

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)	Docket Nos.
)	
DUKE POWER COMPANY, et al)	50-413
(Catawba Nuclear Station)	50-414
Units 1 & 2))	

I, Barbara V. Haas, Commissioner and Notary Public, proceeded to take the deposition of Gerald E. Vaughn on the twentieth day of May, 1983, beginning at 9:00 o'clock P.M. in the offices of Duke Power Company, South Church Street, Charlotte, North Carolina.

Duke Power Company was represented by Albert V. Carr, Jr., Ronald Gibson and Mike McGarey.

NRC was represented by George Johnson.

Palmetto Alliance, Inc. was represented by Robert Guild and Michael Lowe.

DEPOSITION OF
GERALD E. VAUGHN

Associated
Court Reporters

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1 GERALD E. VAUGHN, being first duly sworn, testified as
2 follows:

3 EXAMINATION: (By Mr. McGarey)

4 Q. I would like to make some introductory remarks. My
5 name is Mike McGarey. I'm one of the counsel for Duke
6 Power Company in this case. This deposition is being
7 taken pursuant to a stipulation entered into between
8 Palmetto Alliance and the applicants. That stipulation
9 is set forth in the deposition of Mary Burch and will
10 govern the taking of this deposition. I will note that
11 there is one correction to the deposition -- to the
12 stipulation references in Mary Burch's deposition, and
13 that has to do with Palmetto Alliance's election to
14 utilize its tape and a transcription thereof as evidence
15 in a hearing. In the event they do make such an election,
16 Palmetto Alliance will cause to be transcribed at its sole
17 expense the relevant deposition. The language in its
18 entirety is delated. I would note just as a preliminary
19 matter that this is the deposition of Gerald Vaughn. Mr.
20 Vaughn was asked to appear pursuant to telephone conversa-
21 tions with Mr. Guild, and particularly Mr. Guild asked
22 applicants to make a knowledgeable individual available
23 concerning contention 7. We have made Mr. Vaughn available.
24 This was done as an accommodation to Palmetto Alliance.
25 There was not a notice of deposition taken, we are beginning

1 hopefully the last deposition at 9:50.

2 EXAMINATION: (By Mr. Guild)

3 Q. Will you state your full name, please?

4 A. Gerald E. Vaughn.

5 Q. What is your position with Duke Power Company?

6 A. General Manager, Nuclear Stations, Nuclear Production
7 Department.

8 Q. Mr. Vaughn, I represent Palmetto Alliance, intervenor
9 in the Catawba operating license proceeding, and we have
10 asked you to be present this evening to respond to discovery
11 questions by Palmetto with respect to the contention which
12 has been admitted by the licensing board in this case.
13 That contention is number seven. I show you a copy of
14 the document that contains a quotation of the text of that
15 contention. The document I'm referring to is a December
16 31, 1982, applicant's response to Palmetto Alliance's
17 first set of interrogatories and request to produce with
18 regard to, amongst others, contention 7. Page seven of
19 that document indented single-space is the text, and take
20 a moment, please, Mr. Vaughn, and read that if you would,
21 sir.

22 A. I have read it.

23 Q. Have you seen that contention before?

24 A. I have read that before.

25 Q. I'm going to ask you a series of questions, Mr. Vaughn,

1 and hopefully it won't take long; and we appreciate you
2 being available this late in the evening. If I'm not clear
3 in my question or you don't understand either the question
4 or term I use, please ask me to clarify and tell me so.
5 I would like to be informal. We are trying to get informa-
6 tion. I would appreciate your cooperation, but if you
7 don't ask me a question or you don't ask for clarification,
8 the record will reflect your answer and we will presume
9 you understood the question and that your answer was respon-
10 sive, is that agreeable to you?

11 A. Yes.

12 Q. I need to ask you when you answer, answer audibly so
13 the tape and the Court Reporter can pick up your response.

14 A. If I answer a question, it would be under the assumption
15 that I do understand the question.

16 Q. Correct, that's what --

17 A. I may or may not understand what you are asking.

18 Q. Well, if you don't, and you know you don't understand,
19 please tell me; and I will be happy to try to rephrase it.
20 I want to make sure we are speaking the same language to the
21 extent we can and that your answers are responsive to the
22 questions. I understood from your counsel's preliminary
23 observation, that you have been designated as a person for
24 the company most knowledgeable with respect to the subject
25 matter of our contention 7, is that your understanding?

1 A. Well, I have some knowledge of the subject matter. I
2 couldn't say if I'm most knowledgeable or not.

3 Q. How did you come to be elected to the position of
4 appearing tonight?

5 A. I guess my position would be in the general manager
6 of the three stations was one factor. Another factor is
7 very recent experience at the nuclear station and being
8 intimately involved in the station activities.

9 Q. Let me interrupt you. Which station do you have
10 reference to?

11 A. Ocone.

12 Q. Anything further you want to say in response to the
13 question?

14 A. I assume that's why.

15 Q. If you would, sir, describe your duties as general
16 manager of nuclear station.

17 A. I report to the Department Vice President.

18 Q. Who would that be?

19 A. Hal B. Tucker.

20 Q. What is Mr. Tucker's title, if you know?

21 A. Vice President of Nuclear Production.

22 Q. All right, sir.

23 A. I'm over the line operation that reports to Mr. Tucker.
24 He has a number of other managers that report directly to
25 him over technical areas, general office support areas.

1 You might look at my responsibilities as being in the
2 area of execution and the other managers are more in
3 program development and things of that nature.

4 Q. Would you briefly describe your professional back-
5 ground including your work history up until you took
6 the position you now hold?

