

RELATED CORRESPONDENCE

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USNRC

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

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In the matter of: :
COMMONWEALTH EDISON COMPANY : Docket Nos.
(Braidwood Nuclear Power Station, : 50-456
Units 1 and 2) : 50-457

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Isham, Lincoln & Beale
Three First National Plaza
Chicago, Illinois

Friday, February 14, 1986

The Deposition of GEORGE M. ORLOV, called for
examination by Counsel for Intervenor, taken before
Suzanne B. Young, a notary public in and for the District
of Columbia, at Isham, Lincoln & Beale, Chicago, Illinois,

ANN RILEY & ASSOCIATES, LTD.
1625 I Street, N.W. 293-3950 Washington, D.C.

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commencing at 10:20 a.m. on Friday, February 14, 1986, when
were present on behalf of the respective parties:

APPEARANCES:

For the Licensee, Commonwealth Edison Company:

PHILIP P. STEPTOE, III, Esq.
MICHAEL MILLER, Esq.
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For the Intervenors, Rorem, et al.:

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For the NRC Staff:

ELAINE CHAN, Attorney
U.S. Nuclear Regulatory Commission
Office of the Executive Legal Director
Washington, D.C. 20555

* * *

I N D E X

<u>Witness</u>	<u>Examination by</u>	<u>Page NO.</u>
GEORGE M. ORLOV	Mr. Guild	4
	Mr. Steptoe	223
	Mr. Guild	228
	Mr. Steptoe	241
	Mr. Guild	243

EXHIBITS

<u>Exhibit No.</u>	<u>Identified</u>
Orlov No. 1	5
Orlov No. 2	9
Orlov No. 3	160
Orlov No. 4	213
Orlov No. 5	214
Orlov No. 6	218
Orlov No. 7	234

P R O C E E D I N G S

Whereupon,

GEORGE MICHAEL ORLOV,

called for examination by counsel for the Intervenor, after being duly sworn under oath, was examined and testified as follows:

EXAMINATION

BY MR. GUILD:

Q Mr. Orlov, would you state your full name and your business address for the record, please?

A George Michael Orlov, Braidwood Station, Braidwood, Illinois.

Q And by whom are you employed and in what capacity?

A I am a consultant to Commonwealth Edison, and I am currently the staff assistant to the project manager.

Q By whom are you employed?

A I am technically self employed, but I am under a consulting contract through Science Applications of McLean, Virginia.

Q My name is Bob Guild. I am counsel for the Intervenor in the Braidwood licensing proceeding, and I

1 understand you have submitted affidavits in support of
2 Applicant's December 20th Motion for Summary Disposition,
3 and principally I would like to ask you questions about
4 those affidavits today.

5 Have you seen a copy of this document? It's the
6 January 30, 1986 Notice of Depositions directed to you, among
7 others.

8 (Witness reviewing document.)

9 A Yes, I have seen this document.

10 Q This particular copy happens to be an exhibit to
11 Mr. Gieseke's deposition, and I would ask that a substitute
12 copy of this document be marked as Orlov Deposition Exhibit
13 No. 1 for identification.

14 (Orlov Deposition Exhibit No. 1
15 was marked for identification.)

16 BY MR. GUILD:

17 Q On the second page of that document, Mr. Orlov,
18 there is a request that you produce documents, and have
19 you brought any documents with you responsive to that
20 request?

21 A Yes, I have.

22 Q Could you identify those for me, please?

1 A I have brought copies of both affidavits, I
2 guess for my general reference.

3 Q And those are an affidavit in support of --

4 A 12E and 12F.

5 Q 12E and 12F. Thank you.

6 A I brought a copy of BCAP letter No. 45, dated
7 May 29, 1985 from Byers to Hansel of the ERC. Attached to
8 it is a copy of a letter from Hansel to Kaushal, No. BCAP 130,
9 dated January 28, 1985. And attached to that is an
10 observation by the ERC, which is the independent expert
11 overview group, and I believe it is identified as BCAP
12 Observation No. 7, dated the 14th of January, 1985.

13 I believe it also contains BCAP's response to
14 that observation.

15 I have here another letter from the ERC, Hansel
16 to Kaushal, Letter No. BCAP 261, dated June 4, 1985.

17 I have a letter from Dan Shamblin, Project
18 Construction Department, to Ninu Kaushal, Letter No. BR/PCD85-
19 43, dated January 15, 1985.

20 I have with me also copies of two inspection
21 reports by the NRC. I will try and get you the number here.
22 One is dated February 13, 1985, and I believe it is 85-02,

1 which would be the shortened version. We will skip the
2 construction permit numbers.

3 Q All right.

4 A Another one is dated March 8, 1985, Inspection
5 Report -- and it is 85-06.

6 I have here a copy of a surveillance report by
7 the Braidwood QA Site Organization. It is Surveillance
8 Report No. 41-51, report date February 14, 1985.

9 I have here a letter, BCAP Memo No. 969, dated
10 March 25, 1985, from Ninu Kaushal to various personnel in
11 the BCAP organization.

12 Attached to it is a letter from Neil Smith,
13 letter to Ninu Kaushal, letter No. BRD 15269, dated
14 March 22, 1985. And I have another copy of the same letter
15 from Shamblin to Kaushal.

16 I have here also a draft of a response to the
17 ERC Observation No. 7.

18 MR. STEPTOE: Excuse me. George, would you
19 explain how that draft was copied?

20 THE WITNESS: Certainly. This consists of two
21 pages. One I Xeroxed from an original, a pencil original,
22 and the other one consists of an original which has the bot-
tom half represented here that was Xeroxed and cut and

1 pasted onto an original here. I do have the original in
2 my possession back at the office. You can see they are
3 two different handwritings. The bottom is by Sam Crow,
4 and that's a copy that was cut and pasted onto the top.

5 BY MR. GUILD:

6 Q Whose handwriting is the top?

7 A Phil Lau wrote the top of that and this.

8 Q The first page?

9 A Yes.

10 Q And how do you spell that gentleman's name, please?

11 A L-a-u.

12 Q Thank you.

13 A And the bottom is Sam Crow's handwriting.

14 MR. STEPTOE: Just to be clear, Mr. Orlov, did
15 you do that cutting and pasting in preparation for this
16 deposition?

17 THE WITNESS: No. Mr. Phil Lau basically took
18 a draft of Mr. Sam Crow's draft, and he did the cutting and
19 pasting himself and presented his draft as we see it now to
20 me. So that is his cutting and pasting, not mine.

21 BY MR. GUILD:

22 Q Now, those documents, do they relate to one of the

1 sub-items and not to the other?

2 A They relate to one or the other.

3 Q So those are the totality of the documents that
4 you brought?

5 A Yes, that's correct. There are other documents
6 that are attached to the affidavits, I believe.

7 Q That were served along with the Motion for
8 Summary Disposition?

9 A Yes, correct.

10 MR. GUILD: I would like to ask that the
11 documents that Mr. Orlov has just identified be marked as
12 Group Exhibit 2 to his deposition.

13 (Orlov Deposition Group Exhibit No. 2
14 was marked for identification.)

15 MR. GUILD: And let's omit, if we can, from the
16 deposition the affidavits that have been filed with the
17 Motion for Summary Disposition, and the two NRC inspection
18 reports, and all of those matters are filed in the proceeding
19 already.

20 Mr. Steptoe, if I could ask if at some point during
21 a break we could make a copy of the document so that we can
22 include one with the record and let Mr. Orlov retain his
originals?

1 MR. STEPTOE: Sure.

2 BY MR. GUILD:

3 Q Mr. Orlov, let's start with item 2E. I have
4 before me the packet of information that the Applicant filed
5 in support of its Motion for Summary Disposition on that
6 sub-item.

7 A Excuse me. Is that 2E or 12E?

8 Q 12 E is what I meant to say. Do you have that?

9 A Yes.

10 Q Including your affidavit, and I see an affidavit
11 of 12 pages or testimony of 12 pages in length that is
12 appended to a one-page affidavit. Is that your affidavit in
13 support of the motion on this sub-item 12E?

14 A Yes, it is.

15 Q All right.

16 How did you come to prepare that affidavit?

17 A Well, Mr. Steptoe provided me with a list of
18 questions, which you see represented here, and I supplied
19 him with answers, which are all presented here.

20 Q All right. And did you draft the answers?

21 A Yes, I did.

22 Q Did anyone assist you in drafting those answers?

1 A No.

2 Q Did anyone other than Mr. Steptoe review that
3 draft?

4 A To my knowledge, no. I know of no other person.

5 Q Can you identify, please, any changes that were
6 made to your draft that resulted in the testimony that has
7 been filed?

8 A Certainly. On page 12 at the very top of the
9 page, you see, "I have been informed that steps PCD has
10 taken to resolve this concern are discussed in Mr. Gieseke's
11 affidavit in response to Contention Item 3C." Mr. Steptoe
12 informed me of that and added that to the draft, and I
13 concurred with that.

14 Q Any other changes?

15 A Other than there were a few typos in this item,
16 no.

17 Q Let's turn, then, to your affidavit in support
18 of Item 12F. I see an affidavit of one page and testimony
19 attached of 14 pages. Is that your testimony, Mr. Orlov?

20 A Yes, it is.

21 Q And how did you come to prepare that testimony?

22 A In a manner identical to previously discussed

1 under 12E. Mr. Steptoe provided me with a list of questions,
2 for which I then drafted answers.

3 Q Did anyone assist you in drafting the answers?

4 A No.

5 Q Did anyone else review those answers or those
6 drafts other than Mr. Steptoe and you?

7 A Not to my knowledge.

8 Q Were any changes made to your draft?

9 A Yes, there were.

10 Q Can you identify those, please?

11 A Certainly. On page 6 you will see at the top of
12 the page an excerpt from Procedure PGC P40. I had just
13 referenced in my draft those paragraph numbers, and Mr.
14 Steptoe wrote them out for me.

15 Q Any other changes, sir?

16 A Question 29 and Answer 29. I believe Mr. Steptoe
17 added the last sentence, "I agree with the discussion of
18 this point which appears in Mr. Smith's affidavit." Again,
19 I was not aware of Mr. Smith's affidavit at the time I was
20 writing this, and Mr. Steptoe provided that linkage to
21 another affidavit submitted under this contention. And, of
22 course, I agree with that statement.

1 Also, in Question No. 26 there again is a
2 reference in the first lines of Mr. Hunsader's affidavit.
3 This was, again, provided by Mr. Steptoe as a reference to
4 another affidavit submitted under this contention, and
5 again, I agree with that.

6 Q Any other changes?

7 A Not to my knowledge.

8 Q Let me take a moment and look at these documents
9 you have provided.

10 (Pause.)

11 Mr. Orlov, at page 12 of your affidavit with
12 respect to sub-item 12E, you referred to the steps which
13 Commonwealth Edison Company's Project Construction Division
14 is taking to resolve the concern.

15 Do you understand that NCRs were originated to
16 identify the nonconforming conditions documented in the BCAP
17 observation?

18 A Could you repeat your question?

19 Q Sure. Did CECO issue NCRs documenting the BCAP
20 observation regarding the use of Level I inspectors?

21 A I personally don't know. I imagine that by the
22 program they were required to, but BCAP does not follow up

1 the corrective actions.

2 Q You are not aware of whether they have, then, or
3 not?

4 A No.

5 Q And you haven't reviewed any NCRs if such have
6 been issued?

7 A No.

8 Q You need to keep your voice up a little bit so
9 she can pick you up, Mr. Orlov.

10 A Certainly.

11 Q A little bit about your background, Mr. Orlov.
12 When did you obtain your bachelor's degree, sir?

13 A Officially, February 1978.

14 Q How about your master's?

15 A Same date.

16 Q Was your employment at the Zimmer Nuclear Power
17 Station your initial employment at a nuclear generating
18 facility under construction?

19 A That's correct.

20 Q How do you use the term "seconded" that appears
21 on the second line of page 2 of your affidavit?

22 A It's usually pronounced "secunded," and it means

1 that I was an outside employee brought into the organization
2 of Cincinnati Gas and Electric and acted as an employee for
3 Cincinnati Gas and Electric Company in their organization.

4 Q Were you employed by them, by Cincinnati Gas
5 and Electric?

6 A No. I was employed by Science Applications. I
7 believe I state that.

8 Q Can you get a reference for me?

9 A No, I guess not. I assumed that "secured" would
10 be understood to mean that I still belonged to SAI. I'm
11 sorry.

12 Q You are wrong, Mr. Orlov. It didn't mean anything
13 to me, I'm afraid.

14 A Well, it's a commonly-used phrase, but perhaps
15 not in your circles.

16 Q Not in my circles, I'm afraid.

17 What were your duties in the capacities in which
18 you were employed at the Zimmer facility?

19 A At what time?

20 Q Well, start at the beginning and work to the end,
21 please.

22 A Okay. In May of '81 I held the position of

1 quality engineer in Cincinnati Gas and Electric Company's
2 organization. They were the owner.

3 Q And that was your title, quality engineer?

4 A Correct.

5 Q And your duties in that capacity?

6 A Well, I had many duties, and I will try and list
7 a few of them for you.

8 Q How about focusing on the principal ones, the
9 most important ones.

10 A Okay. My principal function was to perform a
11 review for the client, Cincinnati Gas and Electric Company,
12 of the nonconformance reports and their dispositions, which
13 were initiated by the constructor, Henry J. Kaiser Company.

14 I also reviewed and approved procedures for that
15 company for the client. They were Kaiser procedures.

16 Q In what disciplines did you perform the NCR review
17 and the procedure review?

18 A Piping, mechanical and welding, primarily.

19 Q What kind of welding?

20 A Both ASME Section 3 and AWS D1.1.

21 Q Any other areas, other disciplines?

22 A Yes, I had some involvement in structural-related

1 work, welding and erection of structural steel.

