

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ORIGINAL

IN THE MATTER OF:

CATAWBA NUCLEAR STATION

DOCKET NO:

50-413-0L

50-414-0L

LOCATION: CHARLOTTE, NC

PAGES: 13,704 - 14,046

DATE: THURSDAY, OCTOBER 11, 1984

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o/i

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Official Reporters
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

BB&T Center,
Fourth Floor, Carolina Room,
200 South Tryon Street,
Charlotte, North Carolina

Thursday, 11 October 1984

The hearing in the above-entitled matter
was convened, pursuant to adjournment, at 9:10 a.m.

BEFORE:

JAMES L. KELLEY, Chairman,
Nuclear Regulatory Commission,
Atomic Safety and Licensing Board

PAUL PURDOM, Member,
Nuclear Regulatory Commission,
Atomic Safety and Licensing Board

RICHARD FOSTER, Member,
Nuclear Regulatory Commission,
Atomic Safety and Licensing Board

agb

1 APPEARANCES:

2 On behalf of Applicant, Duke Power Company:

3 ALBERT J. CARR, JR., Esq.,
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9 ANNE COTTINGHAM, Esq.,
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Carolina Environmental Group:11 ROBERT GUILD, Esq., (Palmetto Alliance)
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15 On behalf of NRC Staff:

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17 Office of Executive Legal Director,
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18 Washington, D.C. 2055519 BRADLEY JONES, Esq.,
20 Region I,
Atlanta, Georgia

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I N D E X

	<u>WITNESSES</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>BOARD</u>	<u>REDIRECT</u>	<u>RECROSS</u>
1						
2						
3	Carl J. Czajkowski	13,712				
	Bruno Uryc					
4	Jerome J. Blake					
	Nick Economos					
5	(By Guild)		13,723			
	(By Riley)		13,826			
6	(By McGarry)		13,846			
	(By Judge Purdom)			13,870		
7	(By Judge Foster)			13,879		
	(By Judge Kelley)			13,884		
8	(By Guild)				13,889	
	(By Johnson)					13,906
9	(By Riley)				13,917	
	(By Johnson)					13,924
10						
11	Raymond J.					
	Michalowski	13,927				
12	(By Johnson)		13,957			
	(By Judge Foster)			13,975		
13	(By Judge Purdom)			13,978		
	(By Judge Kelley)			13,991		
14	(By Guild)				14,000	
	(By Johnson)					14,001
15	William M.					
	Carpenter	14,001				
16	(By Johnson)					
17						
18	<u>Exhibits</u>				<u>Ident.</u>	<u>Eyi.</u>
	Int. 146 - Table I				13,926	13,926
19	Int. 147 - Michalowski summary				13,928	13,928
	Staff 31 - Johnson 4/22/84 ltr to Board				13,715	13,715
20	Staff 32 - Johnson 7/18/84 ltr to Board				13,717	13,717
	Staff 33 - Johnson 8/31/84 ltr to Board				13,718	13,718
21	Staff 34 - Czajkowski 7/84 report				13,720	13,720
	Staff 35 - Blake affidavit and qual. stmt.				13,722	13,722
22	Staff 36 - Uryc affidavit and qual. stmt.				13,723	13,723
23						
24						
25						

(Intervenor Palmetto exhibits to be
furnished to Reporter at a future date.)

#1-1-SueT

P R O C E E D I N G S

1
2 JUDGE KELLEY: Good morning. Just two or three
3 preliminary matters before we put on the Staff's panel.
4 First of all, on the question of witnesses and the opposition
5 to certain of the proposed witnesses proposed by Palmetto.

6 We are progressing right along, and we want to
7 have a chance to look at the transcript. I expect we can
8 make all those rulings after lunch.

9 For now, let me just say a couple of things in
10 the interest of keeping things on track. We did have some
11 names last night. I believe those people were to be notified
12 for an after lunch availability today.

13 Has that been done, Mr. McGarry?

14 MR. MC GARRY: One of the people works for Duke
15 and that has been done.

16 JUDGE KELLEY: Okay.

17 MR. GUILD: Judge, I spoke to the other and he
18 expects to leave work about 3:30 and it will be perhaps an
19 hour before he gets here. I thought that would factor into
20 our schedule.

21 JUDGE KELLEY: That sounds pretty good. He
22 will come?

23 MR. GUILD: Yes, sir.

24 JUDGE KELLEY: Okay. You indicated that your
25 witness, you had a statistician witness that you wanted to

#1-2-SueT

1 put on this afternoon.

2 MR. GUILD: I expect him in the 2 o'clock plus
3 time frame.

4 JUDGE KELLEY: He might be first after lunch it
5 sounds like to me.

6 In addition to that, this will give you some
7 notice, we are going to allow Mr. Davison to be called. He
8 has been disputed, and we are going to allow it, primarily
9 because he is the head of the QA at the site and has been
10 so for some time. It would seem to us that he should have
11 some knowledge about general factors at least bearing on
12 foreman override, the lack thereof or its frequency.
13 Obviously, his appearance would be restricted to foreman
14 override.

15 And we are not, perhaps to say the same thing
16 once more, not going to cover matters we have previously
17 covered in the hearings last year. But, within those
18 parameters we will allow Mr. Davison to be called.

19 Today --

20 MR. MC GARRY: Your Honor, we will I guess put
21 him on notice he will be called today?

22 JUDGE KELLEY: It could be. I guess looking
23 down, it will be a long day. We thought a lot of people,
24 including us, would like to watch the debate, at least to
25 get out of here in time tonight to eat something and watch

#1-3-SueT

1 the debate. And so we are not going to repeat yesterday in
2 terms of duration. But we expect to have a very long day.
3 Could he check back in the late afternoon and see where we
4 are?

5 MR. MC GARRY: Yes.

6 JUDGE KELLEY: Yesterday, on the question of time
7 for this morning on the Staff's panel we just gave the gross
8 beginning and end points for getting underway at 8:30. That
9 has been changed to 9, and going to lunch around 1. So,
10 since we are starting at 9, why don't we have as the begin-
11 ning point for cross about 9:30 -- that's what it will turn
12 out to be by the time we get through here talking -- and we
13 are going to try to be done by about 1:30.

14 And that then would break up this way as we see
15 it. If we get started with cross somewhere I guess between
16 9:15 and 9:30, and cross then for the Intervenors would run
17 until around noon. And then there would be one break in
18 that segment there. So, it's two pieces of cross with a
19 break in the middle running until around noon. A short
20 break at noon and then the Applicants would have 20 minutes,
21 from 12:10 to 12:30, the Board 20 minutes from 12:30 to
22 12:50, recross from 12:50 to 1, redirect from 1 to 1:20.

23 That brings us out at about the point that we
24 were talking about. Mr. Riley indicated his witness in asking
25 some questions this morning. I indicated that that was fine

#1-4-SueT

1 as long as it was worked out with Palmetto. When we gave
2 these parameters yesterday and said that we would do the
3 Staff this morning, that's what we meant.

4 MR. GUILD: We have done that, Judge.

5 JUDGE KELLEY: Fine. Just one more thing and then
6 we can get underway as far as the Board is concerned. It
7 might be appropriate for us to make an on-the-record hind-
8 sight observation with respect to the way in which we have
9 conducted the hearing up until now with the first panel on
10 the question of whether we should be In-Camera or not.

11 It seems to us that as it turned out, the Appeal
12 Board was right in that the confidentiality of the many
13 affiants was pretty well protected by the number system that
14 we used. In fact, I think I was guilty of the grossest
15 slip and there might have been one other.

16 I might just note that when we heard argument on
17 it, we didn't really expect that that was the way things
18 were going to be. We thought discussion was going to be
19 largely focused on individuals and affidavits and people
20 saying things like Number 5 who works for Number 83, 147
21 and 184, and did such and such. And we didn't see how we
22 could make any sense out of that.

23 But I don't think any of us knew exactly where
24 it was going to go. It went where it went. There wasn't
25 very much focus really on the names and numbers, not very

#1-5-SueT 1

2 much at all. We mention this just because this has been
3 done on the record here and we have had the Appeal Board come
4 in and tell us which way to go. And as we said, they turned
5 out to be right.

6 But we think Board's are kind of groping without
7 a handle on these situations. Since we have had this ex-
8 perience we don't want to leave the impression that we sort
9 of grudgingly went along with the directive from above. Our
10 message is, yeah, you were right. And if we had known what
11 we know now we would have done it that way in the first place.

12 So, I think that's enough on that point. But we
13 did just want to mention that we had thought about it and
14 we didn't, of course, know what was going to happen. Of
15 course, the powers of Appeal Boards are far greater than
16 those of licensing boards. Perhaps they knew in advance what
17 was going to happen.

18 That's all we have before we have Mr. Johnson
19 call his panel. Is there anything else to be brought up
20 right now?

21 MR. JOHNSON: No, sir. At this time, the Staff
22 would like to call the following individuals, Mr. Carl J.
23 Czajkowski. That's spelled C-z-a-j-k-o-w-s-k-i. Mr. Nick
24 Economos, Mr. Jerome J. Blake, and Mr. Bruno Uryc, U-r-y-c.

25 Mr. Uryc and Mr. Economos have previously been
sworn. The other two have not been sworn.

#1-6-SueT 1

JUDGE KELLEY: Okay. Gentlemen, would you raise
2 your right hand, please?

3 (The witnesses are sworn by Judge Kelley.)

4 Whereupon,

5 CARL J. CZAJKOWSKI,

6 BRUNO URYC,

7 JEROME J. BLAKE,

8 -and-

9 NICK ECONOMOS

10 were called as witnesses by and on behalf of the NRC Staff
11 and, having first been duly sworn, were examined and testified
12 as follows:

13 DIRECT EXAMINATION

INDEXXXXXX 14

BY MR. JOHNSON:

15 Q Before I introduce the prefiled testimony of
16 these individuals, I would like each of you to identify
17 yourself and your position.

18 A (Witness Czajkowski) My name is Carl J.
19 Czajkowski. I am a Research Engineer at Brookhaven National
20 Lab.

21 (Witness Economos) Nick Economos. Region II,
22 Reactor Inspector.

23 (Witness Blake) Jerome Blake. I am the Section
24 Chief of the Materials and Processing Section, Region II.

25 (Witness Uryc) Bruno Uryc. I am the Investigative

#1-7-SueT

1 Coordinator for Region II.

2 Q Mr. Uryc and Mr. Economos, I would like to show
3 you an inspection report that is covered by a letter of
4 April 23rd, 1984 to Duke Power Company, and it concerns
5 Report Numbers 50-413/84-31 and 50-414/84-17.

6 Incidentally, this document has already been re-
7 ceived into the record but for convenience I think it ought
8 to be marked as an exhibit here.

9 JUDGE KELLEY: Did this come in last Spring?

10 MR. JOHNSON: Yes.

11 BY MR. JOHNSON: (Continuing)

12 Q Mr. Economos and Mr. Uryc, did you prepare the
13 report in question?

14 A (Witness Economos) Yes.

15 (Witness Uryc) Yes.

16 Q Do you have any corrections or additions to make
17 to that report at this time?

18 A (Witness Economos) No, I don't.

19 (Witness Uryc) No.

20 Q Is that report true and correct to the best of
21 your knowledge?

22 A Yes.

23 (Witness Economos) Yes, it is.

24 MR. JOHNSON: The Staff would like to offer this
25 to marked as Staff Exhibit 31. It's already admitted in the

#1-8-SueT

1 case but I think everyone here has copies.

2 JUDGE KELLEY: I believe it's correct that in
3 our Opinion this is one of the documents that we put in.

4 MR. GUILD: Yes, sir. And, if I may, we, in
5 responding to the Board's invitation to comment on the
6 reports noted our objection to the receipt of these pre-
7 vious Staff and Applicant documents, as noted in the partial
8 initial decision.

9 They weren't exactly received in evidence but
10 they were received in the record in some fashion at the time
11 at the June 22nd decision.

12 We don't have any objection to them being re-
13 ceived into evidence at this point, and this is the proper
14 approach to have them sponsored by the authors. And so
15 long as they stand cross-examination and we have our
16 opportunity to attack the document through cross, it seems
17 the appropriate way to approach it.

18 And I have no objection to it being offered. And
19 my position is similar with regard to the balance of the
20 Staff documents that I anticipate that Mr. Johnson is going
21 to offer.

22 JUDGE KELLEY: Fine. Thank you.

23 MR. JOHNSON: I would ask that this exhibit be
24 marked as Staff Exhibit 31 and be admitted into evidence.

25 JUDGE KELLEY: Admitted. Marked

#1-9-SueT 1

(The document referred to is
2 marked as Staff Exhibit 31 and
3 admitted in evidence.)

INDEXXXXX 3

4

BY MR. JOHNSON: (Continuing)

5

Q The second document I have before me is a July

6

18th cover letter to the Board from myself which covers a

7

communication from Region II of the NRC, dated July 11th,

8

1984 to Duke Power Company, the subject: Inspection Report

9

Numbers 50-413/84-73 and 50-414/84-32. And that covers the

10

subject inspection report.

11

Mr. Economos, did you prepare this report?

12

A (Witness Economos) Yes, I did.

13

Q Do you have any additions or corrections to

14

make at this time?

15

A No, I don't. Yes, I did and I don't have any

16

additions or deletions.

17

Q Are the contents of the report true and correct

18

to the best of your knowledge?

19

A Yes, sir, it is.

20

Q And except for Item 3 in that report which covers

21

an item called "Closed Unresolved Item 413/84-28-02 Air

22

Handler Structural Integrity" do you adopt this as your

23

testimony in this proceeding?

24

A Yes, sir, I do.

25

MR. JOHNSON: At this time I would like to have

#1-10-SueT 1 this document marked as Staff Exhibit 32 and received into
2 evidence.

3 MR. GUILD: That's the July 11 inspection report?

4 MR. JOHNSON: That's correct.

5 MR. GUILD: I just don't happen to have -- I've
6 got the inspection report but I don't have your cover
7 letter that goes along with it.

8 MR. JOHNSON: Here it is.

9 MR. GUILD: Mr. Johnson, what I was asking you
10 about, I understood you to say there was a cover on the
11 July --

12 MR. JOHNSON: I gave it to you, didn't I?

13 MR. GUILD: No. This is August.

14 MR. JOHNSON: Oh. Yes.

15 JUDGE KELLEY: Do you have a spare July? This
16 is August.

17 MR. JOHNSON: All right. Here you go.
18 That exhibit was admitted, sir?

19 JUDGE KELLEY: Yes. I understand Mr. Guild's
20 position. I'm not hearing objections from Mr. McGarry.

21 MR. MC GARRY: That's correct.

22 JUDGE KELLEY: You understand what these exhibits
23 are?

24 MR. MC GARRY: And we have no objections.

25 JUDGE KELLEY: Okay.

#1-11-SueT 1

(The document referred to is
2 marked as Staff Exhibit 32
3 and admitted in evidence.)

INDEXXXXX 3

4

BY MR. JOHNSON: (Continuing)

5

Q The third item I would like to have identified

6

is covered by an August 31, 1984 memorandum from myself to

7

the Licensing Board covering the Staff's August 31, 1984

8

inspection report Number 50-413/84-88 and 50-414/84-39,

9

and an accompanying notice of violation.

10

Mr. Blake and Mr. Uryc, did you prepare this

11

report and this notice?

12

A (Witness Blake) Yes.

13

(Witness Uryc) Yes.

14

Q Do you have any additions or corrections to make

15

to those at this time?

16

A (Witness Uryc) I think there is one correction

17

here. On Page 6 of this document in Paragraph 7, approxi-

18

mately five lines up from the bottom of that paragraph,

19

there is a statement that one individual or one could not

20

be contacted. And at the time this report was written,

21

that was the correct statement.

22

However, we did manage to contact that one

23

individual.

24

Q Do you, the two of you, adopt this -- excuse me.

25

And, therefore, is this report and this notice of violation

#1-12-SueT 1

true and correct to the best of your knowledge?

2

A Yes, sir.

3

(Witness Blake) Yes.

4

Q Do you adopt this document as your testimony

5

in this proceeding?

6

A (Witness Uryc) Yes.

7

(Witness Blake) Yes.

8

MR. JOHNSON: I would therefore like to offer this

9

document as Staff Exhibit 33 at this time.

10

JUDGE KELLEY: Just a mechanical question. Why

11

are you referring to report numbers, 88 and 39? It seems

12

to be one.

13

MR. JOHNSON: It's one for each unit. There is

14

one for Unit 1 and one for Unit 2, two documents.

15

JUDGE KELLEY: Are these sequential, there have

16

been 88 inspections of Unit 1?

17

MR. JOHNSON: I believe that's --

18

WITNESS BLAKE: Yes, during this calendar year.

19

JUDGE KELLEY: During the calendar year?

20

WITNESS BLAKE: Yes, during the calendar year.

21

JUDGE KELLEY: Okay.

22

(The document referred to is

23

marked Staff Exhibit 33 and

24

admitted in evidence.)

25

BY MR. JOHNSON: (Continuing)

#1-13-SueT 1

2 Q The next document I would present for identifi-
3 cation is a report written by Mr. Carl J. Czajkowski
4 entitled "Catawba Socket Weld Evaluation" dated July 1984,
5 and it's covered by a letter from Mr. Czajkowski of July
6 11th, 1984 to Mr. J. Troup of the Nuclear Regulatory Com-
7 mission.

8 Is this document, the report that's covered here,
9 was this prepared by you, Mr. Czajkowski?

10 A (Witness Czajkowski) Yes.

11 Q Do you have any additions or corrections to make
12 to that document at this time?

13 A No, I don't.

14 Q Is it true and correct to the best of your
15 knowledge?

16 A Yes, it is.

17 Q Do you adopt that as your testimony in this
18 proceeding?

19 A Yes.

20 MR. JOHNSON: I would like to offer --

21 BY MR. JOHNSON: (Continuing)

22 Q I have in addition to this document attached your
23 professional qualifications. These are true and correct to
24 the best of your knowledge?

25 A Yes, they are.

MR. JOHNSON: I would like at this time to offer

#1-14-SueT 1

this as Staff Exhibit 34 for admission into evidence at
this time.

2

3

JUDGE KELLEY: Have we passed the category --

4

I think we have -- of papers that were incorporated in by
virtue of the -- this is a July document?

5

6

MR. JOHNSON: Yes.

7

JUDGE KELLEY: Okay. So we are on a different

8

ground to that extent.

end #1 9

(The document referred to is
marked Staff Exhibit 34 and
admitted in evidence.)

Mimie flws 10

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1 MR. JOHNSON: This document has been circulated to
2 the parties previously, and to the Board.

3 The next document I would like to have identified
4 is an affidavit of Mr. Jerome J. Blake, with attached
5 Statement of Professional Qualifications. This was submitted
6 to the Board and Parties as part of a September 12th submission,
7 and is offered here.

8 BY MR. JOHNSON:

9 Q Mr. Blake, can you identify these two documents?

10 Are those your Affidavit of Jerome J. Blake, dated
11 12 September 1984? Two pages?

12 A (Witness Blake) Yes, it is.

13 Q And the other part of it is your Statement of
14 Professional Qualifications, also two pages?

15 A That's correct.

16 Q Do you have any additions or corrections to make
17 to those two-page papers?

18 A No, sir.

19 Q Are they true and correct to the best of your
20 knowledge?

21 A Yes, they are.

22 Q Do you adopt them as your testimony in this
23 proceeding?

24 A Yes, I do.

25 MR. JOHNSON: I would like to offer these two

mm2 1 two-page documents as Staff Exhibit 35 for admission into
2 the proceeding.

3 (Staff Exhibit No. 35 was
4 marked for identification and
5 received in evidence.)
xxxx

6 MR. JOHNSON: The last documents I would like to
7 offer, the first part of it is Affidavit of Bruno Uryc. It
8 is two pages --

9 MR. GUILD: The Blake Affidavit and Resume were
10 numbered --

11 MR. JOHNSON: I'm sorry, I think I gave it a number
12 of 35.

13 The next documents are Affidavit of Bruno Uryc
14 dated September 11, 1984, and attached Statement of
15 Professional Qualifications, two pages. This, too, was
16 attached to the September 12th submission to the Board and
17 Parties.

18 BY MR. JOHNSON:

19 Q Mr. Uryc, are these such Affidavit and Statement
20 of Professional Qualifications?

21 A (Witness Uryc) Yes.

22 Q Do you have any additions or corrections to make
23 to those at this time?

24

25

mm3

1 A No.

2 Q Are they true and correct to the best of your
3 knowledge?

4 A Yes.

5 Q Do you adopt them as your testimony in this
6 proceeding?

7 A Yes.

8 MR. JOHNSON: At this time I would like to offer these
9 documents as Staff Exhibit 36 for admission in this proceeding.

10 JUDGE KELLEY: They were marked and received.

xxxx

11 (Staff Exhibit No. 36 was
12 marked for identification and
13 received in evidence.)

14 MR. JOHNSON: Our panel is now ready for cross
15 examination.

16 JUDGE KELLEY: Just for the record, I think that all
17 Mr. Johnson's exhibits have been numbered and offered. There
18 weren't any objections to any of the documents that I
19 understand, so they are all admitted.

20 The panel is ready for cross. Mr. Guild?

21 MR. GUILD: Thank you, Mr. Chairman.

xxx

22 CROSS-EXAMINATION

23 BY MR. GUILD:

24 Q Good morning, gentlemen.

25 Now, as a result of your review of what we will

mm4 1 call the Welder B matter, and your review of Duke's
2 Investigation, a Notice of Violation was issued against Duke
3 Power Company for failure to comply with the requirements of
4 10 CFR Part 50, Appendix B, the Commission's Quality Assurance
5 Regulations.

6 Is that true?

7 A (Witness Uryc) Yes.

8 A (Witness Blake) Yes.

9 A (Witness Economos) Yes.

10 A (Witness Czajakowski) Yes.

11 Q That Notice of Violation is attached to Staff
12 Exhibit 33, Mr. Johnson's August 31 submission which includes
13 an Inspection Report of that date.

14 Is that true?

15 A (Witness Blake) That is correct.

16 Q Now I take it, Mr. Czajakowski, that you are not
17 responsible for that since you are performing contracting
18 services for the NRC, so the violation is not your work?

19 A (Witness Czajakowski) That's correct.

20 Q Who, of the remaining gentlemen, is responsible for
21 the Notice of Violation?

22 A (Witness Blake) I authored that part of the report.

23 Q Mr. Blake?

24 A Yes.

25 Q And that violation -- and I am just going to read.

mm5

1 "10 CFR 50, Appendix B, Criterion 2, Quality
2 Assurance Program requires in part that the
3 Applicant shall regularly review the status and
4 adequacy of the Quality Assurance Program, and that
5 management of other organizations participating in
6 the Quality Assurance Program shall regularly
7 review the status and adequacy of that part of the
8 Quality Assurance Program which they are executing."

9 Next paragraph, and I continue to quote:

10 "Contrary to the above, the Quality Assurance
11 Program in the area of welding was apparently not
12 reviewed for adequacy, in that a welding foreman and
13 his supervisor were able to create an environment
14 which led some workers on the foreman's crew to
15 perceive that QA requirements could be suspended to
16 complete specific assignments.

17 Now I want to ask you some questions about, first,
18 the basis for that violation.

19 What are the requirements of Criterion 2 of 10 CFR
20 Part 50, Appendix B, that were violated by the course of
21 conduct, the facts, the circumstances that you found,
22 Mr. Blake?

23 A That section that is -- that part of the requirement
24 that is stipulated in the first paragraph of the Notice of
25 Violation, which you will find towards the end of Criterion 2,

mm6

1 when you are looking in the book.

2 Q Yes, I have my 10 CFR. Can you get one available
3 to you?

4 A No, I do not --

5 Q Perhaps you could ask counsel to pass one over to
6 you, Mr. Blake.

7 MR. JOHNSON: Yes. Just a moment.

8 (Document handed to witness)

9 BY MR. GUILD:

10 Q Now, Mr. Blake, I have reference to Criterion 2, and
11 it is quite long. The title of the Criterion is Quality
12 Assurance Program. Correct?

13 A (Witness Blake) That's correct.

14 Q Which portion of that regulatory requirement do you
15 have reference to, as the basis for the violation, please?

16 A The final sentence of the Criterion, and parts of
17 the Criterion that act in that same capacity.

18 Q Let's see. The last two sentences: "The applicant
19 shall. . ." is that where you are reading from?

20 A Right.

21 Q ". . .regularly review the status and adequacy
22 of the Quality Assurance program. . ."?

23 A That's correct.

24 Q Your Notice of Violation is a direct quote from
25 the last two sentences, correct?

mm7

1 A That's correct.

2 Q Now that is more or less the -- I will just ask
3 you if this is a fair reading.

4 Those last two sentences are more or less the
5 regulatory obligation that you have to -- that Applicants, in
6 this case Duke Power Company, have to make sure that their
7 Quality Assurance Program is working and make changes as
8 needed to see that deficiencies in the QA Program's operation
9 are timely identified and corrected.

10 Is that a fair understanding of what that obligation
11 means?

12 A I don't know if I would phrase it quite that way.

13 Q Why don't you phrase it --

14 A What you describe sounds like another one of the
15 Criterion in the way of identifying problems and determining
16 corrective action.

17 Q All right. There is another Criterion that comes
18 to mind that does speak to those issues.

19 What I am driving at is, what is the -- Criterion 2
20 talks in terms of the obligations for organizing an
21 effective Quality Assurance Program.

22 A That's correct.

23 Q It is the Criterion which basically tells an
24 Applicant for a license to operate a nuclear power plant,
25 someone who has the authority to construct one in this

mm8

1 instance, that they have to design a program that works. Isn't
2 that a fair reading of Criterion 2?

3 A That's your definition of Criterion 2?

4 Q That's what I'm asking you. You are the regulator,
5 I am trying to get a handle on your view of what is at stake
6 here.

7 A Would you repeat, please?

8 Q Sure. I read Criterion 2 as being the general
9 obligation on the part of Duke Power Company, in this instance,
10 to design and implement a Quality Assurance Program that
11 works.

12 A That's correct.

13 Q All right. And to the extent that the program does
14 not work, the operative language that your Notice of Violation
15 quotes, states that they ought to have in place a means for --
16 and the language is explicit: "regularly review the status
17 and adequacy of the Quality Assurance Program."

18 All right. That is the core of your finding of
19 violation, isn't it?

20 A That's correct.

21 Q All right. And your finding is that Applicants
22 did not regularly review the status and adequacy of the
23 Quality Assurance Program in the context of the activities
24 that you found reflected deficiencies in that program, that
25 had not been found through review and had not been remedied

mm9

1 in a timely fashion, Isn't that a fair understanding of the
2 violation?

3 A With some qualification, yes, sir.

4 Q And what other qualification needed to be added
5 to have that a fair understanding?

6 A I think we need to understand when we talk of
7 Quality Assurance Programs in the context of Criterion 2, we
8 go beyond anything that is labeled as Quality Assurance
9 Department of an Applicant. We are talking about the entire
10 workforce, and that everybody involved with a nuclear power
11 plant is in some way, to some degree, a part of the Quality
12 Assurance Program.

13 Q All right. Then am I reading you correctly in
14 that context, distinguishing for example Mr. Grier's shop,
15 who is Corporate Quality Assurance Manager, has an explicit
16 responsibility for the Quality Assurance Department; under
17 him at the site Mr. Davison, who is the Site Quality Assurance
18 Manager with his people under him, they are the Quality
19 Assurance organization.

20 As distinct from them, there is the Construction
21 Department at the site; Mr. Dick, Vice President, and his
22 people, craft supervision on down to the craftsmen.

23 A That's correct.

24 Q And it is your point that they, likewise -- they,
25 the craft, they, the construction department have an obligation

m.l.10

1 to comply with Appendix B?

2 A That's correct.

3 Q And your review reflected that to the extent that
4 deficiencies existed in the Construction Department's
5 implementation of Appendix B responsibilities. Duke Power
6 Company failed to review their program for adequacy and
7 identify those deficiencies in a timely fashion?

8 A That's correct.

9 Q Now you alluded to earlier, that there were other
10 substantive points in Criterion 2, that were implicated in
11 your conclusion of violation.

12 Would you describe those for me, please?

13 A That's what I just go through describing.

14 Q That's what you meant?

15 A That's what I meant. The fact that it goes beyond
16 anything that is labeled as "Quality Assurance Department."

17 Q All right.

18 The last sentence of the Criterion that you quote
19 in your Notice of Violation, "Management of other organizations
20 participating in the Quality Assurance Program shall
21 regularly review the status and adequacy of that part of
22 the Quality Assurance Program which they are executing."

23 Does that have reference in this instance for
24 this violation, to the Construction Department at Duke Power
25 Company?

mm11

1 A That was our interpretation, yes, sir.

2 Q All right, sir.

3 Any other portions of Duke's organization that you
4 had in mind when you referenced that part of the Criterion in
5 your violation?

6 A For example?

7 Q I'm not thinking of anything, I'm just asking.

8 The Construction Department was who you had in mind?

9 A That was the basis for the Notice of Violation as
10 described in the report.

11 Q Right. Now are there any other portions of
12 Criterion 2 that are implicated in the finding of violation
13 that the NRC had made?

14 Take a look at Criterion 2, if you would.

15 A I will look at it, but as I remember the discussions,
16 the part that was cited in the Notice of Violation were the
17 parts involved.

18 Q All right. Now, after stating the regulatory
19 responsibility, that part of Criterion 2 which is cited in
20 the Notice of Violation, you make the Statement of Findings
21 contrary to the above. And you target specifically, quote, "In
22 the area of welding, the Quality Assurance Program -- " I'm
23 paraphrasing -- "was apparently not reviewed for adequacy in
24 that a welding foreman and his supervisor were able to
25 create an environment. . ." et cetera.

mml2

1 Does that singular use of the term "a welding
2 foreman" reflect the NRC's findings with regard to Arlon
3 Moore?

4 A That reflects -- the answer to your question is yes.

5 Q All right. And it says, "a welding foreman and
6 his supervisor." And that supervisor is general foreman
7 Billy Smith, is it not?

8 A That's correct.

9 Q And you are aware, Mr. Blake, you have been present
10 the last two days, I believe and, were aware I'm sure before,
11 Duke Power Company made findings with respect to Mr. Smith's
12 and Mr. Moore's performance, on the basis of their findings
13 they removed them from supervisory capacity at the Catawba
14 site, correct?

15 A That's correct.

16 Q Now you also have been present and heard that
17 Duke's investigation implicated some eleven other persons in
18 supervisory capacity at the Catawba site; some in welding,
19 some for matters related to this foreman and crew, this
20 particular general foreman and some in other parts of the
21 welding program and some in other crafts.

22 You are aware of that, are you not?

23 A Yes, sir.

end T2

24

25

1 Q Were you aware of that prior to your attendance
2 in this proceedings?

3 A Yes, I was.

4 Q And you are aware that Duke's own investigation
5 conducted at the behest of the NRC, starting from the NRC's
6 indication of its identification of problems with this particular
7 foreman and general foreman, led Duke to further identify
8 some eleven other additional Catawba site supervisors, and
9 to take personnel action with regard to those supervisors,
10 generally speaking, counselling them. You are aware of that?

11 A Yes, sir.

12 Q And you are aware generally, Mr. Blake, that
13 Duke's personnel action with regard to those 11 other super-
14 visors was, generally speaking, for the same substantive
15 problem that you identified in your Notice of Violation, and
16 I am just referencing specifically create an environment that
17 led some workers -- and you use the word foreman's crews,
18 singular -- create an environment in which some workers are
19 led to perceive that the QA requirements could be suspended to
20 complete specific assignments.

21 A That is correct.

22 Q What is the basis for the NRC not indicating in
23 their notice of violation that there were failures on the
24 part of organizations other than welding, and on the part
25 of the welding organization in instances other than those

1 involving this specific foreman and his supervisor, wherein
2 the QA program at Catawba was not reviewed for adequacy as
3 required by Criterion 2?

4 A Are you asking what the basis is for not listing
5 everything that was found in the way of supervisory problems
6 in the Duke investigation? What is the basis for not listing
7 any here?

8 Q For not listing, or for not making a finding of
9 violation based on the failure to review the adequacy of the
10 QA program with regard to those other supervisors.

11 A It is a matter as I saw it, and as my supervision
12 saw it, a matter of being consistent with the NRC regulatory
13 policy that we identified the particular items that were
14 cited in violation; Duke as with any other notice of violation
15 that is issued, took the notice of violation, took the
16 notification that a violation might be pending, as you would
17 an unresolved item in this area and developed it further.

18 We listed in the Notice of Violation the items
19 that were identified by the NRC. Duke developed the remainder
20 to, in essence, to show the -- how widespread it might have
21 been.

22 Q So the text of the terms of your Notice of Violation
23 should not be understood to mean that that foreman and that
24 supervisor were the extent -- reflected the full extent of
25 Duke's failure to review adequacy of the quality assurance

1 program?

2 A That is correct.

3 Q All right. Now, in what other areas then did Duke
4 fail to adequately review the adequacy of their QA program
5 at Catawba?

6 A I don't understand your question.

7 Q All right, sir. We have isolated one foreman and
8 one of -- his supervisor, Ailon Moore and Billy Smith. Do
9 you agree with me that Duke identified other instances where
10 the same basic problem existed and took action against 11
11 other supervisors. I thought I heard you tell me that
12 because Duke identified those things, you didn't issue notice
13 of violation for those other problems, correct?

14 A That is correct.

15 Q Now, what are those other problems that, in your
16 judgment, because of the NRC's enforcement policy, did not
17 warrant specific notices of violation.

18 A I still don't understand your question. You
19 answered it, and then you asked the question.

20 Q I am really interested in what the basis was for
21 your action, Mr. Blake. Let's start over.

22 Do you have a copy of the NRC's Report. I am using
23 an antique version of 10 CFR here. Is this something that
24 is current? It has been recently revised? If I could borrow
25 an extra copy of the 10 CFR that is a little more current

1 than mine. That is Appendix C, Part 2, Mr. Blake?

2 A That is where it is listed. I don't know what
3 the title of it is, but it is Appendix C to Part 2.

4 Q Do you have that before you?

5 A Yes.

6 Q Now, I am looking at pages -- pages 135 of the
7 1984 version. It appears under Supplement 2, severity
8 categories. And that is the supplement that you specify
9 in your notice of violation, is it not?

10 A That is correct.

11 Q It applies to facilities under construction,
12 does it not?

13 A That is correct.

14 Q And you cite a Severity Level 4 violation, do you
15 not?

16 A That is correct.

17 Q And that is defined as anything that is not a matter
18 of minor safety or environmental significance which would be
19 a Severity 5, and yet it is not of higher severity levels,
20 1, 2, and 3.

21 A Correct.

22 Q And specifically, involving failure to meet one or
23 more quality assurance criteria.

24 A That is correct.

25 Q All right. Now, why wasn't this a Severity Level 1,

1 2, or 3 violation?

2 A It was determined by discussion with management at
3 Region II that it fell within the Severity Level 4.

4 Q Tell me what the basis was for that decision.

5 A The basis was that it did not amount to a
6 Severity Level 1, 2, or 3, and that it had more than a minor
7 safety significance, -- if it had, we would have put it in
8 Severity Level 5.

9 Q Why. What is the basis for that?

10 A The basis -- these matters of this type when a
11 notice of violation is to be written, they are reviewed by
12 management in Region II, and if there are questions as to
13 what severity level they are, there is an enforcement panel
14 of management that sits down and discusses the item and
15 determines what severity level it is.

16 Q And was there such an enforcement panel in this
17 instance?

18 A Yes, there was.

19 Q And who was on that enforcement panel?

20 A There were representatives from the project division,
21 there were representatives--

22 Q How about giving me some names, if you know them.

23 A I don't remember exactly who was there.

24 Q Tell me what you do remember, Mr. Blake?

25 A I remember my supervisor was there. I remember I

1 was there.

2 Q Who is your supervisor.

3 A Mr. Allen Herdt.

4 Q All right.

5 A Mr. Uryc was there. I believe Mr. Brownlee was
6 there. And there was a representative from our enforcement
7 group.

8 Q If consultation with Mr. Uryc or others would help.

9 A Mr. Nejfelt.

10 MR. JONES: N-e-j-f-e-l-t.

11 BY MR. GUILD: (Continuing)

12 Q Who in management participated in the decision as
13 to the severity?

14 A As far as I know, that was the original discussion,
15 and it was determined at that time that there should be a
16 severity level 4.

17 Q Why was there a need for a conference of this sort?

18 A Because there was discussion in the office. There
19 were ranges of opinion; from there was no violation involved
20 through various severity levels.

21 Q Was there any expressed basis for using a severity
22 level of three?

23 A No, sir.

24 Q A lower severity level than severity 5?

25 A There was, as I remember the discussion, a range from

1 a severity level of 4 to no violation.

2 And the determination was -- the argument was
3 a matter of identification, whether it was a matter of self-
4 identification or NRC identification.

5 Q And you considered that there proponents of the
6 position that this should be treated as a self-identified
7 matter by Duke?

8 A There were members that sat in on that that were
9 aware of the Duke investigation, and yet were not aware of
10 what triggered the Duke investigation, because they had been
11 involved in something else at that time.

12 And when it was explained to them, in their
13 opinion that there was no violation, and we settled on the
14 violation.

15 Q There no violation?

16 A In their opinion, that there be no violation, went
17 away as soon as it was pointed out.

18 MR. JOHNSON: Mr. Chairman, I would just like to
19 make a point about the nature of the questions that are being
20 elicited, and the answers that are being elicited at this
21 point.

22 The decision making process of the NRC, like other
23 government agencies, is ordinarily protected from disclosure
24 in discovery, in order to protect the decision making process.

25 So, there is a free flow of information in order

1 -- from the record making department to the decision makers.

2 Mr. Guild and I discussed this during the
3 depositions, and I asked him on that basis to refrain from
4 asking about who said what to whom, and what was recommended.
5 And to stick to asking questions about what the basis for the
6 decision was.

7 I don't mind that kind of question. It is
8 appropriate. But asking about proposals which were considered
9 is not appropriate, and I object to further questions of
10 that sort.

11 MR. GUILD: Mr. Chairman, I have a few further
12 questions. I disagree with Mr. Johnson's position. The NRC
13 staff has an adversary role in this proceeding. They take
14 a position that these problems as they identify them are of
15 a certain limited character, and have sought to basically
16 support Applicant's view that the problem is not of widespread
17 significance or one that impugns the integrity of the quality
18 assurance program.

19 We dispute that position, and think there is a
20 substantive basis for it. I am aware of Mr. Johnson's position,
21 and I don't think that I am going to transgress the scope of
22 proper inquiry, although I do disagree with his objection, but
23 I think the quickest thing to do is move on. I don't have a
24 pending question. I am mindful of his difficulty, and will try
25 to recognize that.

1 JUDGE KELLEY: I think the Board sees some merits
2 in Mr. Johnson's position, too. I think we are also concerned
3 that we would sure like to know why this was 4, and not 3.
4 If it isn't said somewhere, it certainly is a fair question
5 to ask, but the probing of the minds of the Board, as Mr.
6 Johnson has pointed out, I think there is some merit in that
7 generally, but go ahead.

8 BY MR. GUILD: (Continuing)

9 Q So the determination was made, Mr. Blake that
10 no one -- there was no basis as you identified it for
11 Severity Level 3?

12 A (Witness Blake) That is correct.

13 Q And as I understood your previous response, that
14 basically wasn't a big problem.

15 A Would you please repeat it.

16 Q You just didn't think this was a big problem,
17 not warranting severity level 3. It had to do with sort
18 of the significance and the magnitude and a judgmental fashion,
19 correct?

20 A That is correct.

21 Q There was no mechanical formula you employed to
22 produce the 4 here.

23 A There is no mechanical formula, no, sir.

24 Q You alluded to the policy of not taking enforcement
25 action where --

1 A Are you referring to page 130?

2 Q Yes. That is what I had in mind.

3 A Under subsection A, notice of violation, describes
4 notice of violation, makes a statement there, NRC uses the
5 notice of violation as a standard method for formalizing
6 the existence of a violation.

7 It goes on down, and again, there is a third
8 paragraph under that that says because the NRC wants to
9 encourage and support licenses, et cetera.

10 Q All right.

11 A That, by the way, is off the track as to why the
12 other foremen were not listed.

13 Q Was off the track --

14 A Yes, sir.

15 Q Meaning what? I just don't understand your answer.
16 That explains why the other foremen were not listed.

17 A No, sir it doesn't.

18 Q Why weren't the other foremen listed. That is what
19 I am trying to get at. I thought I understood your previous
20 response that you didn't state the other instances because
21 of the NRC's enforcement policy with regard to self-identification
22 of problems. Isn't that what you said?

23 A Yes, sir. But there was a meeting held with Duke
24 Power Company in March, at which time the problem was
25 identified to Duke Power Company, at which time they were

1 informed that this was not an enforcement conference, but
2 that we would be reviewing the entire matter and at some
3 later time there may be enforcement action taken.

4 Q And there was.

5 A And we identified that from time-to-time, one
6 foreman and his supervisor. Duke Power Company developed
7 the rest of the case on their own. So as a matter of
8 consistency, when we wrote the notice of violation, we wrote
9 the notice of violation to describe what was presented to
10 them, and we used what they developed as response to the
11 notice of violation.

12 Q All right. I still want to focus on the other
13 supervisors. Others in welding and in other crafts who were
14 implicated in the same practice that is at the root of your
15 notice of violation, and that is creating this environment
16 where there was a perception that QA requirements could be
17 suspended to meet specific requirements. That is your
18 language, right?

19 A That is correct.

20

, End 3
fols.

21

22

23

24

25

1 Q You took no enforcement action with regard to
2 those other instances involving other supervisors, correct?

3 A No, sir.

4 The violation encompasses the entire problem.

5 Q The violation says a welding foreman and his
6 supervisor, correct?

7 A No, sir. That is taken out of context.

8 Q Well where on Earth in your violation do you
9 cite for other problems beyond Arlon Moore and Billy Smith,
10 Mr. Blake?

11 (Pause.)

12 Where do you make any reference to a broader
13 problem, a broader pattern of problems with foremen?

14 A I refer you to the body of the report.

15 Q Yes, sir.

16 A And the discussion at page five of the report
17 under paragraph six and the final sentence:

18 "The investigations did identify the
19 fact that there were definite problems associated
20 with some specific first-line supervisors and
21 one second-line supervisor."

22 And in further discussion in that report we
23 pointed out that we accepted the Duke Power Company report
24 as the response to the Notice of Violation, which is
25 consistent with the NRC practice of once a problem is

1 identified, if it was a matter of hardware and we found one
2 problem, that we do not expend the resources to determine
3 how many like instances there are at a particular plant.
4 The item is identified by the Licensee and then it is his
5 job to determine the scope.

6 Q Yes, sir.

7 Well you were aware, were you not, that this
8 whole issue was being pursued in part because this Licensing
9 Board had opened the Welder B matter for its determination
10 of whether the Welder B matter indicated a problem of
11 foreman override that was widespread and significant or
12 impinged the effectiveness of the quality assurance program,
13 did you not?

14 A I was aware of that.

15 Q All right, sir.

16 And yet your Notice of Violation focuses and
17 discloses only a single foreman and a single general
18 foreman as the basis for the violation.

19 Now you are telling me that included in the
20 basis for the violation are all of the supervisors which
21 Duke identified in its report, correct?

22 A That is correct.

23 Q Now let's turn to page 130 again of the NRC's
24 enforcement policy, page 130 of this version of 10 CFR,
25 under the part that you were referencing, and this was

1 "Self-identification." That is the subject I am directing
2 your attention to.

3 Under "A, Notice of Violation:"

4 "Because the NRC wants to encourage
5 and support Licensee initiative for self-
6 identification and correction of problems,
7 NRC will not generally issue a Notice of
8 Violation for a violation that meets all
9 of the following tests."

10 They are identified by the Licensee, fits in
11 Severity Level IV or V, it was reported as required and
12 "...it was or will be corrected, including measures
13 to prevent recurrence within a reasonable time...,"
14 and, five: "...it was not a violation that could
15 reasonably be expected to have been prevented
16 by the Licensee's corrective action for a
17 previous violation."