7 A. Graduated from the University of South Carolina in
8 1965, B.S. in Electrical Engineering, and joined Duke in
9 June of '65. At that time, they had a training program
10 for engineers.. I spent about six months visiting differ-
11 ent departments in the company. I was then assigned to
12 Marshall Steam Station for the start up of unit 2 at
13 Marshall as a junior engineer in the Instrument Controls
14 Group. I worked there for about a year doing instrument
15 control work. I became involved with putting computers
16 in our fossil stations, process control computers. I
17 got involved with that, and about a year after coming
18 with Duke, they formed a group of people to program and
19 design the computer system at Marshall 3 and 4 and future
20 plants at Duke, and I became part of that group. I worked
21 for a couple of years in design engineering, after which
22 the Steam Department formed a computer group; and, I guess
23 I was in computer work for about six years. We worked on
24 the computer systems that are the basis for the process
25 control computers that are in the nuclear plants. In

1 1972, I was promoted to Manager of the Dan River Steam
2 Station which is a small three unit fossil station up
3 near Virginia, and I served in that capacity for two years
4 in doing general management duties of the station. In
5 1974, I transferred back to Charlotte as Manager of
6 Administrative Services reporting to the Vice President
7 of Steam Production at that time.

8 Q. Who was that?

9 A. W. O. Parker. Then, I was moved to work for Austin
10 Thies, the Senior Vice President. I was Assistant to the
11 Senior Vice President for a couple of years.

12 Q. What is Mr. Thies' area of responsibility?

13 A. Today he is the Executive Vice President over power
14 operations. He reports to the company president. One of
15 the departments reporting to Mr. Thies is the Nuclear
16 Production Department. Mr. Hal Tucker reports directly
17 to Mr. Thies.

18 Q. At the time, 1974, when you were assisting Mr. Thies,
19 what was his position?

20 A. I think this was probably 1977.

21 Q. I'm sorry.

22 A. Mr. Thies was Senior Vice President Production and
23 Transmission and at that time, the Steam Department under
24 which Oconee and the other nuclear stations, you know, were
25 in, the department the nuclear stations were in, it was

1 the Steam Department, and Mr. W. O. Parker was Vice Presi-
2 dent and he reported to Mr. Thies at that time. In 1979,
3 right after TMI the workload on our station manager at
4 Oconee was such that he was pressed to cover his technical
5 duties and personnel management duties. So, I was moved
6 from Charlotte to go down initially for about six months
7 on loan. I having had rather extensive personnel back-
8 ground, a previous plant manager and familiar with
9 personnel policies and things of that nature, I helped
10 the station manager at Oconee in that area, and that allowed
11 him to concentrate almost all of his attention to the
12 technical matters occurring after TMI. I was moved into
13 a position at Oconee as the Assistant Station Manager. We
14 did not officially have that title. They made that title
15 for me. Again, it was to be a six month on loan period,
16 and I had no safety-related or technical duties initially.
17 Q. Those duties were primarily personnel-related?
18 A. Primarily personnel and administrative. While that
19 was from 1979 -- While I was at Oconee, I took some training
20 courses and spent a lot of time in the plant, went through
21 the operator program for an RO license. I did get an RO li-
22 cense and an SRO license on the Oconee units. Last year,
23 in the reorganization, we had corporate reorganization,
24 departmental reorganization, they split the Steam Department
25 up. That was one example. There were other changes, but

1 they split the Steam Department up into three departments;
2 Fossil Department, Production Support Department and
3 Nuclear Production Department allowing added emphasis and
4 single point focusing of resources for nuclear; and, at
5 that time, Hal Tucker was promoted from Manager of the
6 Nuclear Division in the Steam Department to the Vice
7 President of the Nuclear Production Department, and I
8 was transferred from Oconee to the General Manager position.

9 Q. How would you distinguish, Mr. Vaughn, your duties
10 and responsibilities from Mr. Tucker's?

11 A. I would say that Mr. Tucker's duties -- of course, he
12 is over the line implementation area. That's my part,
13 and in addition to that, over other managers, the Manager
14 of Nuclear Operations, the Manager of Nuclear Maintenance,
15 the Manager of Nuclear Technical Support, the Manager of
16 Nuclear Engineering Services, the Manager of Nuclear
17 Safety Assurance, the Manager of Nuclear Liability and
18 so those managers report directly to Mr. Tucker. So,
19 their portion of our business would be the distinction.

20 Q. Those managers are organizationally on a par with you?

21 A. Yes.

22 Q. Let me understand how your area -- is a Manager of
23 Stations, is that right?

24 A. Yes.

25 Q. Help me understand how your position, which is Manager

1 of Nuclear Stations --

2 A. Yes.

3 Q. Compares or relates to say a Manager of Nuclear
4 Operations or Safety Assurance?

5 A. Well, the Manager of Nuclear Operations is a staff
6 function versus a line function. He would be working
7 directly with the station operating people associated
8 with operating programs, operating detail operating
9 philosophies, the scheduling of units, the scheduling of
10 outages, resolution of any problems or incidents or safety
11 concerns in an operating aspect. So, from a technical
12 advisory staff function, he would directly support the
13 stations. Dealing very directly with the Superintendent
14 of Operations of a very active communications channel
15 directly from his office and the people working for him
16 to the Superintendent of Operations in the plant. We have
17 a group in the plant almost a mirror of the different groups
18 we have in GO.

19 Q. Then, if you would, the same question with respect
20 to Manager for Safety Assurance.

21 A. The Manager of Nuclear Safety Assurances is the current
22 chairman of the Nuclear Safety Review Board. He reports
23 directly to the V.P. He is over -- generally overseeing
24 the activities that go on in our stations and in our
25 department to assure nuclear safety.