2 Q All right. Those are your principal duties as
3 the quality engineer?

4 A Those were my principal duties, yes.

5 Q And in other capacities at the Zimmer facility?

6 A Starting in October of 1982 in the position of
7 Assistant Director of the Quality Confirmation Program,
8 I provided management direction and technical assistance for
9 the quality confirmation program.

10 Then later I became the Director of the Quality
11 Confirmation Program. I believe that date was September 1983.
12 At that same time I also became the Director of the PVQC,
13 the program to verify the quality of construction.

14 Q And what were your duties in those capacities?

15 A As director I had responsibility for the
16 implementation of those programs, personnel, technical
17 direction, management reports to upper management.

18 To sum it up, I ran those two programs.

19 Q To whom did you report when you were quality
20 engineer?

21 A Doug Schulte.

22 Q How do you spell his last name?

1 A S-c-h-u-l-t-e.

2 Q What was Mr. Schulte's position?

3 A He was the Director of Quality Engineering for
4 Cincinnati Gas and Electric. As Assistant Director for the
5 Quality Confirmation program, I reported to the Director of
6 the Quality Confirmation Program, James Shaffer.

7 Q How do you spell that?

8 A S-h-a-f-f-e-r.

9 Q And in your capacity as director?

10 A I reported to Dave Hyster, who was the manager of
11 PVQC and support services.

12 Q I'm sorry. His title again? Manager of?

13 A Manager, PVQC and support services.

14 Q Was Mr. Hyster at the site?

15 A Yes, he was.

16 Q Did you hold any positions after the position of
17 director of those programs?

18 A I believe in 1984, February -- or actually January
19 21, 1984, Zimmer was cancelled. I stayed on for about another
20 month, and then came to Braidwood in February, late
21 February 1984.

22 Q And in what capacity did you come to Braidwood?

1 A I came to Braidwood as a consultant.

2 Q And by whom were you employed?

3 A Again, I am an independent consultant, and that
4 would have been through Science Applications.

5 Q What is Science Applications' role in your
6 employment?

7 A I have been employed with them for seven years,
8 and they at this point in time have secunded me into the
9 Commonwealth Edison organization, and I believe Commonwealth
10 Edison's organization's term for it is loaned servant.

11 Q L-o-a-n-e-d?

12 A Yes, as in debt.

13 Q What is the nature of your relationship with
14 Science Applications? Do they simply place you in the
15 position you hold or are you employed by them?

16 A Initially I was employed by them from January
17 1979 to May of 1981. Then I took a leave of absence from
18 the company to become a consultant, and I have been with
19 the company ever since in that capacity. In terms of being
20 placed in my position at Braidwood, I created that position
21 myself through efforts of my own. However, the administra-
22 tive details are handed by Science Applications.

1 Q And you are technically on leave from them?

2 A Correct.

3 Q Was the work of the Quality Confirmation Program
4 or the program to verify the quality of construction at
5 the Zimmer Nuclear Power Station ever evaluated by the
6 Nuclear Regulatory Commission?

7 A When you say "evaluated," do you mean the
8 program itself, the execution of the program?

9 Q In any respect, but start with that first.

10 A Well, I believe the Quality Confirmation Program
11 was developed in concert with the Nuclear Regulatory Commis-
12 sion, Region III as to its scope and responsibilities and
13 directions. The PVQC was also approved, the program itself
14 was approved by the Nuclear Regulatory Commission.

15 In addition, the Nuclear Regulatory Commission
16 performed inspections of both the QCP and the PVQC.

17 Q Did the NRC ever identify items of noncompliance
18 with respect to the two programs in which you were employed?

19 MR. STEPTOE: Objection, relevance. The witness
20 may answer.

21 THE WITNESS: I am trying to remember. To the
22 best of my current recollection, no. I am sure I could

1 refresh my recollection by going through the entire set of
2 NRC files and inspection reports, but that's about the only
3 way I could do that.

4 Q And you don't recall any off-hand?

5 A No.

6 Q Would you recall if there were any, given your
7 knowledge of the NRC's evaluation and review of your
8 programs?

9 MR. STEPTOE: Objection. That calls for
10 speculation. The witness can answer.

11 THE WITNESS: Could you repeat the question?

12 BY MR. GUILD:

13 Q Sure. Would you know, given your involvement in
14 the NRC's review or evaluation of those programs, would the
15 existence of an item of noncompliance have come to your
16 attention?

17 A Oh, certainly. I would have been responsible for
18 addressing it.

19 Q What were the objectives of, first, the quality
20 confirmation program?

21 A The quality confirmation program was, as its
22 title suggests, a program to confirm the quality of

1 construction at Zimmer. It initially had, I believe,
2 eleven tasks that related to different aspects of construc-
3 tion at Zimmer.

4 Q All right.

5 And the program to verify the quality of
6 construction?

7 A The PVQC was, I guess, a superset of the QCP.
8 It was to verify all construction at Zimmer. That is, all
9 safety-related construction.

10 Q And how is that distinguished from the quality
11 confirmation program?

12 A The quality confirmation program had distinct
13 tasks, distinct areas of the plant at which it looked. I
14 believe it started at 11 or 12 and ended up as 16 distinct
15 areas of construction.

16 Q Did those programs succeed in accomplishing
17 those objectives?

18 MR. STEPTOE: Objection, relevance. The witness
19 may answer.

20 THE WITNESS: Not all of the tasks had come to
21 fruition or to completion at the time Zimmer was terminated
22 or cancelled. I believe a number of the programs, of the

1 tasks, were completed and did validate to a certain
2 extent the quality of construction at Zimmer.

3 Q Did the NRC evaluate and verify the accomplishment
4 of those objectives?

5 A For certain ones they had, yes. Specifically
6 task 5, which dealt with radiography, the interpretation of
7 radiographic film. I believe Kevin Ward had reviewed the
8 results of that program.

9 Q Did they evaluate and conclude that they could
10 not verify the accomplishment of those objectives with
11 regard to any other tasks?

12 A That would be speculation on my part. I
13 could not answer that.

14 Q You are not aware if they did or didn't?

15 A Did or didn't what?

16 Q Verify the accomplishment of objectives in other
17 areas.

18 A Well, it would have been hard for them for the
19 ones that had not yet been completed.

20 Q Well, that may or may not be the case, but could
21 you answer the question directly? If you don't understand,
22 I will try to restate it again.

1 MR. STEPTOE: Could you restate the question?

2 MR. GUILD: I will try.

3 BY MR. GUILD:

4 Q Did the NRC conclude that it was unable to
5 verify the accomplishment of objectives under either of
6 these programs in any other areas? You stated one area
7 where they did verify the accomplishment of that objective.

8 A No, they never had a problem with inability to
9 verify our conclusions.

10 Q Well, again, the objective you stated of the
11 programs was to verify the quality of construction. Were
12 there any areas in which the NRC at Zimmer, to your knowledge,
13 concluded that they were unable to verify the quality of
14 construction?

15 MR. STEPTOE: Relevance objection.

16 THE WITNESS: Could you repeat that question one
17 more time?

18 MR. GUILD: I will try one more time, Mr. Orlov.

19 THE WITNESS: It's a difficult concept, but I will
20 listen very carefully this time.

21 BY MR. GUILD:

22 Q All right. Well, why don't you tell me what the

1 difficulty is and then I will try to reframe the question
2 to respond to what difficulty you perceive in it.

3 A It's a matter of the NRC's role in that I am
4 having some difficulty understanding exactly -- I didn't
5 know that the NRC was charged with that particular duty.
6 I'm having some trouble understanding the question in that
7 regard. But if you could try and rephrase it, I will try
8 and listen very carefully.

9 Q Well, do you understand that the NRC has
10 responsibility for determining that a nuclear facility,
11 subject to its licensing, has been constructed in such a
12 fashion as to reasonable assure that it will operate safely?

13 A Certainly.

14 Q Well, in that regard, did I understand correctly
15 that the objective of these programs that you directed was
16 to verify the adequacy of construction at the facility?

17 A Correct.

18 Q And the NRC's task in part was to evaluate your
19 program to determine whether on the basis of your program
20 it could conclude that the facility was constructed safely.

21 A Certainly.

22 Q Now, the focus of my question is are you aware of

1 whether the NRC ever reached the conclusion that it could
2 not verify the safety of the construction of the facility
3 in any respects?

4 A No.

5 MR. STEPTOE: Could I have the question read
6 back? I'm sorry.

7 (The reporter read the record as requested.)

8 BY MR. GUILD:

9 Q Let me repeat an earlier question. You may have
10 been in the process of answering it when I interrupted you
11 with follow-ups.

12 Did you succeed in accomplishing the objectives
13 of the two verification programs that you were responsible
14 for?

15 A Well, the program for the verification of the
16 quality of construction began within a few months of Zimmer
17 being cancelled, so it was in the formative stages of
18 procedure writing, sample selection and program development.
19 So it was unable to reach any conclusions as to the adequacy
20 of construction at Zimmer.

21 Q Now, that is the PVQC?

22 A PVQC.

1 Q How about the QCP?

2 A The QCP was able to draw some conclusions on
3 some tasks which it had completed at that point in time. I
4 believe I gave you one example was Task 5.

5 Q Yes. Any others?

6 A Again, I would have to refresh my memory as to
7 what those tasks were. I believe we were well under way
8 on Task 1, which is structural steel inspections, and a few
9 others. I believe there may have been two or three draft
10 reports written that would have summarized the conclusions
11 for those tasks.

12 Q Tasks 1 and 5?

13 A Again, I know there was a report written for
14 Task 5. I don't believe a report, in fact, was written for
15 Task 1 at that point in time, the point in time being
16 February 1984. And I don't recollect exactly which other
17 tasks had come to that state of conclusion.

18 Q Did the NRC identify any deficiencies in the
19 aspects of the program that it had reviewed?

20 MR. STEPTOE: At one time? Excuse me.

21 BY MR. GUILD:

22 Q Any time. First the quality confirmation program.

1 MR. STEPTOE: I will object, asked and answered,
2 but the witness may answer.

3 THE WITNESS: Could you repeat your question?

4 BY MR. GUILD:

5 Q Did the NRC identify any deficiencies in the
6 quality confirmation program?

7 A I remember vaguely that Mr. Forney of the NRC
8 had a question regarding the processing of one of the
9 nonconformance reports which were written -- which were
10 evaluated by Task 7 of QCP.

11 Q And what was the subject of that task?

12 A To review previously voided nonconformance
13 reports, nonconformance reports that were written by Henry
14 J. Kaiser and voided by the organization.

15 Q Do you recall any other deficiencies?

16 A Not that I'm aware of.

17 Q Had you been responsible for previously
18 reviewing those NCRs?

19 A Myself personally?

20 Q Yes.

21 A No.

22 Q In your capacity as a quality engineer?

1 A No.

2 Q That was not within the scope of work that you
3 described earlier in your testimony?

4 MR. STEPTOE: Excuse me. I'm lost a little bit.
5 Could you explain what "that" refers to? And in your
6 previous question you referred to NCRs, in plural, and I'm
7 a little lost right now.

8 MR. GUILD: I will try to help.

9 BY MR. GUILD:

10 Q The NCR that Mr. Forney expressed a question
11 about -- I'm not sure that was your word, but identified --
12 was that within the scope of work that you previously
13 described in your capacity as quality engineer?

14 A No. As of April 8, 1981, the voiding of non-
15 conformance reports by Henry J. Kaiser ceased. Under QCP,
16 the nonconformance reports that had been voided prior to
17 May of '81, April of '81 were reviewed. In my function as
18 quality engineer, I reviewed those nonconformance reports
19 that were -- not voided, but rather dispositioned, again,
20 after. They were dispositioned after April 8, 1981.

21 Q Did the NRC identify any deficiencies in the
22 quality confirmation program -- I'm sorry, the program to

1 verify the quality of construction?

2 A No, not to my knowledge.

3 Q Do you know a Pat Gwynn?

4 A Yes, I do.

5 Q Who is Mr. Gwynn?

6 A Mr. Gwynn was during the '83-'84 time period,
7 an NRC resident inspector at Zimmer.

8 Q Did you know him in that capacity?

9 A Yes, I did.

10 Q Do you know a Worley O. Puckett, W-o-r-l-e-y
11 P-u-c-k-e--t-t?

12 MR. STEPTOE: Objection. What is the relevance
13 of this line of questioning to Contention Item 12E or 12F?

14 BY MR. GUILD:

15 Q I would like the question answered.

16 MR. STEPTOE: Well, presumably that's why you
17 asked it, but it seems to me what you are attempting to do
18 is ask a question with respect to another contention item,
19 that is, Contention Item 2, I believe, and I think that is
20 in contravention with your agreement with Mr. Gallo of last
21 week.

22 MR. GUILD: I disagree, and I would like the

1 question answered. It's within the scope of the notice of
2 deposition, within any agreements that I had with Mr.
3 Gallo, it is relevant to this contention, it is relevant to
4 the quality assurance at Braidwood, and I would like the
5 question answered, please.

6 Are you going to instruct the witness not to
7 answer the question?

8 MR. STEPTOE: I will tell you what I have in
9 mind. I am not prepared for this line, based on your
10 representation to Mr. Gallo that your questioning would be
11 directed towards Contention Items 12E and 12F. However, I
12 am willing to take 20 minutes with this witness and go and
13 try and get Mr. Miller or Ms. Kezelis, I believe, who were
14 handling Contention Item 2 in this office, prepare the
15 witness to respond to this line of inquiry. I think that
16 is a reasonable offer under the circumstances.

17 MR. GUILD: Well, you can do as you choose. I
18 would like the question answered and I would like it answered
19 now. I will state for the record that your co-counsel, Mr.
20 Gallo, was present during the deposition of Mr. Puckett -- or
21 Mr. Miller was present during the deposition of Mr. Puckett.
22 Either one or both of those gentlemen, perhaps Ms. Kezelis,

1 as well, were fully informed that I intended to ask Mr. Orlov
2 this very series of questions, and that was at least -- well,
3 I can find out what the date of the Puckett deposition was,
4 but it wasn't yesterday and it wasn't the day before, and
5 it was probably last week sometime, counsel. They certainly
6 had full notice that this was a subject that was going to be
7 discussed with Mr. Orlov. In fact, I recall one of your
8 colleagues making the observation, probably on the record,
9 that it appears that the answer to a series of questions
10 that I had directed to Mr. Puckett were very likely to be
11 answered by Mr. Orlov at his deposition today.

