

ORIGINAL

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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IN THE MATTER OF:

DOCKET NO: 50-456 OL  
50-457 OL

COMMONWEALTH EDISON COMPANY

(Braidwood Station, Units 1 and 2)

LOCATION: CHICAGO, ILLINOIS

PAGES: 13454 - 13552

DATE: FRIDAY, OCTOBER 3, 1986

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NATIONWIDE COVERAGE

1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION  
3 BEFORE THE ATOMIC SAFETY AND LICENSING BOARD  
4

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6 In the Matter of: :  
7 COMMONWEALTH EDISON COMPANY : Docket No. 50-456 OL  
8 (Braidwood Station, Units 1 : 50-457 OL  
9 and 2) :  
10 -----x

10 Pages 13454 - 13552

11 United States District Courthouse  
12 Courtroom 1919  
13 219 South Dearborn Street  
14 Chicago, Illinois 60604

15 Friday, October 3, 1986.

16 The hearing in the above-entitled matter reconvened  
17 at 8:05 A. M.

18 BEFORE:

19 JUDGE HERBERT GROSSMAN, Chairman  
20 Atomic Safety and Licensing Board  
U. S. Nuclear Regulatory Commission  
Washington, D. C.

21 JUDGE RICHARD F. COLE, Member,  
22 Atomic Safety and Licensing Board  
U. S. Nuclear Regulatory Commission  
23 Washington, D. C.

24 JUDGE A. DIXON CALLIHAN, Member,  
25 Atomic Safety and Licensing Board  
U. S. Nuclear Regulatory Commission  
Washington, D. C.

## 1 APPEARANCES:

2 On behalf of the Applicant:

3 MICHAEL I. MILLER, ESQ.  
4 PHILIP P. STEPTOE, ESQ.  
5 Isham, Lincoln & Beale  
6 Three First National Plaza  
7 Chicago, Illinois 606028 On behalf of the Nuclear Regulatory  
9 Commission Staff:10 GREGORY ALAN BERRY, ESQ.  
11 ELAINE I. CHAN, ESQ.  
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15 On behalf of the Intervenors:

16 ROBERT GUILD, ESQ.  
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1	EXHIBIT INDEX	Marked	Received
2	Intervenors' Exhibit No. 147		13486
3	Intervenors' Exhibit No. 148		13488
4	Intervenors' Exhibit No. 149	13488	
5	Intervenors' Exhibit No. 150	13504	13531
6	Intervenors' Exhibit No. 151	13534	13552
7	Intervenors' Exhibit No. 152	13539	

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TESTIMONY OF

NARINDER NATH KAUSHAL  
EDWARD M. SHEVLIN  
JOHN R. WOZNIAK  
NEIL P. SMITH

CROSS EXAMINATION (Continued)  
BY MR. GUILD: 13459

1 JUDGE GROSSMAN: The hearing is reconvened.  
2 This is the 68th day of hearing.

3 We ended yesterday with the panel being  
4 cross-examined by Mr. Guild.

5 Now, do we have preliminary matters?

6 MR. STEPTOE: Just one preliminary matter,  
7 Judge Grossman.

8 I asked yesterday that an old chart which we had  
9 been discussing two days ago be marked as Applicant's  
10 Exhibit No. 127 for identification and travel with the  
11 record.

12 On second thought, that wasn't such a good idea,  
13 and I do not ask that that document be marked.

14 JUDGE GROSSMAN: Okay, fine.

15 So our ruling yesterday that said that it would  
16 travel with the record is withdrawn. It was not  
17 admitted into evidence in any event, and we had given  
18 that -- what number was that?

19 MR. STEPTOE: 127.

20 JUDGE GROSSMAN: 127, okay.

21 So it's clear in the record now that that document  
22 will not travel with the record and is not admitted.

23 Why don't you continue, Mr. Guild?

24 MR. GUILD: Mr. Chairman, I anticipate that  
25 I'm going to return to examining from the Intervenors'

1 Exhibit 146, which was Mr. Gardner's inspection report.

2 I'm happy to go forward; but since Mr. Berry or the  
3 Staff are not present, I anticipate that it's an area  
4 near and dear to their hearts, and perhaps they would --

5 JUDGE GROSSMAN: Okay. We'll then hold off  
6 for a few more minutes until Staff can arrive.

7 MR. GUILD: Perhaps I could, as a preliminary  
8 matter, if it suits the Board, raise a couple points.

9 First, I think yesterday or the day before I  
10 received another piece of prefiled rebuttal testimony.  
11 I apologize. I can't recall the gentleman's name, but  
12 the --

13 MR. MILLER: Mr. Kafcas.

14 MR. GUILD: Kafcas?

15 MR. MILLER: Yes.

16 MR. GUILD: Mr. Kafcas, K-A-F-C or -- in any  
17 event, while we're awaiting the document, I've not had  
18 the time to do anything more than left it.

19 I expect there's going to be testimony from yet  
20 another rebuttal witness, another expert witness -- Dr.  
21 Hulin?

22 MR. MILLER: Dr. Hulin.

23 MR. GUILD: -- Dr. Hulin, an industrial  
24 organizational psychologist, I'm told. I've yet to see  
25 that, either.

1 I'd just like the record to reflect I only got the  
2 other one the day before yesterday and haven't had a  
3 chance to review it and would inquire about the expected  
4 availability of whatever else remains of Applicant's  
5 prefiled rebuttal case.

6 MR. MILLER: In addition to Dr. Hulin's  
7 testimony, which I hope will be filed today -- it's been  
8 beyond my ability to get into contact with him; he's a  
9 professor at the University of Illinois -- there will be  
10 rebuttal testimony with Mr. Shamblin, and then rebuttal  
11 testimony directed to Mr. Archambeault's testimony.

12 Other than that, my expectation -- other than that,  
13 I believe that our rebuttal case is essentially  
14 complete.

15 I want to check with some of my colleagues. There  
16 may be one or two very small pieces of specific factual  
17 rebuttal testimony yet to come, but I can advise Mr.  
18 Guild after the close of the hearing today as to that.

19 JUDGE GROSSMAN: Okay. We'll take a recess  
20 now -- that was a short recess.

21 (Laughter.)

22 You may continue, Mr. Guild.

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

24 Good morning, gentlemen.

25 CROSS EXAMINATION

1 (Continued)

2 BY MR. GUILD:

3 Q Dr. Kaushal, let me direct some further examination to  
4 you, sir.

5 If I could ask you to turn to Intervenors' Exhibit  
6 146 -- again, that's Mr. Gardner's Inspection Report  
7 8502, bearing a date of February 12, 1985 -- we spoke  
8 yesterday about the findings of Mr. Gardner with respect  
9 to problems with the CSR inspection activities, the  
10 problems that led to his meeting with you on the 23rd of  
11 January and your suspension of those inspection  
12 activities and the conduct of the midpoint look.

13 8502, Inspection Report 8502, also raises the  
14 question of the adequacy of the CSR checklists that were  
15 being employed in the conduct of the CSR reinspection  
16 activities.

17 I direct your attention to the third page of the  
18 document, Item No. 3.

19 Do you have that before you, sir?

20 A (WITNESS KAUSHAL) Item No. 3?

21 Q Yes.

22 A (WITNESS KAUSHAL) Yes.

23 MR. STEPTOE: I object to the relevance of  
24 this line of inquiry, Judge Grossman.

25 JUDGE GROSSMAN: I'm sorry?

1 MR. STEPTOE: I object to this line of  
2 inquiry.

3 Perhaps my objection is premature, but this doesn't  
4 seem to have anything to do with the electrical work.

5 MR. BERRY: What is the exhibit number?

6 MR. GUILD: Mr. Gardner's Inspection Report  
7 8502.

8 There is no pending question, Mr. Chairman.

9 JUDGE GROSSMAN: Okay. I think Mr. Steptoe  
10 is alerting us to possible future problems.

11 MR. GUILD: May I proceed?

12 JUDGE GROSSMAN: Certainly.

13 BY MR. GUILD:

14 Q Do you have it referenced, Dr. Kaushal?

15 A (WITNESS KAUSHAL) I have looked -- I have read  
16 Paragraph 3 -- or Item 3.

17 Q All right, sir.

18 Now, the pertinent language -- indeed, as  
19 apparently Mr. Steptoe is concerned, the issue  
20 specifically relates to a checklist not in the  
21 electrical area but in the concrete area.

22 But what I want to direct your attention to is a  
23 more general statement that appears in that portion of  
24 the inspection report.

25 I quote: "The licensee indicated that the

1 checklist was only meant to address major design  
2 deficiencies and not individual discrepancies."

3 Then it goes further: "In order for a concrete  
4 reinspection program to adequately reflect the quality  
5 of concrete, it should include clearly definitive  
6 accept-reject criteria for all concrete attributes."

7 Now, sir, do I understand that as a result of that  
8 finding, which led to a -- led to the identification of  
9 an open item -- that is noted on the next page, 8502-05.

10 A (WITNESS KAUSHAL) I'm sorry. The next page, Page 4 of  
11 that?

12 Q Yes, sir, Page 4. I see an open item there with respect  
13 to the issue of the adequacy of the checklists.

14 Now, I understand that Mr. Gardner's concerns about  
15 the adequacy of the checklist prompted a review of the  
16 checklists in the concrete area to determine whether or  
17 not, as the NRC inspector observed, all of the  
18 appropriate attributes were being inspected to under the  
19 CSR element.

20 Is that a correct understanding, sir?

21 A (WITNESS KAUSHAL) Are we talking about the concrete  
22 checklist now?

23 Q I'm sorry?

24 A (WITNESS KAUSHAL) Are we checking about the checklist  
25 for concrete placement?

1 Q Yes, sir, that you initiated or, in a review of the  
2 adequacy of the checklist for concrete, was initiated as  
3 a result of the NRC inspector making the observation  
4 that I just read to you.

5 That is, that the checklist was only meant to  
6 address major design deficiencies, not individual  
7 discrepancies, and that in the NRC inspector's view,  
8 such a checklist should clearly -- "should include  
9 clearly definitive accept-reject criteria for all  
10 attributes"?

11 A (WITNESS KAUSHAL) The characterization here about what  
12 the checklist addresses or does not address is not -- is  
13 not my understanding of what we reviewed the checklist  
14 for.

15 As I have indicated before in response to your  
16 questions and otherwise in the testimony, the checklists  
17 were designed and included all attributes that had  
18 potential for design significance.

19 That's the way all checklists were designed, and  
20 that is true of the concrete checklist, also.

21 There were discussions with regard to specific  
22 attributes in the concrete checklist that were not  
23 believed to be -- believed to have potential for design  
24 significance.

25 However, based on that particular inspection and

1 the concerns expressed by the inspector on the concrete  
2 checklist, we did review the concrete checklist again  
3 and we did make some changes to that checklist.

4 Q All right, sir.

5 Let me direct your attention, if I might, to  
6 Intervenors' Exhibit No. 148. That is your January 23rd  
7 CSR suspension memo with two further attachments.

8 It's the second of those attachments I want to  
9 direct your attention to. That's the April 15, 1985,  
10 memo from a Mr. Sexton to Mr. Clinton, "Subject:  
11 Evaluation of Attributes for Concrete Placement."

12 A (WITNESS KAUSHAL) Yes.

13 Q Do you have that document, sir?

14 A (WITNESS KAUSHAL) I have it.

15 Q All right, sir.

16 Now, I take it that the two gentlemen in that memo  
17 are in some fashion responsible for the CSR checklists  
18 in the concrete area?

19 A (WITNESS KAUSHAL) They are -- Mr. Sexton was the lead  
20 structural inspector --

21 Q All right, sir.

22 A (WITNESS KAUSHAL) -- and Mr. Clinton was the  
23 supervisor of the inspection staff.

24 Q All right, sir.

25 And does this memo document the review of the

1 concrete placement checklist to which you've just  
2 alluded?

3 A (WITNESS KAUSHAL) This memo documents the review by  
4 Mr. Sexton of the activities that had transpired  
5 vis-a-vis interaction of the inspectors with the  
6 engineers, I believe. I have to refresh my memory by  
7 reading that.

8 Q Take a moment, if you will. He refers both to the NRC,  
9 the ERC, to a checklist review and to a midpoint look in  
10 that memo.

11 A (WITNESS KAUSHAL) Now, what was your question with  
12 respect to this document?

13 Q This document, in fact, does document the review of the  
14 concrete placement CSR checklist pursuant to -- in  
15 response to the NRC inspector's concerns that I've  
16 directed your attention to?

17 A (WITNESS KAUSHAL) It documents one of the reviews.

18 Let me also remind you that the checklists were  
19 prepared by the engineers. The responsibility for  
20 preparing the checklist and instructions rested with the  
21 engineers, although they consulted many times with the  
22 inspectors in order to make them clear and understood.

23 This memorandum is from the inspection staff with  
24 respect to their experience and whatever we planned to  
25 do with regard to various attributes on which questions

1 might have arisen in the past.

2 Q All right, sir. Well, I just want to direct your  
3 attention to the second page of the document.

4 It appears that two attributes, at least --  
5 embedded plates and coatings -- were the subject of  
6 revisions to the CSR concrete placement inspection  
7 checklist as a result of the review initiated --  
8 instigated by the NRC inspector's concerns.

9 A (WITNESS KAUSHAL) Apparently the embedded plate  
10 attribute was revised and the coating attribute was  
11 included, yes.

12 Q All right, sir.

13 And also as a result of a revision of the  
14 checklist, again instigated by the NRC inspector's  
15 concerns, you did a reverification of a number of the  
16 attribute inspections in the concrete placement area,  
17 again documented by this memo?

18 A (WITNESS KAUSHAL) I would not want to agree with your  
19 statement that we did that in response to only NRC  
20 concerns.