1 Q. Help me understand a little better, Mr. Vaughn, with
2 respect to the subject matter of our contention 7, help
3 me understand why your duties and responsibilities are
4 more relevant to addressing that subject than the duties
5 and responsibilities of the other managers who work with
6 you?

7 A. Well, I guess my phase of the work deals with working
8 execution, and as I read the contention, it seem to be
9 related to the management of our work execution.

10 Q. All right, sir.

11 A. So, I would think that would be the relationship.

12 Q. Does anyone of the managers under Mr. Tucker have
13 primary responsibility for assuring compliance with Nuclear
14 Regulatory Commission requirements?

15 A. In a staff role, yes. The Manager of Nuclear Engineering
16 Services, he has working for him a licensing function, a
17 reactor safety function, nuclear fuels reports to him.

18 Q. Who is that person?

19 A. Mr. Ken Cannady.

20 Q. Let's dig in a little bit. If you believe that one
21 of these other gentlemen or someone else is more knowledgeable
22 on the subject of some of these matters, please so indicate
23 if you would, Mr. Vaughn. I want to direct your attention
24 first to efforts that have been made by the Nuclear Regula-
25 tory Commission to systematically assess performance by

1 Duke Power Company with its nuclear regulatory requirements.
2 Are you familiar with the SALP study, the systematic
3 assessment of licensing performance?
4 A. In general, yes, sir.
5 Q. Are you aware there are two SALP reports have been issued
6 by the NRC?
7 A. Yes.
8 Q. First, is it fair to assume on my part that your area
9 of familiarity is limited to nuclear operations as opposed
10 to nuclear construction?
11 A. That's a fair assessment.
12 Q. You understand, don't you, that the Nuclear Regulatory
13 Commission has requirements that are applicable to con-
14 struction practices and quality for nuclear power plants
15 prior to operation?
16 A. Yes, I am aware of that.
17 Q. As well as regulatory requirements that are applicable
18 to plants in operation?
19 A. That are license, yes.
20 Q. And, that the SALP assessments distinguish construction
21 from operations. They evaluate separately licensees who
22 are under construction permits from licensees who are under
23 operating licenses?
24 A. Well, I'm not familiar how they do that, but you are
25 saying that they do.

1 Q. Yes.

2 A. Fine.

3 Q. So, is it fair that I assume -- I will limit my ques-
4 tions to those that relate to operations which is your
5 area.

6 A. Right.

7 Q. The first SALP report I will identify as nureg 0834
8 and it's a document entitled "NRC Licensee Assessments,"
9 and if I show you this document, would you recognize it?

10 A. Yes, I have seen the nureg 0834.

11 Q. Of course, this is an operating license proceeding
12 for Catawba, and they rate, as we discussed, units under
13 construction. Catawba in this SALP report received a below
14 average rating. Is it fair to conclude that since that
15 relates to construction activities that you would not be
16 the appropriate person to talk to about that?

17 A. As to why it was below average?

18 Q. Yes.

19 A. That would be a fair assessment. I wouldn't be the
20 one to speak to that. I would like to go back and add
21 something.

22 Q. Please do.

23 A. There was a rating of below average there, and I think
24 I made a comment about it being below average. That has
25 a connotation that I think is explained in the foreward of

1 that report that indicates that below average is a relative
2 term measured against a very high standard, and it doesn't
3 mean that it is unsafe.

4 Q. Well, I appreciate that and that is consistent, but
5 just for clarity, if you would, look at appendix B to
6 that report, and if you would, just for the record, read
7 off the names of the facilities that are also rated below
8 average along with Catawba?

9 A. These are facilities outside of our company.

10 Q. Yes, sir, I understand that. Would you read those,
11 please?

12 MR. MCGAREY: Just for the record, we'll stipulate
13 that nureg 0834 reflects an appendix B and certain plants,
14 Catawba 1 and 2, Marble Hill 1 and 2, Midland 1 and 2,
15 South Texas Project 1 and 2, Washington Nuclear Project 1
16 and 2, Watsbar 1 and 2 and Zimmer, and I believe that is
17 it that appear in appendix B, pages B1 through B6.

18 Q. Counsel, just for -- I appreciate the witness's observa-
19 tion, but to put it in perspective, there were no plants
20 rated above average under construction, table 2; there were
21 36 plants rated average and there were seven plants rated
22 below average which Catawba 1 and 2 were one of those
23 plants.

24 MR. MCGAREY: Just so the record is clear, we
25 will acknowledge that the nureg speaks for itself, and I

1 haven't counted the number of each of the categories, but
2 obviously it's set forth in the nureg.

3 Q. Appendix A lists for operating facilities, Mr. Vaughn,
4 the SALP board's rating, and would you agree for this
5 period Oconee Units 1, 2 and 3 are rated above average?

6 A. Yes, they received the highest rating the NRC gave.

7 Q. The the three ratings above average, average and below
8 average?

9 A. Yes.

10 Q. And, that the the Oconee description appears at Page
11 A3. Although receiving an above average rating, would you
12 agree that the SALP board observed as follows: "Although
13 the licensee displayed weaknesses in personnel adherence
14 to operating and administrative procedures, the licensee
15 was responsive to NRC concerns in this area."

16 A. Yes, that sentence appears in the information under
17 Oconee. I'm not exactly sure what the NRC meant by dis-
18 played weaknesses, but I think the rating speaks for itself.