12 So they fully anticipated this line of questioning
13 would be covered. Now again, if I have to make the point one
14 more time, as I made yesterday, I have no agreement with
15 Mr. Gallo that this line of questioning was beyond the scope
16 of the deposition I intended to take of Mr. Orlov, and if
17 you believe to the contrary, instruct your witness not to
18 answer the question, and we will litigate this one, Mr.
19 Steptoe.

20 But I think the real problem is one of lack of
21 communication between you and your colleague, and today's
22 repetition of this dispute and perhaps enhancement of this

1 dispute demonstrates even more clearly to me that you
2 simply do not know what your colleagues have been doing
3 with respect to commitments they have made in this litigation.

4 Please ask Mr. Miller, if you want. Take as
5 much time as you like. Fine. Please do ask Mr. Miller,
6 please do ask Mr. Gallo, please do ask Ms. Kezelis
7 exactly what transpired during Mr. Puckett's deposition on
8 this very point.

9 Now, I would like the question answered untutored
10 by counsel. I would like the answer to be spontaneous and
11 I would like the answer not to be subject to whatever
12 discussions you may have with Mr. Orlov on the subject or
13 with anyone else.

14 So my desire is that the pending question be
15 answered.

16 MR. STEPTOE: Well, with respect to tutoring, at
17 least as conceivably used in an offensive way -- and I don't
18 interpret it that way -- however we do, and any good lawyer
19 will prepare his witness for the line of questioning. Now,
20 I haven't had an opportunity to do that. You said I could
21 take as much time as I would like. I would like to take 20
22 minutes right now to talk with Mr. Miller.

1 Can we recess?

2 MR. GUILD: Well, it is over my objection because
3 not only do I believe that it is improper in the midst of
4 a line of questioning that is clearly within the scope of
5 the deposition as understood by counsel to interrupt the
6 deposition to confer with your witness on the subject, so
7 I object to that. You couldn't take the witness down from
8 the stand on cross-examination, Mr. Steptoe, so that you
9 could counsel with the witness after the question has been
10 put. It would be highly improper and I object to it.

11 Now, notwithstanding my objection, if you choose
12 to recess the deposition and consult with your witness, I
13 would ask that the record reflect that and reflect that it
14 is being done over my objection.

15 MR. STEPTOE: Fine. Would you like to continue
16 on another subject rather than take the recess right now?

17 MR. GUILD: No, sir. I would like to pursue the
18 line of questioning that I choose.

19 MR. STEPTOE: All right. Let's take this 20-minute
20 recess.

21 (Recess.)

22 MR. GUILD: I ask the record to reflect the

1 recess. We are resuming the deposition, and I would like
2 the pending question answered, please.

3 THE WITNESS: Could you repeat the question,
4 please?

5 BY MR. GUILD:

6 Q Do you know Worley O. Puckett?

7 A I don't know him personally. I have had dealings
8 with him at Zimmer.

9 Q What were those dealings?

10 A Well, as both quality engineer and quality
11 confirmation program assistant director and then director,
12 I reviewed some of his work.

13 Q What work?

14 A Specifically, disposition of nonconformance
15 reports, welder qualifications that were under his scope
16 of purview. That would probably be the two major areas.

17 MR. MILLER: Excuse me. May I have the second
18 of the two?

19 (The reporter read the record as requested.)

20 BY MR. GUILD:

21 Q Did you ever meet Mr. Puckett?

22 A Yes.

1 Q When?

2 A I first met him -- when I say met him, I ran
3 into him in the hall at Zimmer, probably at the end of 1981.

4 Q Middle or end of '81?

5 A Yes.

6 Q How do you know it was Puckett? Did you speak to
7 him?

8 A No, I didn't, but I went by his office and,
9 well, he is a rather distinctive-looking person if you take
10 a look at the tattoos on his arms. It's hard to miss. And
11 he had a number of signs in his office describing what one
12 would call him, and it made it quite clear that it was Mr.
13 Puckett.

14 Q What do you mean?

15 A Well, there was a sign that said "Puckett, Just
16 Puckett," and a number of other ornaments around the office
17 that resembled his name.

18 Q What do you mean?

19 A Posters with "Puckett" on maybe a piece of wood
20 with "Puckett" burned into it. Things like that. I
21 distinctly remember the sign saying "Puckett, Just Puckett."
22 That always amused me, so it sticks in my recollection.

Q Did you meet him?

1 A Do you mean did we shake hands and say hello?
2 What do you mean by meet him?

3 Q Did you speak to him?

4 A Yes, I did ask him for something once upon a time.
5 I walked into his office, and I believe I asked him for a
6 list of welder qualifications at one time, and I also -- I
7 believe he was in a few Material Review Board meetings, those
8 meetings at which we discussed nonconformance dispositions.

9 Q In which Mr. Puckett was present?

10 A I believe so, yes.

11 Q Any other contact with Mr. Puckett?

12 A Never away from Zimmer. I did run into him at
13 Braidwood here while he was in his job interview at L.K.
14 Comstock.

15 Q Let me stop you. I just misunderstood your
16 last answer.

17 Other than the contacts you describe at Zimmer,
18 did you have any other contacts with Mr. Puckett at the Zimmer
19 facility?

20 A Do you mean personally or professionally?

21 Q Well, any other contacts.

22 A I had very little direct contact with him, if that

1 is what you mean.

2 Q Did you have indirect contact with him?

3 A Certainly.

4 Q If so, can you tell me what that was?

5 A Well, nonconformance reports that would have
6 been dispositioned, welder qualifications that would have
7 been signed by him, those are the types of things that I
8 would have been responsible for reviewing.

9 Q You reviewed paperwork that Mr. Puckett had some
10 role in processing?

11 A Correct.

12 Q His name on them, perhaps?

13 A Correct.

14 Q I'm sorry. I interrupted you when you were
15 saying after Zimmer at Braidwood you had some contact with
16 Mr. Puckett. Would you describe that, please?

17 A Certainly. I was doing some work regarding
18 BCAP. I was, I believe, looking at some things in the vault
19 at L.K. Comstock, and I just happened to meet Mr. Puckett
20 there. I believe he was being interviewed for a position at
21 L.K. Comstock.

22 Q At the time that you ran into him?

1 A Correct. At least that's what he led me to
2 believe. He said I'm here on an interview.

3 Q So you spoke to him on the subject?

4 A Yes, very briefly. I was just going into an office.
5 I believe he was going out of that office.

6 Q The vault?

7 A No, it was not the vault at that time -- I believe
8 it was someone's office in order that I could access to the
9 vault or ask questions about where the records were kept.

10 Q Do you know whose office it was?

11 A No.

12 Q In the Comstock building?

13 A It may have been Seese's, but I really didn't know
14 anybody at Comstock at the time.

15 Q All right. And this would have been spring of
16 '84?

17 A Yes, mostly likely.

18 Q Can you recall any more particularly when this
19 was?

20 A Well, it would have to have been before June or
21 July of '84, and it would have to have been on or after
22 March of '84.

1 Q April, May of '84?

2 A It may very well have been. I don't keep dates
3 quite like that in my memory. It didn't mean much to me at
4 the time.

5 Q Mr. Puckett informed you that he was being
6 interviewed for a job at Comstock?

7 A It was either Puckett or one of the people in
8 Comstock right after I had crossed with Mr. Puckett, crossed
9 paths with Mr. Puckett. I assumed that he was being
10 interviewed because he was wearing a suit and a tie. On a
11 construction site that usually means you are being inter-
12 viewed, and I believe I confirmed that he was being interviewed.

13 Q So you don't recall whether Mr. Puckett told you
14 that or not? It may have been someone else?

15 A I don't recall. In fact, I had someone with me,
16 Mike Kopp.

17 Q How do you spell the gentleman's name?

18 A K-o-p-p. He may have been the one who asked
19 Worley, what are you doing here, and he may have responded
20 to Mr. Kopp in passing. I don't recall whether I engaged in
21 conversation with Mr. Puckett or not.

22 Q Who is Mr. Kopp?

1 A Mr. Kopp is -- he works currently in the Project
2 Construction Department.

3 Q In what capacity?

4 A Construction engineer.

5 Q And in what capacity was he working at the time?

6 A He was involved in BCAP at the time.

7 Q In what respect?

8 A At that point in time I don't know. It may have
9 been a number of things.

10 Q In any event, through one of those means you
11 learned that Mr. Puckett was being interviewed for a position
12 with Comstock?

13 A Correct.

14 Q Did you learn what position he was being inter-
15 viewed for?

16 A I believe it had something to do with the QC
17 Department.

18 Q Do you know what it had to do with the QC
19 Department?

20 A I don't know based on my recollection of those
21 events. I have later since learned that he was interviewing
22 for a position of Level III inspector, and that is based on

1 my reading of depositions and, in fact, your contention
2 items and documents related to the contention.

3 Q Have you read Mr. Puckett's deposition?

4 A I have not read it. I briefly scanned through a
5 number of pages but have not been able to take the time to
6 read the entire thing, and that is his first deposition, not
7 his second deposition.

8 Q Have you discussed with counsel the subject of
9 Mr. Puckett and your dealings with him?

10 A I was just informed that my name had been brought
11 up in Mr. Puckett's deposition.

12 Q When you say "just informed," do you mean during
13 the recess in your deposition?

14 A No. That wasn't discussed at all.

15 Q When do you mean?

16 A I believe it was -- it may have been Wednesday of
17 this week, sometime this week.

18 Q Was it after you received notice that your
19 deposition was to be taken?

20 A Yes, I would say so.

21 Q And who informed you?

22 A Mr. Miller.

1 Q What did Mr. Miller tell you?

2 A He said: By the way -- and I believe I was walking
3 out of a particular trailer and he was walking in, perhaps --
4 your n. was brought up in Mr. Puckett's deposition.

5 Q Did he tell you anything else?

6 A He informed me that Mr. Puckett claimed that Mr.
7 Gwynn, I believe, called me up regarding Mr. Puckett's
8 past experiences at Zimmer.

9 Q Did counsel show you the transcript of Mr.
10 Puckett's deposition testimony on that subject?

11 A I have never seen Mr. Puckett's deposition
12 transcript on that subject.

13 Q What portions of Mr. Puckett's deposition did you
14 review?

15 A Again, I did not review -- I have not seen any
16 of the transcript for his second deposition, I think on the
17 6th of February. I briefly scanned certain sections of his
18 first deposition. I tried to just get a flavor for it.
19 Again, I didn't have time to read the entire thing.

20 Q What was the purpose of your review of that
21 portion of Mr. Puckett's deposition?

22 A My own personal interest, and I try and scan as

1 many of the depositions as I can.

2 Q Had you received any particular guidance or
3 instructions from counsel about reviewing the deposition?

4 A No.

5 Q Had your attention been directed to any particular
6 portions of Mr. Puckett's deposition?

7 A No.

8 Q You simply chose the portions yourself?

9 A I walked over to Licensing and said: Do you have
10 a copy of Mr. Puckett's deposition, may I look at it? And
11 they said yes. They handed me a copy and I proceeded in
12 about five minutes to briefly scan through as quickly as I
13 could to get a flavor for it. It's not my job function to
14 do that, so I didn't want to spend much time reviewing that
15 deposition.

16 Again, that's the first deposition.

17 Q All right.

18 Did Mr. Miller or other counsel ask you questions
19 regarding your dealings with Mr. Puckett?

20 A Yes, they did.

21 Q What did they ask you?

22 A They asked me to describe briefly my dealings

1 with Mr. Puckett.

2 Q What did you tell them?

3 A I told them that I had dealt with Mr. Puckett in
4 reviewing some work that he had done at Zimmer in both his
5 capacity as quality engineer and as assistant director and
6 director of the quality confirmation program, and that I
7 felt that his work was not the greatest, to summarize it.
8 I don't recollect exactly how I described Mr. Puckett's work,
9 but it was not complimentary.

10 Q D'd counsel ask you whether you had had any
11 conversations with Mr. Gwynn regarding Mr. Puckett?

12 A They didn't ask me that, no.

13 Q Did you relate any conversations to them regarding
14 Mr. Puckett?

15 A Yes, I did.

16 Q And what did you tell counsel?

17 A I told counsel that I called Pat Gwynn up at
18 FERMI and asked him if he remembered a particular notice of
19 violation or an item of noncompliance or some other infraction
20 that the NRC would have initiated at the Zimmer station
21 regarding Mr. Puckett. Basically, I had a remembrance of
22 an occurrence where Mr. Puckett had issued a welder

1 qualification card to a welder without the requisite backup
2 documentation that would be required to issue such a card.

3 I had some involvement in reviewing the responses
4 to that item of noncompliance while I was at Zimmer, and so
5 I remembered it rather well, but I didn't remember whether
6 it was an item of noncompliance or an open item or an
7 unresolved item, and I was trying to confirm with Mr. Gwynn
8 whether or not it was an open item or an unresolved item or
9 an item of noncompliance.

10 Q All right. And what did you say to Mr. Gwynn?

11 A Again, I relayed my recollection of the occurrences
12 at Zimmer. Basically, I remembered that there was an NRC
13 question about activities in which he was involved.

14 Q "He" meaning Mr. Puckett?

15 A Yes, Mr. Puckett. And that it related to the
16 issuance of a welder card to a welder who would not have
17 actually been qualified for the process in which he was
18 issued the welder qualification card. I told him that I
19 did remember that item, and I remember reviewing the responses
20 and reviewing the NRC's discussion of that, and I simply
21 asked him was that an item of noncompliance or was it -- how
22 shall we say -- an unresolved item, an open item. And he

1 responded that, to his recollection, it was an item of
2 noncompliance.