18 Correct?

19 A. That's correct.

20 Q. Now with regard to the other supervisors, the
21 11 beyond Mr. Smith and Mr. Moore, explain to me, Mr. Blake,
22 how that provision of the NRC's enforcement policy supports
23 Region 2's decision not to cite Duke for a violation of
24 10 CFR Part 50 Appendix B criterion two as to those other
25 instances.

agb/agb4

1 A. It does not apply. I explained that earlier.

2 Q. They are violations, are they not?

3 A. There was one violation. There were many
4 examples. We developed one example; they developed the rest.
5 it is one violation.

6 Q. So your citation in the Notice of Violation is
7 simply by way of example?

8 A. Correct.

9 Q. Then if we understand it now is only by way
10 of example, it is exemplary of what, sir?

11 A. I don't understand the question.

12 Q. It is one example of what broader, more pervasive,
13 more significant pattern of violations?

14 A. None.

15 Q. None?

16 A. Not in that context, no, sir.

17 Q. What is it an example of then?

18 A. I think it is an example of a failure to follow
19 quality assurance requirements of which there were other
20 examples and we determined it to be a Severity Level IV
21 violation.

22 Q. What other examples were a basis of the NRC's
23 violation? Would you identify them, please?

24 A. The investigation did identify the fact that
25 there were definite problems associated with some specific

agb/agb5

1 first-line supervisors and one second-line supervisor, page
2 five, paragraph six, the third paragraph, the final sentence
3 of my report.

4 Q You have referenced that before.

5 Now what supervisors are you referring to there?

6 (Pause.)

7 Are those simply the supervisors that are
8 identified in Duke's own report?

9 A That is correct. It was under the heading of
10 paragraph six, which is review of investigation report
11 and it is titled August 3rd, 1984 by letter of Duke
12 Power Company legal department and it references their
13 report.

14 Q All right.

15 And the second-level supervisor you have
16 reference to there?

17 A You have to refer to the Duke Power report to
18 find out.

19 Q That is someone other than Billy Smith?

20 A No, sir.

21 You say the second-line supervisor other than
22 Billy Smith.

23 Q And that is the only second-line supervisor
24 you identify?

25 A That is the only second-line supervisor that

1 is referred to, yes, sir.

2 Q No, what I want to understand, is that the only
3 second-line supervisor that the NRC identified?

4 A That was the one that was identified to Duke
5 Power Company in the March meeting, yes, sir.

6 Q And that is all you know about it?

7 A That is correct.

8 Q Now to change gears a little bit, Mr. Blake,
9 now I want to understand what the factual basis is for
10 the NRC's finding of violation.

11 Now Duke obviously sets forth a set of facts
12 that are their investigatory conclusions. I don't see
13 anywhere in their August 3rd report, Mr. Blake, or anywhere
14 else that I am aware of where Duke comes in and says We
15 want to confess to a Severity Level IV violation for
16 violating criterion two in this regard. That is the NRC's
17 job and Duke didn't present themselves to you on a silver
18 platter and say Here cite us for a violation, did
19 they?

20 A No, sir.

21 Q You identified the violation?

22 A Correct.

23 Q Now what I want to understand is, knowing what
24 the report contains -- and I have read it, I have read
25 the violation, I am still trying to establish what are the

1 facts that the NRC found that were the basis for the
2 violation; what did Duke do wrong, in short, what is the
3 factual basis for the violation. Would you explain, please?

4 A I would say you would have to refer to the
5 Notice of Violation. "The area of welding was apparently
6 not reviewed for adequacy and a welding foreman and his
7 supervisor were able to create an environment which led
8 some workers on the foreman's crew to perceive that the
9 QA requirements could be suspended to complete specific
10 assignments."

11 Q I can read, too.

12 What I am trying to get at is the factual basis,
13 what did Duke do wrong? Would you explain?

14 A They allowed it to happen.

15 Q They allowed it to happen.

16 Now Mr. Uryc, do you have anything to add to
17 that?

18 You are a participant in all of this and I
19 don't mean to single out, Mr. Blake --

20 Even though you identified yourself as the
21 author of the notice, Mr. Blake.

22 You are obviously a participant, Mr. Uryc.

23 What was the basis for the violation, the
24 factual basis?

25 A (Witness Uryc) I would have to agree with

1 Mr. Blake on his statement there that it relates to the
2 Notice of Violation.

3 Q That's fine, but why don't you tell me in your
4 own words, Mr. Uryc, what is the factual basis for the
5 finding of violation?

6 A In my opinion the basis is the Duke report
7 itself.

8 Q That still doesn't help much. That is a
9 document.

10 A Okay.

11 I think what we are referring to here is the
12 information that we reviewed in the Duke affidavits, for
13 example, in relation to the information that was developed
14 there.

15 Q Yes, sir. That is another vehicle.

16 You have referred to a piece of paper and that
17 is the report, and now another piece of paper and that's
18 the affidavits, but what are the facts, Mr. Uryc, that are
19 the basis for the finding of violation of Appendix B?

20 A I don't think I can answer that.

21 Q Why not?

22 A I just don't understand....

23 Q What did Duke do wrong?

24 A I am at a loss here, Mr. Guild, I'm sorry.

25 A (Witness Blake) I would like to take another

agb/agb9 1 shot at it.

2 Q Mr. Blake, that would be fine.

3 A As I tried to point out earlier in my statement,
4 the quality assurance program goes beyond anything that
5 is labeled the quality assurance department on-site.

6 Duke Power Company, as the Licensee, is
7 obliged to provide an atmosphere for quality work. It
8 comes down to the basic premise that a quality program is
9 dependent upon quality workers. The best QC program is
10 not going to find all the problems; the only thing that is
11 going to keep the problems from happening is having workers
12 that are quality conscious.

13 There were some instances where this did not
14 happen, where workers were given a perception through
15 their supervisors that quality was secondary to the foremen's
16 wishes to get the job done. That was a breakdown in the
17 quality program at that site.

18 It was not a pervasive problem, there were a few
19 identified incidents and that is why the citation was written
20 in the manner that it was and at the level that it was.

21 Did that answer your question?

22 Q That helps, Mr. Blake, I appreciate your response.

23 How should the quality assurance program, in
24 your judgment, Mr. Blake, Mr. Uryc, other gentlemen, too

25 -- Mr. Economos, if you have something to add, please do --

1 how should the quality assurance program at Catawba have
2 worked to have responded differently to the circumstances
3 that were identified?

4 A. That is a very broad question. Would you like
5 to narrow it down a little bit?

6 Q. Can you take a stab at it the way I asked it?

7 A. There's just a lot of people out there making
8 a whole lot of money trying to answer that question, sir;
9 a lot of consultants that say they know that answer. I am
10 not at all sure that everybody does.

11 Q. Generally it is an industry-wide problem, is
12 that the nature of the observation?

13 A. That is correct.

14 Q. Let me see if I can pose it in more narrow terms
15 and get a handle on it.

16 You have got a situation where there appears to
17 be widespread belief on the part of craftsmen that
18 particular supervisors' leadership style, if you will,
19 foremen pressure -- however you want to characterize the
20 term -- commitment to getting the job done, results in
21 sacrificing quality for quantity, quality for production,
22 all right?

23 And let me just focus an example: you have got
24 a widespread belief on the site that Billy Smith drives
25 people to the point where the rules get broken or bent in

1 order to make a production schedule.

2 Now can you accept that as a premise for discussing
3 the nature of the problem identified at Catawba?

4 A Yes.

5 Q Now that perception, that understanding, that
6 belief on the part of craftsmen, it at least existed
7 back to the period in 1980, and we are now talking 1984.
8 The gentleman in question, Mr. Smith, became general
9 foreman in 1979 at Catawba.

10 And you have evidence now that from a period
11 almost back that far there were craftsmen identifying,
12 either to the best of their recollection or sometimes in
13 specific detail, instances as well as a general pattern
14 of Mr. Smith's conduct in performance that I will
15 characterize as foreman override, all right, pressure to
16 get the job done.

17 Yet we only find out about it the way we have,
18 we only find out about it because Mr. Nunn voices a
19 concern.

20 Your people investigate it, identify site
21 employees who corroborate the concerns, focus the concerns
22 on specific foreman, all right, and the rest is history.

23 What is it that Duke Power Company didn't do,
24 Mr. Blake, Mr. Uryc and Mr. Economos, to have identified
25 those problems in 1980 instead of 1984 and have performed

1 the review and presumably corrective action that a quality
2 assurance program requires?

3 MR. JOHNSON: I would like to object to the form
4 of the question. I would like it to be broken down into
5 two parts: one is does he accept the premise and then
6 answer the question as asked.

7 JUDGE KELLEY: I think the Board followed the
8 question.

9 Did you understand the question, gentlemen?

10 MR. JOHNSON: My objection is to the form of
11 of the question. He went through a whole series of
12 facts, he said accept this as a premise and then he asked
13 the question why did this happen at Duke? It seems to me
14 the form of the question is improper.

15 JUDGE KELLEY: I will overrule the objection.
16 You can answer, if you can.

17 WITNESS BLAKE: I think that any answer to that
18 question as posed would only be speculative at best.

19 You almost have to say that any problem of
20 this nature -- it is like the intergranular stress
21 corrosion cracking problems, there is a lot of interactive
22 things that all have to be present to happen.

23 And one of the interesting things about the
24 particular foreman in question was that he worked on the
25 back shift, he was the sole welding supervisor on the

1 back shift. He was alone as it were responsible for the
2 welding activities on the back shift.

3 As Mr. Dick presented in testimony yesterday,
4 I believe, Mr. Moore has shown that he takes a lot of
5 pride, a lot of responsibility in things that are given to
6 him. He strives for -- Mr. Dick's words were he takes a
7 lot of responsibility on himself.

8 A person put out there by himself on a back
9 shift feels responsibility for the whole back shift,
10 whereas other welding foreman on the first shift share the
11 responsibility.

12 And it is a balance you have to take. You get
13 on a job like this -- it is hard to get good people, or
14 anybody, to volunteer for the back shift. When you find
15 somebody that volunteers for the back shift and likes to
16 stay on the back shift, companies tend to leave him on
17 the back shift. It is hard to say No, you can't work the
18 back shift because we have to rotate supervisors.

19 As I said it is purely speculative -- maybe
20 you should be reviewing people that work in singular
21 positions like that a little differently than people that
22 work collectively. I don't know what the answer is.

23 Q All right. Well that is a stab at addressing
24 the question as to Mr. Moore, correct?

25 A That is correct.

1 Q Mr. Moore is one of 13 supervisors that were
2 identified by Duke and acknowledged by you as being
3 implicated in the problems raised by craft only in 1984.

4 What about the problem, why did the problem
5 exist as to Billy Smith, let's start with him?

6 JUDGE KELLEY: Let me just mention we should
7 work in a break here pretty soon, it has been about an
8 hour and a half.

9 BY MR. GUILD:

10 Q Billy Smith wasn't hidden away on second shift,
11 he would work second shift sometimes, he would work over
12 from first shift to supervise Arlon Moore. Billy Smith
13 appears to have been known as a bird-dog to, not just a
14 handful of people on Arlon Moore's crew but to people on
15 other welding crews under him.

16 You recognize that, don't you, Mr. Blake?

17 A. (Witness Blake) That is what I have heard,
18 yes, sir.

19

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#5-1-SueT

1 Q Well, Billy Smith, also facts reflect, had a close
2 relationship with his supervisor who was the welding superin-
3 tendent, Bill Rogers, oftentimes together on the job. Evi-
4 dence reflects that Mr. Rogers, in fact, had identified,
5 though not taken effective action regarding Smith's lack of
6 communication skills, and I will use quotes around the term.

7 MR. MC GARRY: I would object. The facts don't
8 reflect the close relationship. The facts speak for them-
9 selves.

10 MR. GUILD: Well, the facts do. Numerous affidavits
11 support the proposition.

12 JUDGE KELLEY: Maybe you could help me out.
13 Yesterday there was a close relationship between two people
14 that was commented on at some length. Are these the people
15 you were talking about?

16 MR. GUILD: I think so, Judge. The welding
17 superintendent, Bill Rogers; Billy Smith, the general
18 foreman, identified as part of even the counselling, the
19 employee action plan, that something had to be done about
20 the close relationship between the two individuals or the
21 perception.

22 JUDGE KELLEY: I simply remember Mr. Dick, maybe
23 somebody else commenting on that yesterday. If you are
24 talking about the same ones, then go ahead.

25 MR. CARR: Mr. Guild correctly characterized it

#5-2-SueT 1 when he said the perception was there. The testimony showed
2 that the relationship wasn't there but the perception was.

3 JUDGE KELLEY: I think if you will use perception,
4 it will serve your purpose.

5 MR. GUILD: And there is contrary evidence. There
6 is evidence denying that. Mr. Rogers said no, it wasn't that
7 close but I think there is evidence to the contrary. I
8 don't want to make that a bone of contention.

9 BY MR. GUILD: (Continuing)

10 Q At least the perception was there, that at least
11 Mr. Rogers and Mr. Smith had a close personal relationship.
12 And the evidence reflects that Mr. Rogers had some level of
13 knowledge of Mr. Smith's lack of communication skills. That's
14 a Duke term. Lack of tact is what -- is one of Mr. Rogers'
15 terms.

16 MR. MC GARRY: Again, I'm going to have to make
17 an objection. The evidence doesn't reflect that. The
18 deposition may have reflected that, but not the evidence.

19 MR. GUILD: Well, testimony reflects that. Some
20 evidence reflects that.

21 MR. MC GARRY: It's not evidence.

22 JUDGE KELLEY: Well, gentlemen, I think -- do I
23 understand the thrust of the question to be, Mr. Guild, that
24 there was sort of warning signals of this nature that should
25 have been picked up on? Is that where --

#5-3-SueT 1

2 MR. GUILD: Yes, sir. And that's all I mean to
3 suggest. I'm not trying to -- let me see if I can frame the
4 question. The question is what I want to get to. Lawyers
5 can argue about evidence and how it stacks up.

6 BY MR. GUILD: (Continuing)

7 Q What I'm looking for is ya'll's opinion. Billy
8 Smith was not on the back shift. Billy Smith was not getting
9 out there in cooling towers or somewhat inaccessible part of
10 the job where he wasn't known. He was widely known around
11 the job, and he had been there for a long time at Catawba,
12 been at Duke for a long time.

13 And his management skills, or lack thereof,
14 certainly came to the attention of many people. Why did
15 that problem exist?

16 Why did the problem exist with Billy Smith, well
17 known to supervision and persons generally on the job?

18 A (Witness Blake) I don't think you can divorce
19 the two problems, one from the other. I don't think that
20 you can say that there was an Arlon Moore problem and there
21 was a Billy Smith problem and treat them separately.

22 What we are talking about is the interaction
23 problem. There was a problem that came about because of
24 the combination of interaction between Billy Smith and
25 Arlon Moore that did not appear to be present in the inter-
action between Billy Smith and other supervisors. There may

#5-4-SueT

1 have been some of it but it was not to that degree. That
2 is my perception of it.

3 Q All right, sir. That's your perception. And
4 that is certainly what the position of the agency is,
5 given the final conclusion.

6 You started out believing that it was Billy
7 Smith and Arlon Moore. You ended up concluding it was
8 Billy Smith and Arlon Moore. Duke was told at the beginning
9 that it was Billy Smith and Arlon Moore, concluded it was
10 Billy Smith and Arlon Moore.

11 Yet in the course of the investigation, even on
12 the face of it, there are statements taken by Duke of their
13 people identifying a number of other supervision and eleven
14 other supervisors who were the subject of counselling or
15 other personnel action.

16 MR. MC GARRY: I would refrain from making this
17 statement, but I think the record reflects that one of
18 those supervisors was incorrectly listed and rather than
19 thirteen, it's twelve. The record speaks for itself.

20 MR. GUILD: And that's an issue that we can deal
21 with independently, but I don't think Mr. McGarry's position
22 on that is dispositive of that issue either.

23 Correctly or incorrectly, thirteen individuals,
24 thirteen supervisors, are identified.

25 BY MR. GUILD: (Continuing)

#5-5-SueT

1 Q And your position, Mr. Blake, Mr. Uryc, Mr.
2 Economos is that Billy Smith was not a problem but for
3 with his interaction involving the specific foreman, Arlon
4 Moore, or that he wasn't as much of a problem?

5 Which is it?

6 A (Witness Uryc) I think one of the key things we
7 need to look at here is when you say how could this happen,
8 what is the root basis for this, I think if you look at
9 probably what the basis for this is, is the fact that we
10 are dealing with human beings here.

11 We may have a QC program in effect, and every
12 craftsman at the site would know that, hey, if I have a
13 problem I should be able to go to the QC inspector and relate
14 that problem. I should be able to go to my foreman to relate
15 that problem. I should be able to go to my general foreman
16 to relate that problem, and all the way up the line.

17 And, to me, when I look at this, in my opinion,
18 I think we are talking about people who are well aware of
19 the objects or the programs or whatever that is in place to
20 handle these types of situations, but I think we are talking
21 human nature as to why they did not use it.

22 Now, part of the problem here that I would see is,
23 in fact, perceptions and perceptions about Arlon Moore and
24 perceptions about Billy Smith which may, and in my opinion
25 did, cause these people to say: Well, I have a wife to take

#5-6-SueT

1 care of. I need this job. And my perceptions of Arlon
2 Moore is that if I butt the system something is going to
3 happen to me.

4 But yet, in fact, had they gone forward like they
5 did recently and like they just have recently, we probably
6 could have taken care of this thing back in 1980. But yet
7 we have these people who back in 1980 were hesitant to come
8 forward. To me, I see it as being scared, maybe not
9 collectively. I don't think we could support that, because
10 there were many people that I talked to that said: If I
11 had a problem I would go to my foreman. I would take this
12 thing all the way up the line.

13 But yet if you talk to a young man who maybe just
14 got out of welding technical school and who was really look-
15 ing forward to making a career, he is going to have reserva-
16 tions. And some of these people did have reservations.

17 I just don't know if -- saying: I just don't
18 know if I really should do this.

19 So, I just don't know if we could say that the
20 program Duke had wasn't good or defeated. I think that we
21 have to look at these things on an individual case. Why
22 didn't Individual A, B, or C go to his foreman and say:
23 Hey, I can't do that.

24 Why didn't he do that? Is it because he is
25 afraid, hey, my perception of these people that I see, and

#5-7-SueT

1 to that individual who are Mr. Duke, if you will, it's that
2 I don't think I will get a very good hearing or I just
3 shouldn't be doing this. I'm just a welder.

4 Do you understand the point I'm trying to make?

5 Q Yes, sir. I think I do. I'm following you.

6 JUDGE KELLEY: Gentlemen, we've been at this an
7 hour and forty-five minutes. That's about a half an hour
8 too long.

9 We are going to call a ten minute break at this
10 point and come back at ten of.

11 (Recess.)

12 JUDGE KELLEY: Okay. We are back on the record.
13 Cross-examination can resume.

14 BY MR. GUILD: (Continuing)

15 Q Gentlemen, we have identified a problem at
16 Catawba, quality assurance, and we are now trying to come
17 to grips with why this problem happened.

18 Now, the quality assurance system has a variety
19 of elements that are supposed to assure that these problems
20 either don't happen or if they do happen they are properly
21 identified. And the reason for the problem is identified,
22 the cause, the root cause, and appropriate corrective action
23 is taken.

24 Is that a correct understanding?

25 A (Witness Blake) Yes, that's right.

#5-8-SueT

1 Q Now, the quality assurance system -- let's
2 see if we can identify the elements. Let's start at the,
3 sort of the foundation level. You have got craft who
4 are trained to work to quality procedures. They are taught
5 how to do the safety-related work in a nuclear power plant
6 according to the rules, by the book, right?

7 A Correct.

8 Q That's the foundation of the quality assurance
9 system. Agreed?

10 A Correct.

11 Q You have got craft supervision who are taught and
12 trained and instructed to in turn manage their people accord-
13 ing to the rules and oversee those people and see that the
14 Commission's Appendix B requirements are met, the Applicant's
15 commitments to the Commission and the public are met,
16 that quality procedures and construction procedures are
17 abided by, right?

18 A That's correct.

19 Q Okay. And to the extent that the people below
20 them have difficulties understanding their responsibilities
21 under those quality procedures, difficulties applying those
22 quality procedures, that that first level of supervision
23 encourages those employees to raise those concerns, raise
24 those questions, raise those problems in an open atmosphere
25 and get them resolved.

#5-9-SueT 1

That's a part of quality assurance, isn't it?

2

Mr. Blake, Mr. Uryc?

3

A (Witness Uryc) Yes.

4

(Witness Blake) Yes.

5

Q All right. You have got supervision on up the

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line that is supposed to manage the people below them in

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various levels of supervision to assure that the rules are

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being followed. And that's one set.

9

Then, you've got a series of quality control

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inspection functions that under the Commission's rules are

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designed to verify that the work is done according to the

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required quality standards, correct?

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A Yes.

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Q And those quality control inspectors are supposed

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to look at quality work, safety work, at points beyond

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which work can't proceed without an inspector signing off

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a quality document to indicate that the work is quality,

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right?

19

A Correct.

20

Q And to the extent that work is quality but is

21

not susceptible to whole point type inspection, you've got

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random quality control inspection that monitors compliance

23

with the Commission's quality requirements, correct?

24

A Correct.

25

Q In addition to that, you've got a quality assurance

#5-10-SueT 1

2 organization that establishes the standards in the first
3 place, writes the procedures, insures that there is a
4 quality design and a quality process to see that the work
5 is done properly, another element of quality assurance,
6 right?

7 A That's correct.

8 Q And on top of it all, you've got an audit and
9 surveillance function that is supposed to go behind all
10 of the rest of the elements and to the extent necessary
11 determine that the other elements are operating properly,
12 and if improvements are needed such improvements are taken
13 in a timely fashion, correct?

14 A Correct.

15 Q Now, somewhere in all of those elements for
16 which Applicants, Duke Power Company, were responsible
17 there were shortcomings, there were deficiencies, there
18 were holes in the quality assurance system that allowed
19 this problem to happen. We talked about that a little bit.

20 But, then there is the NRC. And you gentlemen
21 and your predecessors and colleagues, you have been on the
22 Catawba Nuclear Plant site since the first day that they
23 were authorized to begin work, haven't you?

24 A That's correct.

25 Q And you monitor the quality assurance system at
Catawba through onsite inspection, observation of the work,

#5-11-SueT¹

random audits of the paper work, the quality documentation,
interviews with craftsmen, interviews with supervision.

All of those things are tools you have, aren't they?

A Correct.

Q And you used those consistently throughout the
history at Catawba, correct?

A Correct.

Q But you did not identify the problem until 1984
either, did you?

A That's correct.

Q Now, I remember, for example, that in the earlier
phase of this proceeding the results of a -- I think it was
called a team inspection of Catawba were introduced. And I
apologize, I don't have the specific report or exhibit
number.

But do you recall, gentlemen, ever being aware
that NRC visited the site and specifically attempted to
determine whether or not harassment was a problem in
Catawba?

Do you recall an NRC inspection ever directed
at that end?

MR. JOHNSON: Objection. Harassment in general
is not a subject of this proceeding. And I think the question
ought to be focused on the question that is before the house.

MR. GUILD: It's harassment in the context of

#5-12-SueT1

1 this issue that I have in mind, Mr. Chairman. I think
2 harassment was a term used by the NRC in the inspection.

3 And maybe I can phrase it this way. I don't
4 mean to go beyond the foreman override point, but this is
5 what my question is designed to target.

6 BY MR. GUILD: (Continuing)

7 Q There was an NRC inspection, one particularly
8 that comes to mind. You had a team that went out and they
9 interviewed a large number of craftsmen, and the conclusion
10 of those interviews and that inspection, monitoring work,
11 interviewing site craft and supervision, was -- and this is
12 the quote I remember: Harassment is not a problem at
13 Catawba.

14 Are you aware of that having been the NRC's Staff
15 conclusion in the past?

16 Could you tell me?

17 A (Witness Uryc) No, I'm not.

18 Q Mr. Blake?

19 A (Witness Blake) Not by specific -- in reference
20 to your specific --

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1 Q You are aware in general, of the NRC having monitored
2 what you characterized as harassment, and concluded there
3 wasn't any, it was not a problem in general?

4 A (Witness Blake) I was aware that NRC had conducted
5 such inspections at Catawba and had not found any problems.

6 Q I think harassment, to put in the context of
7 foreman override, was described in those inspection reports
8 as involving -- identifying whether there were open lines of
9 communication.

10 And I think one observation that comes to mind
11 was, the Project Manager was observed to move through the
12 site and site craftsmen freely talked to him. There appeared
13 to be open communication. That is the point with regard to
14 the subject of harassment that comes to mind.

15 In other words, that there was in fact an open line
16 of communication from the craft and the quality control
17 workforce, that would have allowed them to raise concerns
18 about violations of quality procedures.

19 And, isn't it a fair understanding that the NRC
20 believed that there was such an open atmosphere at Catawba?

21 Mr. Blake? Mr. Uryc?

22 A (Witness Uryc) I can't answer.

23 Q Mr. Blake?

24 A (Witness Blake) I can't answer that specifically.

25 Q Okay. In general is that a fair understanding, is

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1 that your understanding of the results of the inspection
2 effort prior to this investigation?

3 JUDGE KELLEY: Is this with respect to the report
4 that is in evidence in the case?

5 MR. GUILD: Yes it is, Judge, and I apologize for
6 not having the specifics before us. But in essence, in the
7 prior phase of the proceeding, the Staff presented a report
8 that says that "we had done a team inspection specifically to
9 look at the issue of whether harassment was a problem at
10 Catawba." And, they used the term "harasment" to mean
11 pressure on site personnel to not raise concerns, to not
12 raise quality questions.

13 And the conclusion of the report, to paraphrase, was
14 that harassment was not a problem at Catawba.

15 And that was offered by the NRC Staff in evidence
16 in the prior phase of the proceeding, to support the Staff's
17 position that contrary to Palmetto's assertions, pressure
18 to approve faulty work, Contention 6 allegation, was not well
19 founded.

20 JUDGE KELLEY: I can say at a minimum, if this
21 comes to a point, say in your findings, cite the exhibit so
22 we could find it.

23 MR. GUILD: Exactly, I will.

24 BY MR. GUILD:

25 Q It is useful enough for my purposes here, gentlemen,

mm3 1 you would accept the proposition of there being pressure
2 by foremen not to raise these concerns, blocks to free
3 communication from the craft upwards. You haven't identified
4 that problem until Sam Nunn came to you, until this Board
5 raised the issue of foreman override, until you started your
6 investigation, identified Welder B and others.

7 MR. JOHNSON: Objection to the form of the question.

8 That is stated in the plural, and the witnesses
9 already said the factual basis only supported pressure by
10 "a" foreman, and his supervisor.

11 MR. GUILD: That is just not an accurate statement.
12 We went through exhaustively, them describing how all of the
13 supervisors who Duke investigated, had found culpable, the
14 13 or 12 were the basis for the report, Mr. Johnson.

15 JUDGE KELLEY: I think there was a reference to
16 people, and the Notice of Violation refers to one, that is
17 correct. But we were told we were to understand the Notice
18 was based, at least in part, on the underlying reports.

19 So, we will allow the question.

20 BY MR. GUILD:

21 Q And that the notice was simply by way of one
22 example, as one bad weld to be exemplary of a number of bad
23 welds of a similar sort.

24 JUDGE KELLEY: Do we need a restatement? Do you
25 need the question restated, gentlemen?

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WITNESS BLAKE: Yes, sir.

2

BY MR. GUILD:

3

Q Let me make an effort again.

4

5

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7

You didn't find this problem until the course of events that I summarized, led you to first interview Welder B, and the rest is history? You didn't identify the problem before that, did you?

8

A (Witness Uryc) I don't think so.

9

A (Witness Blake) That's correct.

10

11

12

13

Q Now, with regard to the NRC, why? Why didn't the NRC identify problems; quality assurance deficiencies, blocks to the freedom of craftsmen to raise concerns about quality and about the practices of their foremen?

14

15

16

Why didn't the NRC identify this problem when it existed in 1980, so that prompt and effective action could be taken?

17

Mr. Blake?

18

A I don't believe I can answer that question.

19

Q Have you made an effort to examine that question?

20

21

22

23

A Do you know how many foremen, first-line supervisors, have been in employ at the Catawba plant since 1980? Or, since it started construction? Do you have an idea of the number?

24

Q I don't. Let's agree it is a large number.

25

A It is a very large number.

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1 Q All right.

2 A And I don't have any bounds on it, but it is a very
3 large number.

4 Q All right. We will say, the hundreds.

5 A Hundreds would be my guess.

6 Q That's a guess on my part, too. But, let's assume
7 it is a large number.

8 A So, there is one foreman listed in the Notice of
9 Violation, one foreman that came -- one foreman that was
10 identified to us through the process that you describe and
11 through Duke's investigation. There were a few other foremen
12 that were identified to be also giving the perception, the
13 same type of perception, in some instances, to their people.
14 And that number you quantified as 12 or 13 --

15 Q I said 13. Mr. McGarry suggested it was only 12.
16 One by error was on the list.

17 A -- which comes down to a fairly low percentage of
18 the total supervisors on the site.

19 Is that correct?

20 Q Well, how many others are there out there that we
21 don't yet know about, Mr. Blake. We didn't learn about those
22 until years after the event.

23 How many others are there who have engaged in these
24 same practices that we have yet to identify, do you know?

25 A You haven't told me how many supervisors there are,

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1 yet.

2 Q I'm really hopeful that the NRC would have that
3 information.

4 A The NRC inspections are sampling inspections. We
5 have never claimed to do 100 percent inspection of anything.
6 We do a sampling type inspection.

7 When you do a sampling inspection, there is a
8 possibility that you won't find everything.

9 Q I guess the problem --

10 A That is in answer to your question as to why did
11 not the NRC find the problem that was identified to.

12 Q Well, in the sampling you may not find all the
13 problems. In fact, if you don't examine the entire
14 universe, you probably will not identify all of the problems.
15 But, if you do a valid sample, if you do a sample from which
16 you can validly generalize, you at least have a basis for
17 being able to identify the scope of the problem.

18 And you didn't identify the scope of the problem
19 either, did you, until now, correct?

20 A I don't understand the question.

21 Q All right. If you will accept my paraphrase of your
22 prior inspection effort, you have made the generalization that
23 there was not a problem, there was not a problem of harassment
24 at Catawba.

25 You made general statements based on your sampling,

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1 based on your random inspection -- not random, at random,
2 your selected inspection, your regulatory effort.

3 You made generalizations about the effectiveness
4 of the Quality Assurance Program at Catawba. And those
5 generalizations were wrong. Those generalizations failed to
6 identify a problem that goes back at least four years. And
7 you tell me that the answer is it is because you only do a
8 small sample, or you do a sampling, an inspection by sampling.

9 Is that your understanding of a reason why you
10 didn't identify the problem?

11 A Do you know of any sampling inspection that will
12 give you --

13 JUDGE KELLEY: Excuse me. For the past five minutes
14 or so, you have been answering questions with questions.
15 Could you attempt to just respond to the question rather than
16 forming your own question?

17 WITNESS BLAKE: May I have the question again,
18 please?

19 BY MR. GUILD:

20 Q Let's start from this last line.

21 Is it your belief that your inspection-by-sample
22 technique is the reason why you have not previously identified
23 this problem?

24 A (Witness Blake) That's correct, because I do not
25 know of any sampling inspection that will give anybody 100

mm8

1 percent confidence level that 100 percent of the population
2 is acceptable.

3 Q All right.

4 Mr. Uryc, you asked this very question to Welder B,
5 didn't you? You asked Welder B, why did you wait four years
6 to identify this problem to us? Why did you wait for us to
7 come to you and ask you these questions?

8 Didn't you ask him that?

9 A (Witness Uryc) Yes, sir, I did.

10 Q All right. And the fact of the matter was, his
11 concerns were known to him, they festered, they carried on
12 the job and had whatever effects they had on his work, and
13 perhaps the work of others on that crew and perhaps the
14 work of others on crews yet unknown, and he didn't bring
15 those concerns to the NRC.

16 Did he say he didn't know who the NRC was?

17 Did he explain why he didn't bring them to the NRC?

18 A Yes, he did.

19 Q Can you tell me what that explanation was?

20 A He was afraid to.

21 Q Why?

22 A He was fearful of his foreman.

23 Q He was afraid that Alon Moore would do him harm
24 if he raised these concerns to the NRC?

25 A Yes, sir.

mm9

1 Q So that isn't simply a question of sampling. If
2 you asked Welder B four years ago whether or not he had any
3 problems with his foreman, do you think he would have answered
4 you fully, completely and truthfully then?

5 A I would think so. If I understand your question,
6 that had I approached him four years ago with this, would
7 he have told me the same thing?

8 Q Yes.

9 A My answer to that would be, I think so. I would
10 hope so.

11 Q Would he have told -- if Duke Power Company had
12 asked him the questions that they asked others four years
13 ago, would he have told them?

14 A I would hope so.

15 Q Do you think so?

16 A I would think so.

17 Q Mr. Uryc, do you honestly think that Welder B would
18 have told Duke management of the problems that he said he
19 didn't raise for four years because he was fearful of harm
20 from his foreman?

21 A As far as Welder B, yes.

22 Q Why didn't he, then?

23 A He was afraid to.

24 Q I'm just not following you, then.

25 He was afraid to, so he didn't for four years, but

mm10

1 he would have?

2 A Had he been asked, I think he would have.

3 Q All right. Why wasn't he asked, then? I guess maybe
4 that's the next question.

5 A I can't answer that, sir.

6 Q You don't know?

7 A No, sir, I don't.

8 Q That same fear that was expressed by Welder B was
9 expressed by a number of other people that you interviewed,
10 wasn't that true, Mr. Uryc?

11 A Yes, sir.

12 Q And it was expressed, to your knowledge, by a
13 number of people that Duke interviewed, that you never did
14 talk to?

15 A Yes.

16 Q All right. They said that they didn't raise
17 concern because they feared in some fashion, retribution from
18 their foreman or from others, correct, as a general matter?

19 A It is my impression when we are talking about the
20 fear on Moore's crew, that these individuals weren't afraid
21 as to what Duke Power would do to them.

22 They were afraid of the foreman as an individual,
23 of what that foreman would do to him, not as a representative
24 of Duke, but as an individual. And that was based on
25 comments that the foreman was overheard to make.

mm11

1 Q Well, you are not telling me that this individual
2 and others didn't have that common-sense fear that you alluded
3 to in your earlier answer that was right forthcoming, fear
4 that if they spoke out in general that Duke stood to lose,
5 if they spoke out, Duke management, not specific foremen
6 necessarily?

7 It was generally feared by individuals, and
8 discouraged them from raising these concerns. You are
9 not saying that there wasn't that well-understood common-sense
10 fear on the part of that young craftsman I think you used as
11 an example, to raise a concern that represented rocking the
12 boat and bucking the system and criticizing his management?

13 A My impression was that these individuals were
14 afraid of their foreman, not as a foreman for Duke Power, but
15 they were afraid of this foreman as an individual and what he
16 would be capable -- or at least what they thought he would
17 be capable of doing as an individual.

18 Q Okay. Well, we have established that. We have
19 established that you talked about Arlon Moore, and that
20 Mr. Moore used rather graphic language.

21 A Yes, he did. That is my understanding he used some
22 very graphic language.

23 Q All right. Lay aside Mr. Moore. I want to under-
24 stand whether I heard you correctly earlier, Mr. Uryc.

25 Do you agree it is fair to assume, whether it is

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1 Arlon Moore or any other foreman, that an individual craftsman
2 who is at the bottom of the totem pole, so to speak, who has
3 a wife and children, or a husband and children, a family to
4 support, bills to pay, dependent upon the company's good
5 graces, is going to be fearful and reluctant to rock the boat,
6 to raise concerns?

7 A Generally, I would say yes. True.

8 Q Okay. Then if that is a general phenomenon,
9 Mr. Uryc, why on earth has the NRC operated under the presump-
10 tion all these years that there is a free flow of information
11 at Catawba, that you are going to learn of problems that exist,
12 or hopefully before you learn of them, that Duke Power
13 Company is going to learn of these problems in a timely fashion
14 so they can take corrective action?

15 A Well, you know we are talking about a relatively
16 small number of people when we talk about the young worker.
17 And that was given as an example.

18 I talked to many individuals who expressed to me,
19 when asked, "Were you ever told to violate any procedures?",
20 they would very emphatically tell me, "No, if I had a problem,
21 I know exactly how I should deal with those problems."

22 And then they would typically explain to me, "
23 would go to my foreman. If I didn't get any satisfaction with
24 him, I would go up the chain."

25 So, that type of fear wasn't there. And I think

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1 that's what I was trying to tell you in a comment before the
2 break, that it was a human-nature type of problem.

3 Q You recognize that there were concerns expressed
4 only in this investigation, that there were conscious efforts
5 to circumvent the Quality Assurance Program at Catawba?
6 There were instances where people were posted as guards so
7 that the Quality Control inspectors would not observe work that
8 was believed to be in violation of quality procedures?
9 That was an allegation, was it not?

10 A Yes.

11 Q Now, the NRC presumes when the Quality Control
12 Program is designed, when the Quality Assurance Program is
13 designed involving quality control inspections, you presume
14 that people will not do conscious efforts to circumvent that
15 program?

16 Isn't that the NRC's presumption?

17 A Oh, I think so, yes.

18 Q All right. So, to the extent that there was a
19 conscious effort to thwart the efforts by Quality Control
20 inspector to observe work, that reflects a circumvention of
21 the program, doesn't it?

22 A (Witness Blake) That's correct.

23 Q All right, Mr. Blake. And likewise, conduct on the
24 part of foremen, foreman override, pressure by foremen,
25 threats, maybe physical, direct, maybe indirect, maybe simply

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1 a course of conduct that is perceived as pressure. That, itself,
2 is also a circumvention of the Quality Assurance Program to
3 the extent that it results in violation of procedure or
4 performance of faulty work, right, Mr. Blake?

5 A That's correct.

6 Q And the NRC presumes when they approve a Quality
7 Assurance Program, that that kind of circumvention does not
8 take place, either, correct?

9 A (Witness Uryc) That's correct.

10 Q All right. Now, Mr. Uryc, you spoke with a general
11 foreman named J. R. Wilson, didn't you?

12 A Yes, sir, I did.

13 Q And, I showed you Mr. Wilson's affidavit in your
14 deposition, do you recall that?

15 A Yes, sir.

16 Q Do you recall Mr. Wilson relating to you -- relating
17 in his affidavit, a conversation with you regarding your
18 opinion about Billy Smith's leadership skills, leadership
19 style?

20 A Yes, sir.

21 Q And the language is as follows:

22 "I talked with Bruno during the NRC investigation.
23 Somehow, Bruno got on the subject of Billy Smith.
24 Bruno said that he was not in the business of telling
25 Duke Power Company how to do business, but they would

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1 eventually have to do something about Billy Smith's
2 style of leadership. The reason was that he was
3 afraid that Smith's style of leadership would force
4 people to give up quality for quantity and would
5 make people afraid to come to management with
6 quality problems. I don't believe Bruno talked to
7 the welders about Billy by name, but mentioned it to
8 me because he was interested in helping Duke Power
9 Company."

10 Now does that observation about Billy Smith reflect
11 a fair -- reflect fairly on your belief about Mr. Smith?

12 A Well, I would like to point out -- and as I said in
13 my deposition -- that there is some mischaracterization as
14 to the way that was written up, the interview with Mr. Wilson.

15 As I told you during my deposition, Mr. Wilson and
16 I were engaged in a general type conversation regarding
17 management and management style. And I believe that Mr. Wilson
18 didn't quite capture the entire flavor of our conversation.

19 Q All right. What I am interested in most, Mr. Uryc,
20 is the reflection of your opinion of Mr. Smith, your
21 conclusions as a result of your investigation. Is that a
22 fair reflection of your conclusions about Smith? Lay aside
23 what you said or didn't say to Mr. Wilson.

24 A Based on interviews that I did, and the information
25 that I got which related to Mr. Smith, I had some

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1 reservations about Mr. Smith's particular style of management.

2 Q Okay. The lines most significant, and I want to
3 put before is this:

4 "The reason was that he was afraid Smith's
5 style of leadership would force people to give up
6 quality for quantity and would make people afraid to
7 come to management with a quality problem."

8 Is that a fair reflection of your belief based on
9 your investigation?

10 A As my memory serves me, I think in that particular
11 context we were talking that if Billy Smith was in fact a
12 very aggressive supervisor, that perhaps that type of
13 aggressiveness could cause some problems.

end T6

7-1-Wal

1 Q You told me in your deposition, Mr. Uryc, that
2 the NRC pursued the foreman override issue as one of the
3 issues raised by Sam Nunn, correct?

4 A That is when we initially started on it, yes.

5 Q You opened the case file, and the case file was
6 allegations by Welder Sam Nunn, and one part of that, in
7 addition to concerns expressed by Mr. Nunn about laminations
8 and use of defective filler material, and radiography was
9 the subject that has been called foreman override, correct?

10 A Yes. However, in addition to those that you
11 mention, foreman override was an issue.

12 Q That is what I mean. Foreman override is one of
13 those that Mr. Nunn mentioned?

14 Aq Yes, that is correct.

15 Q And the NRC Staff, Region II, opened an investigation
16 of that subject, one of Mr. Nunn's concerns.

17 A Yes.

18 Q And you pursued that investigation along with the
19 other concerns of Mr. Nunn, and presented the results of your
20 investigation in this proceeding in testimony in January 1984,
21 correct?

22 A Yes.

23 Q And your January testimony, you stated your
24 conclusion which was that foreman override was not a
25 significant problem at Catawba, right?

1 A Yes.

2 Q Now, in the course of the investigation, on
3 January 11th you interviewed an individual who has come
4 to be identified as Welder B, correct?

5 A Yes.

6 Q Right. And Welder B raised some very serious
7 and specific allegations regarding Arlon Moore and practices
8 by Mr. Moore that reflected pressure to violate quality
9 assurance procedure, correct?

10 A Yes.

11 Q All right. Among which were pressure to violate
12 quality standards requiring observance of interpass temperature
13 control in welding of safety-related stainless steel socket
14 welds, correct?

15 A Yes.

16 Q All right. And you interviewed others on Mr. Moore's
17 crew, and corroborated in some measure the allegations of Mr.
18 B -- Welder B, correct?

19 A Yes.

20 Q All right. And those -- that allegation of Welder B
21 was the subject of a Region II allegation case file that you
22 identified for me in your deposition, and I will paraphrase
23 the title, but it was interpass temperature control in stainless
24 steel socket welds, correct?

25 A Yes. It is entitled Violation of Inerpass Temperature,

1 something along that line.

2 Q Okay. Failure to maintain interpass temperatures
3 on stainless steel socket welds, to be precise, correct? I am
4 looking at an allegation report in your hand, correct?

5 A Yes, sir.

6 Q And I think you told me in your deposition that
7 the NRC Staff, Region II, never had a file called foreman
8 override. You never had an investigation that by its subject
9 was the issue of foreman override except to the extent that
10 foreman override was an issue of Mr. Nunn's, and you pursued
11 it as one of Mr. Nunn's issues, did you not?

12 A Yes.

13 Q And that the Welder B issue, the Welder B issue
14 that is entitled Failure to Maintain Interpass Temperatures
15 on Stainless Steel Socket Welds, is really reflective of
16 the six technical concerns that you communicated to Duke
17 Power Company on March 13, 1984, correct?

18 A No. And let me see if I understand your question.

19 Q All right.

20 A Are you referring directly to what I titled that
21 particular file.

22 Q No. Let me see if I can rephrase the question.
23 Your position is, as you expressed at your deposition, that
24 the NRC identified Welder B's allegations, and Welder B in
25 related allegations are identified as the six subjects that

1 were communicated to Duke Power Company in the March 13
2 meeting, correct?

3 A Yes.

4 Q All right. And it was those six subjects that
5 you expected Duke Power Company to investigate and keep the
6 NRC informed of, subject to ultimate NRC review, correct?

7 A Yes.

8 Q And they involved two unresolved items, and those
9 unresolved items were first on the subject of the interpass
10 temperature on socket welds, and second on the subject of
11 arc strikes repaired without proper process control, correct?

12 A Yes.

13 Q And it was those two unresolved items that ultimately
14 led to -- they were closed, and led to the notice of violation
15 that we started this discussion with, correct?