19 Q. I guess that is the question. Do you know what the
20 weaknesses in personnel adherence to operating administra-
21 tive procedures were, Mr. Vaughn, during that rating
22 period? That is 5/1/79 through 4/30/80?

23 A. I don't know the details.

24 Q. Tell me what you do know about the basis for that finding.

25 A. Well, during the course of any year, a few personnel

1 errors are made. I would assume that is what it was
2 associated with, but that is without looking at the details
3 behind the statement, and I couldn't say.

4 Q. Do you have those details available to you?

5 A. I don't have them available to me right now. They
6 probably were brought out as part of the meeting between
7 the NRC and management prior to that report coming out.

8 Q. That just would -- I won't belabor the point, but were
9 there have been an identifiable meeting wherein the NRC
10 detailed the basis for the specific findings?

11 A. Generally the NRC meets with the utility management
12 associated with that review, and they discuss information
13 associated with the NRC's evaluation and performance,
14 the feedback to the utility in order that the utility can
15 receive this feedback and make improvements. We are always
16 striving to improve.

17 Q. Did you participate in that meeting with respect to
18 the SALP review?

19 A. No, I did not. I was at Oconee at the time.

20 Q. Mr. Vaughn, I'm looking for the same review of the
21 McQuire for that same period.

22 A. You won't find that in 0834, I don't think.

23 Q. Are average facilities not separately described?

24 A. As best I can remember, appendix A was above average
25 facilities and appendix B was below average. I don't think

1 the average ones were listed.

2 Q. I want to show you this table one and does that reflect

3 the --

4 A. This is a listing, but the details are not shown in

5 the appendix.

6 Q. McGuire 1 is rated average for that SALP review, is

7 that right?

8 A. Again, this is average in keeping with the definition

9 as outlined in the foreward of the nureg.

10 Q. What is the evaluation period set forth in that table

11 for McGuire 1, if you would, sir?

12 A. May 1, 1979, through April 30, 1980.

13 Q. Thank you. Are you familiar with the details behind

14 the average rating for McGuire 1 for that period?

15 A. No, I'm not.

16 Q. Would they have been reflected in either the same or

17 another meeting between the NRC and Duke management, do you

18 know?

19 A. If the meeting was handled similarly to this meeting,

20 it would have been.

21 Q. I want to turn to the second SALP report, and are you

22 familiar with it? I have a report that's with a cover

23 letter to Mr. Tucker, October 19, 1982, reflecting the

24 results of the systematic assessment and licensing perfor-

25 mance for Oconee and McGuire for the period May 1, 1980,

1 through May 30, 1982. It's Oconee, McGuire 1 and Catawba
2 and McGuire 2, September 1, 1980, through May 30, 1982,
3 and ask you if you are familiar with that report, sir?
4 A. Generally I am familiar with it, yes.
5 Q. Would you agree that both the format and the review
6 of the program in that SALP report differs substantially
7 from the format and review program reflected in the nureg
8 0834 the first SALP?
9 A. Yes, there are some differences in the report.
10 Q. In SALP 2, and I'm just going to call it that, would
11 you agree that the NRC no longer ranks construction and
12 operating facilities average, above average, below average.
13 A. They have changed their rating to a more effective
14 rating system, yes.
15 Q. They have changed their rating -- more effective in your
16 opinion?
17 A. Yes, I feel certain that it is more effective based on
18 my experience.
19 Q. But, a rating that no longer represents a qualitative
20 ranking of licensees?
21 A. I think it's a much more effective rating system
22 because, you know, you can say what is your definition of
23 average or above average. You know, the best in the nation
24 was above average.
25 Q. And, the worst in the nation were -- in the case of

1 Catawba, the worst in the nation were seven that related
2 to below average but still the worst in the nation was
3 safe as indicated by the NRC in their own document. This
4 rating system has categories for the specific things the
5 NRC things are important on rating utilities, and they
6 give a category rating for each one of the areas that --
7 and it's on that basis that I think it's more effective
8 because you can see by category. You know, you can see
9 the areas easier than you can if you have a very generic
10 rating.

11 Q. Could you describe those categories, if you know?

12 A. Well, I think these are ones that are listed here.

13 Q. Yes, --

14 A. Functional areas, and then there are three categories.
15 Category 1, 2 and 3. Category one being the highest
16 where the -- in that category, the company is doing so
17 well the NRC feels they don't have to look at you as much.
18 That you -- Category two is that normal NRC surveillance
19 is all that's required. Category three, and I'm generalizing
20 this -- there are some other things associated with it.
21 Category three, if the utility had an item that was in
22 category three, it would be one that additional attention
23 needed to be given to.

24 Q. If you can, I'm not sure exactly where I can put my
25 hands on it, but let's turn to -- If you could help maybe

1 we can get through this quicker. What I would like to
2 do is I would like to turn our attention to the facilities
3 of the company that are evaluated in this second SALP.
4 A. As best I can remember, both Oconee and McGuire had
5 only three's and two's. They had the highest and the
6 second highest ratings. One's and two's.
7 Q. Oconee 1, 2 and 3 in the tabulations of the nine
8 areas, categories 2 or 1, is that right. Let me count --
9 I count four category 2's and four category 1's.
10 A. I think you missed one of the categories. There's
11 a total of nine.
12 Q. Five 2's and four 1's?
13 A. Yes.
14 Q. And, that's the overall rating for Oconee. McGuire,
15 page five, for unit one is operational rating, and if
16 you will tell me how many in each category?
17 A. There's five category one's and leaving four for cate-
18 gory two.
19 Q. Unit two, construction and testing of the nine areas
20 some are not rated, but can you tell me how many were?
21 A. Of those items we have a rating, we have four in the
22 highest category, number one; and I see only one in the
23 category two.
24 Q. Then, lastly, Catawba.
25 A. Catawba has one in the highest and four rated in category

1 two and some others that no rating was assigned.