3 Q Did Mr. Gwynn have anything else today?

4 A No.

5 Q Did you say anything else to him?

6 A I said: How are you doing? And he said: Fine
7 We didn't talk long.

8 Q Did he ask you why you wanted to know?

9 A I told him that Mr. Puckett was applying for a
10 position here and that I just wanted to refresh my
11 recollection on certain of Mr. Puckett's activities.

12 Q Did he ask you any more about that?

13 A No.

14 Q And when was this conversation with Mr. Gwynn?

15 A Again, it would have been probably the second
16 quarter of 1984. Again, I can't pin down the exact date.

17 Q All right. Was it close in time to the encounter
18 that you had with Mr. Puckett --

19 A It would have had to have been after that,
20 obviously.

21 Q Yes.

22 A Although the specific dates I don't remember. I

1 think it may have been after -- because I remember the desk
2 from which I called. It would have had to have been after
3 the end of March, perhaps the beginning of April, and before
4 December of '84 because that's when I moved out of that area.

5 Q All right.

6 And what did you do with the information that you
7 obtained from Mr. Gwynn?

8 A What did I do with that information?

9 Q Yes.

10 A I certainly catalogued it in my memory in order
11 to refresh my recollection.

12 Q Anything else?

13 A Well, not with that particular piece of informa-
14 tion, but even before that, with other pieces of information,
15 I had previously gone, before my conversation with Mr. Gwynn,
16 to Mr. Shamblin and discussed with him my reservations over
17 Comstock's hiring of Mr. Puckett in any quality-related
18 matter, any quality-related activity.

19 Q And you had that conversation with Mr. Shamblin
20 before the conversation with Mr. Gwynn.

21 A Yes.

22 Q And can you tell me when that conversation happened

1 with Mr. Shamblin?

2 A Well, it probably would have been shortly after
3 Mr. Puckett got hired, although maybe not after he got hired.
4 After I learned that he got hired by running into him
5 again.

6 Q Let me pin that down, now. You ran into Mr.
7 Puckett a second time?

8 A Yes. I saw him over in Comstock once again, and I
9 found out that he was hired.

10 Q How did you find that out?

11 A Well, he was working there, so I assumed that he
12 had been hired.

13 Q Did you have conversation with Mr. Puckett?

14 A Not at that time. Not to my recollection.

15 Q Did you have any conversation with anyone else
16 at Comstock about Mr. Puckett?

17 A At that time, no.

18 Q Then you went to Mr. Shamblin?

19 A Yes.

20 Q And what did you say to Mr. Shamblin?

21 A I believe I told you that once before. I expressed
22 my concern that Mr. Puckett has been hired or had been hired

1 in a position that related to quality-affected activities.

2 Q And what, specifically, did you say to Mr. Shamblin
3 about Mr. Puckett?

4 A Specifically I can't remember. It has been almost
5 two years now. But I related to him a few of the experiences
6 at Zimmer regarding the qualification of welders, Mr. Puc-
7 kett's knowledge of the Code, briefly that.

8 Q Well, why don't you tell me what those experiences
9 were, the ones that you related to Mr. Shamblin, as much
10 information as you can about what you told Mr. Shamblin about
11 Mr. Puckett.

12 A I expressed a basic opinion regarding Mr.
13 Puckett's qualifications to act in a position of responsibil-
14 ity regarding quality-related work or safety-related work,
15 and I expressed my concern that a person like that probably
16 wouldn't help Comstock much in its endeavors.

17 I tried to relate to him the problems that arose
18 at Zimmer regarding the welding program, and I informed Mr.
19 Shamblin that ultimately, in my opinion, the concerns in
20 the welding area, especially the ongoing welding in 1982,
21 and the qualification of welders in 1982 --

22 Q At Braidwood, now?

1 A No, at Zimmer. Were a concern to the NRC such
2 that in my opinion it led to the show cause order of
3 November of 1982.

4 Q You told Mr. Shamblin that the welding concerns,
5 in your judgment, were what led to the November 1982 show
6 cause order?

7 A Correct.

8 Q And those welding concerns were concerns that
9 you related to Mr. Puckett?

10 A No. Oh, related to Mr. Puckett?

11 Q Yes. You identified those as relating to Mr.
12 Puckett?

13 A I basically --

14 Q I am sorry. You tell me. I'm not trying to put
15 words in your mouth.

16 A I understand. When you said represented, I mis-
17 understood as I presented them to Mr. Puckett. That's where
18 I got caught up.

19 No. I basically described Mr. Puckett's position
20 in the welding department at Zimmer and basically described
21 his position of responsibility for, at the end, welder
22 qualification, and earlier in weld procedures, and earlier

1 yet in weld inspections.

2 Q You described those to Mr. Shamblin, then?

3 A Yes.

4 Q And what did you tell Mr. Shamblin about Mr.
5 Puckett in those regards?

6 A Well, again -- I will repeat myself and will go
7 into more detail, if you like.

8 Q I don't want you to repeat yourself; I just
9 want you to address -- now, you said you told Mr. Shamblin
10 what Mr. Puckett's responsibilities had been in certain
11 areas.

12 A Yes.

13 Q Now, I would like for you to tell me in more
14 specific detail what you told Mr. Shamblin concerning Mr.
15 Puckett's responsibilities for certain areas.

16 A Okay. I again told Mr. Shamblin that Mr. Puckett
17 had been responsible for the qualification of welders at
18 Zimmer and that that responsibility or some involvement in
19 that responsibility could very well have led to the eventual
20 show cause order being initiated by the NRC for ongoing
21 problems in the area of welder qualification, after the
22 immediate action letter of April 8, 1981.

1 Q What else did you tell Mr. Shamblin regarding
2 Mr. Puckett?

3 A Well, this is straining my recollection in
4 specifics, but I'm sure that I also expressed to him some
5 concern about Mr. Puckett's detailed knowledge of the ASME
6 and AWS welding code that would have come from my experiences
7 in reviewing and approving nonconformance reports at Zimmer.

8 Q And did you make the connection to Mr. Shamblin
9 between your judgment about Mr. Puckett's knowledge of the
10 codes and your review of nonconformance reports?

11 A Yes, I did.

12 Q What did you tell Mr. Shamblin regarding your
13 review of nonconformance reports?

14 A Again, I can't remember specifics, but I'm sure
15 I related to Mr. Shamblin that I believed that Mr. Puckett's
16 knowledge of the codes was not that great.

17 Q And you told Shamblin that was based on your review
18 of Puckett-related NCRs?

19 A Yes. Amongst other things.

20 Q Aside from what you told Mr. Shamblin, now, what
21 was your basis for forming an opinion about Mr. Puckett's
22 knowledge of the codes?

(Pause.)

1 A Currently, in terms of that specific question,
2 Mr. Puckett's knowledge of the codes as related to the
3 welding -- and again, we are talking about ASME and AWS
4 specifically -- that probably would have been the basis
5 for my informing -- the review of nonconformance reports
6 would have been the basis for my judgment of Mr. Puckett's
7 knowledge of the codes.

8 Q Now, specifically what in the review of non-
9 conformance reports formed the basis for your opinion of Mr.
10 Puckett's code knowledge?

11 A Well, my job -- one of my job descriptions at
12 Zimmer as quality engineer was to review nonconformance
13 reports -- at least the disposition of nonconformance
14 reports with adherence to the codes. In other words,
15 were the dispositions of the nonconformance reports in
16 conformance with code requirements? And I found a number
17 of them to lack certain code requirements.

18 Q When you say a number of them, how are those
19 related to Mr. Puckett?

20 A Well, some of them would have been dispositioned
21 by Mr. Puckett or under the direction of Mr. Puckett.

22 Q Now, as to those that were dispositioned by Mr.

1 Puckett or under his direction, in what respects were there
2 dispositions not in conformance with code requirements?

3 A Whenever one does a weld repair or base metal
4 repair, either in AWS or in D.I.I., there are certain
5 examination requirements before one adds filler material.
6 And oftentimes, those requirements prior to adding that
7 filler material were not prescribed in the dispositions of
8 nonconformance reports.

9 Q For example?

10 A Let's say we were taking a -- we had a radiographic
11 reject or an MT or PT reject of a particular area weld
12 base material. After the excavation of that defect, one
13 would be required then to perform the same type of NDE to
14 verify that the defect had been cleared.

15 Q Either an x-ray MT or PT?

16 A No. The code requires that you use the same
17 method that you found the defect.

18 Q One of those three?

19 A Yes.

20 Q Whichever you happened to use in the first
21 instance to find the defect?

22 A Correct. Also, if the defect goes beyond a

1 certain distance or depth, at least in ASME, one has
2 additional requirements of volumetric examination.

3 Q All right.

4 You are relating what the lack of code compliance
5 was that you identified.

6 A They were missing NDE requirements in some of
7 those dispositions.

8 Q What do you mean by missing NDE requirements?

9 A There were not prescribed on the nonconformance
10 report dispositions certain NDE requirements that should have
11 been there. If I can go ahead, there was another nonconfor-
12 mance-type document called a IIDR, In-process Inspection
13 Deficiency Report, that Mr. Puckett dispositioned. It had
14 to do with -- this one I clearly remember. It had to do with
15 a partial penetration weld on a wing plate to a steel plate
16 which had warped due to improper welding sequencing such
17 that there was a distortion in the weldment causing a mis-
18 alignment of this plate that was welded to another plate.

19 Mr. Puckett suggested in his disposition to this
20 particular deficiency document that it be heated not to
21 exceed 1200 degrees with a rosebud torch and bent back
22 into shape.

1 Q Now, that particular disposition would have been
2 in conformance with the applicable AWS Code. However, the
3 plate was welded to the containment liner which was backed
4 by concrete and there are strict specification requirements
5 as to how hot one can heat up material that is in contact
6 with concrete, specifically containment concrete, in this
7 particular case.

8 I believe the spec requirement had an interpass
9 temperature or a maximum temperature of on the order of
10 200 degrees. Certainly 1200 degrees would have exceeded
11 that.

12 Q And what was the specification that provided for
13 that interpass temperature?

14 A Let's see. That would have been the Sargent &
15 Lundy specification governing steel erection work. I don't
16 remember the number.

17 Q Was it your judgment that Mr. Puckett should have
18 been aware of that specification requirement?

19 A Yes.

20 Q And that he failed to take note of that in
21 dispositioning the IIDR?

22 A That is certainly my judgment.

1 Q Did you communicate that judgment to anybody?

2 A Yes, I did.

3 Q To whom?

4 A I would have communicated that to Mr. Doug
5 Schulte, who was my boss at that time.

6 Q Do you know whether that judgment ever got
7 communicated to Mr. Puckett?

8 A I certainly don't know.

9 Q Well, would it have as a matter of course in the
10 way you performed your duties?

11 A For that particular type of document, I am not
12 aware of -- for nonconformance reports, yes, they would have
13 gone back to Mr. Puckett. This particular document, the
14 processing would not have lent itself readily to it going
15 back to Mr. Puckett.

16 Q Did you ever speak to Mr. Puckett on the subject
17 of this document?

18 A No.

19 Q Did you ever speak to Mr. Puckett on the subject
20 of the nonconformance reports that you reviewed, that you
21 judged him responsible for directly or indirectly?

22 A I don't remember whether Mr. Puckett attended the

1 particular meetings at which we discussed these nonconformance
2 reports, but I would usually acknowledge my disapproval
3 of nonconformance reports and send them back to the
4 originating organization with comments reflecting the
5 additional requirements that I felt were appropriate under
6 the Code.

7 Q So as to nonconformance reports, under the
8 process that you followed, they would have gone back to
9 Mr. Puckett or his organization?

10 A They would have gone back to his organization.

11 Q With your notation of your review?

12 A Correct.

13 Q Any other basis for your opinion regarding
14 Mr. Puckett's code knowledge?

15 A If I can give you an answer that -- well, yes,
16 let me give you one.

17 Q All right.

18 A The Code required that welders qualify in a
19 particular process, and that if welders do not weld in a
20 particular process for a period of three months or six
21 months, depending on which code -- and there are some
22 technicalities involved -- but it is basically either a

1 three or six-month period that they must requalify in
2 accordance with the codes, which require them to qualify
3 on a single test, depending on which code -- single test,
4 single positions, various thicknesses.

5 And there was a great question for the welders
6 during the period of 1982 whether they had adequate
7 qualification records to allow them to continue to weld.

8 And I believe in August of 1982, June, July and
9 August of 1982, Zimmer underwent some rather -- I'm
10 searching for a word -- major exercises in trying to verify
11 that the welders who are currently welding were, in fact,
12 qualified. Many of the welders had to be requalified
13 because there was no documented basis for their welding, yet
14 they had welder qualification cards and were allowed to
15 weld.

16 Mr. Puckett had some responsibility at various
17 points in time during that time period for the qualification
18 of welders.

5 -
19 Q On what did you found the belief that Mr. Puckett was
20 responsible for any deficiencies in qualification of
21 welders?

22 A Well, I made the assumption that since it was

1 his responsibility to qualify welders, and since those
2 welders were, in fact, found to be either not qualified or
3 questionably qualified, then I would say that, yes, I put
4 those two facts together and questioned Mr. Puckett's
5 ability in that regard.

6 Q All right.

7 Any other basis for forming the opinion about
8 Mr. Puckett's qualifications?

9 A I don't recollect any specifically at this time.

10 Q Now, did you communicate in any respect the
11 basis for your belief and opinion about Mr. Puckett's
12 qualifications to Mr. Shamblin?

13 A Yes. I described briefly much the same things
14 I have described to you now to Mr. Shamblin.

15 Q How long a conversation did you have with
16 Mr. Shamblin about Mr. Puckett?

17 A Probably no more than five minutes.

18 Q One time only?

19 A I can't remember exactly.

20 Q Might you have had another conversation with
21 Mr. Shamblin about Mr. Puckett?

22 A I may have, but again, I don't recall.

1 Q What did Mr. Shamblin say to you?

2 A I don't remember specifically. I don't think
3 he said he was going to -- he didn't relate to me his
4 intentions at that time.