21 Q That wasn't my point, either.

22 A (WITNESS KAUSHAL) Okay.

23 Q You want to be clear that it wasn't only in response to  
24 their concern?

25 A (WITNESS KAUSHAL) That's correct.

1 Q All right.

2 In part, to the NRC's concern?

3 A (WITNESS KAUSHAL) That's correct.

4 Q Part to the ERC?

5 A (WITNESS KAUSHAL) Part to the ERC, part to whatever  
6 other internal information we may have developed.

7 Q But, nevertheless, from all those sources you did a  
8 revision of the checklist, included new attributes and  
9 reverified in part your concrete placement inspections  
10 as a result of the revisions that you had made to that  
11 checklist?

12 A (WITNESS KAUSHAL) That's correct.

13 Q All right, sir.

14 Now, what revisions, if any, did you make to the  
15 checklist attributes for the electrical categories --  
16 the electrical populations: conduit, conduit hangers,  
17 cable pan, cable pan hangers, equipment, installation?

18 A (WITNESS KAUSHAL) I don't -- I would not recall  
19 specifically what revisions we made at that time.  
20 Whatever we did is documented in the records.

21 We, as my memoranda here do state -- or at least  
22 some of the records that you showed -- we did review  
23 whatever we were working on at that time to assure  
24 ourselves that if there were changes to the checklist  
25 that needed to be made, that they would be made.

1 Q All right, sir.

2 Well, the short and long of it is that as you sit  
3 here today, you don't recall whether there were any  
4 changes made to the electrical checklist; is that your  
5 testimony?

6 A (WITNESS KAUSHAL) Well, I believe -- I've stated that  
7 certain revisions were made to the checklist on concrete  
8 hangers, but I don't recall the specifics.

9 Q All right, sir.

10 What reverifications of previously-conducted CSR  
11 inspections in the electrical area, if any, were made as  
12 a result of the revision of the electrical checklists?

13 A (WITNESS KAUSHAL) I believe my prefiled testimony  
14 states that we went back and looked at the -- all the  
15 conduit hanger inspections that we had performed prior  
16 to a certain date.

17 I believe -- I'm not sure if it was Mr. Wozniak's  
18 testimony, also.

19 Q Let me ask Mr. Wozniak, then.

20 The first question, sir, is: What revisions, if  
21 any, were made to the electrical checklists a result  
22 of the NRC item?

23 A (WITNESS WOZNIAK) Mr. Guild, I'd like to point out in  
24 my prefiled rebuttal testimony on Page 7 --

25 Q Sure. Let me find it.

1 A (WITNESS WOZNIAK) -- Question and Answer 18.

2 Q All right, sir. That's helpful.

3 What attributes in the electrical populations, if  
4 any, were revised as a result of the NRC's concerns?

5 A (WITNESS WOZNIAK) Specifically that would be shown in  
6 the NRC Report 8603, I believe.

7 Q 8603?

8 A (WITNESS WOZNIAK) As I've indicated in my testimony,  
9 Question 19.

10 Q Sir, I don't happen to have that report.

11 Do you recall what, if any, changes were made to  
12 the electrical checklist attributes?

13 A (WITNESS WOZNIAK) Again referring to my testimony, I  
14 believe on Page 6, which is the continuation of Answer  
15 17, it goes on to say that, "The instructions at that  
16 time required the BCAP task force inspector to verify  
17 that they were the right type of conduits and that they  
18 were properly attached, but did not explicitly require  
19 the BCAP task force inspector to verify that the  
20 conduits attached were the ones identified in the design  
21 drawings.

22 "We were required to verify this information as a  
23 part of the CSR reinspections of the conduit  
24 construction category.

25 "Therefore, it was not obvious to the BCAP task

1 force inspectors that we should also have been verifying  
2 conduit identity as part of our inspections of conduit  
3 hangers."

4 Now, as my memory serves me, I believe we went back  
5 and revised the conduit hanger checklist to prove the  
6 identity conduits.

7 Q All right, sir.

8 So conduit identity was then on both checklists:  
9 the conduit hanger checklist and the conduit checklist?

10 A (WITNESS WOZNIAK) I believe so.

11 Q And it's a double-check?

12 A (WITNESS WOZNIAK) Yes, sir.

13 Q All right, sir. That's one attribute that was added to  
14 the conduit hanger checklist.

15 Were there any other revisions or additions to the  
16 electrical checklists?

17 A (WITNESS WOZNIAK) Sir, I'm not able to recall that at  
18 this time. There may or may not have been.

19 Q All right, sir.

20 Aside from the review of past inspections in the  
21 conduit hanger area again resulting from this NRC  
22 concern, were there any other reviews or reinspections  
23 in the electrical area?

24 A (WITNESS WOZNIAK) Mr. Guild, as Dr. Kaushal testifies,  
25 we did a midpoint review of all the CSR reinspections.

1                   However, the only reverification program, if you  
2 will, that I'm aware of was in the conduit hanger  
3 population.

4           Q    By "reverification," do you mean a reinspection of the  
5 actual field conditions?

6           A    (WITNESS WOZNIAK)   If so deemed necessary by the  
7 reverification program that was approved, yes, sir.

8           Q    Well, I take it from your answer, then, that a  
9 reinspection -- a complete reinspection was not done?

10          A    (WITNESS WOZNIAK)   Not in all cases.

11          Q    By "reverification" -- why don't you tell me what you  
12 mean by "reverification," as you -- as distinct from  
13 "reinspection"?

14          A    (WITNESS WOZNIAK)   There was a reverification checklist  
15 developed and approved to reverify all conduit hangers  
16 inspected, as I've indicated in my testimony, Question  
17 and Answer 18 --

18          Q    Okay.

19          A    (WITNESS WOZNIAK)   -- inspected prior to January 24,  
20 1985, for the attributes called into question.

21                   Now, part of this reverification program determined  
22 that if some of the attributes in question were, in  
23 fact, questionable, then a reverification per se to the  
24 field would take place but not in all cases would have  
25 required us to go and actually reinspect the condition

1 in the field.

2 Q Let's be clear, then.

3 So the reverification related only to certain  
4 attributes --

5 A (WITNESS WOZNIAK) Yes, sir.

6 Q -- of one population, and that's the conduit hangers?

7 A (WITNESS WOZNIAK) Yes, sir.

8 Q And which attributes were those?

9 A (WITNESS WOZNIAK) Those were the attributes, as I've  
10 discussed -- excuse me. If I may refresh my memory here  
11 a minute --

12 Q Sure.

13 A (WITNESS WOZNIAK) Sir, I don't believe I've made that  
14 part of my prefiled testimony, but the attributes  
15 identified in part by the ERC concerns were reverified  
16 on the reverification program.

17 I believe the response to that, as I've indicated,  
18 is in the NRC Inspection Report 8603.

19 Q All right, sir. That's a helpful reference.

20 But you don't recall at this time what those  
21 attributes were?

22 A (WITNESS WOZNIAK) Not exactly, no, sir.

23 Q Whatever those attributes were, they were only the  
24 attributes that were the subject of the ERC concern; is  
25 that a correct understanding?

1 A (WITNESS WOZNIAK) Yes, sir.

2 Q All right.

3 Those attributes were the subject of  
4 reverification, and I take it from your previous answer  
5 that that reverification first included a review of the  
6 checklist?

7 A (WITNESS WOZNIAK) Yes, sir.

8 Q All right.

9 And then and only if then -- then and only if there  
10 was a question from the review of the checklist might  
11 the reverifier go to the field to review a field  
12 condition; is that a correct understanding?

13 A (WITNESS WOZNIAK) Yes, sir.

14 Q All right.

15 And in how many cases were there field  
16 reinspections for the attributes that were the subject  
17 of the ERC concern?

18 A (WITNESS WOZNIAK) My memory is not clear on that area.

19 But again, sir, I believe that would be documented,  
20 as I can recall, in the Inspection Report 8603 or --  
21 excuse me -- the BCAP response to that report if it's  
22 not a direct attachment.

23 Q Well, sir, let me make it clear that I'm thinking of the  
24 same document.

25 Are you speaking of the Commonwealth Edison Company

1 response to the NRC's Inspection Report 8603 --

2 A (WITNESS WOZNIAK) Yes, sir.

3 Q -- or an internal BCAP response?

4 A (WITNESS WOZNIAK) Well, sir, I'm not quite sure of the  
5 fundamentals in that area.

6 I would assume it would have to be, you know, the  
7 BCAP organization that would respond to it.

8 Q I'm just trying to be able to find the document, lay  
9 hands on the document.

10 MR. STEPTOE: I've got the document in front  
11 of me, Judge Grossman.

12 MR. GUILD: It would be helpful if counsel  
13 would share the document with me.

14 MR. STEPTOE: We have another copy. Here.

15 (Indicating.)

16 MR. GUILD: Thanks.

17 If I might, can I just show the document to the  
18 witness?

19 MR. STEPTOE: No problem.

20 MR. GUILD: Perhaps the information I sought  
21 will be derived.

22 BY MR. GUILD:

23 Q Counsel has made available a document entitled "Conduit  
24 Support Reverification Program," Mr. Wozniak.

25 Perhaps you could take a moment and review that

1 document and see if you can, from that document,  
2 identify the information that I was asking about.

3 That is, first, the number of field reinspections  
4 that were conducted as a result of the reverification.

5 WITNESS WOZNIAK: Mr. Guild, this is quite a  
6 large document. It might take me a few minutes, sir.

7 JUDGE GROSSMAN: Do you wish him to review  
8 the entire document now, Mr. Guild?

9 MR. GUILD: Mr. Chairman, if the document --  
10 if the witness believes the document has the answer to  
11 the preceding several questions, I think it would be  
12 most convenient if we just allow the witness the time to  
13 review it.

14 JUDGE GROSSMAN: Fine. While he's reviewing  
15 that, let me clarify the Board's ruling yesterday on  
16 admissions.

17 This doesn't concern the witness panel, so you can  
18 continue reviewing that, Mr. Wozniak.

19 Where the Staff has stated something that would be  
20 considered -- that relates to the Staff's functions,  
21 such as the Staff's role in investigations, we will  
22 allow the offer of admissions against Staff into the  
23 record.

24 I believe we had an example of that yesterday in  
25 which there was no objection, actually, so the statement

1 read by Mr. Guild was properly introduced into the  
2 record.

3 The latest statement in which we had some dispute  
4 related to Mr. Gardner's opinion as to the propriety of  
5 some activities by Applicant.

6 We'll stand by our ruling of not allowing that in  
7 as admissions because they would be really adverse to  
8 Applicant, and they stand on no different footing than  
9 the NRC reports that we would not let in to be used for  
10 or against Applicant without having the witness here to  
11 support his statement or elaborate on it or clarify it  
12 or retract it, whatever is necessary.

13 So we stand by what we said, but we want to point  
14 out that in the future that is going to be our ruling;  
15 and if there is something adverse said by a Staff  
16 witness against Applicant, we'll want to have that Staff  
17 witness here, unless there's some exceptional reason why  
18 we can't have the witness here and we may decide to use  
19 hearsay.

20 But we will not treat those matters as admissions.

21 MR. STEPTOE: Judge Grossman, I'm going to  
22 have to read the transcript. I think I understand what  
23 you're saying, but I need to read the transcript.

24 JUDGE GROSSMAN: Certainly.

25 MR. STEPTOE: You made a statement there was

1 no objection to the first --

2 JUDGE GROSSMAN: I believe there was some  
3 other reference to Mr. Gardner's transcript, and Mr.  
4 Guild did read that in and there was no objection made  
5 to it. I believe it had to do with the role of Mr.  
6 Gardner or the Staff's position.

7 We would have allowed that in anyway as an  
8 admission against Staff because it pertains solely to  
9 Staff's role.

10 MR. STEPTOE: I see.

11 JUDGE GROSSMAN: And if Staff wished to, it  
12 could certainly -- all the admissions do, really, is put  
13 the ball in the court of the party against whom the  
14 admission is taken, and Staff has the opportunity to  
15 then call that person again and clarify his remarks.

16 But it would be unfair to put the ball in  
17 Applicant's court for a statement made by another  
18 party's witness, an extrajudicial statement, where the  
19 Applicant is not on the same footing where it can bring  
20 its own employee in to clarify his statement.

21 There's no reason why the ball ought to be in your  
22 court, Mr. Steptoe, under those circumstances.

23 MR. STEPTOE: I think I understand that now,  
24 Judge Grossman.

25 My only point was I thought I had made an

1 objection, but the transcript will show whether I did or  
2 not.

3 JUDGE GROSSMAN: Well, this is to the earlier  
4 example?

5 MR. STEPTOE: Yes. I thought we had a bench  
6 conference in which I made an objection and then it was  
7 resolved by your ruling that Mr. Guild's quotation --

8 JUDGE GROSSMAN: But that objection was not  
9 based on its being in admission. That objection was  
10 based on Mr. Guild taking it out of context --

11 MR. STEPTOE: I think I also --

12 JUDGE GROSSMAN: -- and asking an unfair  
13 question.

14 Our ruling was that while the matter was not  
15 entirely clear, it could have been construed the way you  
16 wanted or the way Mr. Guild wanted. We didn't find  
17 anything improper.

18 But that was not related to this matter.

19 Okay. Mr. Wozniak, have you completed your review  
20 of that document?

21 WITNESS WOZNIAK: Mr. Chairman, I believe so.

22 Now, if I could have Mr. Guild redirect the  
23 questions to me.

24 BY MR. GUILD:

25 Q Sure.

1           The last question first, Mr. Wozniak, and the  
2 subject was reverification in the area of conduit  
3 hangers through the process that you described.

4           How many actual field reinspections were conducted?

5       A   (WITNESS WOZNIAK)   As attached to this report, a  
6 conclusions statement was made here on Page 3 of 3 from  
7 the BCAP program.

8           The conclusion statement reads, "The conduit  
9 support reverification program contained 357 attributes,  
10 of which 53 were identified to be inappropriate entries  
11 as follows," and it goes on to break down some  
12 attributes.