2 Q. I want to focus, Mr. Vaughn, on the areas in the SALP
3 report where weaknesses are disclosed, and ask you if you
4 can give me some assistance in understanding to the extent
5 you know the basis for some of the SALP board's weakness
6 evaluation. First on page two. This is a paragraph under
7 the summary of results. I will just --

8 A. Are we talking about a particular station?

9 Q. No, this is a summary of results, overall utility
10 evaluation, and I will go through specifics.

11 A. For Duke Power as a total?

12 Q. Yes, a significant weakness observed at all three
13 facilities was a lack of thorough evaluation or effective
14 corrective action for personnel related errors. This
15 problem is evident in reviews of licensee event reports.
16 Examples at Oconee include failures to follow procedures
17 and adequate surveillance procedures and poor communication
18 between different site units. Prior to start up at McGuire
19 1, numerous errors relating to poor communication and
20 failure to follow procedures were identified. A review
21 of Catawba non-compliance items revealed problems associated
22 with breakdowns in communications between utility divisions
23 and management approval of inadequate evaluations. Can you
24 refer to specific portion of the report. Can you help me
25 with some of the detail behind those significant weakness

1 identifications?

2 A. Well, I can't agree with significant weaknesses.

3 Q. I'm not asking you to. I'm asking you to recognize --

4 A. Putting it in perspective, that comment is made a long
5 with rating Oconee very high in the report itself; so, of
6 the things they did find, when they rate one high, they don't
7 find as much as they find at one they don't rate so high.
8 But, of the things they do find, what few there are, then
9 they point out what they do find. So, as you mentioned,
10 there was some areas of procedure deficiencies and some
11 personnel errors, and while we strive for absolute perfec-
12 tion and that's zero, over the course of a year, there
13 are a few things that occur and I think they are just
14 pointing that out. But, in light of a very high rating for
15 Oconee and Duke Power total. Maybe to help put that in a
16 little more perspective, if you look at when you are being
17 judged against absolute perfection, it would appear that
18 there are some things and there are a few things here, but
19 relative to all the actions that we execute, and, you
20 know, which probably runs into the millions, then we
21 are looking at -- instead of a few errors relative to
22 perfection, we are looking at a percent success rate of 99.99
23 something. And, while that is a judgment call on a success
24 rate, it would be good if there was a way that you could
25 administratively determine all the steps that you did take
and it would help put that in perspective, that comment.

1 Q. Let's look at the specifics, Mr. Vaughn, and see if
2 you can help me with it. For Oconee units 1,2 and 3
3 in operations, twenty-two violations were identified for
4 the period.

5 A. What was that time period.

6 Q. We have it in the record here.

7 A. Is that over a year?

8 MR. MCGAREY: Is this the SALP two report?

9 Q. Yes.

10 A. Is that a two-year period?

11 MR. MCGAREY: Yes.

12 Q. Page ten reflects the observations with respect to
13 those twenty-two operating violations. There are many
14 violations concerning failure to follow procedures or
15 other written instructions. These recurrent violations
16 appear to indicate inadequate licensing management involve-
17 ment in controlling this situation. Can you help me
18 understand what the -- first what the basis for that
19 was Mr. Vaughn, and what corrective action you have taken?

20 A. The key word in that is appears, and while on the
21 surfact it might appear to be, I can assure you there
22 has been no lack on the management's part to take action,
23 appropriate corrective action on every violation that we
24 have had.

25 Q. I appreciate your judgment, but first of all can you

1 help me understand what the basis was for that observation?

2 MR. MCGAREY: Let me just note an objection
3 and that is that these questions are best directed to the
4 staff and it's their report. I will not instruct Mr.
5 Vaughn from refraining to answer the questions, but note
6 that objection.

7 -Q. Do you know, Mr. Vaughn, what the basis was for that
8 observation?

9 A. Let's read the question over again so I can get it
10 clear.

11 Q. I direct your attention to that observation. I won't
12 read it again. You can read it for yourself. It's the
13 first paragraph in the text on page ten, and I ask you, sir,
14 with respect to that observation what is the basis for it
15 and what corrective action did they take.

16 A. On every incident that we have at the plant, a very
17 thorough evaluation is made by an independent evaluation
18 group that does not report to the station manager. This
19 is our on-site safety review group. This group reports
20 to the nuclear safety assurance manager who reports to
21 the department V.P. A very thorough investigation is
22 made to determine root causes and to make recommendations
23 to the station manager. When the station manager signs
24 that report, he makes a commitment to implement those
25 recommendations. It may be a procedure change, to correct

1 a procedure deficiency of whatever it might be. In the
2 cases where there are personnel errors, employees are
3 given a very strong counseling as a minimum, so there
4 is corrective disciplinary action taken. So, depending
5 on the incident, and the incident report would have to
6 speak for itself, but very definite and specific correction
7 actions are taken and followed through on for every
8 incident that occurs at the station.

9 Q. Mr. Vaughn, can you help me generally understand with
10 respect to this specific observation if there is a
11 corrective action that you are aware of that addresses
12 the many violations which concern failure to follow procedures
13 or other written instructions at Oconee?

14 A. Well, I think I'm missing your -- Are you talking in
15 more generic terms?

16 Q. Yes, I'm talking about corrective action, if you know,
17 sir, that addresses that specific finding by the NRC
18 SALP Review Board with respect to Oconee.