5 Q Can you recall anything he said to you, either
6 in words or substance?

7 A No. I don't think he related to me any of this
8 plan or course of action.

9 Q Well, did he relate to you anything?

10 A Not that I'm aware of. Not that I can recall.

11 Q He just listened mutely to what you had to say?

12 A Well, I'm sure he expressed some interest in what
13 I had to say. Again, this was not really my responsibility
14 at the time. I was extremely busy at the time, as was he.
15 I tried to relate to him as quickly as I could my impressions
16 of Mr. Puckett and my concerns that Mr. Puckett be involved
17 in organization of Comstock trying to perform activities
18 related to quality work, and he was very busy at the time,
19 and I popped into his office, basically told him as much as
20 I knew about the same thing that I expressed to you, and
21 left it with him at that point in time.

22 I would say that's about it.

1 Q What position was Mr. Shamblin holding at the
2 time?

3 A He would have been the project PCD superintendent,
4 Project Construction Department superintendent.

5 Q Did Mr. Shamblin indicate to you that he would
6 take any action to follow up the information you had given
7 him?

8 A Not that I recall. Nothing specific. Nothing
9 general that I recall.

10 Q Did he indicate, on the contrary, that he was
11 going to do nothing with the information you gave him?

12 A No, I don't believe so. Again, I tried to
13 characterize to you that this was a rather brief encounter.
14 We were both under rather tight schedules, and I just tried
15 to relay a bit of information that I felt would be of
16 interest to Mr. Shamblin as best I could.

17 Q Did you leave with the impression that he would
18 take some action to follow up?

19 A No. Again, I didn't pursue it. It wasn't my
20 responsibility. I was not in the Project Construction
21 Department and had no oversight of the contractors. I felt
22 that it was something, that it was knowledge that I had

1 that I felt it was my responsibility as a person trying to
2 make sure that the quality work gets done at nuclear
3 power plants, that that information should get to Mr.
4 Shamblin; and as far as what he did with it, that was not
5 my concern.

6 Q Did you document in any respect the information
7 that you communicated to Mr. Shamblin, your opinion about
8 Mr. Puckett?

9 A In terms of writing? No, not to Mr. Shamblin.

10 Q Well, in any other fashion?

11 A Mr. Miller once upon a time asked me to give
12 a brief description of my knowledge of Mr. Puckett.

13 Q And did you do that?

14 A I provided that to Mr. Miller.

15 Q What did you provide to Mr. Miller?

16 A A memo briefly, about a page, that briefly
17 described probably the high points of my knowledge of Mr.
18 Puckett's involvement at Zimmer in a rather general way,
19 much the same as I have described it to you.

20 Q When did Mr. Miller ask you for that description?

21 A I believe it may have been briefly before Mr.
22 Puckett's first deposition.

1 Q When you say briefly, you mean shortly in
2 advance of that deposition?

3 A A week, two weeks, a month. I don't remember
4 exactly when his first deposition was.

5 Q I don't have the date either.

6 MR. MILLER: His first deposition was November
7 6th.

8 BY MR. GUILD:

9 Q Okay. A week or so in advance of November 6th?

10 A About that.

11 Q Did you state anything in your memo to Mr.
12 Miller that you haven't already stated in this deposition
13 regarding Mr. Puckett?

14 A Not to my recollection.

15 Q Did you have any contact with any L.K. Comstock
16 management with respect to Mr. Puckett?

17 A Yes, I did.

18 Q On what occasions?

19 A Based on recollections of people who were with
20 me at the time, I believe that at the time Mr. Puckett came
21 to Comstock for his interview, that I informed Comstock
22 management that Mr. Puckett had, in fact, worked at Zimmer

1 and that it probably would not be a great idea to hire him
2 in any quality-related activity. And as for who I told, I
3 can't remember. I believe it may have been the person who
4 Mr. Puckett -- whose office Mr. Puckett was leaving, but
5 again, I don't remember who that was.

6 Q Did you do that on the same occasion that you
7 saw Mr. Puckett leaving?

8 A Yes. That very same time.

9 Q Now, you introduced that response by saying based
10 on the recollection of someone else who was present. Whose
11 recollection are you relying on?

12 A Mr. Daugherty.

13 Q Who is Mr. Daugherty?

14 A Michael Daugherty works for Mr. Groth in the Project
15 Construction Department.

16 Q And Mr. Daugherty was present during the
17 conversation you had with Comstock manager about Mr. Puckett?

18 A I don't believe I said it was a Comstock
19 manager.

20 Q Well, maybe I assumed that. Who was it with?

21 A I told you before that I don't remember who it
22 was with. Again, I was not familiar with the Comstock

1 organization at that time.

2 Q Mr. Daugherty, in any event, was present during
3 your conversation regarding Mr. Puckett with someone from
4 L.K. Comstock?

5 A Yes.

6 Q Did you ask Mr. Daugherty if he recalled who
7 the Comstock person was?

8 A I did not ask him that.

9 Q Did he tell you?

10 A Not to my recollection.

11 Q Was it Mr. DeWald?

12 A I told you, I don't know. In fact, if you
13 brought Mr. DeWald in here, I don't think I would be able
14 to point him out to you.

15 Q Was it Mr. Seese?

16 A Again, I don't know. If you brought Mr. Seese
17 in here, I don't think I would be able to identify him. I
18 just don't know those people.

19 Q Was it Mr. Seltman?

20 A Again, I don't know any of these people. I told
21 you that once before. I don't know who I told and I don't
22 know any of those individuals.

1 Q Do you know whether your conversation with
2 the representative of Comstock was documented in any fashion?

3 A I have no knowledge to that effect.

4 Q Did you document it in any fashion?

5 A I did not, no.

6 Q Do you have any reason to believe that Comstock
7 was not aware of Mr. Puckett's prior employment history at
8 the Zimmer facility?

9 A Can you repeat that?

10 Q Did you have any reason to believe that
11 Comstock was not aware of Mr. Puckett's prior employment
12 history at the Zimmer facility?

13 A I certainly had no reason. Actually, I didn't
14 think about it and still haven't, but no, I don't know
15 whether or not Comstock would have known what Mr. Puckett
16 did or didn't do at Zimmer.

17 Q What response did the Comstock representative
18 make to your statement?

19 A At the present time, I don't remember. I don't
20 think I got any response other than maybe a nod of the head
21 or okay, but I got no response, affirmative or negative,
22 acknowledging what I had said.

Q Did you ask Mr. Daugherty to refresh your

1 recollection about the conversation?

2 A No, I did not.

3 Q When did you have contact with Mr. Daugherty
4 on the subject of improving your recall about this
5 encounter?

6 A Well, it wasn't specifically to improve my
7 recall, but it was Mr. Daugherty in passing made a comment
8 that -- and I will paraphrase loosely -- I remember you
9 saying that to Comstock at the time that he got his job
10 interview, and if they had listened to you then, these
11 subsequent troubles would not have occurred. That's a
12 loose paraphrase.

13 Q And what did you understand by "subsequent
14 troubles" that Mr. Daugherty was referring to ?

15 A Well, I certainly imagined that the troubles
16 that were caused, to quote you, the troubles -- again, I
17 paraphrased that -- being Mr. Puckett's raising certain
18 quality questions, most of which were not, in fact, quality
19 questions but were borne out to be due to Mr. Puckett's
20 lack of knowledge of the codes.

21 Q We have identified a conversation with Mr.
22 Shamblin and a conversation with an unidentified represen-
tative of L.K. Comstock. Did you have any conversations

1 with anyone else regarding Mr. Puckett?

2 A Sure. I can't remember his name, but a person
3 from OI. Well, actually, there were two people that I can
4 distinctly remember. One was a person from OI --

5 Q The Office of Investigations of the NRC?

6 A Correct. I had his name on a slip of paper which
7 I removed after moving to my new office. It was irrelevant
8 at the time, so I don't know his name, but he was investigat-
9 ing some allegations regarding Mr. Gwynn's involvement in
10 this matter.

11 Q And when was that? When was the contact with the
12 OI representative?

13 A Sometime in 1985, perhaps. Maybe the second
14 quarter of '85, roughly. Again, it was an aside to my
15 work and I didn't spend a lot of time. I took no notes. I
16 didn't really worry about it. I was just trying to set the
17 record straight.

18 Q And what did -- there was more than one individual?

19 A Yes. In fact, there were two other individuals
20 now that come to mind. One is Mr. McGregor.

21 Q The former resident?

22 A Yes. And one is Mr. Shapker, Jerry Shapker.

1 I believe it was Jerry Shapker.

2 Q Both NRC inspectors, Mr. McGregor and Mr.
3 Shapker?

4 A Correct.

5 Q And they were present along with the OI
6 representative?

7 A No. These were separate occasions.

8 Q All right.

9 Well, let's start with the first. The representa-
10 tive of OI was in the second quarter of '85, approximately?

11 A To the best of my knowledge, yes. Again, it
12 would have had to have been after the end of '84. It would
13 have to have been from the beginning of '85 until probably
14 September of '85, and the reason for that is I remember the
15 office in which I resided, and I remember when I moved into
16 it and I remember when I moved out of it.

17 Q What did the OI representative ask you?

18 A He asked what my conversations were with Mr.
19 Gwynn relating to Mr. Puckett.

20 Q And what did you tell him?

21 A I told him exactly what I told you, that I had
22 called Mr. Gwynn specifically asking for the type of NRC

1 document that described Mr. Puckett's -- how shall we say --
2 Mr. Puckett's involvement in the issuance of welder
3 qualification cards.

4 Q I may have asked you this before and I apologize
5 if I did, but in that conversation with Mr. Gwynn, did you
6 inform him that Mr. Puckett had sought employment at the
7 Braidwood site?

8 A I believe I answered affirmatively before.

9 Q That you had? You did tell Mr. Gwynn?

10 A Yes.

11 Q All right. Thank you.

12 A In passing.

13 Q All right. So the OI representative asked you
14 about conversations with Gwynn?

15 A Yes.

16 Q And you related as you have in this deposition?

17 A Correct.

18 Q Did he ask you anything else?

19 A Other than name, position, and things like that
20 to identify myself? No, not that I can remember.

21 Q Did he ask you about your involvement with Mr.
22 Puckett and his work at Zimmer?

1 A No, he didn't, but I believe that I went ahead
2 and said, by the way, you may be interested in the following,
3 and this is why I did what I did. And I tried to relate to
4 him the best I could briefly a synopsis of Mr. Puckett's
5 employment at Zimmer.

6 Q Did you tell him anything that you haven't told
7 me in the deposition?

8 A No.

9 Q Did the representative from OI memorialize his
10 interview with you in any manner, to your knowlege?

11 A Considering it was over the phone, I don't know.

12 Q Did you ever receive a memorandum of the
13 interview?

14 A No. I don't know if OI works that way, but no,
15 I did not. In fact, I have never heard from them since.

16 Q When did you next have contact -- well, when did
17 you have contact with Mr. McGregor about MR. Puckett?

18 A I believe my contact with Mr. McGregor was shortly
19 after Mr. Gwynn was relieved of his employment at Comstock.

20 Q Mr. Puckett, you mean?

21 A Excuse me. I'm sorry. Mr. Puckett.

22 Q That would have been about September of '84? Does

1 that sound right?

2 A It sounds reasonable.

3 Q And who initiated that contact?

4 A Mr. McGregor.

5 Q And what did Mr. McGregor say to you?

6 A Well, I was walking in the hall in one direction
7 and he was walking in the hall in the other direction, in
8 front of the Xerox machine. He stopped me and said something
9 to the effect that do you know that Comstock got rid of
10 Puckett? And I said no, I didn't, because at that time I
11 had not been informed. And I said no, I didn't know that.
12 He expressed to me his concern that they had done such a
13 despicable deed, in his opinion, and I tried to relate to him
14 as briefly as possible that in my opinion it was not that
15 despicable of a deed, and in fact, it had probably been
16 a sound decision on Commonwealth Edison's or Comstock's
17 part.

18 Q Anything else between you and Mr. McGregor?

19 A Just in passing. No.

20 Q And what contact did you have, then, with Mr.
21 Shapker about Mr. Puckett?

22 A I believe Shapker was at the time reviewing

1 some allegations made by various people. I guess that one
2 of them must have been Mr. Puckett because of the nature of
3 the line of questioning, and I basically again informed Mr.
4 Shapker that yes, I had some involvement in relaying my
5 feelings about Mr. Puckett and his position over in Comstock
6 to Project Construction Department in CECO, and I said that
7 if -- or Mr. Shapker was at Zimmer and had dealings with
8 the Zimmer welding program, and I said, I think you are
9 aware of basically what I told Dan Shamblin, and he said
10 yes, I think so.

11 Q Did Mr. Shapker express an opinion about Mr.
12 Puckett's qualifications based on his dealings with him at
13 Zimmer?

14 A Not to me.

15 Q Did he say anything other than I know what you
16 mean, or yes, I know?

17 A I don't know exactly how he responded, but he
18 didn't say anything in particular. He didn't elaborate on
19 it.

20 Q Any other contacts with other persons regarding
21 Mr. Puckett?

22 A I think I probably talked about this to Mr.

1 Giesker, much the same as I did with Mr. Shamblin. Again,
2 in passing, because I knew that Mr. Gieseke had some
3 responsibilities for Comstock.

4 Q Okay. And when would that have happened?

5 A It may have been right before or right after
6 my brief conversation with Mr. Shamblin. Again, in that
7 period of time when I first learned that Mr. Puckett had,
8 in fact, been employed by Comstock.

9 Q And what did Mr. Gieseke say?

10 A I can't recall specifically him saying anything.
11 Again, we weren't working together on anything in particular.
12 I related to him my concerns as I had described to you, and
13 then I informed him that Mr. Puckett was working at
14 Comstock and I didn't think that that was such a great idea.