13       Q   That's as a result of a checklist review, is it not?

14       A   (WITNESS WOZNIAK)   Yes, sir.

15       Q   All right. Now, my question was regarding  
16 reinspections.

17           How many field reinspections, if any, were  
18 conducted as a result of the reverification conduit  
19 hanger attributes spawned by the NRC concerns?

20       A   (WITNESS WOZNIAK)   It appears by this reverification  
21 result tabulation I have here as attributes recorded as  
22 acceptable, reverified as rejectable, would be five, if  
23 I understand this document correctly.

24       Q   Can you direct me to where you're reading from?

25       A   (WITNESS WOZNIAK)   The reverification results.

1 (Indicating.)

2 Q I see. All right, sir.

3 It's just not clear from the table whether the  
4 reference is to a result from a field reinspection or  
5 simply a document review?

6 A (WITNESS WOZNIAK) Correct, sir.

7 This table might not provide the information you're  
8 looking for, this specific table.

9 Q All right, sir.

10 And the numbers that you read for the record, the  
11 attributes reverified -- those also may have been  
12 attributes that were reverified only by a review of the  
13 checklists, a document review and not a field  
14 reinspection?

15 A (WITNESS WOZNIAK) It would be my understanding that  
16 the statement as read here, "attributes recorded as  
17 acceptable, reverified as rejectable" -- it would appear  
18 that that would have to come from a field  
19 evaluation.

20 Q That's the five; correct?

21 A (WITNESS WOZNIAK) Yes, sir.

22 Q All right, but you read the number 356 as attributes  
23 reverified.

24 Those may or may not have included any actual field  
25 reinspections?

1 A (WITNESS WOZNIAK) Sir, I believe the number was 353 --  
2 357; excuse me. Those may or may not have been from  
3 actual reverifications in the field.

4 Q Your understanding, though, is that the first step was  
5 to simply reverify from a checklist review?

6 A (WITNESS WOZNIAK) Yes, sir, as delineated on this  
7 reverification checklist that is attached to this  
8 report.

9 Q All right, sir.

10 And then only if there was some specific cause  
11 arising from a checklist review would there be any  
12 second-step field reinspection?

13 A (WITNESS WOZNIAK) Yes, sir.

14 Q We just don't know how many, if any, field reinspections  
15 were actually conducted?

16 A (WITNESS WOZNIAK) I believe that number might be  
17 obtained from actually counting the hanger reinspection  
18 checklists themselves.

19 I'm not intimately familiar with every detail of  
20 this report, but I'm confident the information is in  
21 there.

22 Q Well, are all the checklists in that report?

23 A (WITNESS WOZNIAK) The reverification -- I cannot  
24 verify to that. This is a copy. But it would -- it  
25 would be prudent to assume so.

1 MR. GUILD: Perhaps I could ask again, just  
2 to try not to burden the record with voluminous  
3 documents. I'm looking for a number.

4 If the document does contain the number, perhaps I  
5 could ask Applicant to simply stipulate that there is a  
6 number that's derived from that document and it  
7 represents the number of --

8 JUDGE GROSSMAN: I take it you're not  
9 prepared at this point, Mr. Steptoe, to give us a number  
10 and stipulate?

11 MR. STEPTOE: No. We'll find out over the  
12 weekend, your Honor.

13 JUDGE GROSSMAN: Okay. That's fine.

14 MR. GUILD: That would be helpful. I  
15 appreciate it.

16 BY MR. GUILD:

17 Q Now, were there any other electrical population  
18 reverifications performed as a consequence of the NRC  
19 concerns, aside from that in the conduit hanger area to  
20 which you've testified?

21 This is directed to anybody on the panel.

22 A (WITNESS WOZNIAK) Not to my knowledge, sir.

23 Q Now, I may have asked this question, but let's make sure  
24 the record is clear.

25 One attribute was added to the electrical

1 population checklists, at least so far acknowledged by  
2 one or more of you gentlemen, and that was the addition  
3 of conduit identity to both -- to the conduit hanger  
4 population, when it had been previously only in the  
5 conduit population. So that was one additional  
6 attribute.

7 Is that a correct understanding?

8 A (WITNESS WOZNIAK) That is not correct.

9 The correct understanding I stated in my testimony  
10 here, Page 6. It says, "The instructions at that time  
11 required the BCAP task force inspector to verify that  
12 they were the right type of conduits and that they were  
13 properly attached, but did not explicitly require the  
14 BCAP task force inspector to verify that the conduits  
15 attached were the ones identified in the design  
16 drawings."

17 Q I see, I see.

18 Now, what's the distinction?

19 Perhaps I'm just missing it. It's not conduit  
20 identity.

21 What is it?

22 A (WITNESS WOZNIAK) It would be a conduit presence.

23 Q There was initially a requirement that in conduit  
24 hangers, the CSR inspector verify conduit presence?

25 A (WITNESS WOZNIAK) The instructions required the

1 inspector to verify the right type of conduits and that  
2 they were properly attached.

3 Q That was always the instruction?

4 A (WITNESS WOZNIAK) Yes, sir.

5 Q Okay.

6 What was the attribute that was added, then?

7 A (WITNESS WOZNIAK) I believe the correct terminology  
8 would be "attribute clarified" to then require the  
9 inspector to identify the conduits that were attached.

10 Q Conduit by unique conduit identification number?

11 A (WITNESS WOZNIAK) Yes, sir.

12 Q All right, sir.

13 So, in fact, there was no attribute to be added; it  
14 was simply a clarification to the instruction?

15 A (WITNESS WOZNIAK) Yes, sir.

16 Q Okay.

17 Now, that one point aside, were there any other  
18 revisions to attributes in any of the electrical  
19 populations that resulted from the NRC's concern about  
20 the checklist adequacy?

21 A (WITNESS WOZNIAK) Mr. Guild, I don't have an accurate  
22 answer for that statement. I'm not aware.

23 Q All right, sir.

24 And I think, Dr. Kaushal, you weren't aware,  
25 either; is that correct?

1           A     (WITNESS KAUSHAL)     Well, my understanding, my  
2                                    recollection, Mr. Guild, is that we did take a look at  
3                                    everything that was going on at that time. We certainly  
4                                    focused in on the conduit supports, and the actions  
5                                    regarding that are stated in the -- in the memoranda  
6                                    that you gave me yesterday.

7                                    I don't have a recollection at this time what other  
8                                    electrical populations were ongoing and whether it was  
9                                    necessary or whether we thought it was appropriate to  
10                                   change anything in those.

11                                   Given that we didn't go back and find it -- we  
12                                   didn't find it necessary to go back and reinspect  
13                                   anything else, that would lead me to believe that we  
14                                   didn't find anything significant that we had to change.

15                                   JUDGE GROSSMAN:     Dr. Kaushal, that is a very  
16                                   elaborate statement for a very simple question.

17                                   Could you please make your answers a little briefer  
18                                   than that so we can get on with it?

19                                   WITNESS KAUSHAL:     I apologize, Mr. Chairman.

20           A     (WITNESS KAUSHAL)     (Continuing.)     The answer is I don't  
21                                   recall exactly.

22                                   (Laughter.)

23                                   MR. GUILD:     All right, sir.

24                                   Mr. Chairman, I would offer in evidence -- in fact,  
25                                   I've got a couple of documents hanging. I'm not

1 offering at this time Intervenors' 146, which is Mr.  
2 Gardner's inspection report.

3 I have 147 marked for identification, Dr. Kaushal's  
4 January monthly BCAP report that has a March 7th  
5 transmittal date on the front of it. I'd offer that at  
6 this time.

7 JUDGE GROSSMAN: Any objection?

8 MR. STEPTOE: No objection.

9 JUDGE GROSSMAN: Mr. Berry?

10 MR. BERRY: None from the Staff, Mr.  
11 Chairman.

12 JUDGE GROSSMAN: Admitted.

13 (The document was thereupon received into  
14 evidence as Intervenors' Exhibit No.  
15 147.)

16 MR. GUILD: If I can check my notes and make  
17 sure I'm up-to-date --

18 JUDGE GROSSMAN: Well, there's 148, which is  
19 Dr. Kaushal's memorandum of January 23, 1985 --

20 MR. GUILD: Yes, sir.

21 JUDGE GROSSMAN: -- suspending work in the  
22 CSR program.

23 MR. GUILD: Yes, sir, and I would offer that  
24 as well.

25 MR. STEPTOE: Judge Grossman, I have no

1 objection to the January 23, 1985, memorandum, which is  
2 the first page of Intervenors' Exhibit 148, nor do I  
3 have any objection to the second memorandum.

4 JUDGE GROSSMAN: Which is the January 24th  
5 one?

6 MR. STEPTOE: That's correct.

7 I do have an objection to the last two pages of  
8 Intervenors' exhibit, which relate exclusively to the  
9 concrete population. I don't believe it's relevant.

10 MR. GUILD: Mr. Chairman, I don't offer it to  
11 prove the substance of the matters. I simply offer it  
12 as reflecting -- as an aid in cross examination.

13 I'm not interested in getting into the concrete  
14 area, but I am interested in establishing that a review  
15 -- I take that all back.

16 I do offer it for the substance. It's clear we're  
17 not expanding the scope of the contention by asking the  
18 Board to look into the area of concrete placement. That  
19 is not my purpose.

20 JUDGE GROSSMAN: But this goes to the entire  
21 methodology of the BCAP program and the CSR review?

22 MR. GUILD: Indeed it does.

23 JUDGE GROSSMAN: Any objection, Mr. Berry?

24 MR. BERRY: No objection from the Staff.

25 JUDGE GROSSMAN: We'll take the whole thing

1 objection to the January 23, 1985, memorandum, which is  
2 the first page of Intervenor's Exhibit 148, nor do I  
3 have any objection to the second memorandum.

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17 not expanding the scope of the contention by asking the  
18 Board to look into the area of concrete placement. That  
19 is not my purpose.

20 JUDGE GROSSMAN: But this goes to the entire  
21 methodology of the BCAP program and the CSR review?

22 MR. GUILD: Indeed it does.

23 JUDGE GROSSMAN: Any objection, Mr. Berry?

24 MR. BERRY: No objection from the Staff.

25 JUDGE GROSSMAN: We'll take the whole thing

1 in. For whatever the last two pages are worth, they  
2 come in, also. So that's received.

3 (The document was thereupon received into  
4 evidence as Intervenors' Exhibit No.  
5 148.)

6 BY MR. GUILD:

7 Q Gentlemen, Dr. Kaushal, I just want to show you another  
8 NRC inspection report.

9 (Indicating.)

10 This report bears a date of March 8, 1985. It's  
11 Inspection Report 8506.

12 MR. GUILD: Mr. Chairman, I ask this be  
13 marked as Intervenors' Exhibit 149 for identification.

14 (The document was thereupon marked  
15 Intervenors' Exhibit No. 149 for  
16 identification as of October 3, 1986.)

17 BY MR. GUILD:

18 Q Now, Dr. Kaushal, in the process of processing  
19 observations that had been identified by the CSR  
20 inspectors in the field, as we discussed yesterday in  
21 some detail, there were reviews made by various  
22 organizations and individuals for validity.

23 Among them was a review by Sargent & Lundy for  
24 validity.

25 Do you recall that testimony?

1 A (WITNESS KAUSHAL) Yes. In the beginning of the  
2 program, there were reviews by Sargent & Lundy.

3 Q Well, at all stages of the program there were reviews by  
4 Sargent & Lundy for validity.

5 It's just that you changed the BCAP-06 procedure  
6 and perhaps your practice as well to clarify what,  
7 indeed, Sargent & Lundy's role was in reaching  
8 conclusions about validity; isn't that the case?

9 A (WITNESS KAUSHAL) That is correct.

10 Q All right.

11 In fact, early on in the program -- strike that.

12 In fact, the NRC identified an item of  
13 noncompliance reflected in Intervenors' Exhibit 149 for  
14 identification, Mr. Gardner's report, with respect to  
15 the inappropriate invalidation of BCAP CSR observations  
16 by the architect-engineer, Sargent & Lundy?

17 A (WITNESS KAUSHAL) What's the question?

18 Q That is a fact, is it not: that the NRC identified an  
19 item of noncompliance with respect to the inappropriate  
20 invalidation of BCAP observations by Sargent & Lundy?

21 A (WITNESS KAUSHAL) There was a violation, yes --

22 Q All right.

23 A (WITNESS KAUSHAL) -- cited.

24 Q Now, that also -- that same finding was the subject of  
25 an adverse finding by the independent expert overview

1 group, the ERC?

2 A (WITNESS KAUSHAL) That's correct.

3 Q All right, sir.

4 Now, the reference generally is to 37 BCAP  
5 observations involving the use of red-line drawings not  
6 in the electrical area but in the mechanical hanger  
7 area; correct?

8 A (WITNESS KAUSHAL) Would you -- would you draw my  
9 attention to the part of the document that you are  
10 referring to?

11 Q Yes. It's Page 4, No. 4 at the bottom, Item 4, entitled  
12 "Review of Invalidated BCAP Discrepancies." It says,  
13 "The inspector reviewed 37 BCAP observations," et  
14 cetera.

15 A (WITNESS KAUSHAL) Yes.

16 Q All right.

17 A (WITNESS KAUSHAL) What was your question?

18 I'm sorry.

19 Q The question was: The subject of the noncompliance  
20 involved 37 observations invalidated by Sargent & Lundy  
21 involving the use of red-line drawings for mechanical  
22 hangers?

23 A (WITNESS KAUSHAL) That's correct.

24 Q All right.

25 Now, it's true, is it not, that Edison's position

1 was that Sargent & Lundy never had the final say-so over  
2 the decision to treat an observation as valid or  
3 invalid?

4 A (WITNESS KAUSHAL) That's correct, yes.

5 Q That in these cases and others, though, Sargent & Lundy  
6 checked the "invalid" box on the observation form?

7 A (WITNESS KAUSHAL) What -- what's the question, Mr.  
8 Guild? I'm sorry.

9 JUDGE GROSSMAN: I don't think you completed  
10 your question.

11 MR. GUILD: I meant to make that a complete  
12 question.

13 BY MR. GUILD:

14 Q In these cases and others, Sargent & Lundy checked the  
15 "invalid" box on the observation form, did they not?

16 A (WITNESS KAUSHAL) Yes, they did.

17 Q All right.

18 And the significance of checking the "invalid" box  
19 on the observation form was, in these cases and others,  
20 to treat those observations as invalid?