16 The action on those unresolved items ultimately
17 was the notice notice of violation we discussed, correct?

18 A I can't answer that.

19 Q Mr. Economos?

20 A (Witness Economos) Yes.

21 So, isn't it ~~the~~ case, gentlemen, in fact that after
22 the presentation of your evidence in your January session of
23 these hearings, the NRC staff had closed its investigation
24 of Mr. Nunn's concern. It closed its investigation of the
25 foreman override issue as a specific identified issue, and

7-5-Wal

1 the subjects of your investigation now are two technical,
2 unresolved items, interpass temperature control, and arc
3 strikes prepared -- repaired without proper process control.
4 And those are what you were investigating between January 11th
5 when you opened your allegation file on Welder B, and the
6 end of August, when you issued the notice of violation and
7 inspection report for the Company.

8 A (Witness Uryc) I don't agree with that.

9 Q You left it to Duke Power Company, didn't you, to
10 investigate the six technical concerns and determine whether
11 or not those technical concerns were corroborated, whether
12 they had effective -- significance in terms of safety, and
13 whether they were extended beyond that particular crew and
14 craft, did you not?

15 A Yes.

16 Q And you conducted no further investigation yourselves
17 of the issue of foreman override. You reviewed Duke's work
18 and the results of that review are reflected in the inspection
19 reports that your counsel has put in evidence, and ultimately
20 in the notice of violation, correct?

21 A Yes.

22 MR. GUILD: Mr. Chairman, I would like to ask
23 that the gentlemen identify what has been circulated to the
24 parties as response to a Freedom of Information Act request,
25 and it is FOIA-84-722. And it is represented by three

1 appendices; Appendix A, Appendix B, and Appendix C. And
2 they are documents from the NRC Staff's case file on their
3 investigation of the Welder B allegation.

4 JUDGE KELLEY: This is the response that Mr. Johnson
5 furnished, and it was sent to you and the Board back in late
6 September?

7 MR. GUILD: It is not the Region II. Mr. Uryc,
8 you can probably help, since you were the responding
9 official in this FOIA, were you not?

10 MR. URYC: Part of it, yes.

11 BY MR. GUILD: (Continuing)

12 Q And the Freedom of Information Act request I
13 just identified to you, is the three appendices you and I
14 have gone through --

15 A (Witness Uryc) Oh, yes, yes.

16 Q And that is the Welder B case file for Region II,
17 is it not, with deletions to protect confidentiality.

18 A I believe it is, yes.

19 Q Well is it? I can show it to you.

20 A Yes.

21 Q Okay. Then there is a separate package, Mr.

22 Chairman that came from Mr. Jones from Region II, that was
23 the in-camera file, with the blue pages at the bottom, that
24 was Mr. Nunn's file. It is not the Freedom of Information
25 Act response. I don't want to deal with the second set. Am

7-7-Wal

1 I confusing matters?

2 JUDGE KELLEY: I think that you and Mr. Uryc
3 know what you are talking about. Mr. Johnson, is that what
4 you sent to the Board, with appendices A, B, and C, listing
5 various things?

6 MR. JOHNSON: My understanding was that the first
7 answer of Mr. Uryc was correct, that the FOIA response,
8 Appendices A, B, and C, reflected the Welder B case file.
9 I would like Mr. Jones to address what the other package
10 represented.

11 MR. GUILD: Let me just show the witness.

12 JUDGE KELLEY: We understand what that is.

13 MR. CARR: Before we start, can I ask one question.
14 How does what we are doing here match up with the documents
15 provided in discovery by the NRC Staff. What it says is
16 that they are being forwarded in a FOIA response format, since
17 they have also been the subject of an FOIA request.

18 MR. GUILD: That's easy; same thing.

19 MR. CARR: Same thing?

20 MR. GUILD: Same thing. I wanted to show it to
21 Mr. Uryc. I don't have a complete set here. I am showing
22 Appendix A, B, and C. A, are documents being placed in the
23 public document room; B, are documents already available in the
24 PDR, and C, are portions of documents withheld, correct?

25 WITNESS URYC: Yes.

1 BY MR. GUILD: (Continuing)

2 Q And in some, they represent the Region II case
3 file on Welder B, did they not?

4 A (Witness Uryc) Yes.

5 Q That is what I would like to have identified,
6 Mr. Chairman, as the next hearing exhibit, and received
7 in evidence, and I will endeavor to submit a clean copy,
8 a complete set for the record.

9 JUDGE KELLEY: This the FOIA data response.

10 MR. GUILD: It is. And number. We are not
11 on a Palmetto number. Let me just check.

12 I would ask that this be identified as Palmetto
13 Exhibit 146, and received in evidence.

14 MR. JOHNSON: Before it is received in evidence
15 I would like to have a chance to review it. I haven't
16 been able to locate my copy.

17 JUDGE KELLEY: May I suggest -- well, do you think
18 a quick look would do? I was sort of groping for a way to
19 move on.

20 MR. GUILD: I don't have a full set with me at
21 this time.

22 MR. JOHNSON: I would like to have a chance to look
23 at the whole set.

24 JUDGE KELLEY: I am wondering whether you could
25 look at it over lunch, and we can go ahead and defer the

CUU...

1 ruling until after lunch, and go ahead and answer questions
2 now.

3 MR. JOHNSON: Okay.

4 JUDGE KELLEY: Subject to the ruling. Any
5 objections from the Applicant?

6 MR. McGARRY: No.

7 BY MR. GUILD: (Continuing)

8 Q Mr. Uryc, you know Mr. Nunn. He is sitting
9 here at the counsel table.

10 A (Witness Uryc) Yes, sir.

11 Q You interviewed Mr. Nunn on a number of occasions,
12 investigating his concerns, have you not?

13 A Yes, sir.

14 Q One of those concerns, as we stated was foreman
15 override. Did you, after the January hearing, re-interview
16 Mr. Nunn in an effort to investigate the foreman override
17 issue?

18 A No, sir.

19 Q Mr. Nunn did contact you, did he not?

20 A Mr. Nunn has contacted me several times. The
21 last time being several days ago.

22 Q Mr. Nunn contacted you before your investigation
23 effort was completed in this Welder B matter, before the
24 Duke investigation report was published, and before you reached
25 the conclusions that are reflected in your August inspection

1 report, did he not?

2 A I would have to say yes.

3 Q And Mr. Nunn communicated to you his desire,
4 his interest, and his willingness to assist the NRC staff
5 in getting to the bottom of the issue of foreman override --
6 in conducting its investigation of foreman override issue,
7 did he not?

8 A Mr. Nunn has always been helpful to us.

9 Q Did Mr. Nunn, in fact, ask you to communicate
10 back to him, so that he could continue to assist in your
11 investigation?

12 A Mr. Nunn has expressed his willingness to assist
13 us, yes. Is that what you meant?

14 Q No, sir. What I meant was didn't Sam Nunn ask you,
15 Bruno Uryc, please keep me informed of the progress of your
16 investigation. Please contact me so that I can assist you,
17 so that I can suggest to you, for example, names of other
18 craftsmen at the site who you should speak with. Give you
19 some feedback about likely direction, other foremen who you
20 should pursue an investigation of?

21 In short, didn't in short Sam Nunn say to you: Bruno,
22 I want to help, and please contact me so that I can help.

23 A In short, I would say yes, that he did say that
24 he wants to help and he would help. As I said, he has always
25 expressed to me that he would do whatever we would ask him

1 to do.

2 Q But you neither sought him out nor took advantage
3 of Mr. Nunn's offer of help.

4 A That is correct.

5 Q Did you go to the Shearon Harris site where Mr.
6 Nunn had been employed, and conduct any interviews with
7 regard to the Welder B investigation?

8 MR. JOHNSON: Objection. I fail to see what
9 the relevance of interviews at Shearon Harris has to do with
10 this case.

11 MR. GUILD: It bears on the completeness of NRC
12 Staff's investigation, Your Honor.

13 JUDGE KELLEY: Shearon Harris -- would you repeat
14 the question?

15 BY MR. GUILD: (Continuing)

16 Q Did you go to the Shearon Harris site and conduct
17 interviews with regard to the Welder B investigation. Not
18 something to do with Shearon Harris, but something to do with
19 this subject, Welder B.

20 JUDGE KELLEY: How is that relevant. It doesn't
21 seem to be --

22 MR. GUILD: I intend to demonstrate that it bears
23 on the inadequacy of the NRC Staff's investigation.

24 JUDGE KELLEY: Could have gone to Hatch, Vogel,
25 and Indian Point, too, also.

1 MR. GUILD: Could have. But the question is
2 what evidence did the NRC Staff look for, Mr. Chairman?

3 JUDGE KELLEY: Sustain the objection.

4 MR. GUILD: Mr. Chairman, could I make an offer --
5 I want to be as clear as I can.

6 JUDGE KELLEY: I understand the question, and
7 there has been an objection, and the objection is being
8 sustained. Talk about Catawba.

9 MR. GUILD: This is Catawba, Judge. I am trying
10 to be clear. I submit the question is: Did he go to Harris
11 to look for a former Duke -- former Duke employees from
12 Catawba, to interview in the Welder B investigation.

13 I am not talking about Shearon Harris, I promise
14 you.

15 JUDGE KELLEY: Yes or no.

16 A (Witness Uryc) Yes.

17 JUDGE KELLEY: All right.

18 BY MR. GUILD: (Continuing)

19 Q Did you interview (name deleted)?

20 MR. McGARRY: I will raise an objection. We are
21 now getting into confidentiality questions.

22 MR. GUILD: No, sir, we are not. The question is,
23 did he interview (name deleted).

24 JUDGE KELLEY: I don't know whether the man you just
25 named is one of the people to whom Duke gave a pledge of

1 confidentiality, either one way or the other. I don't know
2 if you know one way or the other.

3 MR. GUILD: He is not on my list, Judge.

4 JUDGE KELLEY: This is a former employee?

5 MR. JOHNSON: May I approach the bench?

6 (Off the record discussion ensues)

7

8 (Bench Conference follows)

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BENCH CONFERENCE

1
2 JUDGE KELLEY: We will go back on the record here.
3 In an introductory manner, we have been discussing the line
4 of questioning that was going on when we went off the record
5 and whether it is appropriate to pursue this line, and if
6 so whether the name of the person in question should be
7 used or not.

8 And our resolution of this dispute is to do a
9 bench conference, which is what we are now doing on the
10 record, and we will hear the counsel, and the counsel may
11 use the name quietly, and at the conclusion, if we see no
12 harm in using the name, that will be that, and if we think
13 that it is likely to betray confidentiality, we will consider
14 whether to just ask the Reporter to strike the name, or seal
15 that section of the discussion.

16 Does that summarize what leads us to this point,
17 gentlemen?

18 MR. GUILD: Since this is a point of cross
19 examination, I ask that counsel for the witnesses be asked to
20 not confer with the witnesses on the substance of this
21 discussion.

22 JUDGE KELLEY: Yes, we have done this before.

23 MR. GUILD: I will submit that here is the
24 basic offer. I am informed by Mr. Nunn, standing here,
25 a signatory to the affidavit of confidentiality, that (Name

1 deleted) is a former Catawba employee who has knowledge of
2 foreman override.

3 Facts. (Name deleted) told Mr. Nunn that he had
4 been interviewed twice by Mr. Uryc, and that he had related
5 to Mr. Uryc improper performance of weld repair work without
6 proper documentation, generally called illegal repairs.

7 I have been provided copies of all of the NRC's
8 interview summaries. Some of which are contained in the FOIA
9 documents, with confidential sources deleted, some of which
10 were provided in the package from Mr. Jones, that is not in
11 evidence in Region II.

12 (Name deleted) appears in none of that information,
13 nor do the facts that we believe, based on the chain of
14 communication of related issues, were communicated to the
15 NRC investigator, Mr. Uryc. The question then is, Mr. Uryc
16 was investigating Welder B matters, found evidence of foreman
17 override, which evidence is not disclosed in his testimony
18 or his inspection report, or in filed documentation that
19 has been made available. How does that bear on the completeness
20 and accuracy and validity of the NRC's investigation of
21 foreman override. That is our submission.

22 JUDGE KELLY: Is (Name deleted) presently an
23 employee?

24 MR. GUILD: He is employed by Carolina Power and
25 Light, Shearon Harris.

JUDGE KELLEY: Mr. Johnson? Do you want to

1 respond to Mr. Guild?

2 MR. JOHNSON: I --

3 MR. JONES: Maybe I can point out the problem
4 more succinctly. We have given Mr. Guild during the course
5 of discovery the summaries of every interview on the subject
6 that was conducted by Region II. And the only names he has
7 not received are confidential sources. For Mr. Uryc to answer
8 any question about any name that is not on that list, and
9 whether he interviewed that person or not, is essentially
10 if the answer is yes, saying that is one of the confidential
11 sources; if the answer is no, you know here again you are
12 just confirming or denying guesses.

13 I know the Commission's rules, and we could have
14 a closed session.

15 MR. JOHNSON: You are going to have to go in-camera.
16 It will have to be ex parte, in-camera.

17 JUDGE KELLEY: I just wanted to get that straight.
18 If the Board and you two guys all went to the men's room, you
19 could tell us.

20 MR. JONES: Frankly, I don't know either.

21 JUDGE KELLEY: You don't know either. I shouldn't
22 be flippant, but in any event you could do that. If the
23 Board decided they wanted to know one way or the other, there
24 might be an objection but the NRC's policy statement --

25 MR. JONES: That is what the policy statement

1 says to do.

2 MR. GUILD: Let's put a hypothetical to you.

3 What if that gentleman is the confidential source, and he
4 was interviewed in confidence, but his evidence got put in
5 the trash can. I am being facetious in part, but if there
6 is evidence that is not reflected in the Staff's testimony
7 or inspection reports, or even in the sanitized version of
8 the documents, that seems to me to bear on the evidentiary
9 matter, the validity of the NRC Staff's inspection, effort,
10 and conclusions.

11 But if he is a confidential source, it seems to
12 me the only remedy then is to, on that basis, for cause
13 shown, have a disclosure. Have the Commission decision
14 that such a disclosure is warranted.

15 JUDGE KELLEY: Was it clear -- forgive me if
16 this has been stated, but I just didn't get it. In the
17 discovery that you did turn over, are names deleted? Have
18 you said this guy is not in there, or have you said you
19 can neither confirm or deny if he is in there.

20 MR. JONES: I can't confirm or deny whether
21 he is in there. Frankly, I have to instruct the witness
22 if he is on the record not to confirm it or deny it.
23 Judge, I think that will be our position.

24 JUDGE KELLEY: What is the applicable scenario?

25 I know what Mr. Guild wants to do. What do you say we should

1 do?

2 MR. JOHNSON: The problem is this: Even if we
3 don't -- even if we were to strike the man's name from the
4 record, and we were to proceed and ask Mr. Uryc whether he
5 talked to somebody at the Shearon Harris site, and did learn
6 what that information was, it might tend to reveal the name
7 of the confidential source. Even without his name.

8 So, pursuing this line of questioning, it seems
9 to go, -- it could go to the heart of the policy statement
10 problem. The name of the confidential source should not be
11 released.

12 MR. JONES: I think Mr. Guild could explain what
13 he believes this individual told the NRC if he was interviewed,
14 and he could explain again if it isn't clear. The Board
15 can simply go in camera under the Commission's policy
16 statement, ex parte, and they could ask Mr. Uryc if that was
17 the individual they interviewed. If it was, did the individual
18 tell this information -- was it reflected in the report or
19 not reflected in the report.

20 MR. GUILD: Put it this way. We will -- we intend
21 to put Mr. Nunn on to talk about the subject of foreman
22 override, his knowledge. As part of that knowledge, we intend
23 to have him respond to the question along the line: Do you
24 work at the Harris site? Yes; You work with a man named
25 (name deleted)? Yes; Did you have a conversation with
(name deleted?) Yes; Did (name deleted) relate --

1 JUDGE KELLEY: Is that the affidavit?

2 MR. GUILD: Yes, sir. In addition, I have been
3 informed by another foreman at Catawba who was interviewed
4 by the NRC staff connected with the investigation of
5 foreman override issue, and he provided the NRC with
6 information concerning the practice of performing legal
7 repairs on safety related containment spray system on the
8 second shift. Such repairs were performed on bad welds made
9 by others without required QC inspections, or documentation
10 reflecting the later repair work.

11 There is no evidence of such a concern reflected
12 in the NRC staff reports. What did the NRC staff do to
13 document and investigate these concerns?

14 End 7
15 AB fols.

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MR. JOHNSON: My answer to that is as long as we are not asking the NRC to confirm or deny who this gentleman is or whether he is a confidential source, that Mr. Guild could ask -- could put Mr. Nunn on and Mr. Nunn can testify to what he believes and it doesn't reveal the name of the confidential source.

JUDGE KELLEY: You don't see it as a problem then.

MR. JONES: The problem would be the Board would not be able to find out whether the Staff witnesses did interview this person and whether that's in fact what he told them or didn't tell them or if it occurred at all as Mr. Nunn has related. And we can't cross-examine Mr. Nunn to a very large extent on that either. I mean, we couldn't use the information we might have if it were a confidential source because the question itself might reveal who had talked to him.

JUDGE KELLEY: Let me ask a question:
Was there a lot of traffic between Catawba and Shearon Harris? Was this gentleman unique in having left Catawba and going to work --

MR. JONES: Mr. Nunn was there, it was my understanding so I don't think it is unique.

MR. NUNN: There were others besides the two of us.

1 MR. GUILD: In the layoff last -- in the spring,
2 a lot of people left and went to the nearest plant.

3 JUDGE KELLEY: All you have said so far is
4 the name and where the person now works. Why does further
5 discussion without use of the name betray anything if
6 he is not -- far from the only person who has made this
7 shift?

8 MR. JONES: It will if Mr. Uryc has to confirm
9 or deny that he has talked --

10 MR. JOHNSON: -- that he talked to them and --
11 how many people came from that situation and are now at
12 Shearon Harris?

13 MR. JONES: For instance, if Mr. Uryc says
14 I did interview him, then that would reveal confidential
15 sources. That is the only names that haven't already
16 been given out.

17 MR. GUILD: Let me put another alternative to
18 you, Judge:

19 The easy answer is if the interviewer, if he
20 didn't he could say if he interviewed him and he is
21 not a confidential source.

22 In other words, there's a bunch of people out
23 there who gave statements to the NRC, largely exculpatory
24 statements, statements that said I don't want to be
25 confidential, and they have names and full statements, right?

1 And there are only five confidential sources.

2 JUDGE KELLEY: I am getting too much data at
3 once, I am just getting confused frankly. Maybe we we
4 would have to go adjourn and mull this over a little bit.
5 I am still not clear having said what we have already
6 said why some further discussion without real use of the
7 name and the mere fact that he used to work at Catawba and
8 now works at Shearon Harris has to have the effect of
9 betraying identity or tending to betray identity. Now
10 why is that?

11 MR. JONES: If the questions are going to be
12 directed at Mr. Uryc or to Mr. Nunn?

13 JUDGE KELLEY: Well let's say Uryc.

14 MR. JONES: If they are directed to Mr. Uryc
15 and he says -- indicates he has interviewed this individual
16 that is revealing him as a confidential source --

17 JUDGE KELLEY: Why?

18 MR. JONES: Those are the only names that
19 haven't been revealed and we have already established
20 that the name that Mr. Guild gave is not on the list
21 anywhere. So if it is not on the list and he was
22 interviewed, he must be a confidential source.

23 MR. GUILD: Or it wasn't revealed.

24 MR. JOHNSON: We can't go back -- the name
25 has been mentioned, that's the problem. If the man

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1 hadn't --

2 JUDGE KELLEY: Let me ask you this, gentlemen:

3 Frankly I do not like ex parte stuff, it just

4 doesn't fit in these cases. But if we simply went in

5 with Mr. Uryc and got a yes or no answer to the question

6 we at least would know and we could make a more intelligent

7 decision.

8 Now we can do that whether you like it or not,

9 but does anybody object to it?

10 MR. JONES: No.

11 MR. GUILD: No, sir.

12 MR. JOHNSON: No.

13 (The Board conferring.)

14 JUDGE KELLEY: Well why don't we just find out?

15 Okay.

16 (Whereupon, at 12:15 p.m., an in camera statement

17 was taken.)

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1 JUDGE KELLEY: Back on the record.

2 We had a bench conference on the record which
3 will be in the transcript. The Board has completed a
4 brief ex parte in camera session with the Staff.

5 The objection by Mr. Johnson of the Staff to
6 the line of questioning Mr. Guild was on is sustained. We
7 will have some further comment on that probably in our
8 decision. We will have no further comment on it at
9 this point and we would like to move to the next point or
10 subject, wherever we are in the cross.

11 MR. GUILD: Mr. Chairman, I want to try to
12 preserve our position for the record and try to approach
13 obtaining the evidence that we believe should be obtained
14 on this point.

15 Can I approach the bench?

16 JUDGE KELLEY: Just wait a minute. We did
17 talk this out rather thoroughly. Your position is crystal
18 clear, Mr. Guild, there isn't any doubt in my mind what
19 your position is and it is in the record. Now can we
20 just move on?

21 MR. GUILD: I am obligated to protect my client's
22 interest to request relief and I am trying to avoid doing
23 that on the record if that somehow would --

24 JUDGE KELLEY: Let me confer with my colleagues.
25 I think your position is crystal clear.

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1 MR. GUILD: It is not a question of saying any
2 more about my position, Judge, it is simply a question of
3 remedy and I am mindful of the Commission's policy statement
4 and what I am obligated to do under that policy statement,
5 and I am trying to frame a remedy without committing the
6 harm that I think the Board is trying to avoid.

7 JUDGE KELLEY: My point is I know why you wanted
8 to pursue the line and I can understand why you would feel
9 yourself prejudiced in our cutting off the line. What more
10 do we need?

11 MR. GUILD: What you need is you need a direction
12 from the Commission pursuant to the policy statement to
13 take further action so that the evidence that I seek to
14 elicit is in the record, Judge, and that is what I am
15 trying to approach by way of remedy. I am willing to do
16 that by a bench conference if that will accomplish it --

17 JUDGE KELLEY: I think that has been done,
18 Mr. Guild. If we are wrong -- I'll tell you what. I will
19 think it over more in the course of the day. I think right
20 now you have had all the opportunity to express your
21 position you really need and I would like to move on at
22 this point and we are going to do so.

23 MR. GUILD: As long as it is clear, Judge,
24 that not only do I see the question and answer that was
25 pending but I seek the information being presented in this

1 record, and whatever remedy is necessary in order to
2 accomplish that, I would seek that remedy.

3 JUDGE KELLEY: In due course, if we made a
4 mistake there is no question but what you will get your
5 remedy if some appellate body thinks you are entitled to
6 it. It won't be for lack of explaining it, that's for
7 sure. We know what your position is.

8 Let's move on to the next point.

9 CROSS-EXAMINATION (Resumed)

10 BY MR. GUILD:

11 Q Mr. Uryc, did you fully reflect in your
12 documentation to your files and in your inspection reports
13 on this subject evidence of violations of procedure which
14 was brought to your attention?

15 A (Witness Uryc) Yes.

16 Q In that context, Mr. Uryc, are investigative
17 interviews that you conducted all reflected in your
18 files that have now been made a part of this record?

19 A Yes.

20 Q If you will bear with me just briefly, I have
21 a couple of points I wanted to ask you about.

22 (Pause.)

23 In a March 16 memo to your file which has been
24 in part sanitized you relate that Welder B allegedly
25 called you and advised that Rogers -- who I took to be

1 Bill Rogers, the Catawba welding superintendent -- had been
2 put in charge of investigating the allegations, the issues,
3 by Duke Power Company.

4 Do you recall first the document I am talking
5 about in general?

6 A. In general, yes.

7 Q. Do you recall the underlying communication from
8 Welder B?

9 A. Vaguely.

10 Q. As I said, it is in part sanitized. I am not
11 seeking to have you disclose those confidences, but did
12 Welder B relate to you that Rogers, the Welding Super-
13 intendent had been -- had undertaken an investigation of
14 the issues or a concern to that effect?

15 A. I believe he did.

16 Q. Did you take any action as a result of that
17 information?

18 A. Other than talking to the individual, no.

19 Q. What did you tell him, in effect?

20 A. For me to tell you that I would have to give you
21 the entire context of the conversation that I had and I
22 simply can't do that because I might reveal who this
23 individual is.

24 Q. Did the individual express concern as to
25 the validity of Duke's investigation in light of his

agb/agb5

1 observation that Welding Superintendent Rogers had been
2 put in charge of it, or words to that effect?

3 A. I don't believe so.

4 Q. You were aware, weren't you, that Duke conducted
5 the investigation by having the craftsmen, the welders in
6 particular, summoned to Mr. Rogers' office, the welding
7 superintendents' office?

8 A. Yes.

9 Q. You were aware that the welding superintendent,
10 Mr. Rogers, talked to each of the individuals -- if not
11 each of them, the design was that he would talk to them
12 and introduce the investigation process and the interviewers
13 to the craftsmen, correct?

14 A. Yes.

15 Q. And you also are aware, are you not, that
16 Mr. Rogers himself was implicated as a result of the
17 investigation, that he was counseled by Duke Power Company
18 for having committed a certain situation with Billy
19 Smith and Arlon Moore and others, perhaps under his
20 supervision, to engage in practices they engaged in for
21 having discouraged welders, people in the welding craft
22 from using the employee relations vehicle for airing
23 concerns; you are aware that he was found to have been
24 in some regard derelict in the performance of his duties?

25 A. Yes.

1 However, when I was advised during my interviews
2 and our followup or monitoring, I had conversations with
3 three of the interviewers and the role of Mr. Rogers was
4 discussed and initially, when people were called in, they
5 were called to Mr. Rogers' office and there they were
6 introduced to the interviewers with instructions from
7 Mr. Rogers that they were to cooperate and fully participate
8 with the interviews.

9 Q Welder B expressed a concern that Rogers was
10 involved in the process.

11 Don't you feel, Mr. Uryc--in light of the fact
12 that Mr. Rogers himself was implicated for not having.
13 closely supervised Mr. Smith sufficiently, not having
14 kept an open atmosphere in the welding craft and having
15 allowed the situation to develop among the welders--don't
16 you think it was inappropriate that Mr. Rogers himself,
17 who was responsible for the atmosphere of fear in the
18 welding craft, in essence was the first person in Duke
19 management that each of these individuals saw when they
20 were solicited to his office and told that they should
21 reveal all wrongdoing known to them during the investigation?

22 MR. CARR: Your Honor, I think I will object to
23 that question. The premise was that Welder B had expressed
24 a concern with Rogers being in charge and I thought I heard
25 Mr. Uryc testify a moment ago when asked that question

1 that he hadn't expressed such a concern.

2 MR. GUILD: I wish to address the point. My
3 time is limited and I don't really mean to fence with
4 Mr. Carr about what the previous testimony of the witness
5 was, the record will speak for itself on that. My point
6 is this:

7 BY MR. GUILD:

8 Q Mr. Uryc, you approved the interview design and
9 the investigation format that included the welding
10 superintendent himself counseling with the individuals
11 who were being asked to fully reveal wrong in the welding
12 department, did you not?

13 A. (Witness Uryc) Yes.

14 JUDGE KELLEY: Speaking of time, I thought you
15 were about through. Are you about through?

16 MR. GUILD: Yes, sir.

17 JUDGE KELLEY: How much longer will you be?

18 MR. GUILD: Five minutes at the most.

19 JUDGE KELLEY: Five minutes at the most. Okay.

20 BY MR. GUILD:

21 Q Mr. Uryc, a memo to your file in Appendix C
22 to the FOIA response reflecting a conversation you had
23 with Welder B, the alledger -- again it is deleted,
24 sanitized, you withheld confidential information -- dated
25 August 23rd, 1984.

1 The first half of the document is deleted.
2 The second half reads as follows:

3 "I called Hollins" -- and that is Mr. Ray
4 Hollins who sits at counsel table for Applicants, he
5 was the investigation director for Duke, right?

6 A. (Witness Uryc) Yes.

7 Q "I called Hollins and advised him of
8 info from alledger, Welder B. Hollins said
9 he would check and find out why alledger" -- blank,
10 there is a deletion +- "and get back to me. Hollins
11 said that it appeared that such a" -- blank --
12 "may not be such a good idea at this time."

13 What did Mr. Hollins tell you would not be such
14 a good idea at this time?

15 MR. JOHNSON: Objection. Can I consult with
16 my co-counsel?

17 (Counsel conferring.)

18 MR. JOHNSON: The reason the Staff objects is
19 that the information was deleted from the information that
20 was provided in discovery for the very reason that it
21 was our position that to reveal that information and the
22 content that was deleted would tend to reveal the identity
23 of a confidential source, therefore we would instruct
24 the witness not to answer the question.

25 JUDGE KELLEY: Just a moment.

1 I can't do anything with a ruling until I find
2 my copy so I know what it does say.

3 I need some help. Where is this piece of paper
4 in Appendix C -- is it in Appendix C? What number?

5 MR. GUILD: It has not got a number that I am
6 aware of, Judge, but it has a date at the bottom right-hand
7 corner August 23rd, 1984 --

8 MR. MC GARRY: It is about five pages from
9 the back.

10 MR. JONES: A big black square on the top.

11 JUDGE KELLEY: All right. Just a minute.

12 (Pause.)

13 All right, I have it.

14 The objection is sustained. The information
15 tends to reveal the identity.

16 MR. GUILD: All right.

17 BY MR. GUILD:

18 Q Mr. Uryc, Mr. Hollins from the content
19 this memorandum to the file that is in the public
20 domain seems to indicate pretty clearly that he knew
21 who Welder B was.

22 You relate that Welder B calls you -- and Welder
23 B did call you, did he not? That is what this memo
24 reflects, does it not?

25 A. (Witness Uryc) Does it say Welder B on there?

1 Q It says "alledger" paren "Welder B." And it
2 uses the term "alledger" through the course of the memo
3 that has been disclosed to us.

4 Correct?

5 A Would you ask your question again, sir?

6 Q Yes, sir. You got a call from Welder B, did
7 you not? That is what is reflected in this memo?

8 A Yes, sir.

9 Q You called Hollins and advised him of the info
10 from the alledger, did you not?

11 A Yes.

12 Q And you did that?

13 A Yes.

14 Q He, meaning Mr. Hollins with Duke Power Company,
15 said he would check and find out why alledger did such
16 and such.

17 A Yes.

18 Q Now how is Mr. Hollins going to check and find
19 out why the alledger did such and such if Mr. Hollins
20 didn't know who Welder B was, Mr. Uryc?

21 A Mr. Hollins didn't know who Welder B was. And
22 if I were to answer your question, I would reveal the
23 substance of this memo.

24 Q Well do you believe that Mr. Hollins knew who
25 welder B was?

1 A. I believe that Mr. Hollins --

2 MR. JOHNSON: Let me just say this: If Mr. Uryc
3 were to positively definitively say his opinion as to
4 whether Mr. Hollins knows the identity of Welder B,
5 that itself would be confirming or denying to Mr. Hollins
6 the identity of Welder B and it seems to me that we can
7 avoid getting to that point with a differently phrased
8 question. So we object to the question.

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#9-1-SueT

1 MR. GUILD: Mr. Chairman, the problem is this.
2 It's our position that the Staff and the Nuclear Regulatory
3 Commission compromised the identity of these sources of
4 information that they got. I'm not stating Mr. Uryc or
5 any gentlemen here told Mr. Hollins or anyone that Welder B
6 was so and so. That's not at all what I'm saying. I'm
7 not saying that a name was ever transmitted.

8 But there was no need to transmit a name. Suffi-
9 cient facts were available to Applicants that would tend to
10 disclose the identity of those confidential sources. And
11 Mr. Uryc well knew that to be the case. And I submit this
12 memo reflects that.

13 The gentlemen from the NRC well knew, or should
14 have known, in March of 1984 when they presented the infor-
15 mation they did to Duke Power Company and asked them to
16 conduct this investigation that they had presented sufficient
17 information that would tend to identify those confidential
18 sources.

19 The only people who don't know who Welder B is,
20 at least by a preponderance of the evidence, not a certainty,
21 are members of the public and these parties. Right.

22 Now, my point is, Mr. Chairman, that the NRC did
23 not do an independent, objective and thorough and complete
24 investigation of this issue. The Board should not rely
25 upon the NRC for the proposition that there is not a quality

#9-2-SueT

1 assurance breakdown at Catawba reflected by the problem of
2 foreman override. It is inappropriate for the NRC Staff
3 to have essentially delegated their regulatory responsibility,
4 investigative responsibility, to Applicants. And I believe
5 this memorandum reflects, at least my good faith reading of
6 it, what I know and what is available to me, that there is
7 a clear communication between Mr. Hollins and Mr. Uryc that
8 reflected a common understanding of the identity of this
9 confidential source, which is already reflected in the record
10 by the fact that Mr. Hollins and others went out and identi-
11 fied an individual they believed to be Welder B, identified
12 him by stencil number, brought him in and had him do welds
13 and then purported to rely upon the results of the welds
14 that he performed as disclosing that there was no safety
15 problem at the plant.

16 JUDGE KELLEY: Okay. So, as to that point,
17 though, I think you have offered these documents into
18 evidence, right?

19 MR.GUILD: Yes, sir, that's true, yes.

20 JUDGE KELLEY: That's pending. And Mr. Johnson
21 wanted to go over the stack and so we said we would defer
22 on the ruling. But, let's assume this piece of paper here
23 is admitted and you can say that tends to demonstrate what
24 you have just described, but beyond that the question to Mr.
25 Uryc is objected to because it tends to reveal which reveals

#9-3-SueT

1 further, so --

2 MR. GUILD: I don't think it does. Here is my --
3 the questions I posed tried to avoid the problem. And if
4 there is a further way of avoiding the problem I would be
5 happy to rephrase the question.

6 JUDGE KELLEY: I really think there is. I think
7 we are going to sustain the objection. There seems to be
8 a chance that it tends to go in the direction stated.

9 I would agree with you that there is an element
10 of artificiality here, not just here in this case but any
11 case, where the NRC people have confidential people and at
12 the same time are telling the licensee to take certain
13 actions. Somebody is going to figure out who some of these
14 people are. At least, they are going to think they know.

15 But that is at least inherent in the system, and
16 I think we have to accept that.

17 MR. GUILD: My position is that that's not inherent
18 in this system and it should not have been.

19 JUDGE KELLEY: All right. So, we don't agree.
20 We are going to sustain the objection.

21 MR. GUILD: All right.

22 JUDGE KELLEY: So --

23 MR. GUILD: If I may for just a moment, Judge.
24 I'm trying to complete this matter.

25 JUDGE KELLEY: Well, you are past five minutes.

#9-4-SueT 1

MR. GUILD: And the last four of it, Judge, was
2 arguing a point.

3

JUDGE KELLEY: I'm only making a simple point,
4 that before we started the Bench conference you were about
5 through, and then I asked you and you said no more than
6 five and now we are up to ten.

7

And I think you should wrap up. If you want
8 another question or two, okay. But that's it.

9

MR. GUILD: That's all I have, Judge.

10

JUDGE KELLEY: Okay.

11

BY MR. GUILD: (Continuing)

12

Q Gentlemen, you have relied on Duke's investigation,
13 in-house investigation, to establish the scope of incidents
14 of the foreman override problem at Catawba, have you not?

15

A (Witness Uryc) Partially, yes.

16

Q You haven't done anything more yourself beyond
17 what you did at the point where you turned it over to Duke
18 except to review Duke's work, right?

19

A That's not quite true.

20

Q Well, if there is something you haven't told us
21 about, please do, but I'm really not asking you to restate
22 previous answers, Mr. Uryc.

23

A Pardon?

24

Q Nothing new that you haven't already told us
25 about?

25

#9-5-SueT1

A Today?

2 Q Yes.

3 A No.

4 Q Now, with the evidence that is available at this
5 point, gentlemen, that the system did not work at Catawba
6 for identifying these concerns at a time close to their
7 development, concerns that festered for four years, from
8 '80 on, with the evidence that indicates that there was
9 significant fear among craftsmen of their supervision and
10 weariness or fear, however you characterize it, restricted
11 their freedom to raise concerns beyond that specific foreman,
12 how can you have any confidence that you have identified
13 the scope of the problem that requires corrective action?

14 Can you have any confidence that you even have
15 yet identified the number of foremen who have engaged in
16 the practice of foreman override, who have pressured their
17 craft to violate procedures, perform faulty work?

18 Mr. Uryc?

19 A Oh, I think so.

20 Q Do you have any confidence that you know how
21 many power house mechanic foremen have engaged in production
22 pressure that resulted in violation of quality assurance
23 procedures?

24 A I don't think we will ever be able to answer that
25 with any positive one hundred percent answer.

#9-6-SueT1

Q All right. How many foremen in the instrumentation craft have engaged in production pressure that has resulted in violation of quality assurance procedures, do you know?

A No, sir.

Q And the same answer would be true if I went down the list of other crafts, would it not?

A Yes.

Q Isn't it just fundamental that where you have identified programmatic quality assurance deficiencies going back years, failure to review your own program to find inadequacies and correct them, and you don't know the extent of the problem, so isn't it fundamental that you can't be assured that the corrective action that you have endorsed, and that's Duke's own plan of correction action, that that corrective action is sufficiently broad and detailed and thorough to truly remedy that problem?

MR. JOHNSON: Do you understand the question?

WITNESS URYC: Yes, I think I do. I think it's -- yes. I would say yes to that question.

MR. GUILD: Okay. That's all I have.

JUDGE KELLEY: Mr. Riley, you have got what, 20 minutes or so?

MR. RILEY: Yes, please.

CROSS EXAMINATION

#9-7-SueTI

BY MR. RILEY:

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3 Q Mr. Czajkowski, I gave you a sheet of paper that
4 was discussed yesterday. It's a table that was prepared by
5 Mr. Ferdon of Duke, and it lists weld numbers, judgments
6 about photomicrographs, carbon contents and steel.

7 You have it before you. Have you familiarized
8 yourself with it?

9 A (Witness Czajkowski) I glanced at the first
10 page, yes.

11 Q Right. And there are 27 analyses there for
12 carbon in stainless steel 304?

13 A There appear to be 27, yes.

14 Q Right. And in the interval of .00 to .02 per-
15 cent, how many instances are there?

16 A Of carbon content, .00 to .02 percent?

17 Q Right.

18 A There appears to be one.

19 Q And from just over .02 up to .04, how many?

20 A There appear to be eight.

21 Q And just over .04 to .06?

22 A There appear to be nine.

23 Q And from .06 plus to .08?

24 A Nine.

25 Q And the average of all 27 items is?

A Approximately .052 percent.

#9-8-SueT1

Q Right. It has been testified that there is an association between the tendency to sensitization by heat and the carbon content; is that correct?

A There is a relationship that normally the higher the carbon content the greater the degree of sensitization that will occur.

Q Right. And I assume that you are familiar with the document, NUREG 75/067, entitled "Technical Report Investigation and Evaluation of Cracking in Austenitic Stainless Steel Piping of Boiling Water Reactor Plants?"

As a matter of fact, I believe that may be your document.

A (The witness is looking at the document.)

I've read it, yes.

MR. MC GARRY: I will object to the line of questions. The document referred to makes reference to BWR, boiling water reactors. Catawba is not a BWR. It is a PWR, pressurized water reactor.

And I don't see the applicability. I'm just alerting him before we start down this road.

JUDGE KELLEY: Do you know -- I frankly don't know and Mr. Guild could speak to it -- is it different with regard to the problem that is of interest?

MR. MC GARRY: Remarkably, yes, sir.

MR. RILEY: Yes. There have been something like

#9-9-SueT 1 300 instances of intergranular stress corrosion cracking on
2 BWRs because the environment at BWRs is more aggressive,
3 oxygen is present. However, in PWRs, there have been
4 something like ten instances to date, and there has been a
5 NUREG report dated 1980 which deals with intergranular stress
6 corrosion cracking in PWRs, and whereby some circumstance
7 or another there is a combination between sensitization and
8 an aggressive atmosphere intergranular stress corrosion
9 cracking has occurred in PWRs.

10 MR. GUILD: Mr. Chairman, the document that the
11 witness identified was identified in discovery by the
12 witness as a technical paper upon which he relies in part
13 for his opinion.

14 We don't dispute the distinctions that are
15 relevant in PWRs and BWRs. But that begs the question of
16 whether or not the literature that relates to PWRs is of
17 relevance and is relied upon when trying to apply what is
18 known about this phenomenon to the lesser known application
19 in pressurized water reactors.

20 So, Mr. McGarry's point in substance is not wrong,
21 it simply is -- the objection is not -- it's not a sound
22 basis for an objection.

23 JUDGE KELLEY: Yet.

24 MR. GUILD: Yet.

25 (The Board members are conferring.)

#9-10-SueT

1

JUDGE KELLEY: Let's see where it goes.

2

MR. RILEY: Yes, sir, because I'm going to get right off that subject.

3

4

BY MR. RILEY: (Continuing)

5

6

7

8

9

Q Is it not true that in the report that I just showed you, there are different classes of alloys, including an SS 304-L in which the carbon content is below some value like .03 or .04 which are essentially immune to sensitization, thermal sensitization?

10

11

12

13

A In general, the classification of a 304-L stainless steel would have as its maximum carbon content .03 or eight percent carbon and they are also, in general, immune to sensitization by the welding process.

14

15

16

Q Right. Is it not true that you heard yesterday's testimony by the Applicant's panel?

17

18

19

A That's true.

Q And is it not true that in their testimony that the highest concentration of sensitization was associated with high carbon values?

20

21

A I vaguely remember that to be the analysis, yes.

22

23

Q Now, you have a lot of experience in the nuclear industry dating back to 1972, as I recall your resume?

24

25

A Yes.

Q And it has been in roles of quality control and

#9-11-SueT¹

1 procurement of materials for welding operations, including
2 that?

3 A Yes.

4 Q Your present role includes failure analysis of
5 equipment. You are working at Brookhaven, and this could
6 involve such things as intergranular stress corrosion
7 cracking?

8 A Yes, sir, it could.

9 Q So you are familiar with this general subject and
10 have been for some years?

11 A Of intergranular stress corrosion cracking of
12 austenitic stainless steels in the heat effected zone,
13 yes.

14 Q Right. Now, you have heard the position by the
15 Applicant that you will leak first in the event that there
16 is stress corrosion cracking, that there will be a warning
17 by this weld; is that not true?

18 A Yes. I heard the Applicants state that.

19 Q And are you familiar with I&E Information Notice
20 Number 8449 which is titled "Intergranular stress corrosion
21 cracking leading to steam generator tube failure?"

22 A I read that yesterday. Yes.

23 Q And the material that was involved there was
24 an Inconel tube in a steam generator?

25 A Yes, it was.

#9-12-SueT¹

2 Q And I will quote from that particular statement
with respect to the load failure.

3 MR. JOHNSON: Would you approach the witness and
4 show him the document?

5 MR. RILEY: Yes.

6 (Mr. Riley is showing the witness the document.)

7 WITNESS CZAJKOWSKI: Okay.

8 BY MR. RILEY: (Continuing)

9 Q "Analysis revealed the failure mode to be
10 intergranular stress corrosion cracking, IGSCC, from the
11 outside through ninety-five percent of the wall thickness
12 with the remaining five percent evidencing ductile tearing,"
13 correct?

14 A That's what is stated on Page 2 of 3, the third
15 paragraph down.

16 Q And the conditions in the reactor at that time
17 are that the coolant pressure was 1800 psi and the steam
18 generator pressure was 200 psi, making for a differential
19 across these tubes of 1600 psi; is that correct?

20 A That's stated on Page 1.

21 Q Does that signify to you that under conditions
22 where there is a high stress and there is not immediate
23 detection of the leak that you can have an abrupt failure
24 with a sufficient fitting of the member -- for the tensile
25 capability of the member to be exceeded.

#9-13-SueT 1

2 A That's -- I would have to answer that with a
3 reservation. For a start, an intergranular stress corrosion
4 crack does not necessarily thin a cross section, per se.
5 It doesn't actually pose a fitting process. It's cracked
6 along prior grain boundaries, in some instances.

7 Additionally, if you do have a leak as a result
8 of the crack normally you get an Inconel because it's leak
9 before break.

10 Q But it's possible to have a crack subsequent to
11 a leak in a circumstance such as this where it had not been
12 anticipated?