15 Q Did Mr. Gieseke lead you to believe he was
16 going to take any action?

17 A No.

18 Q Do you recall anything he said?

19 A Again, those things weren't important in my
20 life at the time. I don't really recall. I don't think
21 he said anything. Again, it was a very brief encounter.

22 Q Did you have any contact with anyone else

1 concerning Mr. Puckett?

2 A Yes. As a matter of fact, I believe two days
3 ago Elena Kezelis told me that my name had been mentioned
4 in Mr. Puckett's deposition. And again, that was in
5 passing, and that's about all she said, and I didn't speak
6 with her. She was in the trailer, the red trailer there,
7 and she was walking in one direction and I was walking in
8 the other.

9 Q At the site?

10 A At the site.

11 Mr. Steptoe, I guess, also informed me of that.

12 Q When did Mr. Steptoe inform you?

13 A It could have been yesterday or the day before,
14 or the day before that. We have had some conversations
15 about this deposition, about the time, basically, and he
16 informed me that it probably would not come up in this
17 deposition because you and Mr. Gallo had an agreement to
18 limit your depositions to the subject of the summary
19 dispositions.

20 Q Probably free legal advice; right?

21 A Nothing is ever free, especially legal advice.

22 Q Did Mr. Steptoe ask you about the substance of

1 any of your dealings with Mr. Puckett or about Mr. Puckett?

2 A I don't believe he did, based on his thoughts
3 that this would not come up in this particular --

4 Q Are you speculating on what basis Mr. Steptoe
5 or anybody else didn't ask?

6 A I am freely speculating.

7 Q The question, in substance, is he didn't ask you
8 about the substance of your dealings with Mr. Puckett?

9 A No.

10 Q Any contacts with anyone else, Mr. Orlov, about
11 Mr. Puckett?

12 A Not that I remember.

13 Q Are you aware of any involvement by Commonwealth
14 Edison Company in Mr. Puckett's termination from Comstock?

15 A No.

16 Q The first time you learned of Mr. Puckett's
17 termination was when Mr. McGregor informed you of it?

18 A I believe so, yes.

19 Q And the only memorialization of your dealings
20 with or about Mr. Puckett is the memorandum that you wrote
21 at Mr. Miller's request for him?

22 A Correct.

1 MR. GUILD: Do you want to take a lunch break?

2 (Discussion off the record.)

3 (Recess.)

4 BY MR. GUILD:

5 Q Mr. Orlov, aside from the involvement with Mr.
6 Puckett that you have described so far, have you had any
7 involvement in dealing with the technical issues that Mr.
8 Puckett either identified or was involved in in his
9 employment with L.K. Comstock at Braidwood?

10 A No, I was not involved in those issues.

11 Q In your capacity with the Braidwood
12 construction assessment program, have you had any involvement
13 in reviewing any Comstock-related quality assurance or
14 construction deficiencies?

15 A If such would exist, yes, we would have looked at
16 them.

17 Q Have you been involved, in your capacity with
18 BCAP, in review of the adequacy of Comstock quality documen-
19 tation?

20 A Yes. We would have made that determination.

21 Q Any particular involvement in review of Comstock
22 documentation of weld filler material?

1 A Um-hmm.

2 Q Have you been involved in the review of Comstock
3 quality documentation regarding weld filler material?

4 A Yes.

5 Q Welder qualifications?

6 A Yes.

7 Q Weld inspection reports?

8 A Yes.

9 Q Qualification of welding procedures?

10 A No.

11 MR. GUILD: That is all I have on the subject.

12 How about we take an hour.

13 MR. MILLER: That's's fine.

14 MR. GUILD: Mr. Steptoe, okay?

15 MR. STEPTOE: That's fine.

16 MR. MILLER: I will state that I have no redirect
17 of this witness on questions relating to Mr. Puckett.

18 MS. CHAN: Staff has no questions.

19 (Whereupon, at 12:30 p.m. the taking of the
20 deposition was recessed, to resume at 1:30 p.m. the same day.)
21
22

1 AFTERNOON SESSION

2 Whereupon,

3 GEORGE M. ORLOV,

4 having been previously duly sworn by the Notary Public, was
5 examined and testified further as follows:

6 EXAMINATION (Resumed)

7 BY MR. GUILD:

8 Q Mr. Orlov, did you have a correction or a
9 clarification you wanted to make to your previous testimony?10 A Yes, a clarification. You had asked whether
11 BCAP reviewed the qualification of Comstock welding
12 procedures. We didn't actually review the qualification
13 process or the qualification of those welding procedures,
14 but we did verify that they were, in fact, qualified and
15 approved by Sargent & Lundy, and we did verify the
16 correctness of their application.

17 Q Mr. Orlov, did you complete your statement?

18 A Yes.

19 Q I'm afraid I didn't quite follow it. You did
20 not review the process of qualification of welding
21 procedures by Comstock?

22 A Correct.

1 Q How did you then review the qualification of
2 procedures?

3 A Well, we didn't review the qualification per se
4 of the procedures. We verified that they had been qualified
5 and approved by Sargent & Lundy, and what we actually
6 reviewed them was the correctness of application of those
7 procedures to the field work.

8 Q Well, how did you do the first of those things?

9 A We verified that there was a PQR attached to the
10 WPS.

11 Q What is PQR?

12 A A PQR is -- if it were ASME, I am using that
13 colloquially -- if it was ASME, a PQR is a performance
14 qualification record, and WPS is a welding procedure
15 specification. Those are ASME terms, but they can be
16 applied to AWS welding. Most AWS welding procedures,
17 however, that Comstock employs are pre-qualified.

18 Q So you reviewed the fact there was a document
19 that evidenced the qualification of the procedure.

20 A Correct. We didn't go and review to verify
21 whether or not that qualification was, in fact, proper.
22 But that when we did look at the WPS we verified that it

1 was applied properly in the field in construction.

2 Q For example, you didn't review whether or not
3 there was a quality control verification of the welding
4 that was performed to qualify the procedure?

5 A Excuse me, I'm sorry?

6 Q You didn't review whether there was a quality
7 control verification of the welding that was performed in
8 the qualification of the procedure?

9 A Correct, because in most cases those procedures
10 were not qualified because under AWS they are pre-qualified
11 procedures.

12 Q Well, did you review any of the welding that
13 was performed in the qualifying procedures, if any?

14 A No.

15 Q Now, the second aspect of your statement, in
16 what respects did you review the application of the
17 procedures?

18 A Well, we looked at the types of field welding
19 that Comstock performed and we verified that the welding
20 procedures were applicable in terms of the essential
21 variables as required by the Code and the welding materials
22 and the base materials were applicable and were basically

1 authorized by the Code to perform that type of welding.

2 Q What are your duties in your present position,
3 Mr. Orlov?

4 A I assist the project manager in matters
5 concerning the licensing hearings.

6 Q And who is the project manager?

7 A Mike Wallace.

8 Q And how do you perform that duty?

9 A Well --

10 Q What I'm asking you to do is to explain what
11 does that mean.

12 A It means whatever he needs done in terms of
13 support of the licensing hearing. I do those duties for him.

14 Q Can you give me some examples of typical tasks
15 that you perform in that capacity?

16 A Yes. For example, in preparation for his testimony
17 that he is preparing, I gather documents related to his
18 testimony that would be applicable and try and organize
19 that material in a way that he can most easily write his
20 testimony.

21 I have also assisted when requests have been made
22 of me by attorneys with Isham, Lincoln & Leale, to prepare

1 for them matters concerning the licensing hearings.

2 Q For example?

3 MR. STEPTOE: I will interpose an objection.
4 It's work product.

5 BY MR. GUILD:

6 Q I ask you to answer the question.

7 MR. STEPTOE: I am interposing a privilege
8 objection.

9 MR. GUILD: On what basis?

10 MR. STEPTOE: That this is work done in anticipa-
11 tion of litigation on behalf of the attorneys.

12 BY MR. GUILD:

13 Q What were the subjects of the work that you did?

14 MR. STEPTOE: Are you asking --

15 MR. GUILD: I am trying to elicit the basic
16 facts. I don't have any interest in transgressing your
17 privileged activities, Mr. Steptoe or eliciting work
18 product, but I am entitled to ask questions and elicit
19 information to discover basic facts regarding quality
20 assurance at Braidwood. To the extent that Mr. Orlov has
21 knowledge about basic facts and those basic facts may have
22 come in the context of responding to a request by you or

1 other counsel, they are not privileged information and I
2 asked that he tell me what the subjects, -- as a foundation
3 for that question I asked him to tell me what the subjects
4 are of the work that has been at the request of counsel
5 that he identified.

6 MR. STEPTOE: Well I'm sorry, I didn't hear a
7 portion of your most recent statement. Could I have it
8 read back?

9 MR. GUILD: I'd be happy to repeat it. Just
10 tell me what you missed.

11 MR. STEPTOE: It was the phrase beginning, "To
12 the extent..." when you were talking about basic facts.

13 MR. GUILD: To the extent that in the course of
14 responding to a request by counsel or anyone else Mr. Orlov
15 identified basic facts which are relevant to subject
16 matters of this litigation -- and that's quality assurance
17 at Braidwood -- I am entitled to discover those basic facts.
18 And in order to reach those basic facts, counsel, I am
19 asking him as a preliminary matter to simply identify the
20 subject matters on which he performed functions at the
21 request of counsel.

22 MR. STEPTOE: Okay. To the extent that the

1 witness is being asked to identify the areas in which he
2 has assisted counsel without going into the details the
3 witness may answer; however, I do interpose an objection
4 generally as to the scope of this inquiry because I do not
5 believe it relates to Contention Item 12E or 12F or the
6 Worley Puckett matter, and I do not waive the work product
7 privilege as to any subsequent question.

8 MR. GUILD: I understand.

9 BY MR. GUILD:

10 Q Would you answer the question, sir?

11 A Would you repeat the question?

12 Q On what subjects were you asked to perform work
13 by counsel?

14 A Mechanical equipment retrofit inspection,
15 information related to Interrogatory 24.

16 Q Can you recall the subject?

17 A Reviews undertaken by management in response to
18 82-05.

19 Q Inspection Report 82-05?

20 A Correct.

21 Q Anything else?

22 A Mike Wallace's current testimony.

1 Q His testimony that he has under preparation?

2 A Has under preparation.

3 Q Anything else?

4 A Testimony which Mr. O'Connor, Tom O'Connor, is
5 preparing.

6 Q Is Mr. O'Connor a Phillips-Getschow employee?

7 A Correct. Some testimony that Mr. Lou Del George
8 is preparing, and that would be the scope of my current
9 work activities.

10 Q Can you be more specific about the subject
11 matter that relates to mechanical equipment retrofit
12 inspections?

13 MR. STEPTOE: May I have a few minutes to
14 consider whether I want to interpose a privilege objection
15 at this point?

16 MR. GUILD: Sure.

17 (Pause.)

18 MR. STEPTOE: I am going to assert the work
19 product privilege with respect to this line of inquiry.
20 I believe the subject matter is protected by the work
21 product privilege claim.

22 MR. GUILD: On what basis?

1 MR. STEPTOE: That Mr. Orlov is in the capacity
2 of a consulting expert who is a non-testifying witness,
3 and as such, facts known by him or opinions held by him
4 are protected.

5 MR. GUILD: Well, I would inform you at this
6 point that I intend to seek to compel Mr. Orlov's testimony
7 in this proceeding both in discovery and on the merits.
8 And I intend to -- I desire that he answer the question
9 that's pending.

10 MR. STEPTOE: Well, I advise him not to answer
11 the question. But I guess an independent basis for objection
12 which would only apply to this deposition and not to a
13 subsequent deposition is that I believe it's beyond the
14 scope of the agreement that you and Mr. Gallo entered into
15 last week.

16 MR. GUILD: At this point all I'm trying to ask
17 Mr. Orlov about is his qualifications for what he's doing,
18 and I believe I'm entitled to ask him questions that
19 establish the scope of his work, his knowledge, any potential
20 bias, interest, prejudice on the part of the witness. And
21 I think that his qualifications and experience and present
22 duties are clearly relevant to the narrow subject even of his

1 testimony on this particular contention. They certainly
2 are discoverable otherwise, but I don't think there's any
3 basis for a scope objection. At least I haven't heard you
4 assert one.

5 MR. STEPTOE: Oh, I just did assert a scope
6 objection.

7 MR. GUILD: But without any basis. I thought I
8 explained to you that -- I mean, I'm certainly entitled
9 to inquire into the gentleman's work. You and your
10 colleagues have certainly done that on every witness that's
11 been called for deposition so far. There has been extensive
12 inquiry into the nature of their work, and I believe I'm
13 entitled to at least the same scope of inquiry.

14 THE WITNESS: This work was clearly done after --

15 MR. STEPTOE: Excuse me, the witness is trying
16 to jump into the legal argument. I don't see the relevance
17 to Contention Item 12E and 12F, because I believe this work,
18 as Mr. Orlov pointed out, has been done after the time
19 periods in question with respect to these two contention
20 items.

21 Now, I understand your position and I know we're
22 not going to reach agreement either with respect to the

1 scope objection or with respect to the work product, and
2 what I would suggest is that we simply pursue this in
3 writing before the licensing board.

4 If you want to call the licensing board that's
5 okay with me, too, but I think it had better be fleshed out
6 in writing.

7 MR. GUILD: Well, I have asked that he respond
8 to the pending question. Are you instructing him not to
9 answer?

10 MR. STEPTOE: Yes, I have already.

11 BY MR. GUILD:

12 Q How long have you held your current position,
13 Mr. Orlov?

14 A Officially, since yesterday.

15 Q Congratulations.

16 A Thank you.

17 Q What were you officially doing until yesterday?

18 A Assistant Director of BCAP.

19 Q And how about other than officially?

20 A You mean what was my position or what was I
21 doing?

22 Q Well, the question I asked you is what were you

1 doing until you held this position, and you used the word
2 "officially." I don't mean to put that word back in your
3 mouth except to the extent I heard you say it.