21 MR. STEPTOE: I object to the form of the  
22 question, "the significance was to treat." I'm not sure  
23 that -- we have two organizations here, and the question  
24 is: Who is treating?

25 MR. GUILD: Well, sir, I think the witness is

1 capable of answering that question, Mr. Chairman.

2 JUDGE GROSSMAN: I think the wording could be  
3 improved on that.

4 MR. GUILD: Undoubtedly, Mr. Chairman, but --

5 JUDGE GROSSMAN: Well, is the question: Did  
6 it have the effect of invalidating the --

7 MR. GUILD: No, sir, it's not. I asked the  
8 question the way I meant to ask the question. I believe  
9 it's a proper question.

10 But I'll try to ask it again.

11 JUDGE GROSSMAN: Okay. Please do.

12 MR. GUILD: All right, sir.

13 BY MR. GUILD:

14 Q The effect of that action by Sargent & Lundy, checking  
15 the "invalid" box, was to cause those observations, and  
16 others where Sargent & Lundy had also checked the  
17 "invalid" box, to be processed as invalid?

18 A (WITNESS KAUSHAL) No, that's not correct.

19 Q Well, isn't it the case, Dr. Kaushal, that in the  
20 instance of the 37 observations, no further processing  
21 whatsoever took place on those observations for months  
22 until Intervenors filed their amended Quality Assurance  
23 contention; and then and only then did the BCAP task  
24 force initiate some document reflecting that indeed,  
25 despite the fact these languished for months, they were

1 now declared no longer invalid?

2 A (WITNESS KAUSHAL) I don't recall the dates on which  
3 the final invalidation on those observations was  
4 assigned. The work went on quite late, as you know. We  
5 didn't finish the BCAP effort until October or November  
6 of 1985.

7 I don't have any recollection of what time you  
8 filed the contention and what time various observations  
9 were assigned as invalid.

10 Q All right, sir.

11 Well, the item of noncompliance that was cited by  
12 Mr. Gardner, the 37 invalid observations -- the item was  
13 cited for an inspection that took place beginning  
14 February 4th through March the 1st.

15 JUDGE GROSSMAN: Of 1985?

16 MR. GUILD: Of 1985, yes, sir.

17 BY MR. GUILD:

18 Q They related to observations made by the independent  
19 expert overview group. It took place at least by that  
20 date, perhaps earlier; by the date of the end of the  
21 inspection report, March 1, 1985.

22 A (WITNESS KAUSHAL) What's the question, Mr. Guild?

23 Q The Sargent & Lundy invalidation action was taken at  
24 least by March 1, 1985; is that correct?

25 A (WITNESS KAUSHAL) That's probably true, yes.

1 Q All right, sir.

2 I submit to you that Intervenors filed their  
3 amended Quality Assurance contention May the 20th of  
4 1985.

5 Now, sir, do you know whether or not by May the  
6 20th, 1985 -- and that contention, that amended Quality  
7 Assurance contention, raised, as one of the subparts,  
8 the 37 invalidated BCAP observations.

9 Now, sir, do you know whether or not the BCAP task  
10 force had countermanded Sargent & Lundy's invalidation  
11 of those 37 observations before May 20, 1985?

12 A (WITNESS KAUSHAL) I don't exactly recall that, but it  
13 would not surprise me that it came after that.

14 The process of processing the observations to their  
15 final conclusion was quite elaborate and proceeded well  
16 after that time.

17 Q Now, what exactly was the documented form for -- strike  
18 that.

19 The 37 observations were in the format that appears  
20 as an attachment to BCAP-06, Intervenors' 143. That's  
21 the standard BCAP observation record.

22 A (WITNESS KAUSHAL) Are you directing my attention to  
23 BCAP-06?

24 Q Yes, sir.

25 A (WITNESS KAUSHAL) Let me find my copy of it.

1 I have the document.

2 Q All right, sir.

3 And my question to you, sir, was: The 37 red-line  
4 drawing invalid observations utilized this form, did  
5 they not?

6 A (WITNESS KAUSHAL) I believe so, yes.

7 Q All right.

8 And in the instances of those 37 red-line drawings  
9 and others where Sargent & Lundy invalidated  
10 observations, Sargent & Lundy checked the box in 17,  
11 "Determination of Validity," and they checked the box  
12 "invalid," did they not?

13 A (WITNESS KAUSHAL) They checked the box "invalid,"  
14 right.

15 Q And they wrote in Box 16, "Evaluation," some basis, some  
16 explanation, for their action in invalidating the  
17 observation?

18 A (WITNESS KAUSHAL) That's correct.

19 Q All right, sir.

20 A (WITNESS KAUSHAL) I believe that's correct.

21 Q Now, what subsequent action, in the case of the 17 -- or  
22 the 37, rather, red-line drawing observations -- what  
23 subsequent action, if any, did the BCAP task force take  
24 to countermand or reverse the Sargent & Lundy action  
25 invalidating those observations?

1 A (WITNESS KAUSHAL) I do not have an exact recollection.

2 But there are subsequent steps to processing of the  
3 observation, and in one of those steps the observation  
4 would be reclassified as valid if there was a  
5 disagreement with what was stated before.

6 Q All right, sir. Now, that's your general understanding  
7 of the process.

8 Is that what happened with the Sargent & Lundy  
9 invalidated observations?

10 A (WITNESS KAUSHAL) I believe that's what happened, yes.

11 Q And what happened to the observation record?

12 Was there some change made to the checking of the  
13 box "invalid"?

14 A (WITNESS KAUSHAL) I would assume so, yes. I don't  
15 have an exact recollection, but I would think so.

16 Q All right.

17 Well, if it's just a matter of checking another box  
18 "valid" and perhaps lining through and initialing the  
19 "invalid," how long would it take for the BCAP task  
20 force reasonably to take that action, the action of  
21 simply lining through and correcting the Sargent & Lundy  
22 invalidation?

23 A (WITNESS KAUSHAL) The actual action of putting the  
24 checkmark doesn't take very long, Mr. Guild; but to  
25 evaluate the pros and cons of whatever information there

1 is may, in fact, take a while.

2 Q Well, sir, at least as of the time that you had an exit  
3 with Mr. Gardner where you discussed the 37 BCAP  
4 observations deemed invalid by Sargent & Lundy, did you  
5 not?

6 A (WITNESS KAUSHAL) I believe there was some discussion,  
7 yes.

8 Q So at least as of the date that Mr. Gardner had his exit  
9 with you prior to the publication of the inspection  
10 report, you knew what the NRC's position was on this  
11 matter.

12 Do you know whether you changed the Box 17 at that  
13 time?

14 A (WITNESS KAUSHAL) No, Mr. Guild. At that time the box  
15 was not changed.

16 Q And you don't recall how long, if months -- if weeks or  
17 even months, it took to get around to countermanding the  
18 Sargent & Lundy invalidation?

19 A (WITNESS KAUSHAL) No. There was a significant amount  
20 of iteration that took place on that in relationship to  
21 -- this does pertain to documentation-review-type work  
22 where the documentation was looked at again because --  
23 to develop a better understanding of what the red-line  
24 process really means.

25 It was a completion of all that effort that was

1 necessary before a decision could be made.

2 Q How many other instances were there, Dr. Kaushal, where  
3 Sargent & Lundy checked the "invalid" boxes on BCAP  
4 observation -- strike that.

5 How many instances were there in the electrical  
6 area, the electrical populations, where Sargent & Lundy  
7 checked the "invalid" box on the BCAP observation  
8 records?

9 A (WITNESS KAUSHAL) I would not be able to recall or  
10 even -- I'm not even sure I ever compiled that number.

11 But in the end, every observation that was declared  
12 valid or invalid was a task force decision.

13 Q Well, at some time the task force got around to looking  
14 at every piece of paper.

15 My question to you, sir, is more narrow; that is,  
16 do you know in how many instances Sargent & Lundy took  
17 the action in the electrical area of checking Box 17  
18 invalid on observation?

19 A (WITNESS KAUSHAL) No, I do not.

20 JUDGE GROSSMAN: Do you know how many times  
21 in the electrical area, Dr. Kaushal, the original  
22 Sargent & Lundy invalidation was changed?

23 WITNESS KAUSHAL: Your Honor, I know of these  
24 37 instances where it was changed.

25 JUDGE GROSSMAN: We're talking about the

1 electrical area, now.

2 WITNESS KAUSHAL: Oh, in the electrical area?

3 I don't know that number, your Honor.

4 JUDGE GROSSMAN: Do you know if there are  
5 any?

6 WITNESS KAUSHAL: I would think so, that  
7 there would be some, yes, sir; but I really don't -- I  
8 never compiled that number, your Honor, so --

9 JUDGE GROSSMAN: So you don't know?

10 WITNESS KAUSHAL: I don't know that, no, sir.

11 BY MR. GUILD:

12 Q What was the nature of the concern, as you understand  
13 it, Dr. Kaushal, expressed by the independent expert  
14 overview group and by the NRC inspector on this issue  
15 with regard to Sargent & Lundy invalidating concerns --  
16 or observations?

17 Excuse me.

18 A (WITNESS KAUSHAL) I don't recall the specific nature  
19 of concern.

20 What I -- what I recall is that for ERC in the  
21 beginning, the basic concern was that just because --  
22 no, I don't really recall.

23 Q All right, sir.

24 Why did they care?

25 What difference did it make to ERC, the independent

1 expert overview group, or to the NRC that Sargent &  
2 Lundy had taken this action on the examples in question,  
3 the 37 red-line drawings, or, more generally, that  
4 Sargent & Lundy had acted to invalidate BCAP  
5 observations?

6 A (WITNESS KAUSHAL) Mr. Guild, my recollection is that  
7 the concern was not specifically that Sargent & Lundy  
8 per se took that action. The concern was that those  
9 observations should not be properly invalid. That was  
10 the concern, as I recall it.

11 Q All right, sir. Let's talk about that concern.

12 Now, the NRC and Mr. Gardner, in his inspection  
13 report -- he does not cite you for a violation of a BCAP  
14 procedure.

15 He cites you for a violation of Appendix B,  
16 Criterion 16, which states in part -- and I quote --  
17 "Measures shall be established to assure that conditions  
18 adverse to quality, such as nonconformances, are  
19 promptly identified and corrected."

20 Is that a correct understanding?

21 He didn't cite you for violating BCAP-06 or  
22 violating a BCAP procedure; he cited you for a violation  
23 of Criterion 16, Appendix B?

24 A (WITNESS KAUSHAL) That's the way it's stated, yes.

25 Q All right, sir.

1           And do you understand that that reflects the NRC's  
2 concern that in these instances where you invalidated an  
3 observation improperly -- where an observation was  
4 invalidated improperly, that that represented failure to  
5 properly provide for the correction of nonconforming  
6 conditions?

7           A     (WITNESS KAUSHAL)     What was the question?

8                     I'm sorry. I heard a statement.

9           Q     Yes.

10                    The problem was that the invalidation of these  
11 observations reflected a failure to properly provide for  
12 the correction of a nonconforming condition.

13                    Isn't that the problem, sir?

14           A     (WITNESS KAUSHAL)     Well, that's the way the problem was  
15 perceived by Sargent & -- by the NRC, if that's what  
16 your question is.

17           Q     Yes.

18                    Well, did you agree that that was, in fact, a  
19 problem?

20           A     (WITNESS KAUSHAL)     No.

21                    In fact, there is an elaborate response that I  
22 don't have with me that was given to that particular  
23 citation and in which we explained exactly the  
24 circumstances of what was going on and what the  
25 implications were of Sargent & Lundy having invalidated

1           them, what the task force position was on that and what  
2           further actions were being taken to resolve the thing.

3           Q     Well, sir, I'm sure there was an elaborate explanation.  
4           My question is really more narrow:

5                     Did you agree with the NRC that these instances  
6                     reflected a problem with the identification and  
7                     correction of nonconforming conditions?

8                     Your answer was no; you didn't agree?

9           A     (WITNESS KAUSHAL)   That's correct, we did not agree --  
10           I did not agree.

11          Q     It is clear, as we understand the general significance  
12           of invalidation, that for items that are declared  
13           invalid, they're not counted as discrepancies as part of  
14           the CSR program?

15          A     (WITNESS KAUSHAL)   That's correct.

16          Q     Now, in your opinion, in the instances of the 37  
17           red-line drawing observations invalidated or deemed  
18           invalid by Sargent & Lundy, did BCAP promptly identify  
19           and correct nonconforming conditions?

20                     I emphasize the word "promptly," which is also part  
21           of Criterion 16.

22          A     (WITNESS KAUSHAL)   Well, the observations were promptly  
23           written. The disposition of the observation goes to a  
24           specific process. So in my view, the condition was  
25           identified.

1                   But disposition of the condition can take time, and  
2                   in this case it was taking time.

3           Q       All right, sir.

4                   Well, the observation was written, but for --  
5                   written and then essentially canceled, deemed invalid.

6           A       (WITNESS KAUSHAL)   Mr. Guild, I don't agree with that  
7                   statement. It was never canceled by BCAP task force.

8           Q       Just by Sargent & Lundy?

9           A       (WITNESS KAUSHAL)   That is correct.

10          Q       All right, sir. Understood.

11                   MR. GUILD:   Mr. Chairman, may counsel suggest  
12                   a recess?

13                   JUDGE GROSSMAN:   Oh, fine. Why don't we take  
14                   10 minutes.

15                                       (WHEREUPON, a recess was had, after which  
16                                       the proceedings were resumed as follows:)

17                   JUDGE GROSSMAN:   We're back in session.

18                   MR. BERRY:   You'll recall, Mr. Chairman, that  
19                   yesterday morning we had a discussion with respect to  
20                   the recently received allegation received by Region III.