13 A It's possible to have a crack in an area where
14 it's unanticipated, yes.

15 Q Now, that is a basic mode for assuring quality of
16 a plant. Could one not specify 304 stainless steels with
17 carbon contents not to exceed a certain value like .04 or
18 .05?

19 A You could. It's conceivable you could specify
20 that.

21 Q And as a quality assurance matter, would this
22 not materially lessen the incidence of sensitization,
23 whatever the practices of the welders were?

24 A As stated before, the lower the carbon content
25 the less this propensity for sensitization.

Q And would you agree then that as a quality

#9-14-SueT

1 assurance measure a specification which did require low
2 carbon in stainless steel 304 would be in the interest of
3 reducing the possible incidence of intergranular stress
4 corrosion cracking?

5 A Yes, I would agree with that.

6 MR. RILEY: That's all. Thank you.

7 JUDGE KELLEY: Okay. Thank you. Excuse us for
8 a minute.

9 (The Board members are conferring.)

10 MR. GUILD: Mr. Chairman, before you release
11 the panel, I would ask that the Board receive in evidence the
12 deposition testimony of Messrs. Uryc and Czajkowski that
13 was taken this past week.

14 I would propose that those depositions be made a
15 part of the record and be treated as evidence in the pro-
16 ceeding.

17 MR. JOHNSON: The Staff objects to that. That
18 is inappropriate. The depositions were taken in toto
19 pursuant to the stipulation that all objections as to
20 relevance and others beside the foreman question would be
21 preserved. And there were plenty of questions which could
22 have been objected to at the time but which weren't.

23 And on that basis we feel it is inappropriate
24 to have a wholesale introduction of the depositions at
25 this time. If Mr. Guild had wanted to use his time here this

#9-15-SueT 1

2 morning to read certain portions of the transcript from
3 the depositions and to have them confirmed and the pos-
4 sibility of having the objections stated and answered,
5 then he could have done that.

6

7 MR. GUILD: Mr. Chairman, I would only say
8 that we are obviously operating under very extreme time
9 constraints to get a very, very broad and difficult task
10 done.

11

12 I didn't offer in evidence depositions of the
13 Applicant's panel because we had more time to examine them,
14 and I made the conscious decision not to do that.

15

16 With respect to these two witnesses, Mr.
17 Czajkowski I examined not at all this morning but did
18 examine at deposition. I don't suggest that Mr. Johnson
19 waive his objections or should not be able to have objections
20 heard as to that, questions that he finds objectionable in
21 that deposition.

22

23 Similarly for Mr. Uryc, it simply is a matter
24 of practicality that in order for this Board to have a
25 full and complete record of this proceeding it ought to
notice, it ought to be able to rely upon evidence which
is sworn testimony of, one, an expert, Mr. Czajkowski, to
the principal investigator for the NRC Staff, Mr. Uryc,
respond to questions that I simply was not able to ask today
because of the time constraints.

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#9-16-SueT 1

2 They are available, and they are in a reliable
3 form, sworn, transcribed depositions. And I believe in
4 order for this Board to have a full and complete record
5 of the NRC Staff's review of Duke's investigation that
6 it would have available to it those gentlemen's testimony
7 in deposition.

8 JUDGE KELLEY: You did question Mr. Uryc at
9 some considerable length. Wouldn't we find the depositions
10 largely repetitious of what we heard this morning?

11 MR. GUILD: It's certainly true, more so than
12 Mr. Czajkowski, who was not examined at all this morning,
13 although I deposed him and there is considerable, significant
14 evidence in his deposition testimony that otherwise would
15 not be available.

16 So, I think the case is stronger for Mr.
17 Czajkowski. There are a large number of questions of detail
18 and fact in terms of detail, and detail discussion of his
19 investigative process, his investigative findings, that
20 simply were not touched on today.

21 So, in part the answer is yes, there are certainly
22 questions that were asked of Mr. Uryc today that were also
23 asked in the deposition but I believe that there are large
24 and substantial areas that were not inquired in today that
25 are important for the Board's consideration.

MR. JOHNSON: I would like to address that point.

#9-17-SueT

1 It would be unfair to other parties to allow this deposition
2 to be wholesale introduced, either one of them to be whole-
3 sale introduced, into evidence because there isn't going
4 to be the opportunity here for either of the other parties
5 to address whatever evidence may or may not be in that
6 transcript record on further cross or on redirect.

7 It is just impractical and unfair to give us
8 that burden at this time, in addition to the other problems.

9 JUDGE KELLEY: The depositions -- we obviously
10 haven't seen them -- do they contain redirect by you,
11 Mr. Johnson, for example?

12 MR. JOHNSON: I don't believe they do.

13 MR. CARR: No.

14 JUDGE KELLEY: Is it entirely Qs and As between
15 Mr. Guild and the witness?

16 MR. JOHNSON: As I recollect, that is true.

17 MR. GUILD: Mr. Johnson was present at all
18 depositions, and he did take the opportunity to question,
19 in at least some and I'm not aware whether he questioned
20 these two gentlemen -- I don't recall, but he certainly
21 asked questions of a number of other witnesses in deposi-
22 tion.

23 MR. CARR: If we could be heard for a moment?

24 JUDGE KELLEY: Yes.

25 MR. CARR: It's true Mr. Johnson asked a few

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2 questions of some of our witnesses. I was in a number of
3 the depositions, and I can assure you that had we not been
4 operating pursuant to stipulation I would have objected
5 to many of the questions. We discussed that yesterday
6 with the personnel evaluations.

7 I can also assure you that had I been on some
8 sort of notice that these would be considered evidentiary
9 depositions, not only would I not have agreed to the stipula-
10 tions but I would have conducted rather extensive redirect
11 examination on some of them.

12 JUDGE KELLEY: I think we understand the para-
13 meters of the dispute. It's one o'clock. I would note
14 that we are about an hour off our original schedule. That's
15 all right. It just means that there is an hour left to
16 spend later on.

17 But this is important evidence to hear so we
18 don't begrudge the hour. We would like to take an hour
19 at this point for lunch. It is just about one and we could
20 come back at 2 o'clock.

21 MR. GUILD: Judge, before you do that, can I
22 just sort of address what is to come next so I can do some
23 scheduling over the luncheon recess?

24 JUDGE KELLEY: We've got Applicant's questioning.
25 We said 20 minutes. We have got the Board for 20 minutes.
We have got 10 for recross and then we've got redirect from

9-19-SueT¹

Mr. Johnson. And then we are through.

2 And then presumably we -- is your statistician
3 available?

4 MR. GUILD: I am expecting him between 2 and 3.
5 So, hopefully when we return he will be available. Mr. Nunn
6 is present, and I understand that the Applicants had at
7 least sought out one of the craft people who was going to
8 be testifying.

9 So, if Dr. Michalowski is available I would propose
10 to put him up first.

11 JUDGE KELLEY: How about some sort of ball park
12 estimates? How long do you think you would take?

13 MR. GUILD: I would estimate that his direct
14 testimony, which would be summarized in the two-page
15 statement, no more than ten minutes.

16 And after that, it's in the hands of able
17 counsel, Applicant and Staff.

18 JUDGE KELLEY: How much cross roughly?

19 MR. MC GARRY: It's awfully hard to say.

20 JUDGE KELLEY: I'm not going to bind you to it.

21 MR. MC GARRY: Until we hear, I would suspect
22 half an hour.

23 JUDGE KELLEY: All right. Hopefully two hours.
24 And then who did you want next?

25 MR. GUILD: Two hours all total for Dr. Michalowski?

#9-20-SueT

JUDGE KELLEY: That's what I was thinking.

2

MR. GUILD: I don't think it's close to that,

3

Judge.

4

JUDGE KELLEY: That's fine. Let's go ahead and

5

recess.

6

MR. GUILD: Fine.

7

(Whereupon, the hearing is recessed at 1:00 p.m.

8

for the luncheon recess.)

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25AFTERNOON SESSION

2:05 p.m.

Whereupon,

B. URYC

J. J. BLAKE

N. ECONOMOS

and

C. J. CZAJAKOWSKI

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

JUDGE KELLEY: Back on the record.

We will turning in just a moment back to the panel.
We do want to work in one other thing here, for just a few
minutes, and that is our ruling on the objections to proposed
witnesses that we heard from counsel last evening.

We are prepared now to make rulings on all of the
proposed witnesses, except number 17. We want to look at
that a little longer. But, the first 16 on what I would call
the long list, we are prepared to make rulings on, and we will
do so.

The reasons given in opposition were, in many cases,
common to several. As we went over these it seemed to us
that one could give reasons fairly briefly, and we intend to
do so. We are working now from the long list. Some seven of
these people also appear on the short priority list, but we will

mm2 1 just go through the long one. That will include everybody.

2 Number 1 -- well, let me give you the bottom line
3 on the 16 that we are ruling on. We are authorizing the
4 calling for appearance of 13 of the 16 for reasons to be
5 given briefly. That is not to say that all 13 will appear.
6 I think our experience indicates quite clearly that we are
7 not going to hear 13 witnesses between now and tomorrow
8 evening. We just don't have that much time. We also don't
9 think the priorities on many of them are that high.

10 But, we will hear whatever the time will allow.

11 Okay. Number 1. The objection to number 1 on the
12 long list was that there has been no showing that the person
13 worked on safety-related systems. And with respect to that
14 witness, and another I will mention in a minute, the Board
15 is going to make a first order of business determination
16 whether the person did or did not work on safety systems.
17 If they didn't work on any safety systems, we will excuse
18 them at that point. If they did, we will proceed.

19 The next four names are not objected to by anybody.

20 MR. GUILD: You mean number 2, Judge?

21 JUDGE KELLEY: 2, 3, 4 and 5. 2, 3, 4 and 5, we
22 have as no objections, so they are on the list for candidates
23 for calling.

24 Number 6 is like number 1. The objection was no
25 showing of work on the safety systems. And the Board will

1 treat with that first and determine it as in the case of
2 number 1.

3 Number 7 and number 8, there the objection was
4 there was no nexus to foreman override in the affidavit. And
5 the answer was from Ms. Garde, that she, or people with her
6 had talked to with the people and they had indicated they
7 knew something about foreman override.

8 In those circumstances, we are not going to confine
9 ourselves to the affidavit, and we will allow them to be
10 called. If it becomes apparent that they don't have any
11 knowledge on the subject of foreman override, then they can
12 be excused.

13 Number 9, there was no objection.

14 Number 10 is like number 7 and 8. Once again we will
15 accept Ms. Garde's statement of a nexus to foreman override
16 for this purpose, pending the determination of whether they
17 know anything about foreman override when they come to the
18 hearing.

19 Number 11 and number 12 are QC inspectors that we
20 heard from at some considerable length last fall. We are not
21 authorizing their appearance. Determination there is
22 negative.

23 We are going to be authorizing the appearance of
24 some other supervisors whose names I am about to get to. But
25 in view of the fact that others will come that may have some

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1 pressure information, the fact that these two people were
2 here, the fact that they had a chance to say everything that
3 was on their minds a year ago, seems to us to indicate that
4 they have little or nothing to say on the subject.

5 Number 13 and 14 we understand to be in QC, the
6 QC area. They are not in the required witness category.
7 Argument was made that we should hear this aspect of the
8 problem more than we have already, and we are willing to
9 put those two gentlemen on the list.

10 Number 15 we are not authorizing as a witness.
11 He appeared extensively as a witness last year. He is, to
12 our mind, different from number 16, who we have authorized.
13 Mr. Davison, we authorized earlier today. Mr. Davison, after
14 all, is the head man on QA/QC at Catawba.

15 Number 15 is not in a comparable position at all,
16 and that, coupled with the fact that we heard from him before
17 at length, seems to us to be grounds for exclusion, so we are
18 excluding 15.

19 17. Give us a little more time on 17. We are
20 not equipped to rule on that one, yet.

21 Now that, then, provides a pool of some 13 names.
22 We have already got some people lined up for later this
23 afternoon. It would seem to me that we wouldn't want a
24 large number here first thing tomorrow. In other words,
25 Mr. Guild, I think now that we have made these rulings, in the

mm5 1 course of the afternoon if you give a little more thought to
2 priorities among those 13, that would be a practical thing to
3 think about. So, towards the end of the day we will know
4 who you want, some notion of your preferred sequence tomorrow.

5 MR. GUILD: Judge, we understand your general
6 rationale for passing on this list with regard to witnesses
7 and prior witnesses in the proceeding.

8 I have in mind specifically numbers 11 and 12.
9 Ms. Garde made a general statement of the basis for offering
10 witnesses in this category yesterday, which I thought was
11 sufficient, of course. But we would like the opportunity to
12 make a specific showing with regard to those two individuals
13 specifically as reflecting knowledge that is relevant to
14 your resolution of the foreman override concern. In fact, we
15 would be willing, if it simply a matter of managing and
16 administrating a number of people, to substitute them for
17 others.

18 I believe, and would submit as counsel, that they
19 have material evidence to offer on this subject. It is not
20 an open-ended question of things, concerns that they should
21 have raised last year. I could make a specific showing with
22 regard to this issue, and a nexus between specifically
23 investigation in this case and the effectiveness of quality
24 assurance to address the problems that are now known with
25 regard to foreman override.

1 Again, they are important enough because of the
2 specific knowledge that we expect to elicit from them, that
3 we would substitute them for others, which the Board appears
4 to be willing to hear.

5 JUDGE KELLEY: We are willing to hear. We have
6 ruled.

7 MR. GUILD: Exactly.

8 JUDGE KELLEY: I don't know whether we want to reargue
9 the point, Mr. Guild.

10 MR. GUILD: If it is a matter of tactical decision
11 on our part, we tried to prioritize as best we could. We
12 would make some substitution if we had the freedom to do
13 that for those two people, with two others.

14 JUDGE KELLEY: We also realize the sheer mechanics
15 of rearguing. Time keeps going by. You can lose a witness
16 just by arguing about these two.

17 MR. GUILD: I understand. It is important enough,
18 so I raised the point.

19 (Board conferring.)

20 JUDGE KELLEY: We will hear the argument. But we
21 would rather get finished with this panel first. Maybe
22 counsel could think about that in the backs of their minds,
23 while we use the fronts of our minds on the panel.

24 We will hear a little bit later.

25 Mr. Carr or Mr. McGarry?

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1 MR. MC GARRY: Yes, sir.

2 CROSS-EXAMINATION

3 BY MR. MC GARRY:

4 Q Mr. Czajakowski, why don't I go with you first,
5 since you were last.

6 There was a question raised by Mr. Riley in his
7 cross examination concerning a particular BWR NUREG or
8 document that he handed to you.

9 Are you familiar with that document?

10 A (Witness Czajakowski) Yes.

11 Q Are you, likewise, familiar with NUREG 0679
12 entitled Pipecracking Experience in Light Water Reactors?

13 A Yes, I have read that document.

14 Q Does that document indicate that there would be--
15 no occurrences of intergranular stress corrosion had been
16 reported to date for piping of PWR primary coolant systems?

17 A I believe that occurs in that NUREG, yes.

18 Q Do you agree with that?

19 A Yes, I do.

20 Q And, indeed, we have been talking, have we not,
21 about welds associated with primary coolant systems?

22 A I gather we have, yes, primarily.

23 Q There was some discussion of the carbon content, the
24 range of carbon content in the field welds on a particular
25 piece of paper that Mr. Riley brought to your attention,

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1 Do you recollect that?

2 A Yes, I do.

3 Q Now you have been in this business for quite some
4 time, as your resume indicates. Is the type of pipe that
5 was used in the field at Catawba similar to other PWR
6 primary coolant system piping that you are familiar with?

7 A It would be relatively consistent with the same
8 ranges found in other plants.

9 Q Some discussion of the steam generator. Is my
10 understanding correct that the tubing in a steam generator
11 case is a nickel-based alloy?

12 A Normally an Inconel 600, yes.

13 Q And the pipes that we have been discussing, and
14 that you examined the welds on, are austenitic stainless
15 steel, is that correct?

16 A That's correct.

17 Q Mr. Uryc, I will ask you this question. But,
18 Mr. Economos and Mr. Blake, whoever wants to chime in, please
19 feel free. Particularly Mr. Economos since I know you and
20 Mr. Uryc from a prior experience. Mr. Blake, we are just
21 getting to know one another now.

22 I believe some of your reports indicate that you
23 were familiar with the approach that Mr. Hollins was taking
24 with respect to his investigatory effort, is that correct?

25 A (Witness Uryc, Yes, sir, that's correct.

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1 When we decided to release the information to the
2 Applicant, we had meetings at the Region and decided that
3 we would closely monitor the activity that Mr. Hollins, as
4 it came to be was engaged in, as far as the investigation.

5 Part of that activity involved making four separate
6 trips; two in May, I believe, one in June and one in July,
7 specifically to go to the site where we had spent on each
8 of those occasions, two or three days with Mr. Hollins
9 reviewing his investigative activity and generally monitoring
10 what was going on.

11 Part of this monitoring activity included, I believe,
12 -- one of the very first trips was the fact that we elected
13 to interview the four individuals who had been selected to
14 be involved as principal interviewers in your investigation.
15 And our concern with going through those interviews was to
16 ensure that the people were, number one, well prepared; that
17 the proper individuals had, in fact, been selected to do
18 the interviews; that their backgrounds were in fact -- would
19 support the interviews that had to be done.

20 I, personally, was concerned about the atmosphere
21 that would be conducted, or the atmosphere that would have
22 been carried on during these particular interviews. And I
23 spent a considerable amount of time with three of the
24 individuals personally at the site to ensure myself that they
25 understood what they were being told to do, that they were

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1 properly prepared to do that, and that the proper atmosphere
2 in fact would exist during these interviews.

3 Q And you satisfied yourself that that was the case?

4 A Oh, yes, I am satisfied.

5 A (Witness Blake) If I might add, in the Inspection
6 Report that carries the Notice of Violation, paragraph 5
7 summarizes those four trips and points out the fact that we
8 did, in fact, review the affidavits of 146 interviews, we
9 did review the methodology and we talked to the engineers
10 involved in pursuing the technical followup. We reviewed the
11 methodology and assured ourselves that the investigation was
12 being properly conducted.

13 A (Witness Uryc) If I may add to that, part of the
14 ensurance that we were looking for, involved us actually going
15 and then requesting three individuals that we selected from
16 the initial batch of interviews to be done, for us to
17 interview those individuals to find out: Number one, do you
18 think you are being treated properly; and do you, in fact,
19 think that the way that Duke is handling this is satisfactory?

20 The indication that we received was that they were
21 satisfied.

22 Q And you talked to those individuals after they
23 had initially been interviewe d by Duke?

24 A That's correct. And how we selected them was, when
25 we had reviewed the massive amount of affidavits -- and I

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1 believe it was 105 -- we had picked out three of the lengthiest
2 affidavits and called those people in and talked to them.

3 Q There was some discussion today about Mr. Rogers and
4 his role in this interview process. And that he was there in
5 these initial interviews to tell people to feel free to share
6 all their concerns with the interviewers, and then he left the
7 room.

8 Are you aware of that activity?

9 A Yes, I was aware of that activity.

10 Q Do you feel that that had a chilling effect on the
11 interview process?

12 A I don't think it did.

13 What I base that statement on is the fact that
14 some of the interviews that I looked at were of people that I
15 had previously interviewed. And in relation to that, the
16 information that they were giving to Duke was basically the
17 same information that I had received.

18 So, based on that fact I don't think Rogers had a
19 chilling effect.

20 Q There is another issue that has been brought up.
21 That is the adequacy of the sample.

22 Has Duke gone out there and talked with sufficient
23 number of people so as to address the concerns raised by
24 this Board and by the NRC?

25 I ask you, Mr. Uryc and Mr. Economos as investigators,

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1 and Mr. Blake, again I am not as familiar, I apologize, with
2 your background. But I will ask you also, if it is
3 appropriate.

4 You had this investigatory background -- you,
5 Mr. Uryc in the Air Force and various other organizations, I
6 know. You were aware of the approach, the investigatory
7 approach and the same that Mr. Hollins was going to utilize,
8 were you not?

9 A Yes. And all things considered, it appeared to me
10 to be very adequate.

11 Q Mr. Economos?

12 A (Witness Economos) I have no problem with it.

13 You are talking about the weld samples?

14 Q No, I am talking about the size of the sample of the
15 number of people that were interviewed, not the weld size.
16 Maybe it isn't appropriate --

17 A (Witness Blake) Mr. Economos was not involved in
18 that part of the interview, I was.

19 Q I understand, Mr. Blake.

20 A In reviewing the affidavits of the people that
21 Duke interviewed, was the fact that what was involved here
22 was not 200, roughly 200 people that were involved with one
23 foreman each. The people who were interviewed by and large
24 were people who had been at the site for a number of years.
25 So, when they were talking about foreman override, they were

mml3 1 talking from personal experience of a number of foremen.

2 So, the sample has a multiplier in the fact that
3 each one of these people had more than one foreman during
4 the course of time that they were at the site. Plus, the
5 number of years. I think that was brought out in your report.
6 The average number of years of people, that represented untold
7 number of foreman/worker interactions.

8 And, because of those factors, I was comfortable
9 with the sample.

10 Q Let me ask you a question. The issue has been
11 raised before this Board as to the adequacy of the sample
12 size, the number of people interviewed. This Board has
13 to make a determination, has Duke gone out and talked to
14 enough people to be able to make the determinations they
15 have made. And there has been testimony coming from experts,
16 and experts looking at sample size interview techniques.

17 I am asking you as people who are out there in the
18 real world conducting the investigation, not people who are
19 in classrooms or whatever, but being out in the real world,
20 do you feel that Duke has done an adequate job in surveying
21 and talking to a sufficient number of people so as to
22 support the conclusions that they reached?

23 A (Witness Uryc) Oh, I think so. I would base that
24 statement on the fact that, you know with the information
25 that was initially received, and how Duke went about expanding

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1 it. You know, it is hard to take a scientific approach on
2 something when you are in this kind of an investigative
3 activity.

4 You know, it would be nice to go to a statistician
5 and say, "I have a population of 50,000 people. How many
6 people do I need to interview?"

7 I think what we are doing here, and what we were
8 looking at was the logical following of leads, and trying to
9 find samples from various parts of the workforce.

10 Q And do you feel Duke has done that?

11 A I think so, yes.

12 A (Witness Blake) I would like to add one thing,
13 that goes with what I just said. It is the fact that we
14 recognize the sample was biased, because if you go to a
15 random selection of people, then you are going to get a lot
16 of people that have very little work experience, and you have
17 biased your sample in favor of the people that have been
18 around for a good number of years. So, you had more inter-
19 actions.

20 Q Let me ask you this. Mr. Uryc, you have made the
21 statement about human nature, and what we have here is a
22 human problem. I felt that was insightful. I want to ask you
23 a question based on your experience out there in the field.

24 In a situation like the affidavits and interviews
25 that Duke conducted, what has been your experience with

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1 people being brought into a room, being promised confidentiality
2 and saying, "Now, do you have any concerns?"

3 Do they tend to let their hair down and give you
4 concerns which they may not really think are problems, but
5 since they have an opportunity to mention concerns, they sort
6 of say what is on their minds? Do you find that when you are
7 out there in the field, does that happen?

8 A (Witness Uryc) If I understand your question, that
9 being if the proper atmosphere is developed, if the proper
10 scenario is set up preceding the start of the interview, if
11 the interviewers have the capability to establish rapport so
12 that these people are at ease, I think they do come forward.
13 With the express pledge of confidentiality, I all things
14 considered, that typically somebody probably would bare their
15 soul, if you will.

16 Q And in baring their soul, while you would take
17 everything they would say seriously -- is that correct?

18 A Yes.

19 Q Is there a tendency that there is wheat and chaff
20 in that statement?

21 A Absolutely. Because in essence, what you are
22 doing is you are permitting these people to vent, emotionally
23 or maybe -- I don't know, work situations or whatever. That
24 they see the opportunity while here -- "My employer in this
25 particular case is cutting all strings, and if I trust him,

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1 I am going to go ahead and tell him everything that I
2 always wanted to tell him."

3 Q And a follow on. In your experience, do you find
4 that a lot of rumors are brought out in these type of
5 situations?

6 A Well, I don't know if I can answer that specific
7 type thing. But, I think the point I was previously trying
8 to make is that the people are going to unload.

9 Q Did they unload, in your estimation, in the
10 affidavits that --

11 A I think there are some affidavits that reflect that,
12 yes.

13 A (Witness Blake) I would like to add a little bit
14 to the point you are making. The fact that, yes, people
15 will not only tell you about the things they know about, but
16 they will tell you about things that they have heard from
17 their coworkers that they think are important.

18 They will also tell you things that they think
19 may have been covered -- corrected by the system, but they
20 have no convenient way of finding out. So they will tell you
21 just in case it wasn't picked up. As Bruno said, bare their
22 souls, tell you everything they think is important.

23 Q In baring their souls, has your experience been
24 that some of the things they told you are important and some
25 of the things end up not being important?

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1 A (Witness Uryc) I would think so. It would seem
2 logical to me.

3 A (Witness Blake) It depends on the perspective.
4 They are all important to people that are telling you.

5 Q Now, this question may not be appropriate for any
6 one of you three gentlemen, and you tell me if it is not.

7 A number of people did come forward in the 1984
8 investigation exercise. A question was asked, well, why
9 didn't people come forward earlier? Now, based on your
10 familiarity with Catawba and Duke, do you feel that appropriate
11 systems were in place prior to 1984 to provide an opportunity
12 for people to come forward if they wanted to come forward?

13 A (Witness Uryc) I would have to say yes. Yes.

14 A (Witness Blake) Our inspections, and the fact that
15 we did inspections in the past, looked at that -- which
16 Mr. Guild referred to in the report -- showed that we have
17 looked at the fact that there was a system in place that people
18 could make use of.

19 MR. MC GARRY: Now, Mr. Johnson, listen closely
20 please, because I am going to get into Welder B area, and I
21 don't want to tread -- and Mr. Jones -- on any area that I
22 should not be treading.

23 MR. JOHNSON: I am listening to everything you said
24 very, very closely.

25 MR. MC GARRY: I appreciate that.

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1 BY MR. MC GARRY:

2 Q Gentlemen, did Welder B come to you independent of
3 this case?

4 A (Witness Uryc) No.

5 Q I believe in discovery information -- I can
6 stand correcting -- did Welder B go to the Office of
7 Investigation first?

8 A I can't comment on that. I can tell you how we got
9 Welder B. You know, when the Board first brought up the
10 issue in October and we began following information that was
11 brought forward by Mr. Sam Nunn, we had done, I would guess --
12 and my memory fails me here -- maybe 20 or 21 interviews. I
13 was looking at the foreman override issue. And out of that
14 entire pack of interviews, that is where we got the Welder B
15 issue, out of there.

16 And, once we identified that issue, we then
17 proceeded off as a separate allegation following up on
18 Welder B's concerns.

19 Q Now, Welder B -- you spoke with Welder B, is that
20 correct?

21 A Did I speak to him?

22 Q Yes.

23 A Yes. I personally interviewed Welder B.

24 Q And he wasn't afraid of coming to you and telling
25 you things, is that correct?

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1 A No, he wasn't.

2 And generally, the people that I spoke to didn't
3 seem to have any hesitancy to talk to me. I take that back.
4 There was one individual, of all those interviews. He walked
5 in and he said, "Mr. Uryc, I am too busy, I don't have time
6 to talk to you." And he turned around and walked right out.

7 And, I guess that is to be expected.

8 Q Now, I would like to get into the topic of the
9 violation. As I understand it, the violation was based on
10 perceptions concerning the Quality Assurance Program, is
11 that correct?

12 A (Witness Blake) That's correct.

13 Q And I believe you mentioned that this perception
14 was that craft perceived that some craft supervision placed
15 quantity above quality, is that correct?

16 A That's correct.

17 Q Am I also correct that this violation does not
18 support the following: A perception that the QA inspectors
19 are not doing their job?

20 A As I tried to point out to Mr. Guild, this had
21 nothing to do with the operation of the organization called
22 Quality Assurance/Quality Control.

23 Q Now, some of you gentlemen know Mr. Larry Davison,
24 do you not?

25 A (Witness Uryc) Yes.

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1 A (Witness Blake) Yes.

2 A (Witness Economos) Yes.

3 Q He is in charge of Quality Assurance at the Catawba
4 site, isn't that correct? And, based on your investigation,
5 did you find anyone was saying that Mr. Davison, or the people
6 that he is responsible for, weren't doing their job of
7 inspecting?

8 A (Witness Uryc) No. To the contrary. Some people
9 have made comments to me that they felt the inspections were
10 very, very good at the site. But, I don't recall any negative
11 type remarks concerning QC inspectors.

12 Q I am trying to get a handle on the scope of the
13 problem that is before this Board, that was before you when
14 you had to make your determination of a violation.

15 As I understand what you said today in terms of
16 quality, it is a program whose commitment, total commitment is
17 to quality. And that program involves site personnel.

18 Is that correct?

19 A (Witness Blake) That's true.

20 Q And the focus was on the quality commitment of craft
21 and craft supervision. And that you found in some isolated
22 instances that there was a violation of that commitment.

23 Is that correct?

24 A That's correct.

25 Q And, I believe there was some discussion that it was

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1 isolated when compared to the hundreds of foremen who were on
2 the site.

3 Is that correct?

4 A That's correct.

5 Q And I would imagine if you have hundreds of foremen,
6 you have many more hundreds of craft.

7 Isn't that correct?

8 A That's correct.

9 Q And I would believe -- tell me if I'm wrong -- that
10 those crafts would perform hundreds and hundreds of activities.

11 Isn't that correct?

12 A That's correct.

13 Q So when these interviews were taken in 1984 and
14 Mr. Hollins told us that the average individual had worked at
15 the site for -- I believe the record reflects, if you look at
16 their affidavits, six years or so, and they each worked for
17 four foremen or so. We are talking about multiples that give
18 us a tremendously large number of activities that each one
19 of these individuals participated in.

20 Isn't that correct?

21 A That's correct.

22 Q And out of all this large, vast universe, what we
23 are left with are these affidavits and these number of
24 concerns.

25 Isn't that correct?

nn22mm

1 A That's correct.

2 Q And that serves as a basis for you saying that we
3 have isolated incidents with respect to those concerns in
4 this report that you would determine rise to the level of
5 foreman override.

6 Isn't that correct?

7 A Yes. The judgment that this was not isolated was
8 not based on what happened from the time that Welder B
9 determined, or told us that there was a problem, that we
10 would be following up on.

11 This was based on the fact that we had been
12 inspecting the Catawba Nuclear Site since there was a limited
13 work authorization, then a construction permit. We have had
14 a number of inspections at the site. We have had a lot of
15 inspector/worker interactions, interviews, contacts,
16 observations at work. You know, if you look at our report
17 of August 31st, there were 88 separate inspections as of
18 1984. By that date, by the time I got the Inspection Report
19 number, that was Catawba Unit 1 by that time, so there was
20 an awful lot of inspection activity that went on through our
21 normal program, normal routine inspections, special inspections,
22 resident inspectors at the site.

23 That didn't come up with this problem, which shows
24 it to be relatively minor problem.

25 JUDGE KELLEY: I just want you to know, Mr. McGarry,

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1 your originally allotted time has expired. You can have a little
2 more. We did extend the cross.

3 Can you give me an idea of how much you have there?

4 MR. MC GARRY: I have about four or five more ques-
5 tions here, then I was going to quickly go through the August
6 31st report.

7 I would imagine I have maybe five to ten more
8 minutes, your Honor.

9 JUDGE KELLEY: That's all right.

10 MR. MC GARRY: Thank you.

11 BY MR. MC GARRY:

12 Q Mr. Uryc,--

13 A (Witness Uryc) If I could just take a second here
14 to make an observation that has been in the back of my mind
15 throughout.

16 My judgment that foreman overrides are not pervasive.
17 When you take the length of time it has been going on and
18 the number of foremen and measure -- not measure, but consider
19 during the day the number of interactions between a foreman
20 and workers. And I think if you would lump them, or try to
21 envision them without going tilt, that you are literally
22 talking millions of human personal interactions, where a
23 foreman may say, "Do this," or "Do that," or just those type
24 of interactions.

25 Then, when you look at incidents where, as an example,

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1 Welder B came up with several where he was -- received the
2 information that he did from his foreman over a long period
3 of time, it is just to me, worth thinking about.

4 Q There was some discussion about Mr. Nunn today. You
5 recollect at our prior session Mr. Nunn raised some concerns.
6 He had a concern called foreman override that involved a
7 foreman named Larry Rudasill.

8 Do you recollect that?

9 A Yes, sir, I do.

10 Q Have you read the affidavits that Duke compiled to
11 support his report?

12 A Yes, sir.

13 Q In reading your affidavits, to your knowledge, did
14 a single individual mention that Mr. Rudasill was a candidate
15 for foreman override, or put any pressure on them or condoned
16 any unsafe work?

17 Do you remember the name Larry Rudasill coming
18 up at all?

19 A Yes. I don't recall anything.

20 I might also add that in one of Mr. Nunn's affidavits
21 he himself had mentioned that he had worked for Arlon Moore
22 and thought he was a great supervisor.

23 Q I would like to just go through the August 31st
24 report, if you have it, gentlemen.

25 On page 2 -- do you have a copy of it?

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1 A (Witness Blake) Yes, I have it.

2 Q Page 2, down at the bottom of the paragraph we
3 are talking about the interpass temperature.

4 You believe there was a violation of the interpass
5 temperature. And I ask you the question, was quality affected?

6 A The question again, sir?

7 Q Is quality affected because of this violation, in
8 your judgment?

9 A I don't think it was. No, I don't believe the
10 quality of the hardware involved was impaired.

11 Q Turn to page 3. We are talking about the top,
12 item C, authorized welds, lead deposit sequence.

13 And you agree there was no technical violation of
14 procedure.

15 Am I safe to assume that based on that there was
16 no affect on safety?

17 A That's correct. The hardware was not affected.

18 Q Then likewise, with the next item on arc strike,
19 I would ask you the same question and the effect on safety
20 of that?

21 A No, we did not determine any effect on safety.

22 MR. MC GARRY: Your Honor, if I could just have
23 one second, I think I have just two more questions.

24 JUDGE KELLEY: Okay.

25 MR. MC GARRY: Thank you.

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1 BY MR. MC GARRY:

2 Q One summary question, gentlemen, that relates to
3 the role you played in following what Duke was doing.

4 You didn't just turn Duke loose after March 16th
5 and sit back and then wait until August 3rd and read the
6 report, did you?

7 A (Witness Blake) That's correct, we did not.

8 Paragraph 5 of the Inspection Report documents four
9 trips that we made to the site to review the conduct of the
10 inspection and the status of the inspection.

11 I might want to add that there was a determination
12 pending within the management of the NRC Region II, as to
13 whether or not we would actively pursue a parallel investiga-
14 tion. And it was after the reviews of May and June time
15 period, that we determined that the investigation being
16 conducted by Duke was thorough enough to the point that we
17 were satisfied that it was going into the depth that an
18 independent NRC inspection would have.

19 A (Witness Uryc) There were some other things going
20 on here, too, as far as what the Staff was doing, in going
21 down to the site. As I said, we had spent time with
22 Mr. Hollins, we had interviewed the four interviewers, we had
23 done three interviews of affiants.

24 We also had the technical people come in and explain
25 to us basically how they were going to resolve that.

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1 Mr. Blake would leave me occasionally and it was
2 my understanding that Mr. Kruse was taking him down to the
3 welding lab and showing him exactly, you know, the technical
4 aspects.

5 So, the impression -- I don't want to give anybody
6 the impression that we said, "Here, and we will see you in
7 August."

8 I mean, as far as we were concerned, Blake and I
9 were going down there.

10 A (Witness Blake) That is supported by the fact
11 that Mr. Czajakowski is here with us at the table. He was
12 hired specifically, contracted by NRC Region II. When some
13 samples were welded at Duke, we requested that the samples
14 be split, we be given half of the samples.

15 I contracted Mr. Czajakowski to do some metallurgical
16 studies on them to see if he could determine if these
17 samples could be used as standards for field metallography.

18 He worked on that. part of the contract was for him
19 to come to the Catawba site and to review the metallography
20 being done by Duke to ensure that the NRC was satisfied with
21 the metallurgy being done by Duke, which he had documented in
22 his report.

23 No, there is no way that you could say that we
24 dumped it on Mr. Dick's lap and said, "Call us when you are
25 finished."

1 Q Two questions to follow up. Mr. Economos, in
2 terms of sample size of the welds, I believe you had a comment
3 and then I cut you off and went to the sample size. I ask
4 you, are you satisfied that the sample size of the field welds
5 that you examined were satisfactory?

6 A (Witness Economos) Yes, sir.

7 Q And Mr. Caajkowski, a question came up yesterday,
8 and we don't want to leave the Board with any misconception,
9 and perhaps Mr. Blake also, but there may be an impression
10 that based on the field testing that Duke did, and its
11 evaluation of those 25 weld to the ASTM practice A criteria,
12 that those four -- two or three welds that the gentlemen
13 determined did not meet that criteria were unacceptable
14 welds. Now, is that correct?

15 A (Witness Czajkowski) ASTM A 262, Practice A, is
16 basically an acceptance standard. It is not a rejection
17 standard. There are additional tests in that practice that
18 allow you to reject material.

19 The welds themselves would only be welds -- actually,
20 the heat affected zones would be sensitized. It doesn't mean
21 that those welds would crack in service or anything. It
22 doesn't mean the welds are unacceptable welds.

23 Q And in reading your deposition, I believe you stated
24 that to have a defective weld, you need three things to
25 happen; you need sensitization, you needed the stress, and

1 you needed a corrosive environment, isn't that correct?

2 A That is correct.

3 Q And have you read the testimony -- you have heard
4 the testimony, have you not, of Mr. Ferdon in terms of the
5 corrosive environment?

6 A Yes.

7 Q And he maintains there isn't a corrosive environ-
8 ment, isn't that correct?

9 A Yes, he did.

10 Q And given that fact, would you then conclude --
11 would you agree with his conclusion that these welds are,
12 indeed safe welds.

13 A I would not expect those welds to fail in service.

14 A (Witness Blake) I would like to add one thing.
15 There really were some samples in the laboratory. One by
16 a fellow who volunteered to showed Duke how they made
17 welds, and then some welds made by a fellow from the weld
18 test shop, that there were samples welded with the limits
19 of interpass temperature allowed by the procedure, and some
20 with uncontrolled, run as hot as the welder could manage.
21 The earlier work done by Brookhaven, also done by Duke,
22 showed that there was little difference between the welds
23 that were done with controlled interpass temperature, and
24 the welds that were done uncontrolled.

25 So that later on when Duke called me to tell me

1 that they had come upon a weld of a particular size that was
2 sensitized, and they had run some tests in the lab, and
3 found that if you welded the same heated material using the
4 parameters of the procedure, also sensitized, then I was
5 not surprised.

6 What we found was that there was not a go, no-go
7 gauge that could be established to go out and say we will
8 pick a particular weld, and conduct an in-place metallographic
9 test, and tell you whether or not the welder followed the
10 procedure.

11 Q Duke did call you this information.

12 A Duke did call me with the information, yes.

13 Q One last question, Your Honor. Mr. Uryc, you were
14 ten or fifteen minutes ago posing something that has been
15 in the back of your mind, and something in the back of my
16 mind concerning the NRC's random inspections, and Duke's
17 random inspections.

18 If the random inspections -- let me back up. If
19 foreman override was so pervasive, wouldn't you expect that
20 you would find that in a random inspection, and conversely,
21 if it wasn't so pervasive, and it was isolated, wouldn't you
22 think that random inspections would have difficulty picking
23 that up?

24 A (Witness Uryc) I tend to say, yes. And I may
25 add something. With the number, the NRC inspection itself,

1 with inspectors going down, with the resident inspector on
2 site, I think if there was a pervasive, bone crushing problem,
3 that our people certainly would have picked up on it.

4 A (Witness Blake) That is one of the reasons
5 during construction inspections the NRC inspectors typically
6 do not go to the management of the site and say: Pick out
7 somebody and show me around the site, and walk with somebody
8 from the corporate management during the course of an
9 inspection.

10 While they may do that part of the time, there
11 is typically a good portion of the inspection the inspector
12 goes out alone for the purpose of observing work, and
13 interacting one-on-one with workers, with inspectors, with
14 anybody that is involved with safety activities to see if
15 we can detect any problems in the area that is referred to
16 as foreman override in one case, and in the other case it
17 has been discussed as harassment, just to determine if there
18 are problems in the interaction with supervision. Whatever
19 can be determined. That is part of our program.

20 MR. MCGARRY: Thank you, Your Honor.

21 JUDGE KELLEY: Thank you.

22 BOARD EXAMINATION

23 BY JUDGE PURDOM:

24 Q Mr. Czajkowski, yesterday we had some discussion
25 about the origin of this 350 degrees, as to whether that has

1 a scientific base or what its origin might be. None of the
2 people yesterday offered any explanation. Do you happen
3 by any chance to know?

4 A (Witness Cxajkowski) Well, Your Honor, I know
5 that the interpass temperature for teague welding, which
6 is what we are talking about here, according to the ASME
7 borderline pressure vessel code, Section 9, which is welding
8 and brazing qualification, it is a non-essential variable,
9 unless impact properties are required of the material.

10 Austenitic stainless steels, to the best of my
11 knowledge have been exempted from that due to their great
12 afillity.

13 So, non-essential variable would mean that if
14 the variable was exceeded, specifically interpass temperature
15 was raised, it wouldn't manifestly effect the mechanical
16 properties of the weld. That is by definition of the ASME
17 Code. So you would have to worry about the stress corrosion
18 cracking aspects, rather than mechanical properties.

19 As far as the 350 degree pre-heat, to the best of
20 my knowledge, that has been around forever, almost tradition
21 to have a very conservation welding procedure.

22 Q Is that a rule of thumb, or does it have some
23 scientific basis?

24 A I really don't know if there is a scientific
25 basis for it, but as far as I can remember going back, when

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1 I was going to collect, 350 was the preheat -- it was the
2 interpass temperature everybody used.

3 Q You didn't ask why?

4 t A No, I never did.

5 A (Witness Blake) If I may add to that. After
6 having worked as a welding engineer with the Department
7 of Defense at a Navy shipyard, I am familiar with the navy
8 standards. The interpass temperature in the navy welding
9 was, I believe, three hundred degrees. There was also a
10 stipulation that welding be done in essentially Stringer B
11 techniques. A lot of different workmanship guidelines to
12 minimize the heat input, to minimize the size of the molten
13 puddle, if you will, to the point that during the solidification
14 of the puddle, you have minimized the amount of residual
15 stress that you put into the weld, which minimizes distortion,
16 which as we were discussing earlier, as was discussed earlier,
17 there are three things involved with intergranular stress
18 corrosion; cracking, -- one of which is stress level -- and
19 major contributors of stress levels are residual welding
20 stresses.

21 So, you do what you can to minimize.

22 Q Mr. Czajkowski, on the basis of the information
23 that you have obtained from the work that you did, the
24 investigations you made, do you have enough information to
25 have an opinion as to the safety of these welds?

1 A Well, as far as what I saw -- when people talk
2 about sensitization of a weld, the ASTM A 162 Practice A
3 standard called for the ditch microstructure if one grain is
4 completely encircled after the test. Now, that would be
5 a sensitized weld.

6 The other end of the spectrum would be all grains
7 that were seen in a given field were sensitized. I have seen
8 both types of welds in service that have never failed in a
9 PWR. Pressurized water reactors, in accordance with various
10 NUREGs that have been put out by the NRC and by various
11 pipe crack study groups, have a tendency not to have stress
12 corrosion cracking in the primary system due to oxygen
13 suppression. The GE Reports that were brought up before
14 found that the main corrodent in a boiling water reactor
15 was oxygen, and lack of oxygen control in certain areas.
16 That problem would not be prevalent in a pressurized water
17 reactor, and I would expect these welds to be safe in service.

18 Q So your answer is, yes?

19 A Yes, I consider--

20 Q You have enough information to have an opinion?

21 A From what I saw, yes. I believe the information,
22 not just the work I did, but from various parts of the
23 literature.

24 Q And you have just expressed an opinion?

25 A Yes.

1 Q Mr. Uryc, in the investigative process where you
2 have people giving you information in a confidential way,
3 I assume that you don't take just their bald statement, but
4 you possibly try to probe to see if they have any proof of
5 that statement.