19 A. I know the station manager of Oconee has placed
20 emphasis on the -- or he has really reemphasizes the
21 importance of meticulous attention to detail and that's
22 our goal. We strive for that and that's required to
23 follow procedures day in and day out and never making a
24 mistake. So, there's been added emphasis placed there.
25 Every violation which includes those that where there has

1 been failure to follow procedure is recorded through out
2 management channel and reviewed and a summary of these
3 are reviewed weekly by our company's executive committee.
4 So, there is top management in our company, the top manage-
5 ment of our company, dedicating, focusing attention on
6 the LER summary which these would be involved, be included.
7 Q. By these, you mean the specific violations that are
8 indicated with reference to that observation?
9 A. Yes, each violation would be a separate incident
10 report, separate LER, and they are listed separately on
11 a weekly summary.
12 Q. Mr. Vaughn, are you aware of any specific written
13 program or corrective action that addresses that observation
14 by the same board with respect to the company?
15 A. We have programs that are involved in -- like our
16 corrective discipline program is a written program.
17 Q. What's with respect to personnel discipline?
18 A. Uh huh.
19 Q. I'm sorry.
20 A. It's documented in our management procedures manual.
21 Q. Yes, sir.
22 A. We have documented performance management program for
23 exempt employees. This would be supervisory personnel and
24 where an error is made by a person under a supervisor,
25 the supervisor that is taken into account in the evaluation

1 process for that supervisor for salary purposes. The
2 cancelling aspect of procedure violation or personnel
3 error or whatever, that is one level of disciplinary
4 action and that's part of the disciplinary action program.

5 Q. Let me understand, cancelling?

6 A. That's one of the levels in the disciplinary action
7 program, so it's part of a written program. So, there
8 are programs associated with addressing this area. In
9 addition to that, we have a program for our department
10 to follow up on every one of these.

11 Q. Which department is that?

12 A. Nuclear Production Department. When this safety
13 review board, this independent on-site safety review group,
14 investigates the incident and the investigation is over
15 a copy of that goes into our nuclear engineering services
16 group where the reactor safety group is, the licensing
17 group; a copy goes to the nuclear safety review board and
18 a copy to the reactor safety group which reviews all the
19 LER's and all the incidents, a copy goes to the other
20 stations' on-site safety review group; so there is a
21 formalized process, and I feel sure it's procedurized
22 and documented that this department uses to distribute,
23 to evaluate and distribute information associated with
24 every one of these incidents.

25 Q. Anything else you would like to add? I'm not trying

1 to cut you off, but if you have completed your answer,
2 that's fine. The hour is getting late, Mr. Vaughn.
3 Beginning page 11 under the second subject, logical controls,
4 the SALP Board makes the observation after noting twelve
5 violations on page 12, violations and weaknesses identified
6 above indicate the need for management to focus attention
7 in the area of compliance with the technical specifications
8 and procedures and regulations.

9 A. Management does that. I think in Mr. Tucker's
10 response to that, I believe he addressed that point in
11 his letter responding to the report in that our reports
12 to the NRC it's hard to reflect everything that is done
13 associated with an incident. In that regard the NRC may
14 not be seeing everything that we do and might be some
15 basis for that comment, But, from my experience, I think
16 that comment is a little bit out of context.

17 Q. Under the same heading, observation is made the health
18 physics appraisal team visited the facility during the
19 evaluation period and identified weaknesses in the plant's
20 contamination control program. General employee radiation
21 protection training, adherence to health physics procedures,
22 rad waste volume reduction training for plant staff and
23 implementation of the ALARA manual. Can you shed some
24 light on the basis of that observation and if corrective
25 action was taken?

1 A. I don't have the information on the corrective action
2 that was taken, but in the appraisal teams visit to a
3 plant where they make recommendations, the station manager
4 is part of an exit meeting or follow-up. We make commit-
5 ments to follow-up on all those items, and we do. So,
6 I'm sure that where there was any -- you know, I'm a
7 little concerned about the definition of what the word
8 "weakness" means. Weakness relative to perfection or --
9 most programs are, you know, if you look at them long
10 enough, there are enough different people looking at the
11 same program, you can propose improvements, and that
12 doesn't necessarily mean that your program is no satis-
13 factory nor safe. You can always improve something, so I
14 have a feeling that that is in the category of making
15 improvements to a right good program.

16 Q. For the fourth topic, still with Oconee now, is the
17 subject of surveillance. The observation, page fifteen, is
18 as follows, "Major violations in the area of surveillance
19 are rare; however, one surveillance-related issue was the
20 object of escalated enforcement proceedings including the
21 proposed imposition of a civil penalty. This issue involved
22 the failure to replace test tee cap following surveillance
23 testing resulting in a breach of containment integrity."
24 Can you help us with understanding the basis for that
25 observation, Mr. Vaughn, and corrective action that was

1 taken?

2 A. That was a case where a test tee cap, a small quarter
3 inch cap that you connect test equipment to a pressure
4 instrument, apparently was left off and a violation of
5 the surveillance procedure resulted. The last step of
6 the procedure read something like this, "Remove test
7 equipment, replace test tee cap, return isolation valves
8 to normal," or cut the instrument back in normal service.
9 That was all on one line. Of course, the fact the cap
10 was not returned was an employee error because the procedure
11 so stated. But, in addition to that, we modified the
12 procedure to add independent verification of that step and
13 also to break that step out into a number of different
14 steps to be signed off instead of having two or three
15 operations in the one step to do everything we could from
16 a human factor standpoint to help insure that it would be
17 even easier for a person not to miss that step. So, we
18 made a procedure improvement. There were two employees
19 associated with running that test. One of them left the
20 company's employ prior to our catching the incident. The
21 other one was counseled, so we added another level of
22 an independent check on the return to normal of that piece
23 of instrumentation as well as -- as a matter of fact, we
24 upgraded all the I and E procedures like this, not just
25 this one procedure. So, we made some procedure enhancements

1 as well as taking corrective disciplinary action with the
2 employee.