21                                       The Board asked Staff to report back to it on the  
22                   existence of a memorandum documenting in greater detail  
23                   the allegations that are reflected in the document that  
24                   Staff produced to the Board and the parties.

25                                       I contacted the regional office yesterday; and

1 we've been advised that, as of this date, there is no  
2 more-detailed memorandum documenting those allegations.

3 I do understand that the Allegation Review Board  
4 has met and the allegation has been assigned to the  
5 Division of Reactor Safety. An inspector has been  
6 assigned to look into these allegations.

7 We've instructed the Region -- well, we've alerted  
8 the Region to particularly at this point emphasize those  
9 allegations that the Board indicated appeared to be  
10 relevant to this proceeding, so probably early next week  
11 we should be in a better position to determine where we  
12 are at this point and may be able to report back to the  
13 Board and provide some information to determine the  
14 relevance and materiality of the allegation to this  
15 proceeding.

16 JUDGE GROSSMAN: Okay. Thank you, Mr. Berry.

17 Mr. Guild?

18 MR. GUILD: Yes, sir. Thank you, Mr.  
19 Chairman.

20 Mr. Chairman, I distributed a document before the  
21 recess. It bears on the cover a September 12, 1985,  
22 date. I ask that it be marked for identification  
23 Intervenors' Exhibit 150, please.

24 (The document was thereupon marked

25 Intervenors' Exhibit No. 150 for

1 identification as of October 3, 1986.)

2 MR. GUILD: I apologize. The copier gave us  
3 some duplicates and didn't put these in the -- I'm not  
4 sure that they're exactly in the proper order.

5 I believe, though, there are three of them.

6 BY MR. GUILD:

7 Q Dr. Kaushal, do you have before you what I've marked as  
8 Intervenors' Exhibit 150?

9 A (WITNESS KAUSHAL) I have the document that you gave me  
10 earlier.

11 Q All right, sir.

12 Now, some months after the NRC expressed concerns  
13 about the inappropriate invalidation of CSR  
14 observations, we have several other examples of  
15 observations that were deemed invalid and where the  
16 original inspector, even the original CSR inspector,  
17 objected to the actions taken to invalidate their  
18 observation.

19 You then, pursuant to BCAP-06, became involved in  
20 the process, reviewed the decisions made by a committee  
21 and concurred in the action taken to invalidate the  
22 observations?

23 A (WITNESS KAUSHAL) That's correct.

24 Q And that's reflected in the series of documents that we  
25 have before us. Let's look at these in the record in

1 which they are stapled together here.

2 The first -- if you would turn to the second page,  
3 that is an observation record for an electrical  
4 equipment installation item, is it not?

5 A (WITNESS KAUSHAL) That's correct.

6 Q Now, it bears the suffix "902."

7 What does that indicate, the last three digits of  
8 the observation number?

9 A (WITNESS KAUSHAL) My recollection is that that would  
10 be an inspection performed by inspectors in the BCAP QA  
11 group.

12 Q All right, sir.

13 So this wasn't just an inspection performed by a  
14 first-line CSR inspector; this was an overview  
15 inspection performed by BCAP QA?

16 A (WITNESS KAUSHAL) That's correct.

17 Q All right.

18 Now, you reviewed this observation yourself, and  
19 that's indicated by your approval on the cover memo;  
20 correct?

21 A (WITNESS KAUSHAL) That's correct.

22 Q As I read the document, the BCAP QA overinspector  
23 identified an observation described in Box 9.

24 His conclusion reads: "This detail is not  
25 interchangeable and is therefore unacceptable."

1 A (WITNESS KAUSHAL) Correct.

2 Q There is a drawing that is attached two pages later.

3 Do you understand that to be a drawing of the  
4 detail in question?

5 A (WITNESS KAUSHAL) That's my understanding, yes.

6 Q And that's followed by another drawing.

7 Is the second drawing the actual field-observed  
8 condition?

9 Why don't you tell me what the second drawing is.

10 A (WITNESS KAUSHAL) I'm trying to recall. It's not very  
11 legible.

12 One is the detail; and the other, I would assume,  
13 is the actual location where the detail is.

14 Q Well, sir, now, there are two pages of drawings. I'm  
15 looking at the second page.

16 A (WITNESS KAUSHAL) Right.

17 Q What is the second page?

18 It has a number on the bottom that says "Drawing  
19 20E-0-3363" and it looks like either "003" or "D03."

20 A (WITNESS KAUSHAL) It's probably "D03."

21 Q What is that page, sir?

22 A (WITNESS KAUSHAL) I can't read the drawing very well,  
23 but my understanding is that this would be the drawing  
24 that would show the actual installation of the detail.

25 Q All right. On the top left there is a drawing.

1                   Is that a plan view?

2           A       (WITNESS KAUSHAL)    I see -- it looks that way, yes.

3           Q       In other words, looking down on the installation?

4           A       (WITNESS KAUSHAL)    Correct.

5           Q       And then to the -- in the lower right, a section?

6           A       (WITNESS KAUSHAL)    That's the way it appears, yes.

7           Q       Looking at the installation from the side, in fact --

8           A       (WITNESS KAUSHAL)    Yes.

9           Q       -- is that correct?

10          A       (WITNESS KAUSHAL)    I believe so, yes.

11          Q       The top of the plan is at the top of the page with  
12                   respect to the section view in the lower right-hand  
13                   corner; is that correct, sir?

14          A       (WITNESS KAUSHAL)    I believe that's correct. I would  
15                   have to take the time to really get myself oriented on  
16                   the drawing.

17          Q       Well, sir, there shows an elevation number, Elevation  
18                   439. It appears to be at the top of the girder.

19                   I take it that you don't do your drawings -- your  
20                   section drawings upside down, so that would generally  
21                   suggest that the top is towards the top of the page,  
22                   would it not?

23          A       (WITNESS KAUSHAL)    Okay.

24          Q       And that this is a floor-mounted, as-built condition;  
25                   correct?

1 A (WITNESS KAUSHAL) That's what the description in the  
2 memo also states, okay.

3 Q All right.

4 The preceding page, the detail drawing, however,  
5 shows a ceiling-mounted --

6 A (WITNESS KAUSHAL) That's correct.

7 Q -- detail, does it not?

8 A (WITNESS KAUSHAL) That's correct.

9 Q All right, sir.

10 Now, as I read the observation, the CSR -- excuse  
11 me -- the BCAP overview inspector concludes that, "The  
12 connection detail specifies an EC3 connection to an  
13 embedded plate at the floor."

14 A (WITNESS KAUSHAL) That's right.

15 Q "Detail for type EC3 shows the attachment elevation as  
16 'ceiling' only. The detail is not interchangeable and  
17 is therefore unacceptable."

18 A (WITNESS KAUSHAL) That's what the observation says,  
19 yes.

20 Q All right, sir.

21 Now, someone evaluated the observation for validity  
22 and completed Box 16 and checked "invalid."

23 Sir, who did that?

24 A (WITNESS KAUSHAL) My expectation would be that would  
25 be Mr. Patel, who was the lead electrical engineer.

1 Q All right.

2 Well, that's indicated by Mr. Patel's signature in  
3 Box 18, is it not?

4 A (WITNESS KAUSHAL) That's correct.

5 Q All right.

6 Now, that invalidation decision was disagreed with  
7 by the overview inspector, was it not?

8 A (WITNESS KAUSHAL) That's my understanding, yes.

9 Q And who was the overview inspector?

10 A (WITNESS KAUSHAL) I don't -- I don't recall that name.  
11 The signatures are in Box 10 of the observation record  
12 form.

13 Q All right, sir.

14 Perhaps you could pass the document down to Mr.  
15 Smith, and perhaps Mr. Smith could identify the  
16 signature for us, please.

17 A (WITNESS KAUSHAL) (Indicating.)

18 A (WITNESS SMITH) The signature in Box 10 is Don Groll,  
19 G-R-O-L-L.

20 Q And, Mr. Smith, is Mr. Groll an overview inspector?

21 A (WITNESS SMITH) Excuse me?

22 Q What is Mr. Groll's position?

23 A (WITNESS SMITH) He was an overview inspector,  
24 electrical overview inspector.

25 Q QA, BCAP QA?

1 A (WITNESS SMITH) QA.

2 Q Thank you.

3 Now, Mr. Groll was given this invalidated  
4 observation; and I take it he wrote, "I do not agree  
5 with invalidation," dated and initialed that statement?

6 A (WITNESS KAUSHAL) I would assume that's correct, yes.  
7 It's shown here on the form.

8 Q All right, sir.

9 Dr. Kaushal, then, as I understand BCAP-06, the  
10 process calls for a committee being organized to review  
11 the invalidated observation?

12 A (WITNESS KAUSHAL) That's correct.

13 Q And it's Mr. Orlov's responsibility to designate the  
14 members of that committee, is it not, as the BCAP  
15 assistant director?

16 A (WITNESS KAUSHAL) That's correct.

17 Q And Mr. Orlov appointed himself, Mr. Ryan, Mr. Patel and  
18 Mr. Stevens to that committee?

19 They're indicated on the front?

20 A (WITNESS KAUSHAL) That's the way it appears, yes.

21 Q All right, sir.

22 And you then received the committee's  
23 recommendation?

24 A (WITNESS KAUSHAL) That's correct.

25 Q All right, sir.

1                   And you approved that recommendation and provided  
2                   that the subject observation should be designated  
3                   invalid?

4           A       (WITNESS KAUSHAL)    Correct.

5           Q       And it was, I take it?

6           A       (WITNESS KAUSHAL)    Yes, it was.

7           Q       And that invalidation was -- well, let me ask you this:  
8                   After the committee's decision, was there then a  
9                   confirmation of that invalidation?

10                   I'm looking on the observation report.

11                   Did somebody fill in another box or was there any  
12                   further action taken with the observation form itself  
13                   after you approved the committee's recommendation, sir?

14           A       (WITNESS KAUSHAL)    My recollection is that my  
15                   recommendation makes it final -- my approval makes it  
16                   final.

17           Q       So your signature on the memo is the final step?

18           A       (WITNESS KAUSHAL)    That would be the case, yes.

19                   In some cases I remember signing the form in the  
20                   "approved" column, but the signature on the memorandum  
21                   in this case would --

22           Q       In Box 22 in some cases; is that right?

23           A       (WITNESS KAUSHAL)    I may have very well signed in some  
24                   cases in Box 22.

25           Q       In this case there is no signature in Box 22?

1 A (WITNESS KAUSHAL) That's correct.

2 Q Now, what was the basis of your approval of the  
3 invalidation of this observation, Dr. Kaushal?

4 A (WITNESS KAUSHAL) Well, the basis in this case was,  
5 first, the recommendation of the committee, which  
6 included very competent engineers, and, secondly,  
7 looking at the -- looking at the observation itself.

8 Given what I saw in the observation and what the  
9 explanation given to me was, I thought it was  
10 appropriate to designate that as invalid.

11 Q All right, sir.

12 Well, let me focus not simply -- I understand your  
13 decision was made in part on the basis that your  
14 subordinates recommended the action to you, but let's  
15 focus on the facts, sir.

16 What was the factual basis for approval of the  
17 invalidation of this observation?

18 A (WITNESS KAUSHAL) The factual basis, as I understand  
19 it, is that there's a detail that is specified by  
20 Sargent & Lundy on the drawings as being applicable for  
21 that particular portion of the construction.

22 However, the detail in it has some wording to the  
23 effect, as it's shown, that it's the ceiling, as opposed  
24 to saying it's the floor.

25 But apparently the architect-engineer, in putting

1 out the drawing, specified that detail; and my  
2 assumption will be with full knowledge that it doesn't  
3 matter whether that detail, even if it's called  
4 "ceiling," is applied to the floor.

5 I talked to a few people on that, and that was my  
6 understanding: that that detail was meant to apply in  
7 that particular application.

8 Q So the factual basis for invalidation of this  
9 observation was based not just on what appears in the  
10 documents before us, which is apparently the basis cited  
11 by the committee.

12 It's on the basis of discussions with others on  
13 which you formed an understanding of what Sargent &  
14 Lundy, the architect-engineer's, intent was; is that  
15 correct?

16 A (WITNESS KAUSHAL) I would normally be willing to  
17 accept the committee's recommendation, and in this case  
18 it would have been no exception. I'm just giving you  
19 some additional facts that in this case I did talk to  
20 others.

21 But I would not consider that to be necessary.

22 Q Well, that's a helpful supplement to your earlier  
23 answer, Dr. Kaushal, but in this particular case I am  
24 interested in the fact that you had additional  
25 information.

1           But that additional information is not described in  
2 either the committee's memorandum, your review of that  
3 recommendation, the committee's recommendation or in the  
4 referenced evaluation portion of the observation form,  
5 is it?

6           A   (WITNESS KAUSHAL)   The evaluation portion does, in  
7 fact, describe what the evaluation by the engineer was.

8           Q   Yes, sir.

9           But it doesn't make any reference to Sargent &  
10 Lundy's intent nor does it make any reference to your  
11 conversations with other persons on which you formed an  
12 opinion as to that intent?

13          A   (WITNESS KAUSHAL)   No. Mr. Patel would not have access  
14 to or would not be knowledgeable on what I might or  
15 might not do in this respect.

16          Q   Now, did the committee have a meeting, the committee  
17 that passed on this invalid observation?

18          A   (WITNESS KAUSHAL)   I don't -- I don't know that.

19          Q   Well, was it your direction to your subordinates that  
20 when they were to consider an objected-to, invalidated  
21 observation, that they meet to discuss the matter  
22 collegially, that the committee members sit down and  
23 discuss the matter?

24          A   (WITNESS KAUSHAL)   That was not necessarily my  
25 instructions that they had to gather in one room at one

1 time.