6 A (Witness Uryc) Oh, yes, sir.

7 Q How do you avoid getting the attitude across that you
8 are now turning the tables on them and prosecuting them when
9 you seek that additional information?

10 A Well, a lot of it has to do with interview technique,
11 sir. You know, if you get an individual in and he is very
12 apprehensive the first thing you would want to do is to
13 establish a rapport, setting the individual at ease.

14 There are many techniques to do that. In addition,
15 as you are talking to the individual, depending on individual
16 circumstances, you begin to probe and you listen to additional
17 information.

18 Q Have you had any potential witnesses when you
19 started probing that just clammed up and said: Maybe I don't
20 want to say anything more; or words to that effect?

21 A Not that I can recall, sir, no.

22 Q So you think you kept their confidence, and elicited
23 the full information from them or not?

24 A I think I have, yes, sir. As an example, even through
25 all that we have been through I have been in contact with

1 Welder B. And Welder B called me the other day and we were
2 having a conversation, and just in a pa-sing conversation
3 he said: Bruno, you know, I have had three or four people
4 come up to me during conversations, tell me that they were
5 Welder B.

6 Even though everybody may be guessing, or based
7 on the information that is available, I still think the
8 fact that the NRC has not come out and officially said this
9 is Welder B, it leaves a doubt.

10 So, I don't know if people would think that
11 Welder B is a hero, or what it is, but the confidentiality
12 is working.

13 A (Witness Blake) I would like to add one thing
14 if I may. One thing that we do is make it clear at the onset
15 that while we would like more information, it is not entirely
16 necessary -- we are going to follow up on the allegation
17 whether they tell us more or not. We don't require proof to
18 follow-up. The allegation is sufficient.

19 A (Witness Uryc) Typically, Judge, another thing
20 here is during these types of interviewes, we make very special
21 effort not to let these people feel like they are criminals.
22 That as soon as they confess to something, that we are going
23 to put the handcuffs on them and lock them up.

24 So, you know, it is a very supportive type of
25 atmosphere and I always stress, and I know even the inspectors

1 when they go out, stresses: listen, we are concerned about
2 quality and safety. If you have some concerns and if you can
3 tell us about it, we sure would like to hear about it.

4 So it is approached from that aspect as opposed
5 to: If you did a bad weld, we are going to lock you up,
6 and we are going to have the prosecutor come out here and
7 get you, et cetera, et cetera, et cetera. We try to make
8 a very supportive atmosphere.

9 Q I forget wheter Mr. Uryc or Mr. Blake in response
10 to questions from Mr. Guild indicated that a foreman could
11 be so aggressive that it might affect quality. I assume
12 you mean aggressive about meeting performance schedules?

13 A (Witness Uryc) I believe I made that statement,
14 Your Honor. In that particular conversation, we were talking,
15 Mr. Wilson and myself, during an interview, were having a
16 general conversation, and one of the points that I was trying
17 to make there was that you are going to have aggressive
18 foremen. I think aggressive management is inherent in the
19 construction industry.

20 Q This is what I am trying to get at. What do you
21 mean by, 'aggressive' in this sense? Do you mean performance,
22 or do you mean quality?

23 A I mean performance.

24 Q That is what I was getting at. Now, if a foreman
25 was aggressive in meeting qualaity standards, would that

1 effect quality?

2 MR. McGARRY: You said quality twice.

3 JUDGE PURDOM: That is right. If he was aggressive
4 in trying to achieve quality standards without affecting the
5 quality. He said being aggressive would detrimentally affect
6 quality.

7 WITNESS URYC: If he is an aggressive individual
8 and he is aggressive about quality then it would seem to me
9 that if that is his particular stance, that his quality
10 probably if probably is going to be pretty good.

11 BY JUDGE PURDOM: (Continuing)

12 Q So, just being aggressive in itself, you didn't
13 mean to say was detrimental to quality. It is when it is
14 aggressive on performance, and neglects being aggressive on
15 quality standards.

16 A (Witness Uryc) Yes, sir; that is correct.

17 Q Do you think that there is a possibility that the
18 separation of the quality assurance from the construction
19 responsibility has led the people in construction to feel: Well,
20 that is not my responsibility any more. That is somebody
21 else's responsibility, and I will just pay attention to the
22 performance schedules.

23 A I think I lost you, Your Honor.

24 Q Yesterday, I asked Mr. Dick a question about
25 responsibility for quality, and part of his response was, well,

1 we have a quality organization.

2 Now, that suggests the possibility to me that
3 people in construction might consider the quality assurance
4 people are responsible for quality, and therefore, I am less
5 responsible for quality.

6 A Well, if I could answer your question this way,
7 Your Honor. That is a possibility, but based on what I have
8 seen -- and I would like to talk particularly about craft.
9 Where typically a majority of your craft workers welders
10 and a welder like Sam Nunn for example, I don't know if he
11 is so concerned about quality control inspector as he is
12 a craftsman or an artisan who is going to take it upon
13 himself, I am a welder, I am responsible for this, and I am
14 going to do the best job that I can.

15 And I have seen many, many welders and talked to
16 many, many welders who feel that way, not just necessarily
17 that I am going to let QC worry about it, it is their function.

18 I am talking about welders who are craftsmen and
19 who are artisans in their work, and who feel it is my
20 responsibility, here is my stencil, and when I autograph that
21 weld, I want to be sure that it is the best that I can do, even
22 if QC never comes around to look at it.

23 Q Maybe I mischaracterized the situation. I am
24 concerned particularly about the foreman, and the foreman's
25 attitude.

10-15-Wal

1 Would he be less concerned about quality than
2 about production schedules, because somebody else is concerned
3 about quality?

4 A (Witness Blake) That is a danger. That is one of
5 the things that people have to be aware of. There is a
6 tendency if you were to emphasize quality control, the QC
7 inspector, to that degree, then the foreman would tend to --
8 when the welder says I am finished with a job, rather than
9 the foreman verifying that the job is right, saying, okay, I
10 will call the inspector and therefore, abdicate his foreman
11 responsibility for the work to the QC inspector. That is a
12 problem.

13 Q How do you avoid against that?

14 A You have to build a quality program from the ground
15 up, and make sure that the foreman is aware of the responsibility
16 for the quality product, before they call the QC inspector.

17 Q Do you think that has been done at Duke?

18 A That has been done in the majority of cases. That
19 is what our specialists are finding out, yes, sir.

20 JUDGE PURDOM: Thank you.

21 BOARD EXAMINATION

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22 BY JUDGE FOSTER:

23 Q Mr. Czajkowski, you have been asked by Judge Purdom
24 and others about the quality of these welds. I would like to
25 ask a question just a little differently, since you looked I

11-16-Wal

1 guess at the grain of the weld samples back in the laboratory.
2 You also saw other cases of welds where the interpass
3 temperatures had been high at the Catawba plant. You saw
4 where these welds -- socket welds were. Had a knowledge of
5 the liquids which were going to be flowing through those
6 systems. If by chance you were going to be responsible for
7 the operation of that particular system, would you prefer
8 that construction go back in there and change those socket
9 welds out?

10 A (Witness Czajkowski) Your Honor, the three welds
11 I saw at Catawba, I really don't know if they had an excessive
12 interpass on them or not. The three welds I looked at in the
13 field. That was just to get idea of the replicating process
14 used by Duke Power would give you an adequate representation
15 of the microstructure. I really don't know if they had
16 exceeded interpass on any of the ~~three welds~~ that I looked
17 at. They were just three welds, purportedly picked at random.

18 As far as -- I live on a dead end street from
19 this power plant, without having construction going back in,
20 I might. I haven't seen the rest -- the particular welds
21 I looked at, I have no problem with at all.

22 Q Let me broaden it out. Knowing what you knew
23 about those samples that you saw, and the systems that were
24 involved, if you were the person in charge of it, would you
25 say go back and re-do them?

1 A No, I think I would be happy with my plan as is.

2 Q All right, thank you. Mr. Blake, when Mr. Guild
3 was questioning earlier about NRC violations, you answered
4 the question to the effect that the Staff really focus on the
5 identify of a kind of a problem, and then it leaves it up to
6 the Applicant to determine the extent of the problem. Is
7 that a proper paraphrase of what you said?

8 A (Witness Blake) Yes, I believe that is correct.

9 Q Subsequently, I heard both you and I think Mr.
10 Uryc say that you didn't believe that this foreman override
11 thing was a pervasive problem at Catawba. I wonder if the
12 Staff largely left it up to the Applicant to determine the
13 extent. What is the basis of your conclusion that foreman
14 override was not pervasive. How did both of you come to that
15 conclusion?

16 A That had a lot to do with the prior inspection.
17 It had a lot to do with the prior investigative history.
18 The investigation work that was conducted by Mr. Uryc and
19 Mr. Economos as part of earlier work that led up to the
20 Welder B. That was, as I said, the prior inspection history,
21 the team inspections that Mr. Guild referred to. All these
22 things were considered at the time, and I think I alluded
23 to it in the enforcement conference, and I would to correct
24 that. It was not specifically an enforcement conference. We
25 have a couple of level of conferences.

1 Q I would like to focus just for a second, excuse
2 me for interrupting, but you said the prior history. What
3 do you mean by that in the particular relationship to the
4 Welder B incident, and the foreman override situation there?
5 My basic question here was: How did you come to the conclusion
6 that that was not a pervasive problem, if you didn't know that
7 problem existed until Welder B situation arose. What has
8 prior history got to do with it.

9 A The fact that there was considerable amount of time
10 spent inspecting and talking to people at the site, and there
11 was a considerable amount of investigative effort in interviewing
12 craftsmen involved with the Catawba site, and there was one
13 problem --

14 Q You mean because of the extent of the prior
15 investigations, that if it had been pervasive you would have
16 turned it up?

17 A Yes, sir.

18 Q Anything else.

19 A (Witness Uryc) I would like to add to that, Your
20 Honor. The foreman override issue didn't start with Welder B.
21 As far as we were concerned, it started with Mr. Sam Nunn
22 bringing that up, and then the Board, I believe in December
23 said we want you to look at that, and from the time we got
24 Mr. Nunn's information, and I think we were just about finished
25 gathering Mr. Nunn's information, when the Board directed the

1 Staff to look at that. We had already gone out and attempted
2 -- we did conduct interviews initially. I believe there
3 was -- there were twenty or twenty-five or so. Out of that,
4 the Welder B issue came. In the meantime, we were continuing
5 on working some of the other concerns that were still open
6 with regard to the in-camera and following up on Mr. Nunn's
7 concerns.

8 Mr. Nunn originally raised the foreman override
9 issue. I personally interviewed the 15 people that he identified
10 to me as being on his crew, and not a one mentioned to me anything
11 about foreman override.

12 We did some follow-up interviews with other
13 individuals, following in-camera concerns. I just didn't see
14 it other than the Welder B.

15 Q So it would -- would it be fair to say then that
16 your conclusion that it was not pervasive was based mainly
17 on interviews done by NRC people rather than on the Applicant's
18 report?

19 A Yes, sir. I said that back in January that I didn't
20 think it was a pervasive problem, and I still feel that way
21 today.

22 A (Witness Blake) I think it is fair to say that it
23 was an NRC decision supported by the Duke Report.

24 JUDGE FOSTER: That is all I have.

25 JUDGE KELLEY: I have just a couple of questions.

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1 BOARD EXAMINATION

2 BY JUDGE KELLEY:

3 Q Was there any civil penalty proposed in association
4 with the notice of violation?

5 A (Witness Blake) No, sir.

6 Q Why not?

7 A It was determined not to be a significant enough
8 problem to even consider that. That is what I was starting
9 to talk to you about in enforcement conference. We have
10 a multi-step approach to any notice of violation. It first
11 becomes between supervisor and inspector. And if the
12 supervisor determines that this is bigger than normal
13 routine inspection finding, we should have a conference to
14 decide how big it is, and if it looks like it is getting into
15 the category 1, 2, or 3 severity level, then we panel a
16 formal enforcement conference where it is determined. It
17 never got that far.

18 Q You don't go to dollar fine unless it is a 3? 3,
19 2, or 1?

20 A On itself, single violation, as I understand it, --
21 the policy is it has to be 1, 2, or 3. There are cases where
22 category three's don't get dollar value. There are cases where
23 when multiple examples of Severity Level 4's can be to a civil
24 panel, yes, sir.

25 Q Okay. Well, in any event I was kind of disturbed,

11-21-Wal

1 well, I frankly felt that you really couldn't tell us why
2 it wasn't 3 instead of 4. I know it just announces that
3 it is 4, but having heard all the discussion about the
4 matter and the Staff's view of it, I gather that what ever
5 level you might assign, you didn't see this as a terribly
6 serious matter in terms of safety significance, is that
7 corect?

8 A (Witness Blake) That is correct.

9 Q This is related in my mind to another set of
10 questions further on. Mr. Guild was talking to Mr. Blake
11 and Mr. Uryc about QA systems in a general way, and how that
12 is set up to detect violations of QA procedures. But I may
13 not have an exact quote here, but I thought I heard you say
14 in response to a question that these QA systems such as the
15 kind Duke has and other companies have, I see no conscious
16 efforts to thwart the system, the beat the system, which
17 kind of surprises me. Do you understand what I am referring
18 to?

19 A I understand the question.

20 Q Do you recall the colloquoy that I am talking
21 about?

22 A I don't recall how we got into that.

23 Q It almost sounded to me like you would devise a
24 QA system that would catch, let's say, negligent errors of one
25 kind or another, but if a person deliberately violated the

11-22-Wal

1 system, it wouldn't catch that, which struck me as backwards.

2 Is that how you understand these systems to be devised.

End 11.

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agb/agbl

1 A. I think what may have been alluded to is
2 the fact that there is no perfect system, that if you
3 devised a system to correct errors then somebody could
4 find a way around it.

5 But what I am saying is you build the quality-
6 consciousness into the worker to the effect that it is
7 important to him for it to be done right, done correctly,
8 follow the procedures, and then you do a sampling
9 inspection or a critical inspection to verify that he
10 is going to do it right.

11 Q Maybe I am making it more complicated than it
12 needs to be.

13 Don't you expect your QA system to detect,
14 at least eventually, deliberate violations of QA procedures?

15 A If the problem is pervasive, that is what the
16 QA-QC program is designed to do with its random selection,
17 that is why you don't just hold to code point inspections,
18 to known inspection points, you have random roving
19 inspections with QC and QA that, yes, are designed to
20 catch pervasive problems of failure to follow procedures.

21 Q If I can then go back a step, to your judgment
22 of what was found here upon investigation by you and
23 then by Duke was not a terribly serious matter, did not
24 evidence a pervasive problem, a significant breakdown of
25 the system.

agb/agb2

1 If that is true and if I can use a
2 medical metaphor, would you say they had, what a mild
3 case of foreman override?

4 I gather a serious case or a terminal case
5 would be quickly detected by QA systems, right?

6 A. That's correct.

7 Q. This isn't something completely innocuous one
8 could dismiss; after all, they took action against
9 these people, they launched this big investigation.
10 It was significant that you issued a Notice of Violation.

11 Is it an unfair metaphor, a mild case of
12 foreman override?

13 A. Yes. I think that is borne out by the fact
14 that in the affidavits collected by Duke there are a
15 number of cases of what workers refer to as foreman
16 override-type situations, they were told -- directed to
17 do something in violation of the procedures, where the
18 QC system picked up on that fact and the job was
19 stopped.

20 One case in point was one where the guy was
21 directed to weld on something even though it had a
22 red tag on it and the next thing they knew there was a
23 red tag on the new work and the foreman was being reprimanded.

24 Q. So you are saying that some instances of this
25 were picked up by the system?

1 A Yes, sir. That is borne out in the affidavits.

2 Q Thank you.

3 JUDGE KELLEY: Do you have recross, Mr. Guild?

4 MR. GUILD: Brief, Mr. Chairman.

5 RECROSS-EXAMINATION

INDEXXXX

6 BY MR. GUILD:

7 Q Mr. Czajkowski, in your deposition when I
8 questioned you, sir, the gist of what I understood was
9 that the information you had was limited to eight test
10 coupons that Duke had welded in the shop. They were
11 not field welds, they were not welds that actually were
12 put in the plant.

13 And on the basis of what you looked at, you
14 reached the conclusion reflected in your report, but
15 that you didn't have sufficient information to express an
16 opinion about the degree of sensitization of welds that
17 were actually in the Catawba Nuclear Station, isn't that
18 true?

19 A (Witness Czajkowski) When we sat down and
20 discussed it in the deposition, you asked me specifically
21 about the welds we looked at at Brookhaven.

22 Also in my trip report which is part of the
23 letter --

24 Q Yes.

25 A -- it is stated that we did look at three welds

1 in the field at the Catawba station, and that was the
2 replicas of the polished and etched sections of three welds
3 at the Catawba plant.

4 Q And that was when you were -- not for evaluating
5 the quality of those welds, but simply for your evaluation
6 of the effectiveness of the photomicrographic technique.

7 A Of the technique used, as I told the Judge.

8 Q Now I think it was established by Mr. Kruse
9 yesterday that he only called you this week after I took
10 your deposition and his deposition and informed you of
11 the results of the actual field testing that Duke had
12 performed on the sample of welds in the plant that were
13 performed by Arlon Moore's crew.

14 A Yes, he basically told me that there were I
15 believe two, maybe three welds that had a sensitized
16 microstructure.

17 Q Six in Mr. Ferdon's initial cut, four rejects
18 -- or four that didn't meet the acceptance standard,
19 in his opinion, two questionable with a borderline ditch
20 structure and then in Mr. Kruse's initial pass-through of the
21 the photomicrograph, two clear rejectable conditions.

22 A That's what I heard -- not rejectable by
23 ASTM code, by his own nomenclature, because the code --
24 the standard he used is not a rejection standard.

25 Q They failed to meet the acceptance standard.

1 A. Yes.

2 Q. And you understand now that that was an effort
3 to make a sample of welds performed by that crew from which
4 Duke attempted to make generalizations about the quality
5 of welds performed by that crew?

6 A. Well as I said before, since we are talking
7 a pressurized water reactor and primary system welds,
8 to my knowledge to date there has never been a failure
9 in the heat affected zone of austenitic stainless steel
10 in a pressurized water reactor primary loop.

11 Q. All right.

12 Well these were nuclear material lines, for
13 example, lines where there frequently are stagnant aqueous --

14 A. Are you sure on that? I'm not.

15 Q. I submit that to you. It is not the primary
16 system, it is a system where in fact there has been
17 analogous instances where corrodants have developed
18 because of the stagnation in the fluid system.

19 That's the case, isn't it, the instances
20 we know of in PWR's where corrodants have developed have
21 been, for example, in subsystems where there is some
22 level of stagnation?

23 A. There have been some instances of that, yes,
24 secondary --

25 Q. All right. Well if you accept -- Do you know,

agb/agb6

1 maybe you don't, of the weld sample in this particular
2 instance: several were on the NM system, the nuclear
3 material sampling line system, small-diameter, heavy gauge
4 stainless steel pipe designed to operate intermittently
5 at extreme pressures, taking the samples from the primary
6 coolant system.

7 Now for example a weld on that system that
8 exhibited sensitized conditions, that failed to meet the
9 acceptance criteria might be susceptible to intergranular
10 stress corrosion cracking if there were a development of
11 corrodants in that system, mightn't it?

12 A. If there was sufficient tensile stress in the
13 weldment, if there was a corrodant and it was a
14 significantly -- a sensitized microstructure the potential
15 is there.

16 Q Now on that particular sample that Duke
17 performed, they identified let's say, most conservatively
18 counting two welds that failed to meet the acceptance
19 criteria; as many as six that failed to meet the acceptance
20 criteria if you include two borderline cases that
21 Mr. Ferdon initially questions, but two in the final
22 analysis by each of the gentlemen that looked at the
23 photomicrographs. All right.

24 And that is two of 25.

25 A. I thought the slip that Mr. Riley showed me

agb/agb7

1 today showed 27.

2 Q Two were inaccessible as best I recall --

3 A That's correct.

4 Q -- and couldn't actually be tested.

5 That would indicate -- if you could generalize
6 from that sample, if you assume that it was a sample
7 performed with sufficient precision to allow generali-
8 zation -- that would suggest that there were a significant
9 number of sensitized weldments in similar systems,
10 safety related systems of the plant, welds that would
11 fail likewise similarly to meet the ASTM sensitization
12 standard, would it not?

13 A The chances are good.

14 Are we generalizing or talking specifically
15 about Catawba or general -- welding of 304 stainless
16 steel in general?

17 Q We are talking about Catawba now. We are
18 talking about whether or not, given the sampling that
19 Duke has performed, there is a likelihood that there
20 are a significant number of sensitized welds that
21 failed to meet the ASTM standard for sensitization?

22 A I would assume that there are some welds in
23 other systems that would have a sensitized microstructure,
24 yes.

25 Q When you made your trip to Catawba before the

1 Duke people performed this field testing, you advocated
2 that they perform a sample on welds in the field based on
3 an analysis either of those systems which are particularly
4 vulnerable, have a high carbon content or systems on
5 which Welder B, his crew, had performed work?

6 A. I never really specified Welder B in my
7 report. I had heard a synoptic scenario of a welder who
8 had violated interpass temperature and so I said if
9 that is the case then he should be looked at more
10 discerningly, yes.

11 Q. And in this instance the record reflects that
12 would have been Arlon Moore's crew and your intention
13 was make a specific sample that attempted to focus on
14 those suspect welds, correct?

15 A. That would be a bit more discerning of those
16 welds, yes.

17 Q. Well now we know such a sample has been done,
18 all right, and the results of that sample indicate that
19 a number of those weldments failed to meet ASTM criteria,
20 all right?

21 A. I thought from the testimony today, or yesterday,
22 that only one of the welds from Welder B -- purportedly
23 Welder B, was in a sensitized condition.

24 Q. That's true. One that they saw of his --

25 A. And four that were looked at, I believe.

agb/agb9

1 Q I think only two of those were -- I may stand
2 corrected.

3 But the point is of the crews' work that
4 were done, there were a number of welds found that
5 actually reflected failure to meet that acceptance
6 criteria?

7 A There were two, I believe, out of 27.

8 Q Two out of 27 of the most conservative cut,
9 six out of -- excuse me.

10 (Counsel conferring.)

11 Two out of 25--that is all that were actually
12 tested, six out of 25 if you take the most conservative
13 analysis, Mr. Ferdon's initial cut including four he
14 found rejectable, two borderline.

15 But in either event there were, of a very
16 small sample, a significant identification of
17 sensitized conditions in those welds, correct?

18 A There were two instances. I saw on Mr. Riley's
19 slip today that were listed as being in a sensitized
20 condition out of 27 that he showed me.

21 A (Witness Blake) If I might add something here:

22 I don't think that there is anything anywhere
23 in the testimony that would show that the welds in
24 question were welded outside the parameters of the
25 procedure, which was-- the point that we were discussing

agb/agbl0

1 here was the foreman override issue which had caused
2 the welder to weld outside the limits of the procedure,
3 and the tests showed that these welds could very well
4 have been made using the parameters of the procedure by
5 anybody.

6 Q Mr. Blake, the test results actually reflected
7 that with this high carbon content steel there was
8 rejectable sensitization, or sensitization that doesn't
9 meet the acceptance criterion, for weldments that were
10 made even 100 degrees below the 350 interpass temperature
11 point. That is what it showed, correct? You were aware
12 of that, weren't you?

13 A Would you rephrase that, please?

14 Q Yes.

15 They did four coupons of a high carbon pipe.
16 The only one that didn't fail to meet the acceptance
17 criteria --

18 MR. JOHNSON: Could I interrupt you for a
19 second?

20 To make it a little bit more complete, they
21 took the heat of the pipe from the same heat of the
22 weld that they --

23 MR. GUILD: Mr. Johnson, if you will allow
24 me to do this, please.

25 BY MR. GUILD:

agb/agb11

1 Q They used a high carbon content --

2 A (Witness Blake) Pardon me, just for a matter
3 of clarity, that is not considered high carbon stainless
4 steel, that is standard 304 stainless steel. It is of
5 a higher carbon range within the allowable but it is not
6 considered high carbon stainless steel.

7 Q Whatever term you want to use, it is in the
8 .07 range, 7/100ths --

9 A Within the limits of acceptable 304 grade
10 material.

11 Q Take that as a given.

12 They used the higher range of carbon content,
13 they took pipe, they welded four coupons: one at
14 room temperature interpass, 250, 350 and in excess of
15 700; all but the one that was allowed to cool at room
16 temperature exhibited failure to meet the ASTM acceptance
17 criteria for sensitization.

18 A The acceptance criteria for a screen test
19 on sensitization, yes.

20 Q Okay.

21 So the result they found in the field is
22 totally consistent with the testimony -- the evidence
23 of Welder B and others on the crew that they violated
24 interpass temperature; it doesn't refute that they
25 violated interpass temperature at all, does it?

agb/agbl2

1 A it doesn't support nor refute.

2 Q All right, sir.

3 Now it is clear, is it not, Mr. Czajkowski,
4 that welds exhibiting that degree of sensitization,
5 sensitization that is described as ditching where grains
6 are wholly ditched --

7 A (Witness Czajkowski) Within the ASME practice A
8 test, yes.

9 Q -- practice A test reflect a higher level of
10 susceptibility of intergranular stress corrosion cracking
11 than those that exhibit a lower degree of sensitization?

12 A That is pretty well a given, yes.

13 However, a weld that is sensitized -- there
14 are many welds in the field that are sensitized that
15 never fail in service, that have never failed in service
16 and that nobody expects to fail in service.

17 Q All right, sir.

18 JUDGE KELLEY: I would like a fix on where we
19 are. Your allotted time has expired.

20 MR. GUILD: I am almost done, Mr. Chairman.

21 I have a few more points.

22 BY MR. GUILD:

23 Q Mr. Czajkowski, would you support performing
24 a more effective sampling of welds in the Catawba Nuclear
25 Station so that one would at least have a sounder basis

agb/agbl3

1 for generalizing as to the level of weldments in critical
2 safety related systems that exhibit such sensitization as
3 would reflect failure to meet that ASTM 262 acceptance
4 criteria?

5 A. (Witness Czajkowski) Would I have or have I
6 have?

7 When I went down to Catawba, I suggested a
8 sampling plan on welds and the possibility of looking
9 at the welder who had welded at interpass temperatures
10 more discerningly and look at it more critically and
11 possibly a higher percentage.

12 But I don't know, on Welder B -- for want of
13 better nomenclature at this minute -- the four or six
14 welds that I looked at, did he weld 600 welds or did he
15 weld six welds?

16 If he welded six welds, you are looking at
17 66-2/3rds percent. if you looked at four. Did he weld
18 600 welds? I don't know.

19 I would have to see the whole sample of welds
20 and at this stage of the game I really don't have an
21 opinion of the sampling plan that was used.

22 Q And if there were other persons with suspect
23 welds, others on the same crew or others on other crews
24 who may have violated interpass temperature and have
25 identified concerns about interpass temperatures, you

agb/agbl4

1 would want to have a handle on the degree of sensitization
2 exhibited by those welds?

3 A. My specific statement regarding Welder B -- again,
4 for want of better nomenclature -- was that if he had
5 specifically stated he violated interpass temperature,
6 not guessed he did, if he stated that he had violated
7 interpass temperature, if he specifically turned around
8 and violated welding procedure then in fact he should
9 be looked at more discerningly.

10 Q And when Duke did a study from which they
11 sought to generalize and they reflected -- if it was two
12 out of 25, an 8 percent rate at which weldments failed
13 to meet the acceptance criteria, or if it is six it is
14 a 32 percent failure rate, failure to meet that
15 acceptance criteria, wouldn't that be at least a
16 threshold basis for wanting to have a more discerning
17 look to determine the true extent of the problem at
18 Catawba?

19 A. Depending on the system line. As I said
20 before, a sensitized microstructure does not mean a
21 weld will fail in the field.

22 A. (Witness Blake) I would like to add one
23 thing here that needs to be discussed a bit.

24 The welds were only examined with this test
25 because there was an attempt being made by Duke with

agb/agb15

1 interest by NRC -- in fact that is why I hired
2 Mr. Czajkowski to look at some samples for me, to determine
3 if in fact a field test could be developed which would
4 in fact make some differentiation between welds that
5 were welded with interpass procedures and welds that were
6 welded in violation of the interpass temperature
7 requirements.

8 We had not only Mr. Czajkowski's work and Duke
9 work but we had the welds looked at by EPRI, J.A. Jones
10 Research, with their equipment and it was determined that
11 there was no differentiation and that it was not, in
12 effect, a go-no go.

13 But the decision was made to examine in the
14 field some welds just to see if there was in fact some
15 degree of sensitization and they found -- what they
16 found supported the earlier work: that the tests did
17 not differentiate between welds that were welded
18 within the procedure and welds that were welded outside
19 the procedure, so whether or not you are going to look
20 at more welds became a moot point.

21 Q First you contracted with Mr. Czajkowski to
22 not only evaluate the field techniques but also to
23 assist in performing a field evaluation, he didn't do
24 that and you relied on Duke's field evaluation, correct?

25 A That is correct.

agb/agbl6

1 A. (Witness Czajkowski) Except that I went out
2 to the site to evaluate how they were going to do the
3 field evaluation.

4 A. (Witness Blake) He was fully prepared at that
5 time to conduct tests if we asked him to.

6 Q. All right.

7 Now the results of Duke's tests, we established,
8 aren't reflected in the August 3rd result and those test
9 results aren't reflected in your reports either, are
10 they?

11 You don't say there was a test done of the
12 suspect welds of Arlon Moore's crew and here was the
13 number that exhibited sensitization failing to meet the
14 standards of the ASTM practice?

15 A. The fact that Duke and the NRC made attempts
16 to find a test that would determine whether or not
17 interpass temperatures were violated and failed to find
18 a test that would determine that, the fact that that,
19 in the detail you are requesting, was not put in the
20 report, I don't see that that -- the reason for it.

21 JUDGE KELLEY: The time for recross-examination
22 has expired. If you want to ask one more question and
23 get one more answer, okay.

24 MR. GUILD: I will. Thank you.

25 BY MR. GUILD:

1 Q You determined in January that foreman override
2 was not a problem at Catawba, that the matter was isolated,
3 not pervasive and not a significant reflection of a
4 breakdown in quality assurance.

5 Well gentlemen, as a practical matter, if you
6 came to any other conclusion, either in January or in
7 August, it would in fact reflect on the inadequacy and
8 ineffectiveness of the NRC's own inspection effort over
9 all these years at the plant, because you didn't find
10 this problem in 1981 when it first occurred. I mean,
11 isn't that a common sense observation about essentially
12 the foregone conclusion of the work that you did in
13 this matter?

14 MR. JOHNSON: I object to the form of the
15 question. It assumes something that is not in the record.
16 I would ask that it be rephrased, particularly the last
17 portion of the question.

18 JUDGE KELLEY: The question was rather difficult
19 to follow, would you rephrase it in a simpler way,
20 Mr. Guild?

21 MR. GUILD: I will try.

22 BY MR. GUILD:

23 Q You had already, over the course of the years,
24 observed and documented in your inspection reports
25 there was no problem at Catawba. You confirmed that

1 there was no problem at Catawba in January. The Board
2 set out the task of investigating or resolving the issue
3 of foreman override, its extent and its significance.

4 If you found it was pervasive, if you found
5 it was significant, wouldn't that indict the NRC's
6 regulatory effectiveness over all these years?

7 A. (Witness Blake) No, it would not. We have
8 never, ever felt that because of the fact that one
9 inspector or investigator finds a problem that that puts
10 into any doubt any prior work done.

11 That is because of the fact that we are, by
12 the nature of our inspection program, a sampling
13 inspection. The fact that something comes up in a later
14 inspection that looks different than was looked at before
15 is just by nature of the fact that we are sampling.

16 There would be no indictment of prior NRC
17 inspectors or inspectors' work if we were to find that
18 the work was in fact -- the problem was bigger than we
19 thought it was.

20 If it was bigger than we thought it was we
21 would have in fact pursued it with more parallel work
22 or additional inspection work by the Staff and quite
23 possibly run into a higher level of enforcement actions.

24 There would have been no indictment, no -- we
25 may have wanted to look at our program and see if we

1 couldn't tighten it out there would be no indictment
2 of prior inspections.

3 Q Thank you.

4 JUDGE KELLEY: Mr. Johnson, I assume you will
5 have some redirect?

6 MR. JOHNSON: Yes, sir.

7 JUDGE KELLEY: We are going to have to have a
8 break here. Let's say 10 minutes.

9 (Recess.)

endAGB#12
ST#13flws

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JUDGE KELLEY: Well, let's pick it back up. It has turned out that Mr. Johnson would like a redirect opportunity.

REDIRECT EXAMINATION

INDEXXX

BY MR. JOHNSON:

Q Mr. Czajkowski and Mr. Blake, I would like to try to summarize, if you could, some of the conclusions that has been drawn from the evidence presented in this case through the Duke documentation.

With regard to violation of interpass temperature, sensitization, and intergranular stress corrosion cracking, it is true that based on tests, samples, with respect to sensitization in the heat effected zone that you were not able to come to any conclusion whether interpass temperatures were violated or not?

A (Witness Czajkowski) Yes.

(Witness Economos) Yes, that's true.

Q And I direct this to the entire panel. And, therefore, with respect to reaching a conclusion about whether interpass temperatures were violated, you were required to rely principally upon the direct evidence elicited through interviews and similar information?

A (Witness Blake) That's correct. We determined that there were, in fact, violations of interpass temperatures based solely on the fact of tests. And there were no isolated

#13-2-SueT 1

cases.

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Q With respect to the question of the impact of sensitization on intergranular stress corrosion cracking, we have heard evidence in this case that some percentage of the welds at Catawba could be expected to be sensitized to one degree or another; is that correct?

A (Witness Czajkowski) I would agree with that, yes.

Q Now, assuming that that's the case, we've also heard evidence with respect to whether that would lead to failure of -- not failure but intergranular stress corrosion cracking.

And, as I understand it, there was testimony that you had to have several factors present in addition to sensitization before there would be such cracking, and those were stress, corrosive environment as well as the susceptibility to sensitization; is that correct?

A That's true.

Q Now, the question arose whether there is -- all three circumstances are prerequisites to intergranular stress corrosion cracking were present at Catawba, and I believe your answers were that all three would not be expected to be present; is that correct?

A That's correct.

Q And the reason for that is what?

#13-3-SueT1

1 A Well, the primary corrodant, the corrodant
2 specifically, the primary corrodant that has been attributed
3 to the IGSCC of austenitic stainless steel has been oxygen.
4 Oxygen would be suppressed in a pressurized water reactor
5 through a hydrogen overpressure and probably hydrogen
6 additions.

7 Q And the evidence with respect to BWRs is not
8 applicable to the situation of PWRs?

9 A No, it's not. They operate under different oxygen
10 levels altogether.

11 Q Your attention was also drawn to NUREG with
12 regard to the PWRs and two information notices with regard
13 to intergranular stress corrosion cracking evidence in PWR,
14 pressurized water reactors.

15 And I summarize your testimony to be that the
16 evidence of instances in which intergranular stress corrosion
17 cracking, that there is limited instances in which they are
18 found in PWRs is not applicable to the situation or the
19 structure at Catawba?

20 A Yes, I believe as far as this instance goes, the
21 8449 -- I believe Mr. Riley is the one who brought up -- may
22 I see that for a minute, please?

23 Q Yes.

24 (Mr. Johnson hands a document to the witness.)

25 A In this instance, it was an intergranular stress

#13-4-SueT

2 corrosion crack of a steam generator tube which is an
3 Inconel 600 and not an austenitic series 300 stainless
4 steel.

5 Additionally, in support of my statement before
6 about leaking before a break, in the last paragraph of
7 this information bulletin, while plant personnel were
8 closely watching steam generator B for indications of a
9 small leak experience before shutdown, they were doing a
10 hydrostatic test at a high pressure during a shutdown mode
11 because they had a leak prior to shutdown.

12 So, they had already known they had a leak
13 through the Inconel which again supports leak before break.

14 Q So, based on all the evidence, all the research
15 and experience of pressurized water reactors to date, you
16 have come to the conclusion that you do not expect as a
17 result of sensitization welds to be -- and I'm talking about
18 in the primary system at Catawba, to fail as a result of
19 the possibility of violation of interpass temperatures?

20 A I would not. Excuse me, to add a little bit to
21 it. I would not expect the welds to fail just as a result
22 of them being sensitized in the primary group at Catawba,
23 no.

24 Q Would you expect them to fail because of inter-
25 granular stress corrosion cracking?

 A I would not expect them to, no.

#13-5-SueT

Q One further point with regard to sensitization.

2 Assuming that interpass temperature is one element of
3 sensitization, are there other elements in the weld process
4 which may be equal or greater, of greater importance, to
5 the result of sensitization?

6 A The sensitization, as I spelled out in my report,
7 initially on the eight specimens to Region II, is a --
8 the propensity for sensitization is an accumulation of
9 the number of weld passes, was the material in an annealed
10 or work-harden condition? There is many, many variables
11 that turn around and apply to whether a material will
12 sensitize at a given carbon level.

13 Certain materials at X percent carbon might
14 sensitize during the welding process while another one at
15 the same carbon level wouldn't due to the prior work history
16 of the material.

17 Q Mr. Uryc, Mr. Economos and Mr. Blake, did you --
18 as we have reviewed the foreman override investigation
19 initiated after the allegations were made by Mr. Nunn, that
20 was the beginning of the process and has brought us up to
21 the present day, at the conclusion of the initial phase
22 of your investigation with regard to the foreman override
23 issue, you had interviewed a good number of people including
24 approximately 25 who were interviewed and included in the
25 Staff Exhibit 27 from which we had cross-examination of Mr.

#13-6-SueT1

Uryc and Mr. Economos in January of this year.

2

Am I correct?

3

A (Witness Blake) Yes, sir.

4

Q You came to the conclusion at that point that

5

foreman override was not a pervasive problem?

6

A Yes.

7

Q During the course of your subsequent investiga-

8

tion and follow-up on Welder B allegations, with respect to

9

the first interview with Welder B, did your previous

10

conclusion that foreman override was not a pervasive problem

11

at Catawba cause you in any way to limit your investigation

12

of the questions that were raised by Welder B?

13

A (Witness Uryc) No.

14

(Witness Economos) No.

15

(Witness Blake) No, sir.

16

Q In the course of following up the allegations of

17

Welder B, isn't it true also that you conducted a series of

18

interviews, I believe the Staff provided in discovery summaries

19

of 41 interviews that took place during the period of February

20

to March 1984; is that correct?

21

A (Witness Uryc) Yes, sir.

22

Q And were those interviews within the welding area

23

and not also outside the welding area?

24

A Yes.

25

Q And did you reach some preliminary conclusions

#13-7-SueT¹

2 based on those interviews and the previous interviews,
3 let's say it's approximately 66 interviews with respect to
4 the safety significance and the pervasiveness of the allega-
5 tions of Welder B?

6 A Well, it just reinforced my opinion that it was
7 a nonpervasive problem.

8 Q And as a result of that stage of the investiga-
9 tion you called in the Duke Power Company representatives
10 on the 13th of March, 1984, and you asked them -- you gave
11 them some marching orders, you told them that you wanted
12 them to follow up those allegations and to see what the
13 safety significance of those allegations were, the evidence
14 that was presented, and also whether the problem was in
15 fact limited to the welding crew that it seems to me that
16 had preliminarily been concluded that it was limited to?

17 And did you then tell them to fully investigate
18 whether, in fact, the preliminary allegations with respect
19 to Welder B's allegations be fully examined?

20 A Yes.

21 Q And did you assure yourself during the subsequent
22 interviews that approximately 217 interviews that they
23 openly, fully and honestly and completely pursue every
24 lead that they were able to identify with respect to the
25 allegations of Welder B and the circumstances?

A Yes.

#13-9-SueT 1

2 Q And your conclusions at the end of the interview-
3 ing process and the investigative process by Duke Power
4 Company in August where you had not only your 66, and I
5 understand there were some subsequent interviews, follow-up
6 interviews, perhaps as many as 80 interviews and the 217
7 interviews of Catawba, that your conclusions were based on
8 the totality of all of those interviews?

8 A Yes.

9 Q And were they also based on your technical review
10 of the evidence that was presented during those interviews
11 and the review of -- Duke's technical review -- of those
12 interviews?

13 A (Witness Blake) Yes. I would like to elaborate
14 on that a bit if I could. I think you have to put in
15 perspective that we were somewhat concerned over whether
16 Duke would handle the concerns expressed of them in a manner
17 that would satisfy an NRC investigation if the NRC were
18 to investigate the same thing.

19 What we found to be the fact was that through
20 review of the affidavits of the interviews plus what
21 happened to the information provided in the affidavits was
22 that Duke was, in fact, taking a concern and taking the
23 concern, each and every concern, at face value, handing it
24 to a technical person and say: Develop this. Tell me
25 through investigation whether it is a serious concern.

#13-10-Sue

2 There was no attempt in the reviews that we made
3 of the Duke investigation work, Duke looked at something and
4 said: Oh, that's a never-mind, we won't worry about it.
5 Everything that they looked at in the way of concerns, from
6 a technical standpoint, they reviewed as if it were a
7 serious concern, which in fact they were to the point they
8 were investigated.

8 (Witness Uryc) If I may add something. As a
9 matter of follow-up, the individuals who expressed concerns
10 either myself or another individual who works with me had
11 contact with these individuals to determine if they were
12 satisfied that their particular concerns were resolved,
13 and every individual that I talked to and that my associate
14 talked to expressed to us that they were very satisfied.

15 Q How many people did you talk to?

16 A I believe it was 27.

17 Q And this came at the very end of the process?

18 A Yes.

19 Q That was out of a total of how many?

20 A I believe 37 or 38.

21 Q At the end of the cross-examination by Mr. Guild
22 this morning he asked you the question whether it was the
23 case that you did not have enough information on the extent
24 of the problem identified in the Duke report to determine
25 whether corrective action -- whether the problem was fully

#13-11-SueT

identified and the appropriate corrective action had been taken.

And you answered yes. Did you fully understand the question and was that your answer?

A I understood the question did we have enough information to make the decision that it was not a problem, and I said yes.

Q Whether you had enough information to show that it was not a problem?

A Yes.

Q And the answer was yes?

A Yes.

Q So, you misunderstood the question?

A (Witness Blake) I didn't understand your question. Could I have that again?

(Laughter.)

Q Okay. Mr. Uryc, you understood the question --

A Yes.

Q -- that I just posed. And you shook your head? You understood the question that I just posed?

A Yes, I did.

Q Okay. Would you explain to the Board and the parties here what you meant when you gave the answer that you gave?

A It was my understanding that I was asked if I

#13-12-SueT¹

2 had enough information to satisfy myself that there was no
3 pervasive problem.

4 Q And, Mr. Blake, do you have a different position
5 on that?

6 A (Witness Blake) No. I think the information was
7 developed to the extent that the problem was determined to
8 be not pervasive. There were some problems identified and
9 Duke has taken correction actions, not just specific
10 corrective actions to the people involved, but taken a
11 look at the review process by which these type of inter-
12 actions are being reviewed and will be reviewed.

13 MR. JOHNSON: Thank you very much. That's all
14 I have.

15 MR. RILEY: Judge Kelley, may I have a brief
16 recross?

17 JUDGE KELLEY: In what area? I didn't hear any-
18 thing new, that's why I asked.

19 MR. RILEY: All right. One question would be,
20 does a problem have to be pervasive in order for a failure
21 to occur in a piece of equipment.

22 There is also the matter of PWR concerns that
23 have been quite accurate, but where we have documentation I
24 think the record should show that.

25 I will be very brief, too.

JUDGE KELLEY: How much time do you want?

#13-13-SueT 1

MR. RILEY: Let's try to do it in five or less.

2

JUDGE KELLEY: Do it in five.

3

MR. RILEY: Okay.

4

REXCROSS EXAMINATION

5

BY MR. RILEY:

6

Q All right. Mr. Blake, does a condition have to

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be pervasive for a weld to be -- no, let me put that

8

differently.

9

Can a failure occur without a condition such as

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we are discussing here being pervasive?

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A (Witness Blake) I'm not sure I understand your

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question.

13

Q Well, the word "pervasive" has been used very

14

frequently and --

15

JUDGE KELLEY: Excuse me, Mr. Riley. Are you

16

talking about foreman override or crystallized pipe?