3 Q. Could you identify the two employees who are associated
4 with this?

5 A. I can't remember their names.

6 Q. Was this a radiation monitoring line?

7 A. No, it was not.

8 Q. What was the line on which the test tee cap was --

9 A. It was one of the multiple channels -- special trans-
10 ducers associated with reactor building spray, I think.

11 Q. How long was the test tee cap not in place on the
12 line?

13 A. I can't remember, some period of time.

14 Q. A period of days?

15 A. I think it was more than days.

16 Q. Months?

17 A. I'm not sure. I would like to add something to that.

18 Q. Sure.

19 A. And, this is really -- it goes along with all of the
20 violations that we have been talking about or incidents.

21 In this case and all of the others, Duke Power has never had
22 an incident that had an effect on the health and safety of
23 the public and this didn't either -- the evaluation of that.

24 Q. We will turn to some point, when we get done, Mr. Vaughn,
25 to the 1977 releases of Lake Hartwell which there may be

1 some difference of opinion on the question of health
2 effects. That was a radiation release to the environment.
3 A. I think my comment still applies to that one as well.
4 The evaluation of that I think supported it.
5 Q. With respect to the subject of licensing, the last
6 subject of the nine categories evaluated, Mr. Vaughn, the
7 .SALP Board makes the following observation. Staffing of
8 the facility appears to be adequate containing many know-
9 ledgeable members, however, in view of the tardiness of
10 the responses by the licensing staff, there appears to be
11 need for increased management attention to the expeditious
12 resolution of technical issues. Can you help me understand
13 the basis for that observation and any corrective action
14 that you may know of? Page twenty-one of that.
15 A. I'm probably not the most knowledgeable person to speak
16 to that one. Is this the licensing staff in Charlotte,
17 staff licensing staff?
18 Q. I'm afraid I can't tell you that. With respect to
19 the Oconee facility anyway.
20 A. Of course, our licensing staff in Charlotte works with
21 all three of the stations. I'm not familiar with this.
22 I will just say one thing about it. The technical issues
23 are very complicated and to get -- to root causes and
24 very accurate determination of corrective actions that need
25 to be taken and things of that nature, it takes some time to

1 do an accurate job. That might well be what is associated
2 with this. I'm familiar with cases where we have asked
3 for additional time in order that we can complete a thor-
4 ough evaluation of an incident.

5 Q. Let's turn then to McGuire. Of the facilities evaluated,
6 Oconee was for operations we have just completed that,
7 and the only other operating facility which you may have
8 knowledge of would be McGuire unit 1 for this, is that
9 right?

10 A. As I mentioned I was at Oconee during that review
11 period, assigned to Oconee, and I was out of the main
12 stream of the McGuire activities. I will try to address
13 your questions as best I can.

14 Q. I won't belabor if you don't know and don't have
15 information, please so indicate. Under the first heading,
16 under the category plant operations, Mr. Vaughn, page 26
17 the following observation is made by the SALP Review Board.
18 Lack of communication was noted for example between
19 maintenance and operation that resulted in returning inoper-
20 able equipment to operable status. The situation still
21 appears to need improvement and that two recent LER's
22 demonstrated that corrective action was not thorough. As
23 two additional pieces of equipment were returned to operable
24 status. Take a look at it and I will ask you if you can
25 share with us the basis for that observation any any

1 corrective action taken?

2 A. Where were you reading?

3 Q. Right here.

4 A. I can't speak to this nor the NRC's evaluation of it.

5 You know, just generically, when you start looking at

6 whether its a mistake in the legal business or anywhere

7 else, communications, a lot of times, generically is a

8 problem. You say, "What I meant to say was this," or

9 whatever. I would not just thinking about how things

10 happen in our business from experience, you can have

11 a communications problem that may be very different

12 communications here or communications there; and without

13 looking at the two events reports, I couldn't say that

14 they were related except generically from obviously the

15 NRC's saying a communications point. We stress proper

16 communications throughout our management and with employees

17 and that is an indication that we are not quite perfect.

18 But, I will repeat again every incident that occurs is

19 treated as individual and given full and dedicated and focused

20 attention by our management and our incident process to

21 evaluate it, determine root causes to take corrective

22 actions, and I'm sure if that was done in this case, in

23 each one of those cases I'm sure that was done. That's

24 our normal process and we just go through it.

25 Q. The seventh category, security and safeguards, page 33

1 of the report the observation follows, "Violations noted
2 are attributed to failure by security personnel to comply
3 with established written procedures and weakness in security
4 supervision relative to monitoring personnel performance
5 and documentation of daily activity and recorded incidents.
6 Circumstances of violations reflect inadequate job knowledge
7 and training deficiencies in some instances," and, if you
8 can, if you can't please tell me, but can you share with
9 us the basis for that observation and corrective action
10 that you know of.

11 A. I'm not familiar with the details of the corrective
12 action that was taken.

13 Q. How about the basis for that observation by the SALP
14 Board?

15 A. Well, it must be from their review of the incident
16 report.

17 Q. Beyond what appears in the face of the document, you have
18 any other information?

19 A. No, I don't.

20 Q. You are not the person best suited to respond to ques-
21 tions with respect to McGuire 2 and Catawba, facilities
22 that were under construction at the time of this review?

