that that was proposed  
20 in an interrogatory?

21 A I would have to review them to say under oath.  
22 There were numerous interrogatories posed by both yourself  
23 and Mr. Roisman, discussing the capabilities of storing fuel  
24 into the future.

25 Q At this point would you have to say you didn't know?

WEL/cbl41

1 A I would have to say that I have seen it.

2 Q Right now, do you know?

3 A I would have to say that I would have to review  
4 the interrogatories to give you a number and tell you which  
5 one it was.

6 Q Right now do you know?

7 MR. KETCHEN: Objection, Mr. Chairman. He got an  
8 answer.

9 CHAIRMAN MILLER: Sustained.

10 MR. RILEY: Mr. Chairman, at some point at your  
11 leisure I would consider it a boon if you would explain to  
12 me why some Counsel is able to insist on a yes or no answer  
13 and I don't seem to be able to get away with that.

14 CHAIRMAN MILLER: I suppose because you've ex-  
15 hausted about all you're going to get out of the witness.  
16 You might as well go on. For better or for worse, you've  
17 gotten the information. If yes or no's are reasonably  
18 feasible we'll try to get them for you.

19 BY MR. RILEY:

20 Q Was one of the alternatives that you gave explicit  
21 numerical, cost numerical consideration to the Stone and  
22 Webster proposal combined with poison racks?

23 A The Stone and Webster proposal did not discuss  
24 what type of racks, so racks were mutually exclusive at that  
25 point. We talked about a 2300 assembly facility. We didn't

WEL/eb15 1 say poison or stainless steel.

2 Q Mr. Webster, is that-- I'm sorry. Mr. Roberts,  
3 is that your knowledge of the matter also?

4 A (Witness Roberts) That's my recollection also, sir.

5 Q Stone and Webster does not identify pool area?

6 A Let me explain briefly. They explicitly-- In  
7 our evaluation we do not review directly Stone and Webster.  
8 They wished to leave that open.

9 It may be at some future point they will be coming  
10 in at a site-specific application and might include poison  
11 racks or might, say, include stainless steel racks. I don't  
12 honestly know.

13 Q Did Stone and Webster make its proposal giving a  
14 dollar range without saying what the area of the fuel pool  
15 would be?

16 A No, they gave the area of the fuel pool. What  
17 they did was this:

18 They specified in their 7601, and I think I've dis-  
19 cussed this the last day or the last month, they came in with  
20 a figure of 1300 metric ton  $UO_2$  which is about 1150 metric  
21 ton U of spent fuel and all that our reviewer did in this  
22 instance was not to, you know, approve any racks but simply  
23 to look and see if that capacity was a good figure for the  
24 size of the pool. And he came to the conclusion it was.

25 To the best of my recollection he did not look

WBL/ab16 1 at poison racks, so it's-- Well, I guess I'll have to stop  
2 right there.

3 Q Mr. Roberts, then your reviewer knew that it could  
4 hold 2300 1,000-pound spent fuel assemblies, knew the area  
5 of the pool, but didn't go on to calculate the center-to-  
6 center spacing?

7 A No, I'm not saying that. I'm not saying that.

8 Q You're saying that --

9 A I'm saying that my understanding is-- Remember,  
10 he was not reviewing the racks. That is an open question for  
11 the site-specific review.

12 What he was doing was simply making sure that the  
13 figure given by Stone and Webster was applicable. He looked  
14 at, and I don't recall the particular-- It may have been  
15 the racks used at Beaver Valley; I'm not sure. I'm just not  
16 sure on that.

17 He looked at a rack and looked at the size of  
18 the pool and said yes, it can contain this amount of fuel.  
19 But rack review is an open question in any future site-specific  
20 application that may come in for Stone and Webster design.  
21 That's what I'm saying.

22 Q Yes, but it isn't responsive to my question,  
23 Mr. Roberts. My question --

24 CHAIRMAN MILLER: What is your question, Mr. Riley?

25 BY MR. RILEY:

Well 1

1 Q My question is: Given a capacity of -- what was  
2 it, 1050, 1100, 1150 metric tons --

3 A (Witness Roberts) Yes.

4 Q -- and the area of the fuel pool, and the knowledge  
5 that Oconee spent fuel assemblies contain about 1000 pounds  
6 of fuel --

7 A Wait a minute, sir. He wasn't looking at Oconee.

8 Q I'm not talking about him. I'm talking about you.

9 CHAIRMAN MILLER: Now, you're going to have to  
10 frame your question in a form that the witness can understand,  
11 and this colloquy is not the way to do it.