17

MR. RILEY: We are talking about crystallized

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pipe as a result of foreman override and possibly other

19

factors.

20

JUDGE KELLEY: I assumed you were pursuing a

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technical matter.

22

MR. RILEY: Yes.

23

JUDGE KELLEY: All right. Go ahead. I'm not

24

sure I understand but go ahead.

25

BY MR. RILEY: (Continuing)

INDEXXX

#13-14-SueT)

Q Do you understand the question, Mr. Blake?

2 A Not entirely, no.

3 Q Well, would you have to have had evidence of
4 pervasive foreman override to know that any event involving
5 intergranular stress corrosion cracking could occur?

6 In other words, is it not reasonable that a
7 limited amount of foreman override in this matter could
8 result in a weld which would be vulnerable?

9 A I think what has been established here is that
10 if there were no foreman override, given certain conditions,
11 that is certain materials under certain conditions, that if
12 there were no foreman override you could end up with a
13 sensitized piece of stainless steel in the piping system.
14 That is a given.

15 Q I have here something that is already in evidence.
16 It is IE Notice Number 84-18. I am reading from Page 3 of 3.
17 This has to do with the intergranular stress corrosion
18 cracking in pressurized water reactor systems.

19 PWR accident mitigation systems are normally in
20 a standby condition and has to provide a fertile environment
21 for stress corrosion cracking.

22 Do you wish to rebut that, Mr. Czajkowski?

23 A (Witness Czajkowski) Rebut the statement as
24 stated?

25 Q Or, do you agree with the statement?

#13-15-SueT

1 A Well, for a start, on this particular information
2 bulletin, we are not specifically talking about austenitic
3 300 series stainless steel. As a matter of fact, specifi-
4 cally they call out a Three Mile Island Unit 1 that they
5 had a thiosulfate injection. And that it was effecting
6 Inconel 600, not austenitic stainless steel. It does not
7 talk about weld heat effected zones, interpass temperature,
8 carbon content or material.

9 They make a generalized statement but they do,
10 on the first page of that particular information bulletin,
11 specify a thiosulfate injection, Three Mile Island, Unit 1.

12 Q I have here something that was put in by the
13 Applicant. It discusses a summary of reported intergranular
14 stress corrosion cracking events that refers to eight
15 plants, lists thirteen instances of systems in which problems
16 occur.

17 Would you confirm that they are all safety-
18 related systems, though none of them involve the primary
19 coolant system which Mr. McGarry asked you about? Because
20 there are certainly some cases here of series 300 stainless.

21 A (The witness is looking at a document.)

22 MR. JOHNSON: Do you understand the question?

23 WITNESS CZAJKOWSKI: I think I do. If I have
24 a problem with it, Mr. Johnson, I will, you know, state it.

25 As far as these particular instances that are

#13-16-SueT 1 spelled out, they do appear to be stress corrosion cracking
2 incidents. They might have also included 304 stainless
3 steel.

4 In each of the cases, I believe there was a
5 specific corrosion found --

6 Q That's right.

7 A -- over and above the stagnant line; for instance,
8 thiosulfate or chloride or flouride. And I don't remember
9 in all of the instances if they were specifically heat
10 effected zone cracking.

11 Q They are intergranular stress corrosion cracking
12 cases aren't they?

13 A Well, you have, for instance, Inconel 600. You
14 have a sensitized structure in Inconel 600 and that's
15 purportedly beneficial in preventing intergranular stress
16 corrosion cracking.

17 Q I'm talking about --

18 A You can't --

19 Q I'm talking --

20 JUDGE KELLEY: Gentlemen, one at a time.

21 BY MR. RILEY: (Continuing)

22 Q You were just talking about the 300 series --

23 MR. JOHNSON: The witness was trying to make a
24 statement and he was interrupted by Mr. Riley.

25 JUDGE KELLEY: Mr. Riley, I believe the witness

#13-17-SueT1

hadn't finished answering the prior question. Would you allow him to do so?

MR. RILEY: Sure.

WITNESS CZAJKOWSKI: On these, they do appear to be safety systems. But, to the best of the statements here, they all appear to have had an injection of some contaminant.

BY MR. RILEY: (Continuing)

Q And are not injections of contaminants possible, PWRs, according to these documents?

A (Witness Blake) I think there is something that needs to be said here, and that's why -- the plants are not built with one safety system. They are built with -- there are numerous safety systems. I think it's acknowledged that it's not a perfect world and because of that we have safety systems.

There is evidence over the -- I don't know how many years -- reactor history in PWRs and eight examples of failures, yes, sir.

Q Thank you.

A Over any number of reactor operation years.

MR. RILEY: That's all.

MR. JOHNSON: Mr. Chairman, I would like to point out that one thing Mr. Riley stated is wrong. This is not in the record. If he wants to offer it, he may. But

#13-18-SueT 1

it's not in the record as far as I know.

2

JUDGE KELLEY: Is it fairly identified?

3

MR. RILEY: It's in response to the discovery request that was made by Intervenors and provided mid-day. I don't know if it was Tuesday or Wednesday.

6

JUDGE KELLEY: It is a discovery response?

7

MR. RILEY: That's right.

8

JUDGE KELLEY: Would you read the title?

9

MR. RILEY: I read the title of that particular page, and it was "Table I: Summary of Reported PWR IGSCC Events." I believe that is per Mr. Ferdon's draft.

10

11

12

MR. GUILD: Mr. Chairman, that was one of the documents that was identified -- I may stand corrected. Let me check.

13

14

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It is a discovery document, supplementary discovery document. And it was employed in cross examination.

16

17

JUDGE KELLEY: Which precise one?

18

MR. GUILD: I will --

19

JUDGE KELLEY: I will be asking Mr. Johnson and Mr. McGarry if they have any objection to the introduction?

20

21

MR. GUILD: This was a document offered by Mr. Johnson, as a matter of fact, over my objection at the time. This is a document called a July 16, '84 memo.

22

23

24

MR. MC GARRY: Staff 32.

25

JUDGE KELLEY: So, it is in?

#13-19-Suetl

2 MR. GUILD: This is the document that was in over
3 my objection which I sought the opportunity to have Mr.
4 Ferdon recalled. This is a memo to file. It is an
5 attachment to that memo that is in evidence. Mr. Johnson
6 was in error.

7 MR. JOHNSON: I don't believe it is. I did not
8 offer the attachments. I offered six pages. The record
9 will show I did not offer this.

10 This is a table that follows that sixth page.
11 I have no objection to its being offered.

12 JUDGE KELLEY: I can see the objection. You
13 wanted to offer it without attachments and I suppose others,
14 possibly including the Board, might have thought the
15 attachments were coming in with it.

16 Do you want to offer it now? Does anybody object
17 to having this in?

18 MR. JOHNSON: If Mr. Riley would like to offer it,
19 it's quite all right.

20 JUDGE KELLEY: Do you want to offer it, Mr.
21 Riley?

22 MR. RILEY: Yes, I do.

23 JUDGE KELLEY: Does anybody object?

24 MR. GUILD: Just with regard to the table.

25 JUDGE KELLEY: Table I. That's what was talked
about.

#13-20-SueT1

MR. JOHNSON: Yes, sir. It was Summary of
Reported PWR IGSCC Events, from Notice 84-18 of NUREG 0691.

JUDGE KELLEY: Is it the first attachment to the
Ferdon memo?

MR. JOHNSON: In the discovery it immediately
follows Page 6 of the Ferdon memo.

But I didn't have a chance to ask --

JUDGE KELLEY: It would be admitted just as an
acknowledgement that it's part of Staff 32.

MR. JOHNSON: Okay. A follow-up on this item.

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FURTHER REDIRECT EXAMINATION

BY MR. JOHNSON:

Q Mr. Czajkowski, Mr. Blake, were you aware in
making your testimony here today of this Table and that
information contained therein in reaching your conclusions?

A (Witness Czajkowski) Yes. I was familiar with
some of the instances on that table.

(Witness Blake) I'm familiar with the instances.
There is asserted one, two, three. H.B. Robinson, two.
Arkansas, one. I believe the Arkansas one happened in 1974.
The Surry 1 and 2 happened in the 70s. The Crystal River,
three, I'm not exactly sure when it happened.

We are familiar with those. Yes, sir.

Q And does the information contained in there
effect your conclusion that intergranular stress corrosion

#13-21-SueT

cracking would not be a problem at Catawba?

2 A No. I think in all the discussion concerning
3 PWR intergranular stress corrosion cracking, those cases
4 are listed as the exceptions to the rule.

5 When they state the fact that there is not a
6 problem with intergranular stress corrosion cracking in
7 PWR environment they do list these exceptions to the rule
8 where there have been some -- as Mr. Czajkowski said, a
9 couple of those are cases where the reactor operation has
10 changed because of what happened. Thiosulfate solutions
11 were used, were in safety systems and in a lot of reactors.
12 They no longer are because they do cause that problem and
13 it's recognized.

14 MR. JOHNSON: Okay. Thank you.

15 JUDGE KELLEY: Okay.

16 MR. JOHNSON: That's all I have.

17 JUDGE KELLEY: Okay. Gentlemen, that concludes
18 the questioning of your panel. We appreciate you coming
19 and we appreciate your response, your interest and your
20 patience.

21 Thank you. You are excused.

22 (The panel of witnesses was excused.)

23 MR. JOHNSON: There is one pending matter and
24 that was whether the Staff had any objections to the exhibit
25 that was offered by Palmetto Alliance. I believe it is 146.

#13-22-SueT

It was the discovery filed, and the Staff would have no objection to it.

2

3

JUDGE KELLEY: Okay. Fine. So, that is

4

admitted. Well, it really was pending and now it is

5

admitted.

6

(The document referred to is

7

marked Palmetto Alliance

8

Exhibit 146 and admitted in

INDEXXXXXX 9

evidence.)

end #13 10

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T14 MM/mm

1 MR. GUILD: If I could ask Dr. Michalowski to take
2 the stand.

3 Whereupon,

4 RAYMOND J. MICHALOWSKI

5 was called a s a witness on behalf of Intervenors, Palmetto
6 Alliance, and having been first duly sworn, was examined
7 and testified as follows:

8 DIRECT EXAMINATION

xxx

9 BY MR. GUILD:

10 Q Dr. Michalowski, would you state your full name
11 and your position of employment, please?

12 A Raymond Joseph Michalowski. I am currently a
13 professor of sociology at UNC, Charlotte.

14 Q All right, sir.

15 Do you have a document before you, seven pages.
16 The first two pages a summary of an examination performed
17 at my request. It is headed, "To Mr. Robert Guild, Palmetto
18 Alliance"?

19 A Yes, I do.

20 Q And following that, your resume?

21 A I included just a portion of my resume. Items
22 that would be relevant to this proceeding.

23 Q All right, sir.

24 And, does that two-page summary, together with
25 your resume, reflect the results of an examination that you

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1 made with regard to the Duke Power Company investigation of
2 concern regarding what has been called Foreman Override
3 Issue at the Catawba Nuclear Station?

4 A Yes, it does. It is essentially a summary, just
5 a distillation of my thinking on the issue.

6 Q All right, sir.

7 MR. GUILD: Mr. Chairman, we would ask that this
8 document so identified be marked as Palmetto Exhibit 147
9 and be received in evidence as Dr. Michalowski's prepared
10 testimony.

xxx

11 (The document referred to was
12 marked Intervenors' Exhibit No.
13 147 for identification.)

14 JUDGE KELLEY: Mr. McGarry?

15 MR. MC GARRY: I guess we will go to the same
16 ground rules. We preserve any objections. So at this point
17 in time we don't object. But, with the recognition that at
18 some point in time we can move to strike.

19 JUDGE KELLEY: Same basis as prior witnesses.

20 Mr. Johnson?

21 MR. JOHNSON: I subscribe to the same basis.

22 JUDGE KELLEY: Same basis.

23 It is received, subject to later objections.

24 That is my understanding of the way we have been proceeding.

25 MR. GUILD: Yes, sir.

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1 (Intervenor's Exhibit No. 147

2 was received in evidence.)

3 BY MR. GUILD:

4 Q Dr. Michalowski, would you describe please the
5 task that was put to you by myself and representatives of
6 the Carolina Environmental Study Group with regard to the
7 issue in this proceeding, please?

8 A Yes. I believe it was October 1st, or perhaps the
9 end of September, you or perhaps someone else -- someone
10 contacted a colleague of mine to discuss questions regarding
11 the study done by Duke Power concerning foreman override, and
12 possible other sources of violation in the QA procedures.

13 My colleague, Michael Pearson, came and asked
14 me if I would look at the issue because I have done previous
15 work, research work related to legal proceeding.

16 And so we had a meeting; I met with you and Phil,
17 in which you asked me --

18 Q Mr. Rutledge?

19 A Mr. Rutledge.

20 -- in which you asked me if I could look over the
21 procedures and the methodology of the research conducted by
22 Duke Power to determine whether or not there was any pattern
23 of QA violation, possibly related to foreman override.

24 Q All right, sir.

25 MR. GUILD: Mr. Chairman, Dr. Michalowski was given

mm4

1 access to certain documents, but none, to the best of my
2 knowledge reflected any information subject to the protective
3 order. So, he is not a signatory at this point to the
4 protective order.

5 BY MR. GUILD:

6 Q Dr. Michalowski, if you could describe generally
7 what the material was that you have had an opportunity to
8 review in the brief time available to you?

9 A I reviewed the report by Duke Power, the final
10 summary report of the study that they conducted.

11 Q That would be the August 3rd report?

12 A I believe that is it. I was given copies of these
13 things, and I don't know that I have all the documentation
14 numbers of them. But, one was the final report of the study.

15 There were a number of documents and internal
16 memos regarding the conduct of the study; such things as
17 essential questions, the guidelines for interviewers, the
18 initial statement being made about the confidentiality,
19 documents regarding the selection process, who would be
20 interviewed, sampling procedures. That was essentially the
21 documents I was looking at. I was only looking at those
22 documents which would give me information specifically as
23 to how the study was conducted.

24 Q Okay.

25 MR. GUILD: Mr. Chairman, I would submit that that

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1 reflects the first portion of Duke's August 3rd report,
2 essentially the report without attachments involving the
3 technical issue.

4 BY MR. GUILD:

5 Q Dr. Michalowski, we asked you essentially to review
6 the questions of the appropriateness of the methodology
7 employed by Duke Power Company in arriving at their conclusions,
8 correct?

9 A That's correct.

10 Q I think it is fair to say that we did not ask you
11 to express an opinion about engineering matters or matters
12 regarding the safety of construction of the facility.

13 A That's correct.

14 Q The Applicants have characterized their study as
15 essentially a common-sense approach to identifying problems,
16 and have distinguished that approach from an approach which
17 might be characterize it as an academic or scientific
18 approach to doing a survey or performing a scientific sampling
19 technique.

20 Do you agree that scientific methodology is
21 inappropriate to resolve questions involving human interaction?

22 A Not at all. I don't agree at all to that. As I
23 think is stated here earlier, a lot of issues involve the
24 human problem, that involves the behavior of people. And
25 that there is an established method for answering questions

mm6 1 about human problems.

2 I presume that many people here are scientists,
3 technicians, engineers. And most of you know that when you
4 deal in the world of physical properties, and you want to
5 answer a question, you want to conduct an inquiry, there are
6 specific rules and procedures that you would follow to
7 arrive at an answer that you can trust.

8 The very same thing is true with human problems.
9 The notion of doing a common-sense study is, I think, a very
10 dangerous notion. And the reason is that scientific inquiry,
11 methods of scientific inquiry were developed specifically
12 because common sense does not necessarily provide good
13 answers.

14 It is common sense when you stand on the shore
15 that the sun sinks into the ocean. That is what our common
16 perception will tell us.

17 We need a more specific and elaborated and controlled
18 method to know that indeed the sun does not sink into the
19 ocean. And this is true with a wide variety of human
20 behavior.

21 If you want to know whether some action or activity
22 is present or absent, or the degree to which it is present
23 or absent, you simply cannot just follow your nose, particu-
24 larly if you want to generalize from a small group. If you
25 want to know whether five people hold a certain opinion,

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1 you go and ask those five people. Common sense says I can
2 ask those people to find out their opinion. Common sense
3 makes perfect sense in that situation.

4 If you want to know what three or four thousand
5 people think, you can't go about asking every one of those
6 three or four thousand people, you want to find out some
7 information or generate some information that would let you
8 make a fairly trustworthy assumption what those three or
9 four thousand people think.

10 At that point, following your nose, I think -- I
11 don't think, I know -- becomes a very questionable procedure.
12 You can very likely end up with a conclusion that is, in
13 fact, not valid. And you wouldn't know, you wouldn't have
14 any way of assessing whether it was valid or invalid.

15 Let's say you were interested in finding out -- it
16 is an election year, you want to find out what portion of
17 support is for Walter Mondale. You walked into a neighborhood
18 and you asked that question of 20 people, would you vote
19 for Walter Mondale, and they all say no. Without some
20 information about that neighborhood, let's say, that every
21 person in that neighborhood is a registered Republican, your
22 conclusion wouldn't be valid.

23 There are many controls that you have to establish
24 to get an accurate answer. And, there are established
25 scientific rules for answering questions about human problems.

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1 Q Did you review the conclusion expressed in Duke's
2 August 3rd report with regard to the issue that they
3 characterized as being under study?

4 A Yes, I did.

5 Q Did you review the methodology and circumstances
6 of the conduct of that study by Duke Power Company described
7 in that report?

8 A Yes, I did.

9 Q And any other documents that provided insight into
10 methodology?

11 A Yes.

12 Q In your opinion, Dr. Michalowski, is Duke's
13 conclusion supported by the methodology and circumstances
14 of his study?

15 A If I could make a most general statement; the
16 conclusion that Duke Power draws, its main conclusion that
17 it draws in its study, which I believe is set forth on the
18 first page, that there is no evidence of a pattern of
19 violations in the construction division at Catawba, safety-
20 related violations, they say there is no pattern, that
21 conclusion is not supported by the study.

22 The methodology does not provide a sufficient
23 basis to arrive at that conclusion.

24 Q Explain if you would, what is the basis for your
25 opinion with regard to the methodology?

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1 A I need to elaborate on this. There is a number of
2 basics for that opinion.

3 As I said in the report, there are a number of
4 violations of the basic rules of conducting a study of this
5 sort, any one of which would render the conclusions of the
6 study an insecure foundation for any kind of decision.
7 Any one of these violations would render the study of doubtful
8 utility, doubtful trustworthiness.

9 I would divide the problems into two general
10 characters; one, problems of validity, the other problems of
11 reliability.

12 The validity problems concern with whether the study
13 is responsive to the question that the study asks. Insofar
14 as Duke's fundamental conclusion is that there is no pattern
15 of violations, I presume that's the question that they asked
16 in the portion of the study that I am referring to.
17 That is essentially, to find out beyond Welder B's crew, is
18 there any evidence that what we found over here, may exist
19 anywhere else. That was the question they were asking,
20 that is the conclusion they draw, that there isn't any.

21 So, presumably that conclusion tells me what the
22 question was.

23 Now, with respect to validity, does the study
24 answer that question? I would say, no, it does not, and for
25 several specific reasons.

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1 First, of all, there is nowhere evidence in the
2 documents that I looked at that the specific parameters of
3 the dependent variables in that study were ever detailed.
4 That is, were they concerned about violations of QA procedures?
5 At some points it seems to me that is what they are interested
6 in. Other points they talk about whether individuals had
7 knowledge of violations of QA procedures.

8 At other points they talked about individuals who
9 have personal knowledge -- that is, they themselves either did
10 it or saw it being done.

11 At other points they talked about individuals who
12 just had some vague, general knowledge.

13 But nowhere do they say, okay, here are the one,
14 two, three or four dependent variables that we are specifically
15 looking for. In any human behavior studies, one of the
16 first things that you have to do is identify the actual
17 specific behavior that constitutes what you are looking for;
18 not some generalized notion of, "We are looking for trouble.
19 Is there any trouble?"

20 Now this becomes more of a critical problem when we
21 take it down to the operational level. That is, the study
22 does not clearly operationalize concepts that it used. For
23 instance there is a lot of discussion in the documents about
24 pressure. Pressure by foremen.

25 Well, pressure is a rather vague word. What, exactly,

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1 does pressure mean?

2 If you say to somebody, have you experienced any
3 pressure from foremen, what are you asking them?

4 That is not the way you would conduct a study of
5 that sort. You would have to give the interviewee some
6 very specific behavioral events and say, "Did these ever occur?"

7 Equally important, I think, is that there is a very
8 narrow notion of pressure that is utilized in this study, and
9 none of it clearly operationalized. It seems to suggest that
10 pressure arises. I am taking the general historical study.

11 It seems to me they were concerned with the notion that
12 individuals might violate QA procedures because some foreman
13 specifically mandated that they do such a thing.

14 Now again, this gets back to the failure to clearly
15 identify what is the purpose of the study. Is the purpose
16 of the study to identify only those instances where some
17 individuals were required, perhaps under pressure of angering
18 their foreman and other retaliatory actions, to violate a
19 procedure? Is that the only thing that the study is looking
20 at?

21 Or, is the study interested in all those situations
22 where QA violations might have occurred because of a foreman's
23 work or relationship?

24 If so, one of the things that the study doesn't
25 talk about or doesn't examine at all, is where violations

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1 might occur, not because of a negative foreman/worker relation-
2 ship, but a positive foreman/worker relationship. Do QA
3 violations result, in some instances, because a worker really
4 likes and appreciates and is close to his foreman? And he
5 knows his foreman really is concerned about meeting performance
6 goals? And so does the worker step outside the QA boundaries
7 because he feels good about his foreman and he is more
8 concerned in staying in good stead with his foreman because
9 they like one another, than he is about QA procedures?

10 I don't know, but the point I am making is insofar
11 as the researchers never specified what it was they are
12 exactly looking at, it doesn't provide anyone else an oppor-
13 tunity to say, now wait a minute, you improperly operationalized.

14 Let's say they operationalized it and came up with,
15 "We are only studying those instances where foremen ordered
16 a worker to violate a QA procedure. And that is the only
17 thing we are interested in, someone reviewing that study."
18 Perhaps the NRC Staff might have come back and said, "Now,
19 wait a minute, perhaps there are other possibilities here
20 that we would be concerned with. How about a climate wherein
21 the worker simply knows that he had better tow the line."

22 But, there is never any verbal out-front statement.
23 How about workers who feel that they have to tow the line in
24 terms of performance, more than quality, wrongly. Maybe they
25 misperceived their foreman, maybe the foreman does not put

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1 any pressure on them as they define it, to violate the QA
2 procedures. But the worker perceives that there is such a
3 pressure.

4 And, I think that we all know that in the employment
5 situation there is oftentimes big gaps between what a
6 supervisor is doing or thinks he is doing or she is doing, and
7 what the worker perceives is being done.

8 So, these are the kinds of questions that couldn't
9 even be addressed because they didn't initially specify
10 exactly what it is they were looking for and looking at when
11 they said they were going to look at this question of QA
12 violations and pressure.

13 Similarly, in a number of places they talked that
14 these events were isolated instances. They don't constitute
15 a patter.

16 The normal procedure in a study of this sort is, one
17 sets out initially some parameter and says, here is what we
18 accept as our definition of significant or insignificant.
19 We accept that if 50 percent of all the people say that they
20 did or know of violations, that is not significant. Someone
21 else could come back and say, now wait a minute, what do you
22 mean 50 percent is not significant? Or, they can accept a
23 very stringent standard and say, if we find only 2 percent
24 of our workers who know of QA violations, we will consider
25 this to be a problem. We will consider this to be a pattern.

mml4 1 Well, nowhere do they ever specify what is the level
2 or the criteria at which they would decide and say this is
3 isolated. Or, it is pervasive.

4 In other words, as I heard testified here, and
5 it would confirm my own essence of the study when I read it,
6 it was kind of seat of the pants or common sense. We will
7 look at this information and common sense tells us it is
8 isolated.

9 The problem with that, as I said, it doesn't allow
10 anyone else any opportunity to debate the definition of what
11 constitutes isolation, because isolation is never defined.

12 At any rate, in talking about questions of validity,
13 does the study answer the question asked, I would have to
14 conclude, no, because the question itself is never even
15 clearly formulated in the study. The parameters are not
16 defined, nor are the criteria, the key variables clearly
17 operationalized.

18 Now, that is the matter of validity.

19 There is also the matter of reliability.

20 Q Dr. Michalowski, you touched on points 1 and 2.

21 A I will go on to 3.

22 The third point with respect to validity is the
23 question of samples. And again, the company's report
24 generalizes across the construction division, or at least
25 across safety-related crews and crafts and says there is no

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1 pattern of violation. In order to make that conclusion, even
2 if you had proper definition of parameters, proper operationali-
3 zation of your concepts, you would have to go to some lengths
4 to ensure that when you went out and interviewed people, that
5 that process of interviewing provided a basis to be confident
6 that there was no bias or skewing of the sample that was
7 drawn.

8 One of the things that I have heard mentioned
9 here today and I would like to comment on, is the notion
10 of random. We just did a random sampling. There is a very
11 important difference between random sampling and accidental
12 sampling. To say one has drawn a random sample means that
13 you have met certain important rules to make sure that the
14 people that you draw do reflect an adequate and accurate mix
15 of all the different possibilities and kinds of people out
16 there.

17 For example, when you go out and do something like
18 this, there are possibly going to be some individuals out
19 there who will not be entire candid. Not every individual
20 you interview is going to be totally candid. And we can
21 estimate that that is probably true.

22 Some people will be perfectly candid, some people
23 might elaborate. Some people might have more information
24 about violations than others because of where they were
25 situated. They may have worked in areas where these were

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1 likely to happen. And again, this goes back to, say, the
2 question of pressure.

3 Is it the case that all crews, we can assume, are
4 equally pressured?

5 Are there certain kinds of jobs that the amount of
6 time available to do it to meet production versus the amount
7 of time it would actually take perhaps is a little bit
8 tighter?

9 Are some jobs a little bit easier to meet?

10 Well, if you go out and sample individuals, are
11 you getting a representative mix of all the different possible
12 experiences out?

13 In order to do that, it is important to follow
14 some fairly careful procedures, and also to test against
15 certain assumptions about the question you are looking at.
16 For instance maybe an absolute random sample isn't adequate.
17 If you have reason to believe that there are certain tasks
18 that might experience more pressure after you have operationally
19 defined pressure, if there are certain tasks that experience
20 more pressure than others, you might have to do what we
21 would call a stratified sampling. It might be important to
22 make sure that you look at -- let me back up here and make
23 it a little clearer.

24 If hypothetically 40 percent of the jobs that
25 were done were jobs that had fit some operational definition

naml7 1 of high-pressure jobs, and 60 percent were low-pressure jobs,
2 you probably would want to make sure that when you do use
3 your sample, 40 percent of the people that you interviewed
4 came from a high-pressure job, and 60 percent came from these
5 lower-pressured jobs. Otherwise you might get a false view.

6 Let's say if 80 percent of the people came from
7 high-pressure jobs, you might conclude that there is more
8 violation going on than there actually is. Conversely, if
9 you drew people from low-pressure jobs, now it is 80 percent
10 of your sample, you might conclude that there was less
11 violation.

12 So, even before one goes out and samples, there
13 are certain kinds of questions you have to ask about that
14 population, and then from there you would decide what
15 sampling procedure you are going to use; whether it would
16 be stratified, whether it would be purely random. And then you
17 would go from there.

18 My understanding from reading the documents is,
19 there was very little discussion about how to sample. And I
20 also read the deposition -- I don't know the name of the man,
21 one of the individuals who was involved in the study, and
22 questions were asked of him regarding that sampling
23 procedure, and confirmed my initial assessment that the
24 sampling was done more on a common sense basis: let's ask
25 some people some questions.

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1 Q Dr. Michalowski, let me interrupt you. Was that
2 Mr. Ray Hollins' deposition?

3 A I believe -- I don't know that I remember that.
4 Now, I think that in a sense to use some other
5 language, that there was no specification of either substantive
6 parameters or the sampling parameters. As the parameters
7 substandard or sample-related parameters of the study are
8 not clearly defined. Nor, are the parameters of the sample
9 clearly defined.

10 For one instance the number of individuals sampled
11 in other craft concludes it is fairly small. That would be
12 fine if Duke Power said this study is only a study of
13 welding. We are not really concerned about anything else.
14 Maybe we will ask the question of a few other people just
15 for curiosity, but this is only a study of welding.

16 But that is not what their conclusion says. They
17 conclude that there was no problem across crafts and across
18 crews.

19 Well, if you are going to make that conclusion, how
20 do you arrive at that conclusion?

21 How well, or how trustworthy is the sample that
22 was drawn?

23 It is not a very trustworthy sample. Very few
24 checks and controls were used to make sure that it was
25 representative of the population of workers out there in

mml9 1 safety-sensitive jobs, or the population of experiences out
2 there.

3 The other level of concern I had was with regard to
4 the question of reliability. When researchers and statisticians
5 behave -- when the human behavior area use the term reliability,
6 what they mean is to what extent can we feel fairly certain
7 that replications of this study by different people would
8 come up with the same information?

9 There is a couple of problems there, and they mostly
10 center around either interview schedule problems or interview
11 environment problems. One is that the interview questions
12 were often behaviorally unspecific, so that you had difficulty
13 in ascertaining whether similar answers are actually talking
14 about similar events.

15 Let me see if I can give you -- what cases do you
16 think there are where anyone has knowingly violated interpass
17 temperatures while making the welds? If one person says, I
18 can't think of any, and another person says I can think of
19 three, does that mean that that one individual -- they are
20 talking about completely different events. Every weld that
21 this person A knows are-- that the three that person A knows
22 are violations, are different welds than person B says he
23 knows of no violations? Or, does person B say, well, I know
24 that -- I think maybe so and so did violate that, but I
25 don't think really was a knowing violation. It wasn't

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1 a knowing violation, it wasn't deliberate, it just happened.

2 And, person A thinking of the same weld says, yes,
3 he either knew or should have known, and so I consider those
4 violations.

5 Given the way some of the questions were asked, we
6 can't be certain that the same responses mean the same thing.
7 That is one issue.

8 Second, there is an awful lot of reliance on
9 highly subjective concepts and phraseology which again gets
10 you into this problem of what do people's responses mean.

11 Tell me about any time that you felt that you have
12 been under production pressure?

13 Again, here is a question that might mean very
14 different things to different people. Many of the questions
15 use terms, emotion terms like felt, deliberate, knowingly.
16 Those terms like deliberate, knowingly, felt refer to the
17 internal states of either the interviewee or what the
18 interviewee thinks is the internal state of someone else.
19 Like, do you know of any deliberate violations? Well, you
20 are asking the interviewee to make a guess about the internal
21 emotional state of somebody else.

22 Those are poorly constructed questions. They
23 really raise some questions about reliability. Do the same
24 answers mean the same thing when they are given by two
25 different people, and do different answers really refer to

1 different events when given by different people?

2 There is also a problem with what I would call
3 contingent order, and this goes to some of the techniques of
4 interviewing.

5 The very first question -- and this as I know it --
6 was a question that had to do with what feelings do
7 individuals have regarding quality, quality assurance or
8 quality in general at Catawba.

9 If you start out and you initially ask a person to
10 respond to a general question, what you have done is you
11 have set the tone for that individual's responses for the
12 rest of the interview. If a person says, well in general I
13 think it is pretty good, you have put that person in a
14 position. That person staked out a territory where it is
15 actually sometimes more difficult then to go back and say,
16 wait a minute, I was wrong on that first question, because
17 they have already said, I think it is pretty good.

18 And one of the things just in techniques of
19 interviewing is, you generally try to avoid this kind of
20 contingent ordering whereby subsequent questions, the answers
21 to subsequent questions will be influenced by answers to
22 previous questions.

23 I see some very important problems with the inter-
24 view environment. Central to this is that the interview was
25 conducted in a situation where there was important power

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1 differentials between the person being interviewed and the
2 person doing the interviewing. That is, the person being
3 interviewed is an employee of Duke Power being interviewed
4 by someone who is in a supervisory position at Duke Power.

5 So, the interviewer has a position of power greater
6 than the person being interviewed. That is a rule of
7 interviewing, if you are trying to make some kind of a
8 generalization, particularly to a larger population, that one
9 should always avoid. And I am not necessarily here referring
10 to -- and I don't mean to suggest that the interviewer is
11 somehow using or misusing a position of power or is untrust-
12 worthy or anything of that sort. But, one of the things that
13 we do know from human behavior research is that people are
14 careful when they are talking to individuals who have or
15 who might have power over them. It affects the way in which
16 we respond.

17 Q Dr. Michalowski, let me stop you at that point. I
18 submit to you two facts: The interviews were conducted with
19 an introduction by a supervisor, the welding superintendent.
20 And that is reflected, I think, in the documents made
21 available.

22 The interviews themselves were actually performed
23 thereafter by persons who worked in personnel function,
24 employee relations.

25 Those persons who conducted the interviews,

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1 technically did not have a supervisor responsibility over
2 the interviewees.

3 Does that affect your last observation?

4 A No, because you are talking about I think a
5 climate here in which, first of all, the very fact that
6 assume the introduction is being given by the supervisor,
7 creates a kind of general, if you will, climate, that this
8 is somehow related hierarchically in the system.

9 Secondly, it is Duke Power personnel conducting the
10 interview.

11 And one of the things that is important here is
12 that there is again a difference between the intentions of
13 the interviewer and the subjective perception of the person
14 being interviewed. Interviewers can be absolutely scrupulous
15 in the promise of confidentiality and they can make many
16 protestations regarding confidentiality.

17 Nevertheless, that information here is flowing in a
18 context from one employee of Duke Power to another employee
19 of Duke Power, people who are connected in this chain of command
20 in some way either as line or as staff. In interviews,
21 particularly when you are asking people to give high-risk
22 information, my feeling from this reading of the study and
23 what is going on here, is to some extent people were being
24 asked to give high-risk information. They were being asked
25 to admit to either having engaged in some violation of

mm24

1 procedures, or to having known about violations in procedures
2 which means perhaps, if you will, squealing on other people
3 That is high-risk information.

4 Now, if you are asking people what soup they like,
5 whether they prefer chicken-noodle or tomato soup from an
6 interviewer's point of view, we don't consider that high-risk
7 information.

8 On the other hand, when you are asking people about
9 job performance and questions regarding whether they, or
10 people they know performed their job up to standard, that
11 is high-risk information. It is information that people may
12 believe, whether right or wrongly -- not only may, but
13 generally believe -- needs to be handled very carefully.
14 Be very careful about giving out that information because
15 it could have negative repercussion.

16 And a very important rule of research of this type
17 is that when you are asking and you want to know high-risk
18 information, it is best to minimize any possibility in the
19 mind of the interviewee that this information could in some
20 way, shape or form come back on them.

21 Similarly, these were face-to-face interviews.
22 Whatever you said, there was at least one person on the face
23 of the earth who could attribute what you said to you, who
24 know that you said it. And this is one of the reasons that
25 often when we deal with high-risk information, it is often

mm25 1 better to use an anonymous questionnaire, or a numbered
2 questionnaire where the individual can come back to you, later
3 call and say, "Look, this is number 42, and I expressed a
4 concern. What was done about it?"

5 But, the person on the other end of the phone doesn't
6 know who number 42 was.

7 The face-to-face nature, again, I think was not --
8 it compromises the reliability of research when you are asking
9 high-risk information.

10 Also, my understanding was that individuals were
11 interviewed in a situation where some people knew that other
12 people were going off to be interviewed, but at the same time
13 for various other reasons the people being interviewed were
14 told not to talk about the context or the nature or purpose
15 of that interview. That, itself, tends to create a very
16 kind of uneasy climate within which to conduct a study of this
17 sort.

end T14

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1 Because some people know something is going on,
2 but they don't know what is going on. And again, I think
3 that is not as much a major point as the others, but again,
4 to me it was indicative of a lack of, perhaps, familiarity
5 or sensitive to the ways in which asking people questions
6 is a very, very, sensitive task.

7 It is not something that can be done simply by
8 the use of common sense. Because if you are trying to be
9 able to generalize from a small group of people that you
10 talk to, to a large group of people, and you want to be
11 fairly confident that what you say about that large group
12 is accurate, based on having talked to only a small number,
13 you need to be very careful in the kinds of controls to
14 minimize all of the different ways in which you could get
15 information from that small group that really isn't representative
16 of what is going on with the larger group.

17 In general, as I said, almost any one of those
18 problems would raise some serious doubts about drawing
19 conclusions from a study of this sort. All those, taken
20 together, is my basis for my initial conclusion that I don't
21 think we can draw any conclusion from the study that was
22 done by Duke Power.

23 They went out and they asked some people some
24 questions. Neither the questions nor the selection of people
25 was clearly thought out to minimize the kind of errors that

1 can very easily creep into a study of this sort.

2 So, essentially, that is how I back up that first
3 conclusion that you asked me.

4 Q Dr. Michalowski, testimony has been elicited that
5 says that there were 217 plus persons studied, and 217 is a
6 large number. Doesn't the fact that 217 or so is a large
7 number attribute a certain level of confidence and reliability
8 or significance to the generalization that Duke has chosen
9 to draw from its investigation. Would you agree with that?

10 A The statement that 217 is a large number in the
11 context of sampling is a meaningless statement, without a lot
12 of additional information. 217 might be an adequate number,
13 and it might be a wholly inadequate number, without a sampling
14 procedure, and a justified sampling procedure.

15 I can't tell whether it is a large enough or small
16 enough number. For example, if you are talking about
17 population of some 3,200 individuals, then initially there
18 may be some reasons to think that there is need for some
19 stratification in that sampling. That is, you might want to
20 look at the high/low pressure jobs. 217 in a general sense
21 would be that it is probably too small. You would have to
22 do a lot more sampling than that.

23 In general, I can't say really one way or the
24 other, because I would have to know the assumptions that were
25 built into a sample before I could even say okay, that meets

1 or that doesn't meet your goal.

2 Like you assume the thing you are looking for,
3 pressure, adequately defined in not a sort of vague way, is
4 randomly distributed. So that wherever we picked, or how
5 many we picked, would be as likely to get a representative
6 sample, or is there reason to assume it is clustered here,
7 clustered here, and clustered here.

8 I would have to know what the thinking was before-
9 hand on that before I could even respond to a question of
10 217. 217 is just a number; it is neither large nor small
11 number.

12 Q In reviewing the methodology that is available
13 to you, can you determine whether Duke successfully controlled
14 the bias in their investigation process?

15 A Bias in what sense? Whose bias? Are you talking
16 about sampling bias?

17 Q Start with sampling bias.

18 A As far as I can tell, there were no conscious
19 efforts to control for sampling bias, because there was no
20 conscious plan to address the questions of sampling.

21 Q Dr. Michalowski, do you have any recommendations
22 on how such a study could be performed to reach a reliable
23 conclusion on the question at issue?

24 A I think in general my recommendations would fall
25 directly out of my concerns; that is, first of all, at the

1 ground zero levels, the parameters would have looked for --
2 what are the actual behaviors we are trying to measure would
3 have to be defined much more specifically and clearly.

4 The operational measures of those would have
5 to be clearly determined. The interview schedule I think
6 would have to be drawn to reflect those behavioral events
7 that you measure, and I think also fundamentally it would
8 best be done probably not by Duke Power, which is -- I
9 don't mean that as a criticism of Duke Power's ability
10 or intent or good will or concern in doing a good study,
11 but when you are dealing again at high risk information, you
12 are probably a lot better off having some sort of outside
13 or sort of impartial body come in.

14 One other thing in the study of this sort is we
15 can't only deal with negative moderations. That is, there
16 have been some concern where people might obscure information
17 or not tell the truth because they were afraid of retaliation
18 or things of this sort, but you also have to deal with
19 positive feelings.

20 People that work for a company that maybe it is
21 a good company, and they like their employer, might find it
22 hard to say some negative things to the employer that they
23 like.

24 They might tell somebody else, but you don't like
25 to offend people who are good to you, so on both the positive

1 and negative side for the worker who lets say fears giving out
2 this information because he or she thinks it is very high
3 risk information could come back on them, or for the worker
4 who certainly doesn't want to say something bad to people
5 who are nice.

6 You are better off when you are dealing with
7 sensitive information to have an outside person or organization
8 come in and do it.

9 Also, I would be inclined myself, I think, as a
10 researcher for at least some of the high risk information to
11 set up some sort of interviewer schedule or questionnaire
12 schedule where people initially could do it in a totally
13 anonymous way, where they can simply respond to a questionnaire
14 and perhaps have it numbered, and then -- let's say you wanted
15 to follow up on these things. You wanted to get more in-depth
16 information, and you can post something and say look, will
17 numbers 42, 105, 27, and 600 or any number, contact us as your
18 own choice, you don't have to, but we would like to talk to
19 you. Something of that sort. If this is done by an outside
20 body, I think you minimize risk.

21 Those kind of things would control some of the
22 concerns I have, but additionally the study itself could be
23 be more clearly defined. What are we looking for, operationally.

24 Q Dr. Michalowski, in your professional opinion should
25 the Nuclear Regulatory Commission rely on the results of

1 Duke's investigation of this issue to reach the conclusion
2 which has been advanced by Duke's study?

3 A As I believe I stated at the outset, I feel that
4 neither Duke Power nor the NRC should rely on that study.
5 It doesn't do anyone any good to make policy decisions based
6 on information that I would say is highly compromised as to
7 its reliability.

8 MR. GUILD: Appreciate your appearance and
9 attendance, Dr. Michalowski, for volunteering to come over and
10 spend your afternoon with us.

11 Please answer any questions that counsel for the
12 Company and the NRC Staff and members of the Hearing Board
13 might have.

14 JUDGE KELLEY: Mr. McGarry, are you prepared to
15 cross?

16 MR. MCGARRY: Yes, sir. We have no questions.

17 JUDGE KELLEY: Staff?

18 MR. JOHNSON: Yes, sir. I have some questions.

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19 CROSS EXAMINATION

20 BY MR. JOHNSON:

21 Q Mr. Michalowski, you are a statistician, isn't
22 that correct?

23 A No, I am not a statistician. I am a sociologist
24 with training in statistics. The term statistician refers
25 to people who have mathematics degrees.

1 Q So you are a sociologist, and your knowledge of
2 statistics comes from where?

3 A From courses in statistics, and from using
4 statistics. My field is one where the use of statistics
5 and statistical information is the basic tool for answering --
6 for asking questions about social behavior. The difference
7 between myself and a statistician, I am interested in the
8 application of statistics to answer social questions;
9 a statistician is interested in the mathematical development
10 of statistics.

11 Q Okay. I listed very carefully to what you have
12 had to say, and the impression that I get from your responses
13 to the questions and your exposition about the study that
14 is in question here is that you do not believe that you could
15 attach any statistical significance to the result or conclusions
16 or findings that have been given. Is that accurate?

17 A No, -- if I left that impression, it is not what
18 I meant to say. I cannot attach any significance --

19 Q From a statistical point of view?

20 A Not from a statistical point of view; for a
21 statistical point of view, it is simply a part of the question
22 as to whether a study in fact is a valid study. That is
23 from a logical point of view I cannot attach certainty to that
24 study because of the failure to enumerate parameters. The
25 statistical questions center largely around the question

1 of sampling procedures. And that is where I would say my
2 statistical concern is, but there are logical and methodological
3 concerns well beyond the problem of statistics.

4 And where this becomes important is that the
5 statement is made within the study that we can, in fact,
6 validly generalize from interviews of a small number of
7 people to the entire population. Before you can do that in
8 any study, it is very important that that piece of research
9 meet certain very fundamental criteria, some of which are
10 not statistical at all, but are logical and operational.

11 For example, if you are asking people questions
12 can you be sure that the response mean the same thing.

13 Q Let me ask you a question. If it is not -- if
14 it weren't important that all the responses mean the same
15 thing, would that have a bearing on your answer? What if
16 it doesn't really matter to the person who is doing the
17 study whether the answer to the same question mean the
18 same thing?

19 For example, maybe the person who is doing the
20 study wants to know the worse case, and he is going to act
21 on the worse case. In other words, he asks ten people the
22 same question, they give different answers. They all mean
23 different things, but sound the same. And the person who
24 is doing this study takes the worse response, and acts on
25 the worse response to act in the most conservative fashion

1 to eliminate the problem, if the person says the worse thing
2 happened, happened.