2 It was -- it was my expectation that the matter  
3 will be discussed by a group of people, and --

4 Q By more than one person?

5 A (WITNESS KAUSHAL) By more than one person, and --

6 Q And they -- I'm sorry. I didn't mean to interrupt.

7 A (WITNESS KAUSHAL) -- and the recommendation will be  
8 documented to me.

9 Q All right, sir.

10 But those individuals could review the matter  
11 individually?

12 A (WITNESS KAUSHAL) They could.

13 Q And simply in this -- and simply pass the documents from  
14 hand to hand and reach a concurrence in the result?

15 A (WITNESS KAUSHAL) That is correct.

16 They may have talked individually with each other  
17 one at a time, collectively or in the hall. All those  
18 things could transpire, yes.

19 Q All right, sir.

20 Was it your direction that those individuals in the  
21 committee meet with the objecting CSR inspector or, in  
22 this case, the BCAP overview inspector?

23 A (WITNESS KAUSHAL) It was not a requirement.

24 If there was a need for additional information,  
25 they may have very well talked to him. But again there

1 was no requirement that the particular deliberations  
2 have to take place in one room at one time.

3 Q Well, that's a different question.

4 Was there a requirement, as you directed your  
5 subordinates, that they confer with the objecting  
6 inspector in order to understand what the basis was for  
7 the lack of concurrence or the objection?

8 A (WITNESS KAUSHAL) No, there was no such requirement.

9 Q Did the committee confer with the objecting inspector in  
10 this case, to your knowledge?

11 A (WITNESS KAUSHAL) I don't know that.

12 Q Did you ask the committee, before you approved their  
13 recommendation, whether they had conferred with the  
14 objecting inspector?

15 A (WITNESS KAUSHAL) I'm sure I -- well, no, I'm not  
16 sure, but I -- no, I don't have an exact recollection.

17 Q The objecting inspector simply writes, "I do not agree  
18 with invalidation."

19 Do you know whether there was any basis for the  
20 objecting inspector's disagreement with the  
21 invalidation?

22 A (WITNESS KAUSHAL) My knowledge of that will be based  
23 on what's documented here.

24 Q And, of course, that's available to all of us; there  
25 appears to be no elaboration either sought or given by

1 the objecting inspector -- sought from or given by the  
2 objecting inspector; correct?

3 A (WITNESS KAUSHAL) What was the question, now?

4 Q There is no elaboration on his objection?

5 A (WITNESS KAUSHAL) No, there is no elaboration on his  
6 objection.

7 Q All right, sir.

8 Now, there's a second document attached -- well,  
9 there's another copy of the same observation. Please  
10 pass from that.

11 Then there's a series of documents. They don't  
12 have an observation record attached. I'm looking at a  
13 September 5, 1985, memo.

14 JUDGE GROSSMAN: Are you off the other one  
15 already?

16 MR. GUILD: Yes, I am, Judge. If you have  
17 questions --

18 JUDGE GROSSMAN: You're not going to ask him  
19 anything about Mr. Patel being on the committee, I take  
20 it?

21 MR. GUILD: No, sir.

22 JUDGE GROSSMAN: All right.

23 MR. GUILD: It seems apparent to me.

24 JUDGE GROSSMAN: All right. I have no  
25 questions.

1 MR. GUILD: Mr. Chairman, perhaps could we  
2 stand down for just a moment?

3 I have some documents that I need to get copied.

4 JUDGE GROSSMAN: That's fine.

5 Do you want to take any time now; five minutes?

6 MR. GUILD: That would be fine.

7 JUDGE GROSSMAN: Okay. We'll take five  
8 minutes.

9 MR. GUILD: I'm going to talk about this  
10 other observation, just to forewarn Dr. Kaushal.

11 (WHEREUPON, a recess was had, after which  
12 the proceedings were resumed as follows:)

13 MR. GUILD: Mr. Chairman --

14 JUDGE GROSSMAN: Are you ready?

15 MR. GUILD: Yes, sir.

16 BY MR. GUILD:

17 Q Dr. Kaushal, you have before you Intervenors' Exhibit  
18 150, that portion, a memo September 5, 1985, also on the  
19 question of the invalidation of CSR observations?

20 A (WITNESS KAUSHAL) Yes, I do.

21 Q All right, sir.

22 Now, as I understand, observations were written for  
23 observed deficiencies in the configuration of cable pan  
24 hangers and conduit hangers in the field?

25 A (WITNESS KAUSHAL) That's correct.

1 Q All right, sir.

2 And observations were also written for the absence  
3 of the appropriate LKC, Comstock, quality control  
4 inspection documentation for conduit hanger and cable  
5 pan hanger configurations?

6 A (WITNESS KAUSHAL) That's correct.

7 Q All right, sir. Let's take the second of those first.

8 Now, this memorandum reflects the invalidation of a  
9 number of observations that were initialed that  
10 identified the absence of Comstock documentation on  
11 configuration inspections for conduit hangers and cable  
12 pan hangers?

13 A (WITNESS KAUSHAL) That's correct.

14 Q All right, sir.

15 The basis, as I read the memo, for such an  
16 invalidation was that, consistent with Comstock's  
17 program, no such configuration inspections were done for  
18 65 percent of the conduit hangers and cable pan hangers  
19 prior to November, 1982?

20 A (WITNESS KAUSHAL) That's correct.

21 Q All right, sir.

22 And that since BCAP was -- since one of the  
23 standards for invalidation of observations was whether  
24 the item was acceptable at the time it was initially  
25 installed and QC-accepted, in this case the absence of

1 documentation, you presume, reflected an acceptable  
2 condition?

3 A (WITNESS KAUSHAL) Yes, that's correct.

4 Q All right.

5 And that's the rationale for the invalidation of  
6 these observations?

7 A (WITNESS KAUSHAL) It was -- yes, right.

8 Q All right, sir.

9 Now, were you aware that Comstock had committed to  
10 performing quality control inspections of any of the  
11 configurations for conduit hangers and cable pan hangers  
12 that had been installed but not inspected due to the  
13 sampling inspections up until November of 1982?

14 A (WITNESS KAUSHAL) I'm aware that there is such a  
15 commitment, yes.

16 Q Well, sir, were you aware that there was such a  
17 commitment at the time that you determined to invalidate  
18 these observations?

19 A (WITNESS KAUSHAL) Which observations?

20 Q The observations reflected in the memo that I've  
21 directed your attention to, the conduit hanger and cable  
22 pan hanger configuration observations relating to  
23 do mentation.

24 A (WITNESS KAUSHAL) Relating to documentation? Your  
25 question was: Was I aware of that commitment?

1 Q Yes.

2 A (WITNESS KAUSHAL) Yes.

3 Q Well, at the time that you performed these inspections,  
4 had Comstock in whole or in part fulfilled that  
5 commitment?

6 A (WITNESS KAUSHAL) No.

7 Q They hadn't fulfilled it at all?

8 A (WITNESS KAUSHAL) The walkdowns on both the conduits  
9 and the cable pan hanger -- conduit -- conduit hanger  
10 configuration and for cable pan hanger configuration to  
11 complete that work had not been done.

12 Q Well, sir, that's not exactly the question.

13 First of all, had any action been taken by  
14 Comstock, to your knowledge, at the time of the  
15 inspection of these items, to inspect for configuration  
16 conduit hangers and cable pan hangers?

17 A (WITNESS KAUSHAL) I believe -- I don't know if any  
18 action was taken. I don't know that.

19 Q Do you know whether there were any instances in the  
20 populations of conduit hangers or cable pan hangers  
21 where there should have been a Comstock inspection  
22 document reflecting a configuration inspection but there  
23 was not?

24 A (WITNESS KAUSHAL) That would be hard to figure out. I  
25 don't know how we would determine that.

1 Q All right, sir. Well, that's, I guess, the question.

2 You chose to invalidate all observations for lack  
3 of Comstock or Ernst quality documents for configuration  
4 inspections of conduit and cable pan hangers prior to  
5 November, 1982, giving them the benefit of the doubt  
6 that, in each one of those instances, the absence of a  
7 quality document was due to the fact that the hanger in  
8 question was not one of the sample 35 percent?

9 A (WITNESS KAUSHAL) That's the only way it could be  
10 done.

11 My expectation would be that when the walkdowns are  
12 done, to complete that commitment that you earlier  
13 mentioned, their basis for redoing the work would also  
14 be based on what documentation exists.

15 Q Wouldn't the more conservative approach have been not to  
16 give them the benefit of the doubt but to identify as a  
17 discrepancy the absence of quality documentation, since  
18 you couldn't decide -- you couldn't determine  
19 conclusively whether the absence of documentation was  
20 due to Comstock's failure to properly maintain  
21 documentation or properly perform an inspection and  
22 document that inspection for an item that should have  
23 been inspected or, conversely, whether the absence of  
24 documentation was due to the cause you assumed, and that  
25 was that the particular item didn't happen to be within

1 the sample?

2 A (WITNESS KAUSHAL) Your question was -- what was the  
3 question?

4 Q Wouldn't it have been been a more conservative approach  
5 not to have invalidated these observations?

6 A (WITNESS KAUSHAL) Not in my mind. It would not have  
7 served any purpose. The situation was previously known  
8 and committed to be reviewed and corrected.

9 Q All right, sir.

10 But you're not aware of whether any of the items  
11 that you invalidated reflected instances where an item  
12 should have been inspected but the document could not be  
13 found?

14 MR. STEPTOE: That's been asked and answered,  
15 your Honor.

16 JUDGE GROSSMAN: Well, Mr. Guild, I don't  
17 know what the objection is, but I think we're going far  
18 afield from what was purported to be the purpose for the  
19 CSR program.

20 If I understand what has been told to us, it was  
21 not to validate the original inspections; it was to  
22 determine whether the hardware was acceptable.

23 It really doesn't matter logically whether the  
24 missing documentation was in the 35 percent or the 65  
25 percent if the documentation is going to be supplied

1 later on just because it's missing.

2 If they're not trying to validate the original  
3 inspection, there's no reason to put it in either  
4 category.

5 Do you follow what I'm suggesting?

6 MR. GUILD: I understand, Judge, and I think  
7 the point is well taken, except that it misses the fact  
8 that indeed CSR did perform a documentation inspection.

9 That documentation inspection is not directly part  
10 of the company's rebuttal case; but it in this instance,  
11 I believe, confirms -- at least raises the question  
12 about the identification of further documentation  
13 deficiencies on the part of the L. K. Comstock Company.

14 I don't mean to belabor the point, but I think the  
15 fact remains the CSR did include within its scope a  
16 quality documentation review. Part of that review was  
17 to establish whether or not indeed an item had been  
18 finally -- had been appropriately inspected and that  
19 inspection documented on the appropriate form.

20 JUDGE GROSSMAN: Okay.

21 Mr. Guild, I'm not suggesting that, to the extent  
22 that the CSR program didn't identify or didn't attempt  
23 to identify the missing documentation that might have  
24 been required for the 35 percent, you don't have another  
25 area in which the CSR review hasn't, in effect,

1 validated the original QC inspection.

2 There may be that additional area, but you can't go  
3 much further than that --

4 MR. GUILD: Understood.

5 JUDGE GROSSMAN: -- is what I'm saying.

6 MR. GUILD: Understood, Judge.

7 JUDGE GROSSMAN: Okay. That's fine.

8 Continue.

9 BY MR. GUILD:

10 Q Now, indeed, of the sample of 130 conduit hangers, 41 of  
11 them did not have a configuration hanger inspection  
12 form?

13 A (WITNESS KAUSHAL) That's what the memorandum says.

14 Q All right, sir.

15 However, in the area of cable pan hangers, there  
16 were only two instances identified?

17 Again, I'm looking at the memo.

18 A (WITNESS KAUSHAL) What part are you looking at?

19 Q Just the next sentence there: "For cable pan hangers,  
20 only two of 138 CSR sample cable pan hangers had  
21 unavailable inspection forms."

22 A (WITNESS KAUSHAL) Correct.

23 Q All right, sir.

24 And in each of those cases, the 41 for the conduits  
25 and the two for the cable pan hangers, those

1 observations were invalidated?

2 A (WITNESS KAUSHAL) That's correct.

3 Q All right, sir.

4 Now, the second page of this memo, the memo of  
5 September 5, 1985, states, "The BCAP Level III  
6 Inspector, Mr. L. Shea, concurs that these observations  
7 identified on the attachment may be appropriately  
8 considered invalid.

9 "However, the BCAP Level II Inspector who  
10 originally performed the documentation review did not  
11 concur."

12 A (WITNESS KAUSHAL) Correct.

13 Q Again, a committee was formed, pursuant to BCAP-06, to  
14 review the invalidation?

15 A (WITNESS KAUSHAL) That's correct.

16 Q All right.

17 Again, the assistant BCAP director, Mr. Orlov,  
18 appointed the committee?

19 A (WITNESS KAUSHAL) Right.

20 Q He appointed himself, Mr. Shea and Mr. Patel?

21 A (WITNESS KAUSHAL) That's correct.

22 Q You concurred in their recommendation that the matters  
23 be treated as invalid?

24 A (WITNESS KAUSHAL) That's correct.

25 Q And that concurrence is reflected by your note appended

1 to the memo?

2 A (WITNESS KAUSHAL) That's correct.

3 Q Now, what was the basis for the BCAP Level II  
4 Inspector's objection to the invalidation of these  
5 observations, Dr. Kaushal?

6 A (WITNESS KAUSHAL) As relayed to me, as I recall, he  
7 basically felt that he went out there with a checklist  
8 to look for documentation and didn't find it; and so as  
9 far as he was concerned, the observation -- he made an  
10 appropriate observation.