23 A. I would not be.

24 Q. I think we are just about rapping it up, Mr. Vaughn.
25 Are you knowledgeable about the circumstances surrounding

1 the 1977 imposition of civil penalty for incidents at the
2 Oconee facility?

3 A. I have been made aware of some details behind that.

4 I was not at Oconee at the time. I was in GO and --

5 Q. General Office?

6 A. General office.

7 Q. I have , I guess, I'm interested in information you
8 have beyond the report which I have and have read and
9 the company's response to that report, and so if you have
10 independent knowledge beyond that, that would be helpful
11 let me just make specific reference to this body of our
12 contention. The observation of the commission in the
13 documentation accompanying the proposed imposition of
14 civil penalty made the following observations. History
15 of repetative and chronic non-compliance when considered
16 in conjunction with the failure to institute affective
17 corrective action and management control demonstrates
18 that management is apparently not conducting licensed
19 activities with adequate concern for the health, safety
20 or interest of its employees or the general public. That
21 is a reference as reflected in the body of the contention,
22 a letter of Marcy 29, 1977, to Mr. Horn, President of Duke
23 Power from Mr. Ernest Volgennau of NRC. Mr. Vaughn, do
24 you -- can you bare with us any information you might
25 have regarding the basis for that observation by NRC and

1 any corrective action that was taken?

2 A. First, our Chairman of the Board, Mr. Carl Horn,
3 received that letter and he made a very extensive reply
4 addressing each contention. In that reply we disagreed
5 with the statement that you read. We do not agree with
6 the words repetitive nor chronic. By our definition of
7 those words, the incidents associated with it as I
8 can remember somethings in Mr. Horn's letter indicated
9 that maybe the majority of the incidents that were alleged
10 to be chronic and repetitive were minor administrative-type
11 things that if you look at the incidents individually, there
12 was not enough of a pattern to say that they had a relation-
13 ship that you could say would be repetitive. That most of
14 them or many of them were corrected before the inspector
15 every left the site. So, I'm aware personally of changes
16 that have been made in our company.

17 Q. Let me ask a question. Directing your attention first
18 to the basis. I have Mr. Horn's letter, and I can -- that will
19 speak for itself. May I ask you if you have any independent
20 knowledge beyond what is available to us in Mr. Horn's
21 official response to the NRC with respect to that observation,
22 and if you do, can you share that with us?

23 A. I know some of the changes that were made.

24 Q. Yes.

25 A I think they are brought out here.

1 Q. Let me shift your attention. The answer to the first
2 question is, No, no other additional information?

3 A. No.

4 Q. Now, please continue with the changes, corrective
5 actions.

6 A. There were procedural changes made to -- procedural
7 changes and a contingency plan made to better handle a
8 primary to secondary leak. A major change. There were
9 automatic cut-offs put on certain pumps that -- and a
10 radiation monitor put on the pumps such that it would con-
11 tain within the turbine building itself any leakage. Improve-
12 ments were made not just at Oconee but at McGuire and
13 Catawba to put them in a much better position to handle
14 primary to secondary leaks and there were a lot of other
15 things made, but the improvements were at McGuire and
16 Catawba were in the area of having additional hold up
17 volumes so you could hold up any liquid processing and
18 then at that point based on recommendations from a task
19 force and Duke's management evaluation of this lead toward
20 a much more comprehensive radioactive waste handling program.
21 That's been the basis for modifications, very extensive
22 modifications at Oconee, McGuire and Catawba. The systems
23 for McGuire and Catawba improvement in those systems as
24 those stations were being built. So, from seeing nuclear
25 station modifications and where we are spending money, I

1 see places that resulted from our company learning things
2 from that incident.

3 Q. What task force did you have reference to?

4 A. There's a -- going through the documents, there was
5 a task force that was formed in addition to all the other
6 reviews that were going on to look at this area, this
7 radioactive waste handling.

8 Q. Was it organized at that time in 1977?

9 A. My impression, from reading the documents, is that it
10 was organized soon after the incident to take a total
11 overall view of not just thing incident, but the radioactive
12 waste program as a whole. You know, you don't want to lose
13 sight of the whole forest trying to concentrate on one or
14 two of the trees and that's what that task force did.

15 Q. Can you help me identify that task force and its
16 product a little bit better with the names of the people
17 who are on it or maybe the identification of its
18 report if it issued one?

19 A. I couldn't. I can tell you generally who, you know --
20 the groups of people that would have been on it. Those
21 people that -- on our GO staff associated with rad waste.

22 Q. Mary Burch?

23 A. Mary Burch might have been on it, yes, I think she was
24 with Duke at that time.

25 Q. Do you have anything else to add with respect to that

1 specific matter?

2 A. I can't think of anything.

3 Q. I think that's all.

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GERALD E. VAUGHN

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1 STATE OF NORTH CAROLINA)
2 COUNTY OF MECKLENBURG)

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5 I, the undersigned Commissioner and Notary Public,
6 in and for the State of North Carolina, do hereby certify
7 that Gerald E. Vaughn was duly sworn prior to the taking
8 of his deposition.

9 I do further certify that the foregoing forty
10 pages constitute a true and accurate transcript of the
11 evidence given by the said witness as taken down and
12 transcribed by me.

13 This the twenty-seventh day of May, 1983.

14
15 
16 BARBARA V. HAAS
17 Commissioner and
Notary Public

18 My Commission expires:
19 April 23, 1987
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