3 If that is his purpose in going ahead with his
4 investigation, the interview -- he interviewed ten people,
5 he asked them all the same question, they all answered the
6 same way, but they all meant different things, and the
7 worse meaning was the meaning that the interviewer took,
8 and he acted on the worse meaning, and took corrective action
9 based on the worse meaning.

10 Is that meaningless, that study? Is that not
11 beneficial to the person who wanted to take that action?

12 A If I were doing a study, and I said the purpose
13 of my study is to find the worse case that I can, and my
14 conclusion is here is the worse case, fine.

15 But this study said, this study shows that there
16 is no problem system-wide. That was the question he is
17 trying to answer. My criticism is based on the fact that the
18 study does not answer the question that it purports to answer.
19 It doesn't say we are out here looking for the worse case,
20 and our conclusion is this is the worse case, because that
21 would be very valid. I think to find the worse case, and
22 to take some corrective action that is great, one needs to
23 do that, but what about the other cases? Are there other
24 cases.

25 I thought my understanding of the charge in that

1 study was that it wanted to find out if the allegations and
2 the implications that seemed to center around Welder B were
3 valid, and secondly, to find out whether those problems were
4 merely isolated or whether they were system-wide.

5 Q I listened to you very carefully. And what I
6 got from your analysis was that the ideal questionnaire
7 or method of questioning, sampling or what have you, would
8 be to take a very controlled set of questions that beforehand
9 -- before you do any of your interviews, before you do your
10 sampling, you know what it is that you are going out after.
11 That you define, as you say, operationalize, as you say
12 control is definitive and it is logically -- with as much
13 precision as you can beforehand what it is you are looking
14 for, and what you are going to ask for, and what you are
15 looking to find.

16 What about the situation which seems to me is the
17 case here, that you have some information about what is
18 present out there, but you don't know exactly what you are
19 looking for, so you want to ask people questions not only
20 of a very controlled nature that will express -- which give
21 them basically a chance to say yes or no.

22 In other words, in the type of study that I understand
23 you to be postulating, the best type of question would be one
24 that elicits yes or no, in which the yes's and the no's all
25 mean the same thing. I mean, all the yes's mean one thing, and

1 all the no's mean another same thing.

2 What happens in a study when what you are interested
3 in finding out is all the evidence that is available relating
4 to a particular subject, so that you can, as you say,
5 majoritively, I think, follow your nose, follow the leads.
6 Is that invalid? Is your approach going to help us if that
7 is what we are trying to do, solve our problem?

8 A Yes, absolutely .

9 Q How are we going to make our questions so definite
10 and so controlled in making our study, if we don't know
11 exactly what we are going to find, and if we are going to
12 cut off the responses so that we don't find out things
13 that we are not looking for?

14 A Okay. Let me make several responses. First of all,
15 one of my concerns when I said they were not specific questions
16 is the use of language in those questions, which introduces
17 vagueness.

18 Now, indeed, Duke Power, I think, knows what it
19 is looking for. It is looking for violations of QA procedures,
20 is that not correct? It was looking for instances where
21 foremen may have taken actions which led to violations of QA
22 procedures. It was looking for instances where individuals
23 knew a violation of QA procedures. Now, those things can
24 be enumerated. Instead of asking the individual, for example,
25 what are your feelings about something, you can enumerate those

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1 kind of things. possible violations. Generally, also, if
2 you are doing a study wherein you are concerned with following
3 leads, digging up leads, what you normally do is you would
4 enumerate those things which you know could have gone wrong,
5 and I think it is quite evident from the documents that I
6 read, that there were a kind of violation that Duke Power
7 didn't know about, and they could have been more specific
8 about those and others.

9 For example, when they went into other craft
10 areas, I am sure that there are some possible violations
11 that you can know about. There would be a violation that
12 you could predict, what you are concerned about. Now, there
13 might other things that you don't.

14 But you would certainly enumerate the things that
15 you do know, and you would probably use also maybe one or
16 two open-ended questions. Do you have information other
17 than this? You can do both.

18 But I think it is very important to first of all,
19 stay away from the language itself that injects a certain
20 amount of unnecessary vagueness. As I said, do you know
21 any deliberate violations? Do you know where someone has
22 knowingly done this?

23 Do not ask questions that ask the interviewer to
24 project himself into the mind of someone else. I think those
25 are problems.

1 are problems.

2 Q Let me stop you there. Just assume for the moment
3 that you are eliciting those types of answers that you are
4 getting. Subjective views of an individual. Why don't you
5 want to get the subjective views of an individual in the
6 answer to a question?

7 A I think -- depending on the point of your study.
8 If you are doing a study of feelings, how do people feel --

9 Q Let's say how do you feel about Individual A?
10 How do you feel about President Reagan?

11 A Right. If you want to know someone's feeling, that
12 is the whole point of the study, then it is perfectly
13 legitimate to ask about feelings. If you are doing a study
14 whose purpose is to make some prediction about behavior,
15 either historic behavior or future behavior, then you should
16 focus the study on behavior.

17 Now, my understanding -- and perhaps I am wrong --
18 and I could stand to be corrected on this, but the charge to
19 Duke Power was to find out not how people felt about quality,
20 at Catawba, or how people felt about their supervisors per
21 se, but to what extent was their behavior that constituted
22 violations of procedures.

23 And -- I don't mean to suggest that information
24 -- as a matter of fact, if you are doing a study whose purpose
25 was worker morale, and improvements -- I didn't understand

1 that as the focus of the study.

2 Q Let me just -- let me have you presume that the
3 purpose of the study was to determine what the perceptions
4 of individuals about Individual A were, and that the purpose
5 of the study was to act, based on perceptions of that
6 individual, or those individuals, or that individual, and
7 not about the truth of what they were saying, but about
8 their perceptions. In that case, isn't it relevant for them
9 to ask about the perceptions and the feelings of those
10 individuals, Individual A, and based on -- and if what
11 their purpose is to assume the worse being the most
12 conservative about the perceptions of these individuals,
13 and act -- asking those kind of questions about perception,
14 is it an appropriate way to go about that?

15 A Yes. If your focus was perception -- the purpose
16 of the study was what are people perceptions, then yes, you
17 would ask questions about perceptions. There is no problem
18 with that. The only, I suppose, caveat I would put here is,
19 and again, this is my interpretation of the study, it seems
20 to me that the study concluded that there was no behavioral
21 problem. That the conclusion wasn't simply that there is
22 no perceptual problem here. That everybody perceives things
23 -- in fact, things are fine behaviorally, and that is the
24 basis around which I built my concern there. Is that -- it
25 does seem to purport to say that there is not any pattern of

1 violations. rather than saying there is simply no perception
2 of patters of violations.

3 Certainly you can have a situation where there
4 are no perceptions of patterns of violations, and patterns
5 of violations are wide spread.

6 Q Conversely, if the conclusion was there was a
7 perception of wrong doing, and the decision-maker determined
8 to act on that perception of wrong doing, and to correct it,
9 would that invalidate his actions based on the fact that he
10 had determined --

11 A I am not sure about invalidate it. It depends
12 upon his purpose, if he finds a perception of wrong doing,
13 and he acts to correct that perception by giving the
14 information or doing something to improve morale.

15 Q To prevent the activity that was perceived to
16 have been happening, whether or not it was happening. And
17 he does, in fact, take action to prevent that. Is that an
18 invalid approach?

19 A First of all, you are then assuming that there
20 are actions that those perceptions are based on.

21 Q Yes.

22 A Then you will have to find out -- in other words,
23 you couldn't simply ask do you perceive these things happening?
24 You would have to find out the extent that they do happen,
25 because you couldn't go out and prevent them from happening

1 unless you actually found out whether it happened or not.

2 Q Why not? Let's say that an individual is assumed
3 to have committed a violation, and that is the only purpose
4 who is assumed to have committed a violation, and the
5 corrective action is to remove that person from the position
6 where he can't commit the violation. Does that not prevent
7 the violation occurring by that person?

8 A Could you run that by me again.

9 Q If the problem that is identified is the perception
10 that a certain individual is committing a violation --

11 A Committing it on an on-going basis, or has
12 committed?

13 Q This is --

14 A He does a certain thing, so it is on-going.

15 Q Not able to establish one way or the other
16 whether in fact this happened. But there is a perception that
17 this activity is on-going. Does it not prevent the possibility
18 that there would be a substantive problem with respect to that
19 individual if based on the perception, removing that person
20 from the situation where he can do that violation. Doesn't
21 that alleviate the problem, even though you don't know for
22 a fact that a violation has occurred?

23 A Yes, it does. It seems like a curious management
24 procedure, but yes, it would.

25 MR. JOHNSON: How much time do I have.

1 JUDGE KELLEY: How much time do you want.

2 MR. JOHNSON: Can I have a second just to look
3 at my notes.

4 JUDGE KELLEY: Yes.

5 MR. JOHNSON: Just a few questions about
6 investigative techniques that I would like to ask you.

7 BY MR. JOHNSON: (Continuing)

8 Q Are you aware of whether police in their investigative
9 and their intelligence personnel in their activities use
10 statistical methodology in pursuing perpetrators of crime
11 or unpatriotic activity, or whatever?

12 A Yes. It depends. Certainly. I notice for those
13 events where statistical techniques are useful, yes, you
14 definitely use them.

15 Q A lot of criminal investigations are not done using
16 statistical methodology, isn't that also correct?

17 A That is correct.

18 Q And a lot of investigations lead to indictments
19 and trials by jury, don't they?

20 A That is correct.

21 Q During those trials, all the evidence is presented
22 by those investigators, and the jury decides whether those
23 individuals are in fact guilty or not, isn't that true.

24 A That is correct.

25 Q And sometimes they find they are guilty, that is

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1 true, isn't it?

2 A Yes.

3 Q Would you say that such a technique in investigating
4 criminal activity is invalid for the purpose for which it is
5 used?

6 A For the purpose of finding specific violators, and
7 bringing those specific violators to justice, it is certainly
8 a valid technique. It is not a valid technique to tell us
9 how many violators are out there, and we know as a matter
10 of fact quite clearly that the number of violations on criminal
11 offense is much wider than that which police know.

12 You look at police statistics, they will give you
13 information on the crime rate that indicates about half
14 as many offenses exist, as we know from using any of these
15 schedules actually occur every year. But still and all, the
16 technique, you are right, is a very valid technique for finding
17 specific offenders.

18 As a matter of fact, the way in which most offenders
19 are found is that the police talk to people who know other
20 people, who have talked to other people, and they get information
21 about who did what, and they go out and arrest the individual,
22 the DA builds a case and so on. It is a very valid technique
23 for the purpose of finding specific offenders, yeah.

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1 Q There was another thing that you mentioned about
2 biasing a sample, and you used some numbers -- you were
3 talking about stratified sampling and you said that if
4 you determined that there were 40 percent high pressure
5 jobs and 60 percent low pressure jobs that really you
6 should examine -- 40 percent of your sample should be in
7 the high pressure area and 60 percent should be in the
8 low pressure area.

9 A Yes, that is one of that same procedure that
10 some people would argue you should do. There are other
11 people that argue about -- there are various questions about
12 stratified sampling. And the key question there would
13 be can you in fact clearly verify the stratification.
14 If you can, stratified sample is good.

15 For example, if you can verify that you have
16 X percent registered Democrats and X percent registered
17 Republicans, that stratification is okay.

18 In using that as an example -- and I should
19 clarify this-- if you could clearly demonstrate that you
20 had, or at least satisfactorily demonstrate that you had
21 a division in some important criteria that could affect
22 the responses, then perhaps stratified sample might be
23 more appropriate than random sampling.

24 Q Just say that you have made a -- you are an
25 investigator or you are -- well you are -- and you are

1 given the job of trying to determine whether there are
2 particular stress situations -- stress situations in a
3 particular line of work and you determine through your
4 preliminary investigation of the matter that everyone is
5 telling you or a great number of people are telling you
6 that this particular area that this particular area is
7 divisible into, say, two areas: one area is very high
8 pressure and the other, there is no evidence that there
9 is high pressure in that position.

10 Now based on the stratified sampling technique
11 if you wanted to get a valid result with respect to the
12 total population, you would want to stratify your sample
13 according to the evidence that you were able to come up
14 with.

15 But if what you in fact did was to concentrate
16 all of your investigation in the high stress area, the
17 results that you would get would not be representative
18 of the entire population but it would tend to come up
19 with results that would reflect high pressure, per se,
20 and you would get a biased result in favor of the kinds
21 of results that would be attributable to high pressure
22 situations.

23 Is that true?

24 A. If you concentrated in that one area?

25 Q. Yes. You would basically be saying it

1 is not representative of the whole, it is only representa-
2 tive of this area which is of a high stress character.

3 A. Well methodologically though you wouldn't do
4 that, the reason being, to start out you are testing
5 almost a sub-hypothesis, okay, that this particular
6 criteria or the way in which you have defined it is
7 going to lead to certain kind of behaviors. You would
8 always take the reciprocal of however you stratified it
9 as a check to see whether, in fact, your stratification
10 was meaningful.

11 Let's say you want to examine voting behavior
12 again, and you find that in a given town you have 40
13 percent Democrat, 60 percent Republican. You might want
14 to stratify your sample that way because you predict
15 that it will be important, that you could find some
16 important differences between Democrats and Republicans
17 on a local election and then you find out there is no
18 relationship. But you would have to have both sides to
19 verify whether even your stratification criteria was
20 adequate, you wouldn't just focus in on a given area.

21 And if you focused in on a given area -- okay.
22 You cannot presume with absolute certainty at the
23 outset of a study that the criteria that you think is
24 important is important, okay?

25 For example, in this case there was a hypothesis

1 that pressure leads to an increase of QA violations. But
2 that is a hypothesis, we don't know at the outset whether
3 that is or isn't true --

4 Q Let me direct your answer because I think
5 we are getting away -- Democrats and Republicans is really
6 a little off.

7 Let me just direct you to the situation where
8 we do have pressure and just say that you have a
9 stratified situation and you direct all of your resources
10 into areas where you believe -- and there is good reason
11 to believe -- there is pressure.

12 And you reach your conclusions with regard
13 to the extent of pressure based on focusing on areas
14 you know -- or have reason to believe that there is
15 pressure.

16 Won't you, if you try to draw general results,
17 generalizations from your sampling, won't you tend -- as
18 you indicated earlier -- to be finding too high a level
19 of pressure; you won't be getting inaccurate results
20 about the population as a whole if you only focus in on
21 those areas where you have good reason to believe there
22 is high pressure?

23 A I agree with you, I think you are right. The
24 only qualification I would make is that it is very
25 important in a situation like that that you already have

1 evidence of the relationship between the stratification
2 criteria and the outcome.

3 If you have evidence in fact, let's say, that
4 the higher the pressure the greater the violations and
5 that has already been documented then I think if you went
6 in and looked only at high pressure situations -- defining
7 pressure beforehand very carefully and adequately -- then
8 I think indeed what you would find there, I would agree
9 with you, would probably be an overrepresentation, given
10 the fact that you already have evidence that you have
11 some linear relation, let's say, between pressure and
12 violations, you know that beforehand, and that has already
13 -- with other research or somehow, has been documented
14 and shown -- yes, and you would go and look only at the
15 highest pressure, you probably would have to be very
16 careful about generalizing in those high pressure
17 situations across the whole group because it might not
18 be very representative down here in the lower pressure
19 groups.

20 MR. JOHNSON: That's all. Thank you very
21 much.

22 JUDGE KELLEY: Let's just take a short break.
23 We will have a few short questions and we shouldn't be
24 long after that.

25 (Recess.)

agb/agb6

1 JUDGE KELLEY: We will go back on the record.

2 Doctor, our ground rules maybe we didn't
3 mention to you: you have been through two steps of the
4 process, or actually three; the Board is going to have
5 some questions and then they have some redirect or
6 recross, we'll see about that, but we are most of the
7 way home at this point.

INDEXXX

8 EXAMINATION BY THE BOARD

9 BY MR. FOSTER:

10 Q I have just one or two simple ones here.

11 If I understand your position, Mr. Michalowski,
12 your position is that the study as carried out by Duke
13 does not have a sufficient base for them to reach the
14 conclusions that they reached and I gather that the
15 position is that that base summary is not adequate to reach
16 any conclusion.

17 Is that your position?

18 A. I suppose I should qualify what I said. The
19 study is not adequate to reach the conclusions that they
20 reached with respect to the nature and extent and scope
21 of the problem.

22 To the extent that they reached some
23 conclusions about, say, a specific individual through
24 investigation, that's fine.

25 Q That is okay?

1 A. I am not objecting to that as a problem with
2 this study.

3 But if they went and interviewed someone and
4 someone gave them information and that information was
5 valid for a specific event that is valid information.

6 The problem that I saw with the study was an
7 attempt to generalize across the whole scope of crafts
8 and crews without a valid basis for doing that; but I
9 wouldn't say that everything they found was invalid,
10 no.

11 Q. Relative to that generalization -- which I
12 will sharpen up to say pervasiveness of foreman override
13 -- would you say that there was anything there that you
14 saw that would make it impossible for that situation to
15 prevail?

16 A. Make it impossible for what situation to
17 prevail?

18 Q. That there was not a pervasive override
19 condition which existed.

20 My question is a sort of a flip here on the
21 overall data base. You have told us that from your
22 point of view the conclusion that they reached doesn't
23 have an adequate base to reach that.

24 Did to see anything in your look at that
25 information which would say that given a more complete

agb/agb8

1 investigation, done perhaps according to your ground
2 rules, that it would be impossible to come to that
3 conclusion?

4 A. Impossible to come to the conclusion that there
5 was foreman override or impossible to come to the
6 conclusion that it was a valid study.

7 Q Let me try to restate it another way.

8 From what you saw, would you completely rule
9 out the possibility that foreman override was not
10 pervasive?

11 A. No, I cannot conclude that it was or it wasn't
12 given what was done.

13 Q And you saw nothing in there which would
14 prevent either one of those answers from occurring?

15 A. That's true. A more adequate study -- an
16 adequate study might find that there is a pervasive
17 condition of foreman override or something else or it
18 might find that there isn't.

19 And one point that I would like to mention is
20 that in my looking at this I felt that there was a very
21 strong concern in the study -- and this goes to a sort
22 of a logical adequacy -- with the question of foreman
23 override as defined as a foreman putting direct pressure.

24 Although it seemed on the underlying level
25 of this -- the reason we were even concerned about foreman

1 override is simply is there a pattern or is there a
2 possibility of QA violations.

3 What I would argue is that it might be a
4 problem with QA violations that is not related to foreman
5 override and that study was simply so narrowly focused
6 onto the definition of foreman override -- where a foreman
7 put pressure by verbally threatening, let's say, an
8 individual to do something -- it might actually miss
9 other patterns of QA violations.

10 But at this point there is no basis to say
11 whether there is a pervasive pattern of these violations
12 or there isn't, there is just not enough methodological
13 attitude to draw either conclusion.

14 Q That's all I have.

15 BY JUDGE PURDOM:

16 Q Doctor, to follow up on some of what Judge Foster
17 asked you, I guess you have now said that in spite of
18 all of the problems with the climate of asking the
19 questions and the form of the questions and everything
20 else that if an individual volunteered the information
21 that they conducted a weld that exceeded the temperature
22 of the procedure, you would say that as far as that
23 individual in that event you would accept the fact that
24 that did occur in that person's mind?

25 A If an individual said -- if they asked an

agb/agbl0

1 individual Do you have any knowledge of a violation and
2 they said Yes, I do, I performed these welds, I would
3 probably be inclined to take that information seriously
4 insofar as when you have environment -- interview
5 environment problems, usually the problem is in the
6 direction of concealing information. People generally
7 don't prevaricate in order to get themselves into trouble.
8 If somebody actually admitted to something that was
9 high-risk information, they are probably telling the
10 truth in most instances.

11 The biggest problem with these kinds of studies
12 where you have a compromised interview environment is
13 problems of obscuring information.

14 Q Is your answer Yes I would consider that a valid
15 answer or No I would not?

16 A Yes, I would consider that a valid answer.

17 Q You would.

18 You may have anticipated my next question in
19 part. The person says I violated the procedure and the
20 QA inspector caught it and I had to do it over again.

21 Would you consider that a valid answer?

22 A I would be more cautious about that answer.

23 Q Why?

24 A I would look for verification of that answer

25 -- that is, the individual says I know this thing that

1 I did wrong but it is fixed, everything is all right.

2 Q You are assuming the first answer is true and
3 the second answer might be false?

4 A I am not assuming that it was false; I,
5 myself, as an investigator, would probably look for
6 corroborative evidence of the second answer.

7 Q Your questioning the second question but not
8 questioning the first one?

9 A It's not the case of questioning the question,
10 it is the answer.

11 Q You are seeking corroboration on the second one
12 but not on the first one?

13 A Yes.

14 Q Why?

15 A In the first case I think the individual --
16 it is unlikely -- it might happen, but we are aware of
17 where studies have been done, validation studies, where
18 you ask people information and you go back to find out if
19 the information that has been given is true.

20 If individuals reveal information that is
21 potentially damaging to themselves, it is most often true.
22 Where individuals give information that is perhaps helpful
23 or protective of themselves, there is a higher proportional
24 possibility that the information is being given specifically
25 because it helps the individual.

EVENING SESS.

6:10 p.m.

#17-1-SueT 1

2 Q Why couldn't the individual be trying to get his
boss in trouble?

3 A In the second instance?

4 Q In the first instance.

5 A He might. He might be doing that.

6 Q So, you have got of jumped to some conclusions
7 yourself, haven't you?

8 A I wouldn't say jumped at a conclusion. I think
9 there is evidence.

10 Q You are approaching the analysis of the data with
11 a bias?

12 A No, I'm not approaching the analysis of the
13 data with a bias.

14 Q You are influenced by previous studies, you say.

15 A What I'm saying is that from the point of view
16 of research of this sort, we do know that where individuals
17 give information that tends to be damaging to themselves
18 that there is a much, much lower rate of falsification than
19 on information that is potentially helpful.

20 So, for that reason I would be more suspect of
21 the second answer than I would of the first. In any case,
22 if I'm doing a study, if I'm doing an investigative study,
23 as opposed to this other for a little more generalizing I
24 would, as an investigator, as a researcher, I would probably
25 look for corroborative evidence of that.

#17-2-SueT 1

2 Q Such as making test welds or something to see
3 whether the weld was in fact defective that this fellow
4 said he made defective?

5 A To some extent. Also perhaps finding out if
6 there are other people who know of that event, and do you
7 know of anyone who saw you do this. Things of that sort.

8 Q Isn't that kind of what Duke did?

9 A To some extent, yes. I don't have a particular
10 quarrel with some of Duke's investigative procedures.

11 Q I thought you were quarreling with all of them.

12 A No. As I said, I felt that the questions that
13 where they did investigations, for example, in looking at
14 specific individuals and getting specific information
15 regarding some specific events I think there are perhaps
16 some better questions to be asked.

17 I'm not really quarreling with the conclusions
18 that they drew there. My main concern was with the broader
19 conclusion that it's moving from some specific events to
20 a conclusion regarding the scope of the occurrence of these
21 events in the plant. That's where I see the key methodologi-
22 cal problem.

23 To use the same analogy you used before, it's
24 like taking a police investigator who investigates some
25 events and asking him to then give an estimate of the
frequency of those events.

#17-3-SueT 1

2 Q Let me pose my third situation which is, I will
3 tell you in advance, two-part.

4 The person is asked if they know of any violations
5 and they don't know of any. And they ask, did you ever make
6 any violations of procedure, particularly if your foreman
7 pressured you. Well, he said, my foreman pressured me but
8 I never made any violations of procedures.

9 Now, is there any part of that statement that
10 you would believe or not believe? Would you believe that
11 the foreman pressured him?

12 A Again, I think in that case, in the event he
13 said my foreman pressured me but I never made any -- I never
14 committed any violation, I think I would be probably --
15 I would ask two questions of that.

16 One, is there any other evidence to substantiate
17 the issue of the foreman's behavior. And you could have
18 here a situation of tension and animosity where a person
19 wants to get back.

20 And also I would be more cautious about the
21 statement, I never did anything wrong, than I would about
22 the statement, yes, I did something wrong.

23 Q So, these -- virtually all three of these, after
24 our discussion, I gather you would tend to want to seek
25 additional information, either from other people or testing
or some method like that?

#17-4-SueT1

1 A If we are talking about investigation, trying
2 to identify specific events, and to build up a body of
3 evidence, just in the same way one would conduct I presume
4 a police investigation. You seek additional evidence to
5 support or to dismantle those statements as part of an
6 investigative process.

7 Q There is another aspect of your testimony that I
8 would like to question.

9 I gather that you don't favor open-ended questions
10 where the individual volunteers the subject matter, that you
11 favor a structured question where you ask on that specific
12 subject, if it did or did not occur?

13 A Not entirely. It depends on what you are asking.
14 You can ask an open-ended question that is reasonably
15 focused in such a way that you ask the person to give you
16 information about behavior, if that is what you are interested
17 in.

18 Q Well, the open-ended questions that they asked
19 were, did you ever do any violations? Do you know of any-
20 body else that ever did any violations that effected
21 quality?

22 I gather you think that is a very inappropriate
23 way of eliciting information?

24 A I think a much better way of eliciting information
25 would be to identify types of violations, perhaps categories.

#17-5-SueT 1

2 One thing I have to admit to here is that I
3 do not know what the nature, scope and range of QA
4 violations are. And I think I could address this question
5 a little bit better if I knew specifically, I knew the
6 issue about interpass temperature which was sort of a
7 central focus here. But I understand that there are many
8 other possible QA procedures.

9 I would, I think, prefer, and would feel more
10 comfortable, with a questionnaire which would tap specific
11 areas of behavior that could be in violation. Do you know
12 of any instances where this thing has happened? Do you
13 know of any where this thing has happened? Have you ever
14 done this thing? And so on.

15 And, as I said earlier, if there is a sense
16 that that would not -- if there is a sense that you can't
17 define the range of potential problems then maybe there are
18 problems out there that you can't even imagine that might
19 surface that would be useful. If then you said, can you
20 add to this anything else? Are there other areas?

21 But I think that a point that I would like to
22 emphasize also with respect to the questionnaire is that
23 to have a good questionnaire you have to have a good
24 priority definition of what you are looking for and what is
25 the focus of your study. And I felt one of the problems
with this study is that the actual parameters of what are

#17-6-SueT 1

2 we most concerned with, is it violations, is it perceptions
3 of violations, is it pressure, is it perception of pressure,
4 was never clearly delineated. In the absence of that delinea-
5 tion it is very, very difficult to construct questions that
6 are then responsive to the overall purpose of the study.

7 Q Why shouldn't it be all of those?

8 A Pardon?

9 Q Why shouldn't it be all of those?

10 A If it is all of those, I think it should be
11 specifically set forth, then. And you should have questions
12 that specifically tie to each of those concerns.

13 Q Now, in behavioral science when you are doing
14 studies with human beings, isn't there a danger if you
15 structure the questions too high, that you will be influenc-
16 ing the answers by having structured the question?

17 A Again, I think it depends on what you are looking
18 for. If you want to know -- if there has been -- do you
19 know of a given violation? And you ask that, there is --
20 that danger isn't all that great, because in general you
21 are going to have a certain amount of respondent error and
22 that's one of the things that you have adequate sample
23 controls for.

24 If you are asking -- I'm trying to think of a
25 good example of a question where you would be structuring,
let's say.

#17-7-SueT 1

Q May I suggest one?

2 A Yes. Do you feel that the -- do you feel your
3 supervisor is very supportive, supportive, very unsupportive?
4 Now, what you have done is you have narrowed the range of
5 potential responses. The individual has to say either the
6 person is very -- he is supportive or he is very unsupportive.
7 And it might be someplace in the middle.

8 The question of a respondent force, or force
9 choice question is more concerned when you are talking
10 about something that is interval rather than nominal. That
11 is, something which presumably has a kind of infinite range
12 to it.

13 And then if you just slice off the end, the two
14 ends and the middle, let's say, of that range you have
15 closed off possibilities. And that's where I think the
16 force choice -- force choice questionnaires you have to be
17 more concerned.

18 On the other hand, when you ask a question about
19 specific behavioral events as opposed to feelings or
20 perceptions or things that move along a range or can be
21 scaled along a range, it is not as much of a problem.

22 Q If you ask a question like, have you ever had
23 any foreman pressure to evade quality requirements, doesn't
24 that question in itself suggest to you that you answer in a
25 positive way? In other words, you don't know what it means

#17-8-SueT 1

2 and, therefore, you will go ahead and enumerate the things
3 that you think are foreman pressure, including he ran me
4 all over the plant, he made me heat this weld too hot. And
5 then later on an analysis decides which of those things
6 are significant?

7 A One of the real problems with that is to simply
8 say, have you ever been pressured. And then to have an
9 individual respond to that is a too open-ended question.

10 As you said, the individual is going to respond
11 in -- well, let's put it this way. One individual might
12 say, yes, he ran me, he made me do this thing and that was
13 pressure. Another individual might have had the very same
14 thing happen and would not have perceived it as pressure.

15 And that's where in dealing with something like
16 pressure, as a research concept, I think one has to
17 operationalize what constitutes pressure. For example,
18 the question of whether or not pressure is a positive or
19 negative thing, then if you say you have been pressured
20 by a foreman to do something, you would think of that term
21 only in the negative. But if you were concerned whether
22 the relationship between a foreman and a worker were such
23 that it could lead to a violation of procedures, it might
24 very well be that there are other sources for violations
25 other than these negative sorts of pressure.

But I think that's a question you would have

#17-9-SueT1

2 to address at the beginning. If you said, okay, we are
3 going to measure pressure and our definition of pressure
4 is a foreman doing these three or four or five things,
5 I think as far as an adequate base for the study you are
6 on much more solid ground for two reasons.

7 One, you have clearly specified the parameters
8 of what you are looking for operationally. And, secondly,
9 it provides other people an opportunity to respond to that
10 and say, wait a minute, that is what this is about or should
11 be about. Or this is not what this should be about, or
12 maybe you left out something.

13 But when you use a very general term like, have
14 you ever been pressured, it's just too far vague.

15 Q When you ask somebody which are the most --
16 three most important national issues and you say choose
17 from one of these three, and you get to it and say, well,
18 number three was the most important issue in the United
19 States, and had you put Number 4 down that would have been
20 the one. And if you had put Number 4 down and left out
21 Number 5, that would have been the most important one.

22 What I'm getting at is, if you wanted to find
23 out what was the concern to the individual in these areas,
24 don't you run a greater risk of getting only answers on
25 the structured part if you don't have the open-ended
part?

#17-10-SueIT

2 A Again, there is not -- if your study is to find
3 out what Americans are concerned about specifically, you
4 would ask it one way. If you wanted to find out how six
5 different concerns ranked, you would ask it in a structured
6 way.

7 Now, if you are asking, would you be better
8 off simply asking a general question about pressure or
9 some specific questions that's a completely different ball
10 game. Because what I'm arguing about there is not -- it's
11 not a question of structured versus unstructured. It's a
12 question of failure to define the concepts of pressure.

13 And a very basic rule of research, you have to
14 have some operational measure of the thing that you are
15 looking for. It can't be left a wholly subjective level.

16 Now, if you were to asked the individuals what
17 five things do you most like about Duke Power and that's
18 what you wanted to know, that's fine. That's an open-
19 ended question.

20 By my understanding of this study was that its
21 basic purpose was to find a degree to which violations
22 of QA procedures existed across crews and craft. You have
23 to tag the kind of question that you ask to the purpose of
24 the study, and then you make your decision as to what
25 kind of questions would be most appropriate.

MR. PURDON: Thank you.

17-11-SueT

1 BOARD EXAMINATION

2 BY JUDGE KELLEY:

3 Q Your last statement is really right on the
4 question I want to ask. I want to plow a little ground.
5 Here is my concern.

6 I understand your criticisms I believe, the
7 basic points you made in the study. I'm not sure though
8 that your criticisms might not be effected by your perspective
9 of what the purpose of the study was.

10 Now, you just indicated -- and you said earlier
11 more than once -- that you saw this as a means of finding
12 out the QA violations.

13 From my view, that's far too broad. That's
14 not what this was supposed to determine. Another example,
15 you spoke of the person whose objective it was, a new
16 employee to please the boss. And so he comes in and he
17 says: I will score some points with that guy. I will
18 really produce this week.

19 And he skips certain procedures in his welding
20 so he can rack up a lot of welds and look good. That,
21 in my mind, has absolutely nothing to do with foreman
22 override. Now, that may be a bad thing. It may be
23 a dangerous thing. But it has got nothing to do with
24 this case.

25 This is a very -- these cases are highly

#17-12-Suet1

1 structured. They are issue oriented and you get down to
2 sub-issues and sub-issues below that. It's the only way
3 we will ever get through them. We were here last year for
4 about three months uncovering all sorts of problems at the
5 Catawba plant, and we've narrowed it down now to a pretty
6 narrow problem area.

7 Now, this Board might have been a little clearer
8 than it was in defining foreman override, I grant you that.
9 And the study might have been a little clearer than it is
10 also.

11 But earlier in our discussion, I think a couple
12 of days ago we said, okay, what do we mean by that. And I
13 will paraphrase, but I will say roughly we mean situations
14 where an employee is either directed to violate the QA
15 procedures or he is in a high pressure situation and the
16 foreman, although he does not say in so many words, violate
17 Procedure 85, he makes it known that he wants something done
18 and there ain't no way to do it without violating the
19 procedure. That's an implicit directive, though, to violate
20 the procedure.

21 That's what I think we are after. That's what I
22 understood the study was after. They do ask questions on
23 their list of essential questions, where they ask explicitly,
24 about halfway down, tell me about any case you or anyone you
25 know of ever was directed to violate a QA procedure or

#17-13-SueT₁

1 requirement. So that's kind of right on point, it seems
2 to me that's hard core foreman override.

3 Now, my question is, if you view the study in
4 that light as attempting to find out about that kind of
5 behavior, not a lot of other things that may be bad but
6 that kind of behavior, would you make the same criticisms?

7 A I would make some of the same criticisms. If
8 one were to say that the only -- for the central question,
9 are there any instances, do you know any instances or
10 have you been involved where someone was directly pressured
11 or directly ordered, then I think the question you pointed
12 out is on target.

13 As I said initially, there were a number of
14 methodological problems I saw, only one of which would make
15 me feel uncertain and what I'm referring to and refer to
16 specifically is that I understood one of the charges was
17 that a possibility of these activities extend beyond the
18 particular welding crew and craft. That comes from an
19 April 11th, 1984 document, LC, dog or dale. And there is
20 another document here by R. L. Dick which says the
21 same -- sampling basis of other selected -- to determine
22 if production and quality, if these problems are broader
23 than specific crew and craft.

24 That criticism I --

25 Q That would still obtain?

#17-14-SueT1

1 A Yes, I would agree with you, then, with respect
2 to the only purpose was.

3 Q But some of the other criticisms which focused
4 I thought on a rather diffuse nature of the goal, if the
5 investigator knew what he was after, the Board knows what
6 it's after, the employees understand the questions, one
7 just might find something out about hard core foreman
8 override, might one not?

9 I'm not talking about the whole population at
10 Catawba but welders.

11 A Certainly you might find out something about
12 it. Really, I'm not disputing the question of whether
13 asking some questions might not generate some information.

14 My primary concern is what use can that informa-
15 tion be put. I think it might be excellent information for
16 clearing up some specific problem areas, as I think was done
17 in one particular instance.

18 Q What about if there is a problem area in foreman
19 override, as I have just defined it, which you may regard
20 as a rather narrow definition, do you think it's useful
21 exercise in determining the extent of that problem?

22 A The study?

23 Q Yes, in welding.

24 A The extent of that problem?

25 Q In welding.

#17-15-SueT

A No.

2 Q Why not?

3 A I feel that again within the welding craft the
4 sampling procedure is not set out, it's not clearly
5 appropriate, it's not randomized, and that I think injects
6 all kinds of possibilities. I would feel considerably more
7 comfortable if the procedure had, in fact, been more
8 effectively handled.

9 Q It seems to me that the other day there was some
10 discussion about welders and numbers. I don't know how
11 many of the 217 turned out to be welders, but quite a
12 few I gather.

13 If you talk to 150 welders out of 500 looking
14 for evidence of this kind of a practice, wouldn't that give
15 you a fair chance of stumbling across a pervasive pattern?

16 A I can't answer that question unless -- I would
17 have to know more about population, the population which is
18 being sampled.

19 Q I am suggesting that if I talk to one out of
20 three or one out of four, quite a few people, and I don't
21 somehow manipulate things so as to avoid finding anything
22 out, then chances are that I would get some reasonably
23 reliable indication?

24 A Again, I really don't know the answer to that
25 question because without -- you said without making efforts

#17-16-SueT

to stumble into --

2 Q Not to avoid.

3 A One of the things that can happen is you can
4 stumble into a sampling bias unless you are careful about
5 how you structure the sample, like one of the things that
6 was told to me and so I only have it on hearsay and I
7 don't know if it's exactly what happened, or maybe it
8 was one of the documents, that in many instances they went
9 to individuals who were listed on a given list and they were
10 the highest listed individuals.

11 One is, I don't know how those lists were
12 constructed and who gets to be the highest on that list.
13 It might pose a problem.

14 There is a discussion here that there was an
15 effort made to go to those individuals who had been there
16 the longest and who had the greatest amount of seniority.
17 That might introduce a -- there is a sampling bias. Now,
18 whether it is a significant or insignificant one, I don't
19 really know.

20 But I can say that there is a possibility, for
21 example, that the people who have been there the longest
22 are the people, the individuals who are most satisfied with
23 the Company and that itself may compromise your findings.
24 The individuals that have been there the longest have the
25 most seniority. They have perhaps (a) the greatest to lose,

#17-17-SueT

(b) may like the Company better. Those kinds of things,
okay, could create problems in terms of how one would rely
upon, how much confidence one would put in the adequacy of
the sampling procedure.

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end #17

Mimie flws

T18 MM
mml

1 Q Just on a totally unrelated point, I was struck by
2 the work in Title VII Actions, and I wonder if you could
3 describe the nature of your analytical work in those cases
4 and how it bears on the kind of problems we are looking at.

5 A Two ways of looking at it bears on it.

6 One is the same, if you will, skills to be able to
7 do adequate statistical work for a Federal court case, would
8 appertain here. Just the statistical scope.

9 The other thing is it has brought me into, over the
10 last six or seven years, both into contact with -- and that
11 contact has led me to do a lot of study and reading in
12 the areas in employee relations, because that Title VII
13 work is to some extent a matter of employee relations.

14 Now, my work is basically, if there is a suit filed
15 where someone alleges that they didn't get a promotion
16 because of their sex or their race or something, the court
17 proceeding will often involve statistical analysis under the
18 Pattern and Practice Rule.

19 And, one of the things I would do whether it be
20 for a defendant or a plaintiff in this case, would be to
21 analyze the data and say, okay, this person says that he was
22 demoted because of his race.

23 Or, I would look at the pattern of demotion and
24 say, okay, is there any statistical evidence here to say
25 that if you are nonwhite, you are more likely to get demoted

mm2 1 than another individual. That is the kind of work.

2 Q Typically against large corporations, I assume?
3 Large workforces. You don't get into statistics with ten-
4 man firms?

5 A Yes. Workforces with normally, probably -- if I
6 am getting down to any sample sizes under 10 or 15, they are
7 too small to do anything with.

8 Q Do you do an analysis, a written analysis, then
9 you appear as an expert witness and you are cross examined on
10 the analysis? Is that the way it works?

11 A Yes, basically.

12 Q Has your work led to condition of terminations?

13 A Yes.

14 Q Relying on your analysis?

15 A Yes. As a matter of fact, in several cases, work
16 that I did was a basis for some substantial holdings by the
17 Fourth Circuit in the case of Firth v. Eastern Airlines. And
18 in the case of Lilly v. Harris Teeter. That is questions,
19 statistical questions about methods.

20 Q That is the kind of thing I was interested in.
21 You wouldn't happen to have the citation, would you?

22 A No, I don't have it with me. I can get it for you.

23 MR. GUILD: Judge, we can supply it.

24 JUDGE KELLEY: Do you have redirect, Mr. Guild?

25 MR. GUILD: Just briefly.

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1 REDIRECT EXAMINATION

2 BY MR. GUILD:

3 Q Dr. Michalowski, page 1 of the Duke Study, you may
4 have it in front of you under the heading, Conclusion, principal
5 findings of Duke's investigation are, one, quality construction
6 standards at Catawba are being met.

7 And, two, that foreman override is not a problem at
8 the Catawba site.

9 Now, focusing on the second of those two issues,
10 that foreman override is not a problem at the Catawba site,
11 is that in sum the conclusion to which your analysis is
12 addressed?

13 A Yes.

14 Q And it is your professional opinion that that
15 general conclusion cannot be supported by the methodology
16 and assumptions and approach that you reviewed that was
17 employed by Duke Power?

18 A Yes. The study that was done and the method in
19 which it was conducted does not substantiate, does not
20 provide a basis for drawing that conclusion.

21 Q Let me be more practical then. Do you think such
22 a study can be done, could be done? Is it simply a question
23 of being a critic without coming to grips with the actual
24 and practical pragmatic problems of accomplishing a job?

25 Could such a study be done?

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1 A Yes. Yes, sir, it could. I believe I talked about
2 that earlier.

3 MR. GUILD: That is all I have, Mr. Chairman.

4 MR. JOHNSON: Judge Kelley, I have one question.

5 JUDGE KELLEY: All right, Mr. Johnson.

xxx

RE CROSS EXAMINATION

6
7 BY MR. JOHNSON:

8 Q Could you tell us in the cases in which you became
9 involved with, were you primarily involved in the case for
10 the plaintiff or for the defendant?

11 A I was primarily involved for plaintiffs, although I
12 have done some defendant work also.

13 One of the problems in doing this is that -- and I
14 am talking about friends that do this elsewhere -- is that
15 it seems particularly in North and South Carolina if you do
16 work for one or the other, it is very, very hard -- if you
17 do a few plaintiff cases, defendant attorneys generally don't
18 call on you. If you do some defendant cases, plaintiff
19 attorneys don't call on you. For what reason, I don't know.

20 In other places it is much more open.

21 Indeed, my interest is primarily in -- that
22 cases be handled properly. I am perfectly willing to work
23 for defendants.

24 MR. JOHNSON: Thank you.

25 MR. MC GARRY: Your Honor, I have one question.

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1 JUDGE KELLEY: Mr. McGarry?

2 BY MR. MC GARRY:

3 Q The analysis of employment practices in the
4 case of Dickey v. Duke Power?

5 A Yes.

6 Q You testified for or against Duke Power?

7 A Actually in this case I never did testify. I did
8 data analysis for the plaintiff in that case, and that case
9 was settled.

10 MR. MC GARRY: Thank you.

11 MR. RILEY: Judge Kelley?

12 JUDGE KELLEY: Yes, Mr. Riley?

13 MR. RILEY: I would like to ask a question.

14 JUDGE KELLEY: Go ahead.

15 BY MR. RILEY:

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16 Q Mr. Michalowski, if the person being interviewed
17 knows beforehand that what he says will be incorporated in
18 an affidavit which he will be asked to sign, how will that
19 affect the stressfulness of the situation?

20 A As I said earlier, I think it places -- it creates
21 a barrier, or it can create a barrier to complete candor.
22 An individual may be -- not all individuals, but a proportion
23 of interviewees are going to be more cautious about what
24 they say and may edit what they say, given the knowledge that
25 it is going to be handled, you know, in a formal written

mm6

1 statement, and that in a sense their words are going to be
2 a permanent evidentiary document.

3 So, as I say it doesn't mean all individuals will
4 be untruthful or will mask certain things, but it does
5 increase barriers to candor and that is the kind of thing one
6 tries to avoid normally when you are doing research.

7 MR. RILEY: Thank you.

8 JUDGE KELLEY: Doctor, we very much appreciate your
9 joining us this afternoon, I'm sorry to say, early evening.

10 Thanks very much, you are excused.

11 THE WITNESS: Thank you very much.

12 (Witness excused.)

13 JUDGE KELLEY: Our next point, the initial phase
14 is in camera. Maybe I could stay on the record while I
15 just reflect, we are going to go in camera for a brief
16 period. I might just say that.

17 Off the record.

18 (Discussion off the record.)