11 Q Now, that was related to you.

12 Related to you by whom?

13 A (WITNESS KAUSHAL) By the members of the committee.

14 Q I see.

15 Did you speak with the original Level II Inspector?

16 A (WITNESS KAUSHAL) No, I did not.

17 Q Do you know who the Level II Inspector was in this case?

18 A (WITNESS KAUSHAL) I don't recall, no.

19 Q Does any member of the panel know the identity of the  
20 Level II Inspector in this case?

21 A (WITNESS WOZNIAK) I don't specifically recall, no,  
22 sir.

23 Q Okay.

24 Do you know whether the committee met as a group to  
25 discuss the matter?

1                   This is the same line of questioning as before.

2           A       (WITNESS KAUSHAL)    I don't know that.

3           Q       Do you know whether they met as a group with the  
4                   objecting inspector?

5           A       (WITNESS KAUSHAL)    They probably did not, but I don't  
6                   know that.

7           Q       Do you know whether they documented the basis for the  
8                   objecting inspector's objection?

9           A       (WITNESS KAUSHAL)    The documentation that you see is  
10                  the documentation there. I doubt that there's more  
11                  documentation than that on that subject.

12          Q       Did you ever review a written documentation of the  
13                  objecting inspector's basis for objection before you  
14                  concurred with the invalidation?

15          A       (WITNESS KAUSHAL)    What was the question again?

16          Q       Did you review a written description of the objecting  
17                  inspector's basis for objection before you concurred in  
18                  the invalidation recommendation of your committee?

19          A       (WITNESS KAUSHAL)    No, I did not. I based my decision  
20                  on the information described herein.

21                   JUDGE GROSSMAN:    Mr. Guild, do we know when  
22                   the walkdowns occurred?

23                   MR. GUILD:       Yes. We're going to turn to that  
24                   question now.

25                   Before I do, let me offer Intervenors' 150, please,

1 into evidence.

2 JUDGE GROSSMAN: Any objection?

3 MR. BERRY: None from the Staff.

4 MR. STEPTOE: Well, with respect to the first  
5 part, I have no objection.

6 I think we probably have an obligation to the Board  
7 to provide some legible copies, if we need to, on  
8 redirect.

9 But I have no objection to this portion.

10 JUDGE GROSSMAN: Okay. You're going to  
11 supply legible copies for the detail?

12 MR. STEPTOE: I'll provide another exhibit at  
13 redirect with respect to the detail, that's correct, so  
14 it may be easier for everyone to read.

15 JUDGE GROSSMAN: All right.

16 But otherwise there's no objection, and so --

17 MR. STEPTOE: With respect to the last  
18 memorandum, which is BCAP Memo No. 3240, it deals  
19 exclusively with a documentation-related problem rather  
20 than a reinspection-related matter.

21 It is, as you recognized, as Mr. Guild recognized,  
22 outside the scope of our direct testimony, which dealt  
23 only with the reinspection portion of the CSR.

24 I object on that grounds: It's outside the scope  
25 of the witnesses' testimony. But since you -- I make

1 the objection, for what it's worth.

2 JUDGE GROSSMAN: Okay. The Board didn't  
3 agree that it was outside the scope.

4 MR. STEPTOE: No. I think --

5 JUDGE GROSSMAN: We just --

6 MR. STEPTOE: I know you didn't. I'm sorry.

7 JUDGE GROSSMAN: Okay, fine.

8 Any objection from Mr. Berry?

9 MR. BERRY: No objection from the Staff, Mr.  
10 Chairman.

11 JUDGE GROSSMAN: Okay. We'll receive the  
12 document.

13 (The document was thereupon received into  
14 evidence as Intervenors' Exhibit No.  
15 150.)

16 BY MR. GUILD:

17 Q All right, sir.

18 Now, indeed, as the last memo relating to the  
19 documentation issue reflects, in the vast majority of  
20 cases in your CSR cable pan hanger sample, there were,  
21 in fact, Comstock or Ernst inspection documents for  
22 configuration inspections; only two of 138 had them  
23 missing.

24 It follows, does it not, Dr. Kaushal, that there  
25 were 136 that had the documentation?

1 A (WITNESS KAUSHAL) That's what this would imply, yes.

2 Q All right, sir.

3 And, in fact, CSR inspectors went out and inspected  
4 and identified configuration discrepancies in the area  
5 of cable pan hangers?

6 A (WITNESS KAUSHAL) That's correct.

7 Q And those discrepancies, at least in part, were  
8 determined to be valid discrepancies, valid discrepant  
9 conditions, as compared -- comparing the field-observed  
10 condition for configuration with design requirements?

11 A (WITNESS KAUSHAL) You're calling them "valid."

12 I don't know if a validity determination was made,  
13 but the inspectors did go out and do the inspections.

14 Q Well, sir, let me show you again what I just grabbed off  
15 the stack of Attachment 6 of NCR 6145, out-of-scope  
16 electrical NCR, the very first observation for cable pan  
17 hangers.

18 This observation for cable pan hanger -- for Sample  
19 Item CPH-001, Observation 2, reflects that the  
20 configuration observation was deemed valid, does it not?

21 (Indicating.)

22 A (WITNESS KAUSHAL) At one time it was deemed valid,  
23 yes.

24 Q All right, sir.

25 Well, it was checked in the "valid" box, and

1           there's a valid -- a statement written and then it is  
2           marked through?

3           A     (WITNESS KAUSHAL)     That's what I -- that's why I said  
4           at one time it was deemed valid.

5           Q     All right, sir.

6                     And can you tell me whose signature or whose  
7           initials and date appear by the mark-through on the  
8           evaluation portion?

9                             (Indicating.)

10          A     (WITNESS KAUSHAL)     No, I'm afraid I don't recognize  
11          those initials.

12          Q     Could you pass the document along the line of panel  
13          members and ask each of them if they can identify the  
14          initials?

15          A     (WITNESS KAUSHAL)     (Indicating.)

16          A     (WITNESS WOZNIAK)     Mr. Guild, I believe I can identify  
17          the initials.

18          Q     Yes, sir?

19          A     (WITNESS WOZNIAK)     He's a member of the BCAP CSR  
20          engineering force. He's a discipline engineer. His  
21          name is Mr. Patel, also. His first name starts with a  
22          V.

23          Q     V as in "Victor"?

24          A     (WITNESS WOZNIAK)     Yes, sir.

25                     MR. GUILD:     All right.

1 I'd ask that the document be marked. I intend to  
2 offer it. I'll make some copies for the Board and  
3 parties. The portion I showed the witnesses is the  
4 third page of the document.

5 (Indicating.)

6 I'd ask this observation record,  
7 CSR-I-E-CPH-001-02, be marked as Intervenors' Exhibit  
8 151.

9 (The document was thereupon marked  
10 Intervenors' Exhibit No. 151 for  
11 identification as of October 3, 1986.)

12 BY MR. GUILD:

13 Q Now then, Dr. Kaushal, though determined invalid --  
14 excuse me -- determined to represent a valid discrepant  
15 condition, a configuration discrepancy as compared to  
16 design requirements, this observation, along with all  
17 other cable pan hanger observations, was deemed outside  
18 the BCAP scope?

19 A (WITNESS KAUSHAL) That's correct.

20 Q And as a consequence, none of the discrepant conditions  
21 were counted in the CSR results?

22 A (WITNESS KAUSHAL) That's correct.

23 Q Now, the observation, Part 3, Block 16, reads, "This  
24 observation is covered by future walkdown to be  
25 performed as per Sargent & Lundy procedure PI-BB-85,"

1 paren, "(NCR's 708 and 709)," end paren.

2 "Therefore, as per BCAP-06, Section 4.3.3 little f,  
3 this observation is outside BCAP's scope."

4 And that evaluation was by Mr. D. Patel?

5 (Indicating.)

6 A (WITNESS KAUSHAL) That's correct.

7 Q Now, that observation -- I'm sorry -- that evaluation  
8 was made and is dated June 14, 1985; correct?

9 (Indicating.)

10 A (WITNESS KAUSHAL) That's correct.

11 Q Now, that appears to reflect that the walkdown that was  
12 contemplated as the basis for declaring this observation  
13 out of scope was not yet -- had not yet been completed;  
14 is that true?

15 A (WITNESS KAUSHAL) I don't know whether that signature  
16 signifies that, but -- and I don't -- I don't recall  
17 when that walkdown was -- in fact, I know the walkdown  
18 was not completed at that time.

19 Q It was not?

20 A (WITNESS KAUSHAL) No.

21 Q Mr. Patel writes that -- he describes it as a "future  
22 walkdown."

23 It was a future walkdown as of June of 1985?

24 A (WITNESS KAUSHAL) That's correct.

25 Q Now, the walkdown was cited as pursuant to a Sargent &

1 Lundy procedure, and the references are to NCR's 708 and  
2 709.

3 Dr. Kaushal, are you familiar with NCR's 708 and  
4 709?

5 A (WITNESS KAUSHAL) I have looked at it, yes.

6 Q All right, sir.

7 708 refers to Unit 1; 709 to Unit 2?

8 A (WITNESS KAUSHAL) I believe that's correct.

9 Q All right, sir.

10 And what is the nonconforming condition that is  
11 identified in those NCR's?

12 A (WITNESS KAUSHAL) I would not be able to recall the  
13 exact words. It talks about cable pan hangers being not  
14 constructed per design detail.

15 Q All right, sir.

16 Well, isn't it a fact that those NCR's for  
17 Braidwood were initiated as a result of lessons learned  
18 through the Byron licensing proceeding?

19 A (WITNESS KAUSHAL) That was, I believe, one of the  
20 reasons, yes.

21 Q Because of identified problems with vendor-supplied  
22 Systems Control Corporation cable pan hangers?

23 A (WITNESS KAUSHAL) That's one of the reasons I am aware  
24 of, yes.

25 Q All right, sir.

1                   Now, a cable pan hanger as supplied by the vendor  
2 by definition already has a configuration, does it not?

3           A       (WITNESS KAUSHAL)   Yes, in most cases. They may have  
4 in part been supplied, but that's correct in general.

5           Q       All right, sir.

6                   So if only part of the configuration problem with  
7 the field-installed cable pan hangers can possibly be  
8 attributed to Systems Control Corporation, it follows,  
9 does it not, Dr. Kaushal, that the balance of the  
10 configuration attributes are attributable to the L. K.  
11 Comstock or E. C. Ernst installation of the cable pan  
12 hangers in the field?

13          A       (WITNESS KAUSHAL)   That's correct, yes.

14          Q       In part, L. K. Comstock or E. C. Ernst may  
15 field-fabricate cable pan hangers?

16          A       (WITNESS KAUSHAL)   My understanding is yes, some were  
17 field-fabricated, yes.

18          Q       And in part L. K. Comstock and E. C. Ernst may  
19 field-modify hangers?

20          A       (WITNESS KAUSHAL)   That's correct, too, from what I  
21 understand.

22          Q       By that I mean they may modify the hanger from the form  
23 in which it was received from the vendor; in this case,  
24 Systems Control Corporation?

25          A       (WITNESS KAUSHAL)   That's my understanding, yes.

1 Q All right, sir.

2 So some numbers of attributes, configuration  
3 attributes, of these cable pan hangers are really beyond  
4 the scope of any deficiencies attributable to the  
5 Systems Control Corporation?

6 A (WITNESS KAUSHAL) Yes. I would think there would be  
7 some attributes that might be outside of Systems  
8 Control.

9 Q All right, sir.

10 And, therefore, some of the field-observed  
11 discrepant conditions observed by your CSR inspectors  
12 with regard to configuration of cable pan hangers are  
13 attributable not to Systems Control Corporation but to  
14 the work of E. C. Ernst or the L. K. Comstock Company?

15 A (WITNESS KAUSHAL) That's correct, yes.

16 Q All right.

17 How many deficiencies in cable pan hanger  
18 configuration are attributable to the work of Ernst or  
19 Comstock as contrasted with Systems Control?

20 A (WITNESS KAUSHAL) I would not know that number.

21 Q Does any other member of the panel know the answer to  
22 that question?

23 A (WITNESS WOZNIAK) No, sir.

24 Q Dr. Kaushal, I'm going to show you another document, an  
25 earlier NCR. This is identified as CECO NCR 451.

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(Indicating.)

This is on the subject of cable pan hanger welding. It reflects an initiation date of December, it looks like, 21, 1982.

MR. GUILD: Mr. Chairman, I ask that this document be marked as Intervenors' Exhibit 152.

(The document was thereupon marked Intervenors' Exhibit No. 152 for identification as of October 3, 1986.)

BY MR. GUILD:

Q Now, Dr. Kaushal, have you ever seen this NCR before?

A (WITNESS KAUSHAL) No, I don't recall seeing it.

Q Also, the description of nonconformance reads, "System Control hanger welding does not meet AWS D1.1-75." Paren, "(Attached are inspection results for 25 of 131 hangers from Shipment No. 52 MRR 1144)," end paren.

Now, this is a copy that was given to me in discovery. It appears to reference an attachment showing inspection results. I don't see that attachment in the form of the NCR that I have received.

Is it your understanding, Dr. Kaushal, that the results of the inspection, the sampling inspection, of Systems Control Corporation vendor-supplied hangers that took place in response to NCR 451 led to the conclusion that the hangers were acceptable?

1 A (WITNESS KAUSHAL) What was the question?

2 Q Yes, sir?

3 A (WITNESS KAUSHAL) That it was not --

4 Q That the inspection led to the conclusion that the  
5 hangers were acceptable.

6 A (WITNESS KAUSHAL) I don't have any opinion on that.

7 Q You don't know?

8 A (WITNESS KAUSHAL) I don't know, yes.

9 MR. GUILD: I apologize to the Board. I  
10 thought I had the complete document or, at least,  
11 complete in regard to the documented result.

12 Perhaps I could ask Applicant, if there's an  
13 attachment that's missing, whether I could be provided a  
14 copy of it, please.

15 MR. STEPTOE: We'll be glad to provide the  
16 complete NCR.

17 JUDGE GROSSMAN: Okay.

18 BY MR. GUILD:

19 Q In any event, Dr. Kaushal, if the existence of an NCR  
20 originated in December of 1982 appears to reflect that  
21 whatever problems existed with cable pan hanger welding  
22 that was attributable to Systems Control Corporation had  
23 been identified years ago, wouldn't you presume, sir,  
24 that timely corrective action would have called for  
25 having identified and corrected whatever problems there

1           were with Systems Control Corporation cable pan hanger  
2           welding long before the BCAP CSR reinspections took  
3           place?