12 State it, state it clearly, and then we'll try to  
13 get you an answer.

14 BY MR. RILEY:

15 Q We've established that the area of the proposed  
16 fuel pool is known.

17 A (Witness Roberts) Yes.

18 Q And we've established that the thermal capacity  
19 is known, in the sense that a figure was given for how much  
20 spent fuel it could contain.

21 A Yes.

22 Q And that number was?

23 A It could contain 1150 metric tons.

24 Q Right.

25 And the weight of a single Oconee fuel assembly is?

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Vol 2

1 A You're passing beyond anything that I've done at  
2 that point. I haven't done that.

3 That's my point.

4 I mean if you want -- I mean I don't want to argue  
5 with you. If you want to ask me a question or do something at  
6 this point, I'll be glad to do it. But you're jumping to an  
7 assumption that I haven't --

8 CHAIRMAN MILLER: Well, let's not characterize  
9 either way. When you can't answer it, just say you can't  
10 answer it and stop there.

11 WITNESS ROBERTS: I'm sorry. I'm trying to --

12 CHAIRMAN MILLER: All right.

13 I think he's reached the point now where he's  
14 indicated to you that you've gone beyond what he can testify.

15 BY MR. RILEY:

16 Q Have you enough information now to calculate how  
17 many assemblies could go into that proposed pool, Ccone type  
18 assemblies?

19 A (Witness Roberts) Well, just a second.

20 (Pause.)

21 MR. KETCHEN: Mr. Chairman, may I ask the witness  
22 to respond to the question?

23 CHAIRMAN MILLER: Well, the question is whether or  
24 not you can calculate it, is that what you mean?

25 MR. KETCHEN: Whether he has enough information to

1 calculate it.

2 WITNESS ROBERTS: What I would propose to do, and  
3 I think I can, and you can see if this is acceptable to you:

4 We have said 1150 metric tons, and George -- it  
5 would seem to me that if we're assuming about, what, .45 metric  
6 tons per assembly, that then I would divide .45 into 1150,  
7 and come out with roughly the number of assemblies.

8 BY MR. RILEY:

9 Q Right. And would you accept my number of 2444?

10 A (Witness Roberts) That sounds reasonable to me.

11 MR. KETCHEN: Mr. Chairman, I'd like to ask the  
12 witness if he's calculated that number.

13 CHAIRMAN MILLER: Well, what difference does it  
14 make?

15 MR. KETCHEN: Well, I don't know what difference  
16 it makes. I'm ready to accept it if --

17 CHAIRMAN MILLER: The witness said he'd accept  
18 it. His neighbor calculated it. Mr. Riley calculated it.  
19 They're in agreement. When they're in agreement, I'm  
20 inclined to just let it lie there.

21 (Laughter.)

22 I think we'd better recess at this point, anyway.

23 WITNESS ROBERTS: I got 2555.6.

24 (Laughter.)

25 CHAIRMAN MILLER: Mr. Riley, do you accept that?

1 MR. RILEY: I'll give him no trouble, sir.

2 MR. KETCHEN: Mr. Chairman, before you recess, may  
3 I take up a matter?

4 CHAIRMAN MILLER: Yes.

5 MR. KETCHEN: At the beginning of this hearing Mr.  
6 Boisman made a request that we type any changes we had up and  
7 present them to the parties, rather than going through an  
8 oral correction of the record.

9 We have a second errata sheet to the BIA that I  
10 would like to pass out for the review of the parties.

11 We also have an errata sheet to page number 4 of  
12 Dr. Nash's testimony that we'd like to pass out before the  
13 evening break so that the people can consider it.

14 CHAIRMAN MILLER: Good. We'd like to have them  
15 for our evening consideration. Mark them for identification,  
16 if you would, for the record.

17 Off the record.

18 (Discussion off the record.)

19 CHAIRMAN MILLER: All right. We'll close the  
20 record for today at this point.

21 (Whereupon, at 5:00 p.m., the hearing was adjourned,  
22 to reconvene the following day.)

23

24

25

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