4 A I will explain it. I have been Assistant Director
5 of BCAP since June of 1984, and my title has not changed
6 until yesterday when Mr. Wallace said, you are now the
7 Staff Assistant to the Project Manager. Before that, I was
8 given no other title by Commonwealth Edison and therefore,
9 I assumed that I had no other title.

10 Q Were you performing duties other than your duties
11 as the Assistant Director of BCAP before yesterday?

12 A That would be a rather judgmental call, but one
13 could construe the answer to be yes, I was performing
14 duties outside of the scope of activities having to do
15 with BCAP.

16 Q And when did you begin doing work other than
17 BCAP work?

18 A September or November -- September, October or
19 November, 1985.
20
21
22

1 Q And what were those duties?

2 A I believe I had previously answered that
3 question.

4 Q Were you performing the same duties that you
5 described as duties in the capacity of assistant to
6 the project manager?

7 A Correct.

8 Q And you began performing those duties back in
9 September of '85?

10 A There was a gradual transition of my duties,
11 starting in around September of '85, where I worked part-time
12 a few days in September and then went back to BCAP
13 activities full time until around the middle of November.
14 At that time my activities with BCAP ceased, for the most
15 part. I still have some activities in terms of document
16 discovery for BCAP.

17 Q When you say part-time in September, in the
18 capacity of assistant project manager?

19 A Well, I don't know if you can describe it as
20 that function, but Mike Wallace asked me to do certain
21 things for him and I did those things for him.

22 Q And those things were the same things that you

2

1 have done --

2 A Yes.

3 Q -- as assistant to the project manager?

4 A Yes.

5 Q In your one day of tenure in that position?

6 A I believe I said a few, but yes.

7 Q You told me yesterday is when you became
8 assistant to the --

9 A Oh, in that official tenure, yes.

10 I don't mean to be cute about that, but it's just
11 that my title never came up until yesterday when one of the
12 attorneys asked, and I was about to sign an affidavit for
13 a motion that we were filing, and someone asked what my
14 position was, and I said I don't know because I was never
15 told what my position was. So I'm not trying to be cute in
16 any way. Yesterday was the first time that I was told by
17 Mike Wallace that I was the staff assistant to the project
18 manager. And I really am trying to be forthright with that.
19 I was never given any other title before yesterday.

20 Q I understand.

21 When you described your duties in your present
22 capacity, was that description reflective of the duties that

3

1 you performed at least part-time since December?

2 A Yes.

3 Q Are there any other duties that you performed in
4 the capacity of -- other than in the capacity as assistant
5 director of BCAP that you have not described?

6 A None of any importance or meaning.

7 Q All right.

8 What were your duties as the assistant director
9 of BCAP? I am looking at page 1 of your affidavit, and
10 I can read that as well.

11 A Well, that is out of the program description.

12 Q It shows you responsible for the construction
13 sample reinspection and the reverification of procedures to
14 specification requirement elements of BCAP.

15 A Yes.

16 Q Did you have any other duties?

17 A No.

18 Q Who is responsible for the third element of BCAP?

19 A Robert Byers.

20 Q Who is Mr. Byers?

21 A Mr. Byers was the other assistant director of
22 BCAP for RSCAP.

Q And what does RSCAP stand for?

4

1 A Review of Significant Corrective Action Programs.
2 Is is the third element of BCAP.

3 Q Did you supervise any personnel in your capacity
4 as assistant director of BCAP?

5 A Yes, I did.

6 Q Who did you supervise?

7 A I supervised directly the supervisor of the
8 construction sample reinspection element and the supervisor
9 of the RPSR element.

10 Q And who are those persons?

11 A Over time?

12 Q Yes.

13 A The CSR supervisor was initially Al Patterson,
14 and then around May of '85, it became Bill Willoughby. For
15 RPSR, it began as Paul Amoruso.

16 Q Would you spell his last name, please?

17 A Let me see. Let me write it down for a second.
18 I'm terrible at spelling. I guess it is A-m-o-r-u-s-o.
19 And then subsequent to Mr. Amoruso's illness, which I
20 believe was in the middle of 1985, it became Ralph Moderski.

21 Q Would you spell that?

22 A M-o-d-e-r-s-k-i.

5

1 Q When did Mr. Amoruso become supervisor of the
2 RPSR element?

3 A It would have been in June of '84.

4 Q When did Mr. Patterson become supervisor of the
5 CSR element?

6 A Also June of '84. Basically when BCAP began.

7 Q What were Mr. Patterson and Mr. Amoruso's prior
8 positions before they took on the supervisory positions in
9 BCAP?

10 A If I could refer you to a description of their
11 positions, a good account of that is given in the IEOG final
12 report, which in some detail describes their past experience,
13 but I could summarize that for you.

14 Q That's all right. If there is a document I can
15 refer to.

16 A It's well written up there. They each had over
17 20 years in the nuclear business.

18 Q Can you further identify that document, the IEOG
19 Final Report?

20 A I believe the date of it is December 13, and it
21 is the final report for the independent expert overview
22 group.

Q December 13 of what year?

6

1 A Of '85.

2 Is that the correct date, Phil?

3 MR. STEPTOE: I don't know.

4 THE WITNESS: It's close. It's a report by the
5 ERC which acted by the IEOG.

6 BY MR. GUILD:

7 Q Do you know whether that report has been
8 identified in discovery?

9 A I believe it has.

10 MR. STEPTOE: I think it has. I also think it
11 was sent directly to you, Bob.

12 MR. GUILD: I just don't recall seeing it. It
13 may well have been.

14 THE WITNESS: In fact, I do remember that it has
15 been discovered because I recently read a response to an
16 interrogatory that had the Bates stamp number behind that
17 item, so it must have been presented to you or made available
18 to you.

19 BY MR. GUILD:

20 Q Do you know what interrogatory that is?

21 A Oh, no. I couldn't begin to guess.

22 Q Me, too. That's why I asked.

7

1 A I think it was the one filed yesterday or the
2 day before.

3 Q A recent filing by Edison?

4 A In fact -- yes. It's the second response to the
5 third set, I think.

6 Q All right. Thank you.

7 A And I think it's interrogatory No. 10 of the
8 third set.

9 Q Thank you.

10 A It asks for reviews of the BCAP. It identifies
11 that as the final report.

12 Q All right.

13 You may help me just expedite my questioning.
14 Does that report contain biographical information about the
15 principals involved in the BCAP?

16 A It identifies by brief biographical for each of
17 the three supervisors, no one else. In that report, they
18 are used as an example of the vast experience of the
19 personnel of the BCAP Task Force, which is why those three
20 were picked out.

21 Q Do they describe your experience?

22 A No, they do not.

8

1 Q On page 1 of your affidavit, and this is with
2 respect to Contention Item 12E, you use the term "technical
3 direction" to describe your supervision of the CSR and RPSR
4 supervisors. How do you use that term?

5 A Well, I provided a lot of the technical input
6 in the development of the plans and procedures and the
7 philosophy behind developing the checklists, and at what
8 BCAP should be looking.

9 Q Did you have administrative and functional
10 supervisory responsibility for the supervisors of the CSR
11 and RPSR elements?

12 A Yes. They worked for me in that capacity.

13 Q Did they report otherwise to anyone else?

14 A No. It was through me to Ninu Kaushal, the
15 director.

16 Q Did Mr. Kaushal, or Dr. Kaushal have any direct
17 BCAP supervisor responsibility other than through the two
18 assistant directors?

19 A Well, he certainly had the prerogative at any
20 time to have discussions, provide direction to anyone within
21 the BCAP task force, yes.

22 Q I'm inquiring generally in terms of organizational
structure. Did Dr. Kaushal have any elements or aspects of

9

1 BCAP for which he was directly responsible other than as a
2 line matter through his two assistants?

3 A The organization chart shows that all of the
4 aspects of BCAP report through one of the two assistant
5 directors to Dr. Kaushal.

6 Q Did he have any staff that reported directly to
7 him other than through you and the other assistant BCAP
8 director?

9 A No, I do not believe so. I believe the
10 administrative services and the scheduling people to have
11 reported through Bob Byers.

12 (Discussion off the record.)

13 MR. STEPTOE: For the record, during the break
14 I handed to Mr. Guild two thick packages which I just
15 received from the site, which appear to be CECO NCRs 6124
16 and 6127. These documents were referred to in Commonwealth
17 Edison's Response to BPI's Third Set of Interrogatories,
18 that interrogatory which requested an update of our
19 responses to his first set of interrogatories, Interrogator-
20 ies 58 and 59, and in particular they relate to Contention
21 Item No. 12F.

22 BY MR. GUILD:

Q Mr. Orlov, have you seen these two documents

10

1 before?

2 A No, I have not.

3 Q Do you identify them in your affidavit?

4 A No, I do not.

5 Q Are they identified in the affidavits of -- yours
6 is the only affidavit that supports the Motion for Summary
7 Disposition on 12F; is that right?

8 A I don't know. I think Mr. Hunsader --

9 Q Do you know whether Mr. Hunsader identifies those
10 NCRs in his affidavit?

11 A We can certainly look it up. I have it right
12 here.

13 Q I am looking at page 3. Have you identified
14 a reference to these NCRs in Mr. Hunsader's affidavit, Mr.
15 Orlov?

16 A Oh. I don't believe I specifically referenced
17 the nonconformance report.

18 Q Mr. Hunsader's affidavit.

19 A Oh. You asked me if I in my --

20 Q No. Can you identify a reference to these
21 NCRs in Mr. Hunsader's affidavit in support of 12F Motion for
22 Summary Disposition?

11

1 A Well, I would be able to say that on page 3 it
2 says, in his response: "As part of site procedures BCAP
3 observations are transferred to CECo nonconformance reports
4 to effect corrective action as a part of NCR closure. Site
5 QA verifies that the NCR corrective action has been properly
6 taken. By doing this, site QA verifies that valid BCAP
7 observations are corrected."

8 I am going to assume that those two nonconformance
9 report packages that you have in front of you are, in fact,
10 the nonconformance reports that relate to this affidavit.

11 Q All right.

12 Answer 10, the following answer, states: "CECo
13 NCRs are currently being processed with respect to the 37
14 observations written against red line drawings." Is that
15 what these NCRs are?

16 A If you could hand them to me, I could verify
17 that. That's what I think they are.

18 Q My point of confusion is, I guess, Mr. Steptoe
19 identified them as Phillips-Getschow NCRs, and they appear
20 to be --

21 A No, they are CECo NCRs.

22 MR. STEPTOE: I didn't mean to say Phillips-
Getschow, if I did.

12

1 MR. GUILD: All right.

2 THE WITNESS: These are BCAP-related NCRs, and
3 this one is related to small-bore pipe configuration, and
4 it describes BCAP observations related to small-bore
5 pipe configuration documentation reviews are listed as
6 addenda to these NCRs, so I assume that this one is
7 certainly related. And perhaps that one might be large
8 bore, LB pipe configuration? I see. Yes, it is. So
9 yes, these two nonconformance reports would most likely be
10 those described in Mr. Hunsader's affidavit.

11 BY MR. GUILD:

12 Q All right.

13 You are not familiar with these NCRs?

14 A No. As a rule, the way BCAP program was set up,
15 we identify the observations; however, the responsibility of
16 resolving those through the NCR system belongs to other
17 site organizations.

18 Q All right.

19 MR. GUILD: They just came from the site, and if
20 copies can be made available at some later time this after-
21 noon --

22 MR. STEPTOE: Sure. Well, I don't know whether we
can get it all copied this afternoon. If you want me to

13

1 try and do that, I will go out now and get them started.

2 MR. GUILD: Yes. To the extent that they are
3 going to be of any use to me in responding to the Summary
4 Disposition, if they are not done this afternoon, they are
5 not very helpful.

6 (Recess.)

7 BY MR. GUILD:

8 Q Mr. Orlov, back to your affidavit 12E, please.
9 Page 2. You asked in question 5: Are you familiar with the
10 facts underlying this matter? And your answer is yes, I am.

11 Is that familiarity fully described in the
12 balance of the affidavit testimony?

13 A When you say fully described, I certainly know
14 more detail about each individual answer and I could
15 certainly fill a volume of it if I felt that these were the
16 pertinent facts that would allow one to make a decision.

17 Q All right. And do they cover the scope of your
18 familiarity with this issue?

19 A Yes, it would cover the scope of my familiarity.

20 Q There aren't any other significant aspects of
21 your familiarity that are not described in the affidavit?

22 A No, not to my knowledge.

14

1 Q All right, sir.

2 Page 3, where you state in the final phrase in
3 answer to question 6 that, "Accordingly, Contention Item 12E
4 has no basis in fact." That conclusion is founded upon the
5 observation that the BCAP Task Force did ultimately document
6 as an observation the concern regarding Level I QA inspec-
7 tors; correct?

8 A I would like to answer that and clarify that by
9 saying, in addition to what you may have stated, it also has
10 to do with the NRC admitted that it erred and retracted its
11 item of noncompliance in this particular case due to a
12 potential miscommunication. So in fact, where you quote
13 the NRC as, in your Contention item -- where you quote the
14 NRC as describing a certain condition being a noncompliance,
15 and the NRC has later admitted that through whatever circum-
16 stances, it is not an item of noncompliance and BCAP was
17 not at fault, that is one of the reasons I give for saying
18 12E has no basis in fact.

19 Q All right. Your conclusion that 12E has no
20 basis in fact is reflected in the balance of your affidavit
21 supporting summary disposition; correct?

22 A Yes, and especially the sentence right before the

15

1 word "accordingly," where it says the NRC has indicated its
2 agreement that this inspection finding upon which Item 12E
3 is based is not an example of noncompliance." That
4 specifically is the cause for my basis for stating accord-
5 ingly.