19 JUDGE KELLEY: We will go on the record.

20 We had an off-the-record discussion among counsel
21 over whether the people other than the immediate people at
22 the counsel table, and people of the Applicant and Staff who
23 are right now -- although they are not up at the front table,
24 some of them stand ready to provide information -- there was
25 a concern by the Intervenor's about promoting candor, and

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1 the feeling that the clearing of the room of everybody but those
2 at the table would promote it.

3 The Board is ruling that we are going to allow these
4 people to stay. They, after all, have signed affidavits or
5 they work for the Staff. When we say in camera, that is what
6 we mean by it, we are still in camera with these people in
7 the room.

8 The primary reason for privacy here would be to
9 protect people from retaliation from the chain of supervision,
10 the foremen particularly, and they are not here. So that is
11 the way we are going to handle that.

12 MR.GUILD: Mr. Chairman, may just ask that the
13 record reflect this; o that the people who aren't here are
14 the people who are neutral in this matter and who we would
15 desire to have present. They are the members of the general
16 public.

17 The people who are in the room are the very
18 interviewers and the technical --

19 JUDGE KELLEY: Mr. Guild, if you want to get it on
20 the record, all right. But make it brief, please. That is
21 a very small point, in our view.

22 MR. GUILD: It is absolutely not a small point. If
23 you are interested in the candor of the interviewee --

24 JUDGE KELLEY: You disagree with the Board, Mr. Guild
25 and the Board disagrees with you. State your position.

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1 MR. GUILD: If this Board is interested in candor,
2 you have designed a process calculated to defeat that. You
3 can ask an individual to come into a star chamber where
4 the very people who are in this room, who have been the
5 interviewers, the representatives of the company who had
6 interrogated the individual, are the only people who are
7 allowed to sit and be present.

8 The individual has a desire to appear behind closed
9 doors. The desire is so he can express to this Board with
10 some degree of candor, free from the influence of the people
11 who have heretofore been involved in responding to his
12 concerns.

13 Now at the very least, I would like the record to
14 reflect my objection at the outset, putting this individual
15 through this process under these circumstances, and have the
16 record clearly reflect who is present in the room in
17 addition to counsel.

18 JUDGE KELLEY: As to the last point, names of people,
19 denied. We have been over this before. Denied.

20 MR. GUILD: I would only note when the Board
21 itself designed an in-camera process last year, you were
22 very explicit in excluding all but counsel and one representa-
23 tive from a party. There was a good reason for it, Judge.
24 You did it right then, you did it for good reason then. I
25 submit to you with reflection you would find the same reasons

mm9 1 would apply under these circumstances.

2 JUDGE KELLEY: I understand your position,
3 Mr. Guild. It is now on the record. We do not agree with it.

4 Now we are going to call in Mr. Carpenter, who I
5 believe is the next gentleman coming in?

6 MR. JONES: I understand it is off, but I think
7 having a Channel 9 microphone on the table might hamper the
8 witness.

9 JUDGE KELLEY: I agree. Move it.

10 MR. GUILD: Mr. Chairman, if I may excuse myself
11 for a moment.

12 (Pause)

13 JUDGE KELLEY: Let's go ahead, Mr. Guild.

14 MR. GUILD: Mr. Chairman, this is Mr. William M.
15 Carpenter. If he could be sworn.

16 Whereupon,

17 WILLIAM M. CARPENTER

18 was called as a witness on behalf of Intervenor, Palmetto
19 Alliance, and having been first duly sworn was examined and
20 testified as follows:

21 JUDGE KELLEY: We have one point that we will put
22 right up front, and then we will get on with your testimony.
23 That is this: Right now we are in a closed session of the
24 group. These are all lawyers in the case, or people who
25 have signed an affidavit saying that they won't reveal people's

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1 names who come in as witnesses in the closed session.

2 I understand when you were initially interviewed, you
3 were told that the information -- in fact the day of the
4 interview -- would be kept confidential.

5 Our purpose now is to find out whether you want to
6 keep it that way. That is, testify in a closed session with
7 the public out and the press out, or whether you would
8 prefer to waive that right and testify in public session.

9 I should add two things: One, in general we prefer
10 to do things in public. We recognize there are good reasons
11 sometimes to hold closed sessions. We do it, but we would
12 on balance rather not just because there is a positive value
13 in letting the public know what we are doing.

14 Beyond that, when we ask you this question about
15 what your preference would be, the first point I guess is
16 your preference. But beyond that, if you do prefer it to be
17 in closed session, then we would ask you in particular what
18 your reasons are for wanting that. It isn't an automatic
19 thing whereby if you just say that is what you want, that is
20 what we will do. We would hear why you wanted to be in
21 closed session. Then the Judges up here, the three of us
22 would decide whether we thought that was a good enough reason
23 to close, or whether we thought that we should hold it open,
24 open to the public.

25 Do you follow me up to this point?

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1 THE WITNESS: Yes, sir.

2 MR. JOHNSON: Judge Kelley, I think one thing to be
3 added is whether this man is under subpoena and whether he is
4 requird to testify.

5 JUDGE KELLEY: As I understand, Mr. Carpenter,
6 you are a former employee, is that correct?

7 THE WITNESS: Yes.

8 JUDGE KELLEY: And we have not, at this point,
9 issued a subpoena commanding you to be here, but Palmetto
10 wants to call you and we want Palmetto to be able to make
11 their case. So, they have contacted you, and here you are.

12 But at least at this point you are not under a
13 subpoena. But, we would appreciate your testifying if you
14 are willing to do that.

15 THE WITNESS: Yes.

16 JUDGE KELLEY: Have you thought about whether you
17 would rather be in closed session or just this and open the
18 doors?

19 THE WITNESS: I don't mind it being open, but I
20 don't want the camera on me. They can record it, but I prefer
21 not to be seen on TV because I have got an awful lot of -- I
22 have got a lot of friends working up there. If I say something
23 that may jeopardize their jobs, I don't want them to say,
24 hey, you were the one who jeopardized my job, or something.

25 I prefer my face not to be on TV.

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1 MR. GUILD: Mr. Chairman, Mr. Carpenter explained to
2 me that he had talked to two representatives of television
3 who are in the other room. They had agreed that they would
4 abide by his desire and not show film of his testimony.
5 But, with Mr. Carpenter's consent would have a microphone on
6 that would have his -- the sound of his testimony. They would
7 not show his face.

8 And, I believe he expressed a desire to be in
9 public.

10 JUDGE KELLEY: With that stipulation, with that
11 understanding?

12 MR. GUILD: That was by agreement of the
13 representative of the television media over here. Is that
14 right, Mr. Carpenter, is that what they said they would do?

15 THE WITNESS: Yes.

16 JUDGE KELLEY: Do counsel have any problem with that?

17 MR. JOHNSON: No, sir.

18 JUDGE KELLEY: Mr. Carr?

19 MR. CARR: No.

20 JUDGE KELLEY: The whole thing is for your protection.
21 If you are willing to testify in public with that understanding,
22 it is okay with the press, it is okay with us.

23 So, why don't we just open up the doors. We
24 will go on from here. I will just assume that the TV people
25 know that and they will do as they said they were going to do.

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Does counsel see any reason not to make what we just did public, in view of what we said?

MR. GUILD: No, sir, it should be public.

MR. CARR: We agree.

MR. MC GARRY: We agree.

JUDGE KELLEY: Handle it that way.

MR. MC GARRY: Can we go off the record for 15 seconds?

JUDGE KELLEY: Yes.

(Discussion off the record.)

END T18

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1 JUDGE KELLEY: We will go on the record.

2 DIRECT EXAMINATION

3 BY MR. GUILD:

4 Q We spoke a little bit. My name is Bob Guild,
5 and I am a lawyer for the Palmetto Alliance. We asked you
6 to be here tonight. You probably know the others in the
7 room, at least by watching them a little bit while you
8 were waiting to come up.

9 These are the lawyers for the Nuclear Regulatory
10 Commission, and a couple of NRC staff members, and the
11 lawyers for Duke. I think you have seen them before, Mr.
12 Carr, Mr. McGarry, Mr. Hollins, Mr. Calvert.

13 The Judges of the NRC. If you could, tell me a
14 little bit about yourself, Mr. Carpenter. I understand you
15 worked as a welder at Catawba. Can you tell me when you
16 started, and what different foremen you worked for out
17 there, please?

18 A I started work at Duke in July 6, '78, and I worked
19 for Billy Smith for the first six months, and then they
20 sent Larry Rudesel up, and I was under him for two years,
21 and then Larry Rudesel got moved to No. 2 reactor, and they
22 sent a lead man up, which is John Gladden, and I worked for
23 him for about a year, and then I asked to go to the second shift,
24 and I worked on the second for a year, and then went back to
25 the first and worked for Tim Hollinsworth for about four months,

1 and I asked to go back to the second, because my wife don't
2 drive or nothing, and all the running around was done in the
3 morning, and that way it wouldn't interfere with the job.

4 I have been working, like I said, for six years
5 as a welder. I got started as a welder.

6 Q When you went on second shift, who did you work
7 for?

8 A Arlon Moore.

9 Q And you stayed with Mr. Moore for year?

10 A And then went back to the first for three months,
11 and then came back on the second.

12 Q When you were at the plant, did you work at any
13 one specific place, or did you work in all systems and all
14 the parts of the plant?

15 A On the second shift? When I worked the first we
16 worked on one specific area, on 560.

17 Q On which unit?

18 A That is the auxiliary building, on the 560 level,
19 but when I worked the second shift, we worked all over the
20 place; turbine building, both reactors, intakes and all. It
21 was all over the place because whatever they left over we
22 had to go do.

23 Q Did you perform safety-related welding work?

24 A Yes, sir. Performed some safety-related, and some
25 what we call fill routed stuff that wasn't safety related.

1 Q What kind of certifications do you have?

2 A I had stainless, teague, EB, and open butt, and
3 I had the carbon teague, and I was certified in stick
4 welding, 78 teague.

5 Q All right, sir. When last did you work under
6 Arlon Moore?

7 A July 6th. From the time I got removed, I think
8 I went back with him in August of last year.

9 Q So from August of '83 until July of '84, you
10 worked back under Arlon Moore?

11 A Yes.

12 Q Are you aware generally that first the NRC and
13 then Duke conducted an investigation of concerns by welders
14 and other craft people at Catawba?

15 A Yes, sir.

16 Q Did you get contacted in the process of the
17 investigation?

18 A When I come in to work, Arlon told me that Bill
19 Rogers wanted to talk to me. I went up there to see what
20 Bill Rogers had, and he introduced me to two interviewers,
21 Joyce was first, and then Dave Llewellyn and Joyce.

22 Q Those are the people in the back of the room there?

23 A Yes.

24 Q Mr. Llewellyn and Ms. Lewis.

25 A Right.

1 Q When did that happen?

2 A I can't remember the date, but I think it has been
3 about --

4 Q Spring of '84? March?

5 A About March.

6 Q All right. And what did you think when you
7 got called up, Mr. Carpenter?

8 A I thought I was in some kind of trouble or
9 something. They just tol me to report up there and see what
10 Bill Rogers wanted. I didn't know what was going on, and
11 they interviewed me, and told me what was going on. That
12 they had some concerns about some welds, whether they were
13 violating procedres, whether the foreman was making us
14 do things and all, and they asked us questions about that.

15 Q All right. You talked to Mr. Rogers first?

16 A Yes.

17 Q And Mr. Rogers talked to you, I guess, Bill Rogers
18 did.

19 A Yes.

20 Q And he introduced you to Ms. Lewis?

21 A Yes, sir.

22 Q And did he leave?

23 A Me and Ms. Lewis left to go to a room so that she
24 could interview me.

25 Q All right.

1 A And then I told her about my concerns and she
2 wrote them down, and then I think a week or three weeks
3 later, her and Dave Llewellyn came back and was explaining
4 the procedures and all, what my concerns were and how they
5 resolved them, and some of the things, the tests they run
6 and all.

7 Q When you went in for your first interview, tell
8 me what happened. Tell me what they asked, and tell me
9 what you told them?

10 A She asked me was I ever been made to weld out
11 of procedure and all, and I told her about welding on a
12 two inch carbon -- I mean a two inch stainless steel, where
13 they wanted -- where I had two or three passes and it was
14 hot, and I was taking a cigarette break , and the foreman
15 came up and told me to get back on it, and you couldn't
16 lay your hand on it, and then I told her about --

17 Q Let me stop you right there. Did you tell her
18 all about that incident? That concern?

19 A I didn't get to finish telling all about it. We
20 come back later to it. She asked me did I have any more
21 problem, and I told her about Stan Watkins doing the bevel,
22 making a weld when the bevel wasn't right.

23 Q Let's talk about the first one now. Stick with
24 that. You have a copy of that affidavit in front of you,
25 and it has your name marked out. Where your name used to

19-6-Wal

1 be, Mr. Carpenter, there is a number. Do you see that at the
2 top there?

3 A Yes, sir.

4 Q That is so that that affidavit wouldn't disclose
5 your identity. That is so your name wouldn't have been on
6 that paper, but that is the same copy that I have, except with
7 the name missing.

8 Now, look down that document if you would. Point
9 out the part on that document where it refers to the first
10 concern that you just identified, if you would, please?

11 A It is on the third page, about the middle of the
12 paragraph. The middle of the page. Interpass temperature.

13 Q Okay. That is the second affidavit. Does the
14 socket weld appear on the first affidavit. Do you see it
15 on the first two pages anywhere?

16 A Okay, it is down here at the bottom.

17 Q On the first page?

18 A 1981, when I was welding a two-inch heavy wall socket
19 weld, second shift, for Arlon Moore.

20 Q All right. Okay. Now, what did you tell Ms. Lewis
21 about that socket weld?

22 A I told her that the weld was too hot, you know, and
23 that I was smoking a cigarette, and it was too hot, so I started
24 smoking a cigarette because the weld was too hot, and my
25 foreman told me to get back on it and start welding. So, I

19-7-Wal

1 started to welding on it, and then they asked me another
2 question, and I told them -- we went on to that, and then
3 them come back to the second weld wanted to know: Do you
4 think you violated procedures, which I would say yes, because
5 you couldn't lay your hand on it. Usually they told us the
6 rule of thumb is if you can put your hand on it , then you
7 can weld it; but if you can't, don't touch it.

8 Q Okay. Tell me a little bit more about what actually
9 happened at the time that you and Mr. Moore were doing this
10 particular socket weld.

11 A When I was working on it?

12 Q Yes. Describe what happened.

13 A I was welding on it, and like I said, it got hot,
14 and I started smoking a cigarette, and he come up and says:
15 I want you to finish this, we have to have it done tonight.
16 It is a shutdown job. We have to stay until it is finished.

17 Q What is a shutdown job?

18 A That is re-work, work that has already been signed
19 off and turned over and all, and they found something wrong
20 and they might need to move the system up or get it on location
21 or something. They say it has got to be done in a certain
22 length of time, and we have got to have it done.

23 Q Did that happen more than that one time?

24 A Just about everything we got on second it seemed
25 like you had to get it done that night, or you had to stay

19-8-Wal

1 over until it was done.

2 Q Okay. What time did you come on, when you came
3 on the second shift?

4 A Three-thirty.

5 Q What time did you get off?

6 A You are supposed to get off at twelve, but if we
7 had shutdown work, we had to stay until the first shift
8 came back in if we didn't finish it.

9 Q And that would be when?

10 A Seven-thirty in the morning.

11 Q So sometimes you would come in, begin work at
12 three-thirty, and stay until seven-thirty?

13 A Yes, sir.

14 Q Would you know before you came in that you had
15 to stay over?

16 A No, they would let you know right at the last
17 minute.

18 Q So you would be working --

19 A And they would come and say -- if you are working
20 on a job he would come and say: Well, this has got to be
21 finished tonight.

22 He would wait until around about ten or eleven
23 o'clock to tell you. And we would have to stay until the
24 work was done.

25 Q Okay. What was the next concern you told the

19-9-Wal

1 interviewer about, Ms. Lewis about?

2 A The other concern was about Arlon telling Stan
3 Watkins to weld a fourteen inch carbon steel. He told him
4 to weld -- to fill it up --

5 MR. McGARRY: Your Honor I am going to object.
6 This line of inquiry based on the affidavits involves
7 Class G pipe?

8 WITNESS: Yes, sir.

9 JUDGE KELLEY: It is Class G pipe, right?

10 BY MR. GUILD: (Continuing)

11 Q Is there an example of things that happened on
12 other class systems, Class A, B, and C?

13 A The socket weld was Class B, I think.

14 Q What you are talking about, the incident with
15 Stan Watkins, was that an example of the kind of things
16 that happened on Class A, B, and C systems under Mr. Moore?

17 A He would always tell you -- he would never check
18 your work. He would come up and say: Hey, you got this
19 to do, and do it.

20 And if something was wrong, he would -- if you
21 bring it to his attention, he would ask somebody else to
22 do it. Like if you got an inspector to verify it.

23 Q He would get somebody to do it the way he wanted
24 it done?

25 A More or less.

1 MR. GUILD: Mr. Chairman, we ask that the
2 witness be allowed to describe the circumstances. One of
3 the problems that you are going to face is that you are
4 going to face situations where a course of conduct by
5 a supervisor is only communicable by use of examples,
6 and examples that are within the recollection of a witness
7 may be examples that happened to have occurred on a A, B,
8 or C system, or they may be an example that happens to
9 have occurred on a system, by happenstance, that occurred
10 on a system that ultimately turned out to have been a non-
11 quality system.

12 Now, to the extent that it is a course of conduct
13 by a supervisor, by foreman, I believe it is material to the
14 subject of foreman override.

15 JUDGE KELLEY: It is a good question. I haven't
16 the faintest idea myself. I hope you know, Mr. Guild, I
17 will ask you this anyway. So-called Class G pipe, would
18 a foreman know the difference between Class G and some
19 safety grade pipe?

20 BY MR. GUILD: (Continuing)

21 Q What do you think, Mr. Carpenter? Why don't you
22 answer the question.

23 A Only if he has the paperwork, but if they tell him
24 to do down there and weld it without his knowledge, no, he
25 wouldn't have no knowledge of what class of work that it was

1 until they come up and say here is the paperwork, and then
2 he would look on the paper work and say, oh, that is Class F
3 or Class G.

4 JUDGE KELLEY: To look at a piece of pipe, it is
5 not obvious whether it is safety or non-safety?

6 WITNESS: No.

7 JUDGE KELLEY: Well, just a moment. Let's see.
8 Mr. McGarry's objection -- I think you have said your
9 piece.

10 MR. MCGARRY: Do you want me to restate my
11 objection.

12 JUDGE KELLEY: No, not really.

13 MR. MCGARRY: I just think in response to Mr. Guild
14 talking about examples, we are -- what we are talking about
15 here is we are now going to go from the affidavit this man
16 gave under oath, saying this was the concern that he has.
17 Was a Class G pipe. Didn't talk about any other incident
18 that this was an example of. This was his concern. And
19 there are several affidavits in this regard, so I don't
20 think there is any need -- the man shared his concerns with
21 us freely, and this one has to do with Class G pipe. I
22 don't think that is relevant to this proceeding.

23 MR. GUILD: It is a concern about a foreman that
24 other evidence reflects implicated in the practice of foreman
25 override, and what class of pipe it turned out to have been,

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1 whether or not it turned out to have been a safety problem
2 based on either the class of the system or the engineering
3 judgment that was made after the fact reflects a practice
4 by a foreman that represents foreman pressure to do work
5 that is improper, and we believe that it is material to
6 your consideration of the foreman override issue.

7 JUDGE KELLEY: As to this particular foreman,
8 why isn't it cumulative?

9 MR. GUILD: You haven't heard any witnesses
10 yet, Mr. Chairman.

11 JUDGE KELLEY: You don't have to confince me
12 that this happened with this foreman. I believe it.

13 MR. GUILD: Mr. Chairman, the witness himself
14 cites as an example the course of conduct by Mr. Moore, and
15 I submit that in order to fully understand this witness'
16 concern, you ought to give him the courtesy of hearing what
17 he has to say about it, frankly.

18 MR. McGARRY: And my point is, if he has an A or
19 B weld, then he can talk about that, but this is a Class G
20 weld, and this is what Mr. Carpenter shared with us.

21 JUDGE KELLEY: Okay. We will consider it. Excuse
22 us a minute.

23 (Board confers)

24 JUDGE KELLEY: Well, let me initially ask Mr.
25 Carpenter, we have been making some distinctions based on

1 whether in the welding area the piping is either safety graded
2 or non-safety graded for the very simple reason we are here
3 to find out about safety concerns, and whether the plant
4 can be operated safety, and if a pipe is welded out of procedure
5 and it goes into the water fountain, we just don't care.

6 So, that is why we asked the question, and we
7 distinguish it. We want to ask you in this particular incidence
8 that you are talking about, where the objection was made and
9 everything stopped, when we got back in a huddle, that
10 involved a non-safety grade Class G pipe, as I understand it.

11 Do you know of other instances involving a similar
12 kind of welding involving safety grade pipe?

13 WITNESS: The only safety related pipe that I can
14 think of is on 560, where we purged through a fit and the
15 root was black, and looked sugered and all, and I asked
16 my foreman to look at it because I wasn't pleased with the
17 way the root looked, and he looked at it and said it was okay.
18 But as far as i looked at it and all, it was black. It
19 looked -- it was nasty looking and all, and I wasn't pleased
20 with it, but he said it looked good enough to him to go ahead
21 and weld it up, and that was Class E on 560.

22 JUDGE KELLEY: Was that a situation where you felt
23 you were being told to weld in a way that was contrary to
24 procedure?

25 WITNESS: Well, we were always told to weld everything

1 as if it were Class A work. If the root looked bad to me --
2 I wasn't satisfied with it, so I brought it to Arlon's
3 attention, and he said it looked good to him.

4 So, I done what he said; I finished welding it
5 out, and got it signed off. But I believe if the inspector
6 had seen the root, he would never have signed it off.

7 JUDGE KELLEY: So, that is at least an example
8 that is somewhat similar that involves safety pipe.

9 WITNESS: Yes.

10 JUDGE KELLEY: You want to pursue that, Mr. Guild?
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1 BY MR. GUILD:

2 Q Where was that in the plant?

3 A It was in the auxiliary building, number one penetra-
4 tion room on 5C.

5 Q And describe some more -- start from the beginning
6 and tell the Judges how that incident happened. What kind of
7 work was it, where was it, what kind of pipeline was it on,
8 what size of pipe?

9 A It was a three-inch stainless steel line. The system
10 had already been turned over, hydroed and flushed and all.
11 But they had to cut it out, take a temporary pipe out, tie
12 the permanent to it. There was no other way to purge but
13 through the fit.

14 So, we welded one up and the root turned black and
15 all. Like I say, I got the foreman to look at it. We
16 started welding the other one up. Usually start from the
17 bottom, go up to the top, leave about an inch or so at the
18 top. Then you pull the argonne out and build a little peep-
19 hole up, what we called it.

20 Like I say, the root was black and all. I wasn't
21 satisfied with it, but he told us to go ahead, finish it out.

22 We finished welding, got it signed off.

23 Q Let's back up a second. They had to cut into a
24 line that had already been complete, right?

25 A Uh, huh.

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1 Q And they cut into it? They take a piece out of it?

2 A To flush the line they run a temporary piece of pipe
3 to a permanent pipe.

4 Q All right.

5 A The temporary, all it is, the same class stainless
6 and all. They just tie to it. You just weld it up before they
7 can run water, pressure test it and all.

8 They cut that section out and put another piece that
9 is supposed to go in there, a permanent piece of pipe.

10 Q How big a piece of pipe were you putting in?

11 A We were just putting a 90 three-inch, total length
12 I'd say was about eight inches.

13 Q So one end is a 90-degree elbow?

14 A It's a 90, a weld here and a weld here.

15 Q Okay. And you weld up one joint?

16 A You break through the top fit and weld at the bottom
17 joint. Then you come up then you weld the other half of the
18 top -- I mean of the other weld until you get about say an
19 inch from the top. Then you fill it up with argonne, you
20 pull it out and then you weld over it.

21 Q Okay. Now how could you see the root condition of
22 that weld?

23 A The only way we could see it was looking through
24 the peephole where you had the purge in. Once you took the
25 purge out there was no way that you could tell that you had

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1 a proper weld in it or not. All it got was a final visual --

2 Q Where could you see the root side of the weld?
3 You saw it through the peephole?

4 A You could see it through the peephole. We always,
5 whenever we do a quarter of a root, we look in to see if
6 that section was done right. If it is not, we grind it out,
7 rebevel it, try to do it right.

8 Q What did it look like when you put it in?

9 A It looked like it was tied in, but it was just as
10 black and nasty looking as all getout.

11 Q You call that sugared?

12 A We called it sugared. We called this real flakey
13 looking and black and all.

14 Q What makes the inside of a weld look like that?

15 A Well, if you don't have the right amount of argonne
16 in there, it could turn like that. I don't know what they
17 flush and hydro it. Arlon seemed to think that is what
18 caused the problem. It was chemicals they used to clean
19 the pipes, flush it out.

20 Q You saw what you believed to be the bad condition
21 of the root of this weld?

22 A Yes.

23 Q That is the kind of condition that happens with
24 sugaring, if you don't purge it properly, correct?

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1 A Uh, huh.

2 Q How did you get Arlon Moore involved in the matter?

3 A Well, if we have a problem that we don't like and
4 we can't get it to come out like we want it to, we have to
5 call our foreman, get him to look at it, he evaluates it.
6 And if he says it looks okay, go ahead and do it, then we
7 will go ahead and do it. And that takes the pressure off of
8 us.

9 Q In this instance you called Arlon Moore?

10 A We called Arlon.

11 Q He came over and took a look at it?

12 A He looked at that one and a few other ones he
13 looked at that was like that.

14 Q It was like the same condition as that one?

15 A The same.

16 I had six of them that looked like that.

17 Q And the six that looked like that, they were all
18 the same kind of thing, patching in where you had a temporary
19 line?

20 A Uh, huh.

21 Q All the same general location?

22 A Well they was two or four right outside the equipment
23 house in the reactor. It is the big concrete, what the call
24 the waste tank. Two in the pipe chase and two in the
25 auxiliary building penetration room, 560.

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1 Q Okay. This was all on one particular night?

2 A It was over about a three- or four-night period.
3 It was work that had to be done that night. They told us that
4 we had to stay over and get it done.

5 Q You had to stay over past the end of the second
6 shift?

7 A Uh, huh.

8 Q What would be the proper procedure to handle that --
9 to correct the sugared condition on the inside of those welds?
10 How should it have been done.

11 A Well, if it was caused by purging the line, I think
12 it should have had a half coupling mounted on it and a hole
13 drilled in it so you wouldn't have to purge through the fit.

14 Q So you make a special fitting so you get purged
15 gas into the pipe?

16 A Yes. But they didn't ever do that, because it cost
17 too much, too much time consumed and all. So they just made
18 us take a piece of copper tubing, stick it in an argonne
19 hose, beat it flat, stick in your fitting. You have only got
20 like an eighth-inch gap that you got to purge through.

21 Q All right. Now this is a situation -- this is
22 work that Arlon told you when you came on had to be done
23 that shift?

24 A Had to be done. It was shutdown work that needed
25 to be done and turned back over to steam production that

mm6 1 night.

2 Q Okay. Is that the reason why he didn't want you
3 to cut it out and make a proper purge fitting on the pipe?

4 A I couldn't say. I don't know. I don't know what
5 his decision was. He just told us to finish getting it welded
6 and get it signed off.

7 Q Would you have been able to get it done if you had
8 to follow the proper procedure for properly purging the pipe?
9 Would you have been able to get it done during the shift?

10 A Uh uh. Because we would have had to get paperwork
11 for half coupling, for adding another weld and all, and
12 stuff like that there.

13 Q What kind of paperwork would you have had to have
14 gotten?

15 A We would have had to have gotten -- it was class E,
16 we would have to get new paperwork that has got all your
17 hole points for fitup and all. And then they would have to
18 get a fitter to come by and fit the half coupling and
19 drill the hole, and then you weld it up.

20 Q To do that could you have done that on second shift?

21 A No, because we don't have enough technical support
22 people there that can read and write the paperwork and all.
23 We would have to leave a note for first shift so that they
24 can get the paperwork done, hand it back, do what they could
25 and pass it on back to us.

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1 Q Okay. So this is a piece of work that in order to
2 get it done on second shift, you couldn't have done it
3 otherwise. You couldn't have gotten that paperwork issued
4 and got the purged line put on that pipe. You would have
5 had to have left it over for the first shift.

6 A Uh, huh

7 Q And that is true for all these -- are there six of
8 these welds you are talking about?

9 A Six of them.

10 Q Six or eight now? Look on the last page, there is
11 a memo here, Mr. Carpenter. Second to the last page in that
12 stack.

13 Have you seen that memo before?

14 A Uh, huh.

15 Q Now those numbers 1, 2 and 3, are those the welds
16 we are talking about here?

17 A Yes, sir.

18 Q That memo that you are looking at there, it has
19 got a date of October 5, 1984 on it. And it says at the
20 beginning:

21 "On September 26, 1984, Ms. Lewis met with you
22 to discuss your concerns."

23 A We talked about it and all, but they didn't have
24 the chance to tell me what the tests and all they run. They
25 had to go to the pipe, to the test shack and get a piece of

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1 pipe and run a similar piece like we have done.

2 They took a piece of stainless pipe, ground down in
3 it, welded it to where it was hot, made it look like it was
4 sugared --

5 Q Let me stop you. Start from the beginning. I
6 want to know first, when did you first tell these folks about
7 the eight welds that had the sugared condition on the inside
8 because of the improper purge?

9 A When did you tell them about it?

10 A It was around about September.

11 Q Okay. Now look through these papers. The first
12 time you met with them was back in the spring, and the first
13 affidavit is down here signed the 17th of April. So, sometime
14 before then. Okay?

15 A Did you tell them about these problems the first
16 time you sat and talked with them?

17 A These problems occurred after the first time I
18 talked to them.

19 Q After the first time.

20 A How about the second affidavit. It is in April
21 again, so the problem happened after the April time you
22 were interviewed, right?

23 A Some of the problems that I talked to them about,
24 I was kind of nervous around and I didn't remember all of them.
25 So I came back with concerns later on and told them about it.

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1 And they were documented down.

2 Q Why were you nervous?

3 It may seem like a silly question to ask --

4 A I just felt like being in a crowd of people I was
5 going to do something wrong and they was going to say something
6 about it or something. I would get embarrassed about it.

7 Q Are you a little nervous now?

8 A Yes, sir.

9 JUDGE KELLEY: You are doing fine. Proceed.

10 BY MR.GUILD:

11 Q You are doing good.

12 So you told the Duke people about these particular
13 welds with the sugared condition when you met with them in
14 September, right?

15 A Yes, sir.

16 Q Tell me how the subject came up? How did you happen
17 to tell them about these new concerns?

18 A Well, I have asked them about purging through a
19 fit. Because that is September, I think 26th, when I got up
20 there to talk to them. That night we were supposed to all
21 make these welds. And I asked them about purging through a
22 fit.

23 And they said there was no procedure on purging
24 through a fit. You can do it. The procedure said you couldn't
25 or youcould. It didn't say. So they said that we could

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1 purge through a fit.

2 To me it didn't seem right purging through a fit.

3 Q Who told you it was okay?

4 A I talked to Dave Llewellyn. He told me there was
5 no procedure on it, that it was acceptable to purge through
6 a fit.

7 Q When did he tell you that, the first time you told
8 him about this?

9 A Uh huh.

10 Q What did he say about the condition of the root side
11 of these welds?

12 A The condition?

13 Q You told him it looked bad to you. What did he
14 say about that?

15 A It looked like he was concerned. He said they'd
16 run some tests to find out and all. He asked me where they
17 was located on. He tried to get me down there so I could
18 show him and all, but they wouldn't let me in number one
19 reactor and all.

20 Q Why not?

21 A Because I had been removed from the service so
22 I didn't have my health physics badge or nothing like that.

23 Q Okay. So they couldn't take you on the site to have
24 you show them where the welds were?

25 A They couldn't take me on the site for me to show

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1 them, so I had to give them a drawing, a sketch where each
2 one of them was at.

3 Q You did?

4 A I gave them a sketch where they was located the
5 best I could.

6 Q Okay. And what happened then?

7 A Well he said they went out and located one of them,
8 I think. And --

9 Q They are not saying this is the same night?

10 A No.

11 Q Tell me what happened the first night?

12 A Well that night they wrote everything down. They
13 talked to me. They said did I have any more problems, did I
14 want to sign a piece of paper that was saying all the papers
15 have been resolved.

16 Well, I wouldn't sign it.

17 Q Is that why you had come to see them in the first
18 place?

19 Why had you come to see them in the first place?

20 A Well, they called me back and told me they had to
21 go over interpass temperature, showed me some pictures of
22 the socket welds that they deliberately burned up and all,
23 showed me how much heat it would take and all.

24 So we were told that you couldn't get over 350.

25 They said up to 750 it didn't bother them. But, we were always

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1 told you can't get stainless over 350.

2 Q They told you over 7 was okay?

3 A Well they showed pictures of where they had it up
4 to 750 degrees, and they said it didn't really mess the metal
5 and all.

6 Q What else did they tell you about the interpass
7 temperatures and so on?

8 A They told us they had run tests and all on it
9 and showed me a test that he come up with, that he invented
10 and all.

11 Q Who is that?

12 A Brian.

13 Q Mr. Kruse there? He told you about the test he
14 invented?

15 A Where they had a syringe and all and some putty
16 wrapped around it and all, where they had run it. Is that
17 how you do it?

18 And they showed me pictures about how the metal
19 would expand and all. I don't know the terms and all.

20 Q What did he tell you about the results of his
21 tests?

22 A He said they were running tests and they found out
23 the tests that they done was a lot worse than what was in the
24 hole. And they said as far as they were concerned, everything
25 was okay.

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1 Q Okay.

2 They told you it didn't make any difference whether
3 you honored the 350 interpass temperature?

4 A They wanted us to still honor the 350, but they
5 said even if you do get over that it didn't really matter
6 that much.

7 Q Did they tell you what tests they had done in the
8 plant?

9 A They just told me about the tests that they run in
10 the test shack and all. They didn't say nothing about going
11 down in the hole and running tests on it.

12 Q Did they tell you anything about testing welds
13 that were done by Arlon's crew?

14 A No.

15 Q Did they tell you that they went out in the hole
16 and looked at Arlon's crew in the hole and found 25 of them
17 and tested all of them using Mr. Kruse' technique.

18 A They told me that they run tests on 25 welds and
19 found about six were bad, something like that. But they
20 didn't say whose crew it was.

21 Q They didn't tell you it was on your crew?

22 A No.

23 Q Who said that six were bad?

24 A I think it was Joyce and Dave Llewellyn who told
25 me that, the meeting before last.

mm14 1 Q And when was that?

2 A September.

3 Q The meeting that you talked to them about the
4 sugaring?

5 A About the sugaring and October 5th was when they
6 got back to me on the sugaring and all. That is when they
7 showed me the pipe that they had ground down into it and run
8 a root in it without using argonne. Showed me what the
9 sugar looked like and all.

10 Q What is your stencil number, Mr. Carpenter? What
11 was your stencil number?

12 A T-90.

13 Q Did they tell you that they tested some of your
14 welds?

15 A No.

16 Q What did they tell you about the welds that they
17 did test, the 25 or so they tested? What did they say was
18 wrong with the six that were tested?

19 A They said they tested the welds that they thought were
20 bad from interpass temperature to find out if they did meet
21 the standards -- I mean met the Code and all, and they said
22 they were acceptable.

23 Q They said they were acceptable, is that right?

24 A Yes.

25 Q What is the NM system, Mr. Carpenter, do you know?

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1 A INM?

2 Q Yes.

3 A Nitrogen -- something like that. I'm not sure.

4 Q Do you know what the nuclear material system is?

5 A No.

6 Q Like a sample line, half-inch stainless. I will
7 show you a weld number. Is that your stencil number T-90?

8 (Document shown to witness)

9 A Yes.

10 Q Did I ever show you this paper before?

11 A No, sir, this is the first time.

12 Q Okay. That appears to be a weld that you worked on.

13 Do you see where it is over on this side in the comments
14 column it says, R-e-j, reject?

15 A Yes.

16 Q Mr. Kruse testified that that is one of the welds
17 that he looked at in the field. It didn't meet the acceptance
18 standard. It was sensitized is what they called it.

19 They didn't tell you that?

20 A No, sir.

21 Q Let's look at another one.

22 (Document shown to witness)

23 Did they tell you about this one, 1NM8522. That
24 is your stencil number, isn't it?

25 A Yes.

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1 Q It has also got reject by it.

2 A Yes.

3 Q Correct?

4 A Who else is stenciled beside it?

5 Q Do you know whose that is, N-27?

6 A Uh uh.

7 Q How about 543?

8 A Uh uh.

9 Q Do you know whether or not you worked on those
10 welds by yourself?

11 A I could have tacked them up and left them for first
12 shift to do because sometimes we tack up because we couldn't
13 get an inspector down there to sign the fitup weld, so we
14 would have to push it back to first shift so they could
15 finish it.

16 Q It could have been work that somebody on the first
17 shift tacked up and you finished it?

18 A I don't remember.

19 Q It is possible?

20 A My stencil is on the first one. I probably put
21 the tack and the root in. If there is other stencils on it
22 somebody else finished, because we go by -- in synchronous.
23 Like I may tack it up in the first shift maybe another
24 guy come by because we didn't get it signed off, maybe another
25 guy would come by and put his stencil on it and weld it out

mml7 1 on the first shift or vice versa. The guy on the first shift
2 tacks it up, they said this has got to be done. Then we will
3 have to stencil it and finish it up. So you got two different
4 people, maybe three different people that work on it.

5 Q Okay. Mr. Llewellyn, the others, Mr. Kruse, they
6 didn't show you pictures of those welds and say, "Mr. Carpenter,
7 these are your welds. They didn't meet the acceptance criteria."

8 A No, sir.

9 Q Did they tell you all the welds that they looked at
10 were okay?

11 A I think he said he found like six that were found
12 unacceptable.

13 Q What did he tell you that unacceptable meant?

14 A He didn't say, he just said they found six that was
15 unacceptable.

16 Q Now that night that you met with them, who else was
17 there on the 26th of September?

18 A Joyce and Dave Llewellyn and Mike Sutton.

19 Q Did they show you a paper that they wanted you to
20 sign to say that they had satisfied your concerns?

21 A Uh, huh.

22 Q What did they tell you about that paper?

23 A They asked me was all my problems resolved and all,
24 and I said all except for the root passes and all that were
25 sugared and all. I said I didn't like the way they were and

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1 I wasn't going to sign saying all the things were resolved.

2 Then they showed me tests the next time I come by
3 and all, and I still felt uncomfortable about it, but I
4 went ahead and signed it. The way he explained it and all,
5 he said the sugar was just on the surface, not all the way
6 through.

7 Q Did you feel pressured to sign?

8 A Not really. I just -- I was more or less in a hurry
9 to get out of there really, because I had been up and down,
10 up and down, back and forth over there.

11 Q Who was there at the time when you finally signed?

12 A It was Joyce and Brian and Bill Evans, I think.
13 He was a notary public, Bill Evans.

14 Q Did you meet with any of these lawyers over here?

15 A Yes, sir, I talked to the two gentlemen in the
16 middle.

17 Q Mr. Carr and Mr. McGarry. When did you meet with
18 them, Mr. Carpenter?

19 A I think it was September 26th when I brought these
20 other concerns up.

21 Q They were there at the same time?

22 A They were in another room. I walked in and talked
23 to them. Then after I had talked to them I went back and
24 talked to Joyce and Dave.

25 Q How did you happen to talk to the lawyers?

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1 A They wanted me to meet the lawyers that was
2 representing them and all. Then they told me that I may or
3 may not be subpoenaed and all. They were just giving me a
4 background of what may happen and all.

5 Q You already told them about your concerns about the
6 sugaring on the root?

7 A I hadn't talked to them about it.

8 Q Had you already told Ms. Lewis about it?

9 A I told them when I was coming back through that I
10 had some welds that I wanted to talk -- some more welds that
11 I wanted to talk about, and she said okay.

12 Q Okay.

13 JUDGE KELLEY: The Board notes that it is about
14 eight minutes to eight and we think particularly in view --
15 we worked to about 9:30 last night, Mr. Carpenter. We are not
16 real sharp tonight, frankly. So we are proposing to stop the
17 questioning at 8 o'clock.

18 Then the question would be whether you can come back
19 in the morning.

20 THE WITNESS: Not in the morning.

21 JUDGE KELLEY: Not in the morning?

22 THE WITNESS: The job that I am working on, they
23 pay you if you are there. If you don't, you don't get paid.
24 I have two kids, I can't afford to miss work.

25 JUDGE KELLEY: Sure. What you make here isn't much,

20 mm¹ it wouldn't compensate.

2 Can you come back in the afternoon.

3 THE WITNESS: I could, but I would just prefer to
4 get it over with so I won't have to be bothered no more.

5 JUDGE KELLEY: I understand.

6 Mr. Guild's questioning has gone on for close to
7 an hour. He is not through yet. Let me ask you, Mr. Guild,
8 when do you think you will be through?

9 MR. GUILD: I think it is best we come back
10 tomorrow, Mr. Chairman. We are all tired and it is late.
11 The hour is late. I apologize to Mr. Carpenter for making
12 you wait this long, but I would like to have the Board hear
13 your testimony in full. I fear if we try to do it now, we
14 are all tired, it is late, we won't get it.

15 THE WITNESS: So that means I have to make another
16 trip up here?

17 JUDGE KELLEY: We do pay mileage.

18 (Laughter)

19 I'm sorry. I think we can promise you tomorrow,
20 if you can make the trip tomorrow. What time are you finished
21 at work?

22 THE WITNESS: I get off at 3:30. I could probably
23 be up here around 4:30.

24 JUDGE KELLEY: Shall we just make a date? I think
25 we owe Mr. Carpenter a little convenience to him, to pick him

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1 up -- we can't drop everything, but right around that time.

2 We will look for you around 4:30.

3 Does that sound like a reasonable proposition?

4 MR. JOHNSON: Mr. Chairman, I really think we ought
5 to finish him tonight. I think that would be an accommodation
6 to the witness, and -- I think it is not just Mr. Guild's
7 prerogative as to how long he is going to examine this witness.

8 JUDGE KELLEY: We are being selfish. We want to
9 quit, frankly. We can listen to the parties.

10 Mr. Guild wants to quit. When do you think we can
11 finish? What is your goal?

12 MR. JOHNSON: I think Mr. Guild ought to wrap up
13 his cross examination in another ten minutes. He has had an
14 hour, practically. And we can make our rounds within another
15 half hour, be finished at 8:30.

16 JUDGE KELLEY: Mr. McGarry?

17 MR. MC GARRY: I don't know, your Honor. I share
18 Mr. Carpenter's feeling, getting done. I can't tell you
19 how long it is going to take. We may be half an hour.

20 JUDGE KELLEY: That's what I thought. I think you
21 are outvoted, Mr. Johnson.

22 I do regret having to ask you to come back. We
23 would appreciate it if you would. We will expect you around
24 4:30. I don't think it is going to be terribly long for you
25 at this point.

mm22

1 We have got to talk about a few things, gentlemen,
2 having broken in at this point now.

3 Can we say good night to Mr. Carpenter, and then
4 talk a few minutes on procedure and quit for the day? I
5 would suggest that.

6 Mr. Carpenter, you can be excused at this point
7 if you want to go. Thanks a lot, we will see you tomorrow at
8 4:30.

9 MR. GUILD: Mr. Carpenter, thank you. Appreciate
10 it. See you tomorrow.

11 (Witness temporarily excused.)

NDEND T22

12 JUDGE KELLEY: Let's go off the record.

13 (Discussion off the record)

14 (In-camera session follows)

15 (Whereupon, at 8:00 p.m., the open portion of the
16 hearing was adjourned.)

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CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceedings before the
UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING: CATAWBA NUCLEAR STATION

DOCKET NO.: 50-413-OL & 50-414-OL
PLACE: CHARLOTTE, NC
DATE: THURSDAY, OCTOBER 11, 1984

were held as herein appears, and that this is the original
transcript thereof for the file of the United States Nuclear
Regulatory Commission.

(Sigt) *Garrett J. Walsh, Jr.*
(TYPED) GARRETT J. WALSH, JR.

Official Reporter

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Ace-Federal Court Reporters

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