4           A     (WITNESS KAUSHAL)     I would not assume that, no.

5           Q     All right, sir.

6                     What is the relationship between the CECO NCR 451,  
7           the document I've just placed before you, and the CECO  
8           NCR's 708 and 709 that apparently are the basis for the  
9           Sargent & Lundy cable pan hanger walkdown?

10          A     (WITNESS KAUSHAL)     Do you have a copy of 708 and 709 in  
11          front of you?

12          Q     I don't.

13          A     (WITNESS KAUSHAL)     I'm sorry?

14          Q     I do not.

15          A     (WITNESS KAUSHAL)     I'll have to recall the words.

16                     My understanding is that on 708 and 709, it talks  
17          about the hangers not being constructed as per design  
18          detail.

19          Q     708 and 709 also refer to Systems Control Corporation?

20          A     (WITNESS KAUSHAL)     I believe there is a -- there is a  
21          mention of Systems Control.

22          Q     I see.

23                     Why weren't whatever deficiencies existed in  
24          Systems Control Corporation cable pan hangers corrected  
25          before the initiation of the Sargent & Lundy cable pan

1 hanger walkdown pursuant to NCR's 708 and 709?

2 A (WITNESS KAUSHAL) I wouldn't know the answer to that.

3 Q Now, that's a long way around getting back to the  
4 question that the Chairman asked.

5 What is the status of the Sargent & Lundy cable pan  
6 hanger walkdown?

7 A (WITNESS KAUSHAL) My understanding is that walkdowns  
8 are complete on cable pan hangers now.

9 Q When were they completed, sir?

10 A (WITNESS KAUSHAL) It was sometime in the middle of --  
11 I'm sorry. Just a second. I'm trying to recall.

12 Q Sure.

13 A (WITNESS KAUSHAL) It was a few months ago, but I don't  
14 recall the exact time.

15 Q Do any of the other members of the panel know when the  
16 cable pan hanger walkdown program was completed?

17 A (WITNESS WOZNIAK) Not specifically.

18 Q Mr. Wozniak, is it your understanding that it was  
19 completed several months ago?

20 A (WITNESS WOZNIAK) It's been completed, but again I  
21 don't know when it was completed.

22 Q Now, do I understand correctly that the cable pan hanger  
23 walkdown program was performed by Sargent & Lundy field  
24 engineers?

25 A (WITNESS KAUSHAL) It was -- your understanding is

1 incorrect.

2 Q How about straightening me out?

3 A (WITNESS KAUSHAL) Okay.

4 My understanding is that the walkdown was performed  
5 by a combination of Sargent & Lundy and Comstock --  
6 Sargent & Lundy engineers and Comstock inspectors and  
7 that the configuration inspection was, in fact, done by  
8 Comstock inspectors.

9 Q Well, sir, did the -- so in part Sargent & Lundy field  
10 engineers performed the walkdown?

11 A (WITNESS KAUSHAL) Sargent & Lundy engineers in part  
12 performed the walkdown, yes.

13 Q All right, sir.

14 And in part L. K. Comstock inspectors participated  
15 in that walkdown?

16 A (WITNESS KAUSHAL) That's correct.

17 Q Now, did the L. K. Comstock inspectors perform a  
18 configuration inspection of the cable pan hangers to the  
19 original design requirements and identify any  
20 discrepancies between those design requirements and the  
21 as-built condition of the hangers?

22 A (WITNESS KAUSHAL) Mr. Guild, as I understand the  
23 walkdown, the purpose of the walkdown was not to  
24 identify the existing deficiencies and to record them.

25 The purpose was to go identify what was there in

1 the field, develop from those inspections drawings of  
2 as-built conditions and then for Sargent & Lundy, by  
3 design -- analysis of the design, to establish whether  
4 the condition as it existed in the field was acceptable  
5 or not.

6 If there were modifications to be made, they were  
7 then released as revisions to the drawings.

8 Q So the answer to my question is no?

9 A (WITNESS KAUSHAL) What -- I don't know what I'm  
10 answering to now, Mr. Guild. You will have to repeat  
11 the question.

12 Q The question is: Did the Comstock inspectors identify  
13 discrepancies between the as-built condition and the  
14 original design requirements?

15 The answer to that is no, is it not?

16 A (WITNESS KAUSHAL) That's correct.

17 Q To the extent that such discrepancies exist, Dr. Kaushal  
18 -- by that I mean to the extent the discrepancies in the  
19 configuration of these cable pan hangers existed at the  
20 time the walkdown was initiated -- those discrepancies  
21 would represent failures by the original Comstock  
22 Quality Control Inspectors to effectively inspect the  
23 hangers in the first instance?

24 A (WITNESS KAUSHAL) I can't answer that question without  
25 knowing the specifics.

1           If you are assuming that there was a fully  
2           QC-accepted record existent on that hanger, then your  
3           conclusion would be correct.

4           Q     All right, sir.

5                     And to the extent that the CSR inspectors  
6           identified discrepant conditions in the field-observed  
7           condition of the hanger configurations, cable pan hanger  
8           configurations, those, too, represented instances where  
9           the original Comstock inspector failed to identify  
10          discrepant conditions?

11          A     (WITNESS KAUSHAL)     Again assuming that there was an  
12          original fully QC-accepted condition existent, that  
13          would be correct.

14          Q     Well, it wouldn't have been in the CSR sample if it had  
15          not been fully QC-accepted?

16          A     (WITNESS KAUSHAL)     That is not accurate, Mr. Guild.

17                     As I pointed out before, they can be partial.  
18          Something can be essentially QC-accepted, but there can  
19          be portions thereof that are not, on which there is an  
20          outstanding rework or other item pending.

21                     So there can be a discrepancy on an item that was  
22          in the sample that was QC-accepted and completed, but  
23          there were specific attributes or specific portions that  
24          were not fully QC-accepted and completed.

25          Q     Yes, sir.

1                   If that instance occurred, though, the item would  
2                   be declared an invalid observation under CSR --

3           A       (WITNESS KAUSHAL)    That's correct.

4           Q       In these cases they were declared out of scope because  
5                   of the walkdown?

6           A       (WITNESS KAUSHAL)    That is correct.

7           Q       As least in the case of the observation that was the  
8                   first one in the stack, the observation of Cable Pan  
9                   Hanger 001, Observation No. 2, there was a valid  
10                  discrepancy in the configuration of that hanger?

11          A       (WITNESS KAUSHAL)    It would be my expectation that that  
12                  one would have been valid, yes, if it were not for the  
13                  walkdown.

14          Q       And the validity of that observation indicates that that  
15                  particular hanger, for the configuration attributes  
16                  found rejectable, had been final QC-accepted?

17          A       (WITNESS KAUSHAL)    For the deficiencies -- for the  
18                  discrepancies that were identified and considered valid,  
19                  that would be the case, yes.

20          Q       All right, sir.

21                   Was there a walkdown by Sargent & Lundy, an  
22                   as-built walkdown of the sort you just described for  
23                   cable pan hangers, for cable pans?

24          A       (WITNESS KAUSHAL)    I don't -- I'm not -- I don't recall  
25                  at this time any walkdown for cable pans.

1 Q All right.

2 Are any other members of the panel aware of a  
3 walkdown of the cable pans?

4 A (WITNESS WOZNIAK) I don't recall any at this time.

5 Q All right.

6 There was a walkdown for conduit hanger  
7 configuration, was there not --

8 A (WITNESS KAUSHAL) That's correct.

9 Q -- by Sargent & Lundy under the same general  
10 organizational approach you described for cable pan  
11 hangers?

12 A (WITNESS KAUSHAL) No.

13 In fact, for conduit hangers, the walkdown was done  
14 specifically for the purpose of identifying the status  
15 of construction in the field.

16 Q This was the question of whether the conduit was  
17 attached to the hanger?

18 A (WITNESS KAUSHAL) That was one of the purposes, yes.

19 Q So there's not an -- was it an as-built configuration  
20 walkdown as well?

21 A (WITNESS KAUSHAL) There was -- configuration was  
22 included in that.

23 Q Did they as-built the hangers?

24 A (WITNESS KAUSHAL) I don't know if it was as-built in  
25 every case.

1           In some cases or in a large number of cases, they  
2 might have gone in the field and found that the as-built  
3 condition was in accordance with the design and so the  
4 design represented the as-built condition.

5       Q   Well, what I'm trying to understand is: For conduit  
6 hangers, did Sargent & Lundy prepare as-built drawings  
7 and make engineering evaluations of the as-built  
8 condition to the extent that that condition differed  
9 from the as-designed condition?

10       A   (WITNESS KAUSHAL)   Yes, in those cases, yes, I believe  
11 they did.

12       Q   In cases where they identified differences between the  
13 as-built and the design condition?

14       A   (WITNESS KAUSHAL)   That's correct.

15       Q   All right, sir.

16           In those cases where there were differences between  
17 the as-built and the design condition, did the L. K.  
18 Comstock inspectors perform a prior configuration  
19 inspection and document any discrepant conditions?

20       A   (WITNESS KAUSHAL)   I would assume so, but I cannot  
21 vouch for that in every case.

22       Q   Well, did they do it in a way that was different from  
23 the cable pan hanger walkdown?

24       A   (WITNESS KAUSHAL)   Oh, excuse me. Maybe I answered the  
25 wrong question. I thought you were asking something

1 else before.

2 My response before was -- did Comstock QC  
3 Inspectors, in their normal first-line QC inspections,  
4 perform inspections on those conduit hangers? Was that  
5 your question?

6 Q No, but you assume they did?

7 A (WITNESS KAUSHAL) That was my answer, yes.

8 Q Now I'm focusing on the walkdown.

9 Was the role of the Comstock inspector similar for  
10 the conduit hanger walkdown as it was for the cable pan  
11 hanger walkdown?

12 A (WITNESS KAUSHAL) No. In fact, I didn't state that  
13 Comstock inspectors were party to the conduit hanger  
14 walkdown.

15 Q All right, sir. I presume too much.

16 Were they, to your knowledge, Comstock inspectors?

17 A (WITNESS KAUSHAL) To my knowledge, they were not.

18 Q All right.

19 To your knowledge, was there any reinspection of  
20 the conduit hangers by Quality Control Inspectors, after  
21 the final QC acceptance but before the Sargent & Lundy  
22 walkdown, to identify and document configuration  
23 discrepancies?

24 A (WITNESS KAUSHAL) Maybe I'm having some problem, Mr.  
25 Guild.

1                   Would you repeat that question again?

2           Q       I'll try.

3                   If the Sargent & Lundy engineers in the conduit  
4                   hanger walkdown performed as-built drawings and made  
5                   engineering determinations of the acceptability of those  
6                   as-built conditions where they differed from the  
7                   as-designed condition -- and I understand you to say  
8                   that they did; correct?

9           A       (WITNESS KAUSHAL)   In some cases they might have, yes.

10          Q       All right.

11                   Was that as-built evaluation preceded by a  
12                   documentation by Quality Control Inspectors of the  
13                   discrepancies identified in the as-built condition as  
14                   compared with the as-designed condition?

15          A       (WITNESS KAUSHAL)   To my knowledge, no.

16                   MR. GUILD:   Mr. Chairman, that concludes that  
17                   line of questioning.

18                   I would like to offer Intervenor's 151, which is  
19                   the BCAP observation record for the cable pan hanger  
20                   out-of-scope observation, which I'll copy and distribute  
21                   to the Board and parties; and Intervenor's 152, which is  
22                   CECo NCR 451 on the Systems Control Corporation.

23                   JUDGE GROSSMAN:   Okay. Both of these will be  
24                   supplied by Applicant on Monday, I assume, or they'll be  
25                   completed. 152 is not complete.

1           Now, are there any objections to the admission of  
2 the complete documents when they're supplied?

3           They'll be admitted now, of course, if there are no  
4 objections, and supplied on Monday.

5           MR. STEPTOE: No objection with respect to  
6 Intervenors' Exhibit No. 151.

7           With respect to Intervenors' Exhibit 152, the full  
8 copy of NCR 451, I'm told, is pretty big.

9           JUDGE GROSSMAN: Okay.

10          MR. STEPTOE: I have --

11          JUDGE GROSSMAN: Judge Cole just pointed out  
12 to me that we have at least 82 pages in there.

13          MR. STEPTOE: Maybe more.

14          MR. GUILD: It might be helpful, Mr.  
15 Chairman, if we had a copy to refer to.

16          JUDGE GROSSMAN: Okay. We'll reserve  
17 judgment. Why don't you reserve your offer --

18          MR. GUILD: All right, sir.

19          JUDGE GROSSMAN: -- for Monday until you have  
20 the completed document.

21          Mr. Berry, I take it there's no objection by you?

22          MR. BERRY: No, no.

23          JUDGE GROSSMAN: Okay. So we'll admit 151  
24 now, and no offer having been made on 152, we won't rule  
25 on that.

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(The document was thereupon received into evidence as Intervenors' Exhibit No. 151.)

JUDGE GROSSMAN: Unless there's something further that we ought to hear now, we'll adjourn until Monday at 2:00 o'clock.

Is there anything further?

MR. GUILD: Not from Intervenors.

JUDGE GROSSMAN: Okay, fine. Then we're adjourned.

(WHEREUPON, at the hour of 11:00 A. M., the hearing of the above-entitled matter was continued to the 6th day of October, 1986, at the hour of 2:00 o'clock P. M.)

## 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: BRAIDWOOD STATION  
UNITS 1 & 2  
COMMONWEALTH EDISON

DOCKET NO.: 50-456-457/OL

PLACE: CHICAGO, ILLINOIS

DATE: FRIDAY, OCTOBER 3, 1986

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission.

(sig) Nancy J. Hopp  
(TYPED) Nancy J. Hopp

Official Reporter

Reporter's Affiliation