6 Q Page 4, Answer 9. Are the minor exceptions with
7 which the Braidwood FSAR commits to Reg Guide 1.58, Rev. 1
8 material to the issue involved in Item 12E of the contention?

9 A No, they are not.

10 Q Are the minor amplifications with which the
11 Reg Guide 1.58, Rev. 1 endorses the use of ANSI N.45.2.6
12 1978 material to the issue involved in Subpart 12E of the
13 contention?

14 A No, they are not, and if they had been, I would
15 have exemplified them there in that answer. I was trying
16 to provide a good record, and if they were material, I would
17 have included them, but they are irrelevant.

18 Q Do you agree that the Table 1 to ANSI N.45.2.6,
19 1978, is integral to the provisions of that standard?

20 A I would not characterize it as being integral.
21 I think I would characterize it myself as being an aid in
22 quickly understanding what you would characterize as the

16

1 meat of ANSI N.45.2.6, that is, the text itself.

2 Q Do you believe that the text is controlling
3 over the Table 1?

4 A Yes, I do, because it provides greater detail and
5 greater depth, and certainly more explanation.

6 Q And is the belief that the text is controlling
7 over the table significant in your and Commonwealth
8 Edison Company's interpretation of the ANSI standard as it
9 relates to the Level I issue?

10 MR. STEPTOE: Objection. The question is multiple,
11 in the first place. You have asked him about his interpre-
12 tation and you have asked about Commonwealth Edison's.

13 BY MR. GUILD:

14 Q First answer as to your interpretation.

15 A Well, can you repeat the question, please?

16 Q Sure. Is your view that the text is controlling
17 over the table -- and that is, the text of the ANSI standard
18 over Table 1 to the ANSI standard -- is that view material
19 to your interpretation of the ANSI standard as you described
20 it with respect to the Level I issue related to Contention
21 Item 12E?

22 A No, it really isn't, and if I could expound on

17 1 that, if you take a look at the table, the second line item
2 down discusses "implementing inspection examination and
3 testing procedures." And if you review the detailed
4 definition of what inspection examination and testing
5 procedures and inspection examination and testing are within
6 the body of 2.6, that provides you with a rather firm
7 foundation on how to interpret this table.

8 However, if you, with no additional knowledge,
9 take this table out of context, for example, one can then
10 certainly be confused. But I don't believe that the
11 framers of the standard intended the table to be used by
12 itself without some reference to explanations and definitions
13 provided in ANSI N.45.2.6 text itself.

14 Q Are you familiar with industry practices with
15 respect to the use of Level I certified inspection personnel
16 for the performance of visual AWS welding?

17 A I have discussed with some people who have been
18 involved in other sites around the country their experiences
19 with the use of Level I inspectors for inspection.

20 Q And who have you discussed that with?

21 A I would have asked Menzo Clinton and perhaps
22 Dan Vandergrift, Bud Schruyer, all of Daniels International

18

1 Corporation, Daniels Construction. They are building quite
2 a number of plants in the Southeast and the Midwest, and
3 they have some extensive experience with inspection performed
4 by Level I.

5 Q You are going to have to identify these people.
6 Menzo Clinton? Who is he?

7 A Menzo Clinton worked in the BCAP as the inspection
8 supervisor for the BCAP.

9 Q I'm sorry. I missed the other gentlemen's names.

10 A Dan Vandergrift.

11 Q Would you spell that, or try?

12 A V-a-n-d-e-r-g-r-i-f-t.

13 Q Who was Mr. Vandergrift?

14 A He works in the Project Construction Department.

15 Q For Commonwealth Edison?

16 A Commonwealth Edison.

17 Bud Schruyer -- that is spelled S-c-h-r-u-y-e-r.
18 He is also in PCD, Commonwealth Edison.

19 Q Anyone else?

20 A To the best of my knowledge, that's who I may
21 have discussed that with.

22 Q Did you have any independent familiarity with

19

1 industry practices on the subject?

2 A No.

3 Q What was the practice at the Zimmer Nuclear
4 Plant with respect to the use of Level I QC inspectors
5 for the performance of visual weld inspection of AWS
6 welding?

7 A I'm not familiar with that aspect of the Zimmer
8 Construction.

9 Q You didn't have occasion to review inspection
10 documents, welder qualification records, nonconformance
11 reports in the area of AWS welding?

12 A Well, I guess I did, but I didn't specifically
13 verify whether or not the inspectors reporting them were
14 certified to Level I or Level II. I knew as a general
15 practice in QCP we employed Level II inspectors across the
16 board because we wanted to provide an additional measure
17 of confidence in the inspections which they performed.

18 Q Additional measure over what?

19 A Well, obviously, if you are going to have higher
20 level certified people, that always provides some additional
21 level of confidence. If you could have everybody --

22 Q I didn't mean to interrupt your answer. I wasn't

20

1 looking at you, sir.

2 A Obviously, if there were enough certified
3 Level III people in the world who had ten or more years of
4 experience at nuclear power plants, it would certainly be
5 desirable to have all Level IIIs. But unfortunately, not
6 enough people have experience in the nuclear industry and
7 therefore you have to take people with what would be
8 considered acceptable minimum standards as described in
9 ANSI N.45.2.6.

10 Q Why is there a higher level of confidence from
11 the use of a Level II over a Level I for performance of
12 visual weld inspection?

13 A Well, I couldn't very well say on any given --
14 I can't make a generalization saying that all Level II's are
15 better than all Level I's. In fact, I would almost generalize
16 that Level I's are probably more cautious in their inspec-
17 tions and are less apt to accept questionable defects. So
18 I would say, based on kind of an a priori argument, that
19 a Level I would actually be more conservative than a Level II
20 because he hasn't had the experience with which to judge
21 borderline calls.

22 Q Well, that's an argument that you can make, but

21

1 that is inconsistent with your last testimony, as I heard
2 it, which was that you would have more confidence with a
3 higher level certification --

4 MR. STEPTOE: Is there a question pending here?

5 MR. GUILD: The question that I asked first, and
6 I don't think his last answer was responsive to, is why
7 would you have a higher level of confidence from use of a
8 Level II over a Level I, and he said he wouldn't.

9 THE WITNESS: Well, for a Level I, I said that
10 you would get a more conservative response, a more
11 conservative inspection, which would tend to reject more.
12 A Level II, you would have some judgment involved, some
13 additional judgment involved where they could look at border-
14 line calls and perhaps accept them instead of reject them,
15 because an inspector's job is not only to reject questionable
16 work or deficient work but also to accept work that is
17 acceptable and meets the standards of AWS D.1.1.

18 BY MR. GUILD:

19 Q It is still not responsive to my question. Do
20 you want to hear it again?

21 A Sure. Let's hear it again.

22 Q You stated in response to an earlier question that

22

1 you would have a higher level of confidence employing the
2 higher level of certification of inspectors, and you said,
3 for example, that you use Level II's across the board at
4 Zimmer in your QCP program in order to have that higher
5 level of confidence.

6 And my question to you, sir, was: Generally, why
7 would you have a higher level of confidence, if your statement
8 is correct, employing a Level II over a Level I?

9 A Well, let me try and frame that as an analogy
10 to a real world situation.

11 Q How about just try to answer the question?

12 MR. STEPTOE: How about letting him answer the
13 question the way he wants to.

14 MR. GUILD: No, I really think I'm entitled to
15 have an answer to the question that was asked, and I'm now
16 trying a third time; so I would like him to address that
17 particular question.

18 MR. STEPTOE: Yes, but the question didn't call
19 for a yes or no answer. You are trying to dictate to the
20 witness how to answer your question.

21 MR. GUILD: Mr. Steptoe, I'm only asking that he
22 answer the question that I asked and not some question that

23

1 he wants to ask.

2 MR. STEPTOE: Well, you have to --

3 MR. GUILD: You will have your chance for
4 redirect.

5 MR. STEPTOE: Well, I don't like the witness
6 being interrupted, sir.

7 MR. GUILD: I will insist on the right to
8 interrupt the witness if he is not being responsive to
9 my question. I am entitled to an answer to the question
10 that I have posed.

11 I appreciate your making that dissertation on
12 a subject that may be of interest to both of us, but I'm
13 afraid I am compelled to put the question and insist that
14 you direct your answer to that question.

15 MR. STEPTOE: Could you please state the pending
16 question? I have lost track now.

17 MR. GUILD: Yes.

18 BY MR. GUILD:

19 Q Do you retract your previous answer, Mr. Orlov,
20 with respect to the higher level of confidence attributable
21 to a Level II over a Level I inspector? And then we will
22 move on if you do.

24

1 A No. But in my other statements, I was trying
2 to define the context in which I used the word "confidence."
3 I think you misinterpreted confidence as getting a
4 conservative inspection. I was trying to provide, while
5 being interrupted, the basis for my using the word "confi-
6 dence," in that you get a more realistic inspection, perhaps,
7 using a Level II. Again, perhaps, because we are making
8 some rather broad generalizations about people who are
9 certified in accordance with a certain standard.

10 I can't say that any given Level II inspector
11 is "better" in any way that you choose to use the word or
12 term "better" as a Level I inspector. Each has to be decided
13 upon their own merits.

14 Q As a general matter, do you have a higher level
15 of confidence employing a Level II inspector for the visual
16 inspection of AWS welds as opposed to Level I?

17 A I personally do not. I would have to judge each
18 inspector's ability on his own merits. But one could say
19 in general that the uninformed public or whomever else may
20 be involved feels that the higher level of certification is
21 always more desirable when one can practically achieve it,
22 just like you would rather have a partner defending you in

25

1 a lawsuit rather than an associate, even though both have
2 passed the Bar and are able to practice law.

3 Q As a programmatic matter, do you believe that
4 a higher level of confidence is associated with the use of
5 a Level II inspector for the performance of visual weld
6 inspection as opposed to a Level I?

7 MR. STEPTOE: Objection to the form of the
8 question. I don't know what programmatic matter means.

9 BY MR. GUILD:

10 Q Do you know? Did you understand the question?

11 A I'm a little bit vague on what you mean by
12 programmatic, and again, we may be using the word "confidence"
13 in a rather broad manner.

14 Q This is going to be a very long afternoon, Mr.
15 Orlov. Let me just see if I can cut this short.

16 A Sure. I know it is referenced in a response that
17 CECO gave to the NRC, but I don't think I was responsible
18 for that particular portion of that response. I believe my
19 portion is in a different section.

20 (Pause.)

21 Q Do you know where the reference is, Mr. Orlov?

22 A Sure. It is in the PCD response, which is

26

1 Enclosure 1, I believe. I think that is what the last
2 15 minutes' line of questioning has been related to.

3 Q Can you direct my attention to the portion?

4 A Well, I will certainly give it a try here.

5 (Witness reviewing document.)

6 Q Page 1 of Enclosure 1, Mr. Orlov, uses the term
7 "enhanced inspection program," at the bottom of the page.--

8 A Yes.

9 Q -- the last line, to describe the effect of the
10 resolution of this issue, that is, the Level I issue. Page
11 2 describes a memo of May 15, 1985 to be issued by
12 Commonwealth Edison Company to site contractors. That
13 May 15, 1985 memo provides that thereafter, Level II or
14 Level III inspectors are to be used for the inspection and
15 acceptance of welds; correct?

16 A Correct.

17 Q And further, that for all other inspections,
18 Level II inspectors are to be used whenever practical;
19 correct?

20 A I believe that's what it says, yes.

21 Q Is it in those respects -- that is, the use of
22 Level II's instead of Level I's as a mandatory matter for

27

1 weld inspection, and whenever practical for other inspec-
2 tions -- the manner in which Edison believed that the
3 Braidwood inspection program was enhanced by the resolution
4 of this issue?

5 MR. STEPTOE: Objection as to form. You are
6 asking him as to what Edison believed. I think he has
7 already stated that he didn't have responsibility for
8 drafting this answer.

9 BY MR. GUILD:

10 Q Do you know, sir? If you don't know, the
11 answer is you don't know. The question is: Within your
12 knowledge, is that the manner in which the inspection
13 program was enhanced?

14 A From what I read here -- and again, I am reading
15 the same response that you are reading -- it would seem to
16 infer that they desired to enhance the inspection program
17 above the requirements specified as a minimum, and as such,
18 any time one raises requirements above a certain minimum
19 standard, then one could construe that to be enhancement.
20 So in that context, yes, I could easily read this to mean
21 that this represents an enhancement of the program.

22 Q Do you have any independent knowledge other than
reading that document as I am of the basis for the

1 Commonwealth Edison Company position that the inspection
2 program was enhanced?

3 A I believe I have some independent knowledge,
4 yes.

5 Q And is it enhanced in the manner that I just
6 described: that is, by the mandatory use of Level II's for
7 weld inspection and use of Level II's whenever practical for
8 all other inspections? Is that the manner in which Edison
9 believed that their inspection program was enhanced?

10 A I believe that those are the actions which
11 Commonwealth Edison took in response to this particular
12 item of noncompliance; correct.

13 Q And are those the actions that are the basis
14 for their belief, Edison's belief that their inspection
15 program was enhanced?

16 MR. STEPTOE: I repeat my objection.

17 BY MR. GUILD:

18 Q If you know. Let me very clear. If you don't
19 know, I am happy with that answer, too, sir. Don't
20 speculate.

21 A Other than what is obvious here on the piece of
22 paper, I would have to be speculating.

1 Q All right, sir. Thank you.

2 Now, taking that as simply a statement that
3 appears in a report from a source that you may or may not
4 treat as authoritative, and that is Commonwealth Edison
5 Company, do you share the belief that is expressed in
6 that response, Enclosure 1, pages 1 and 2?

7 MR. STEPTOE: Excuse me.

8 MR. GUILD: I could read it all over again. Does
9 the witness understand my reference?

10 MR. STEPTOE: You are referring to the specific
11 thing you have been talking about now, some other belief?

12 MR. GUILD: Indeed I am. The term "belief" is
13 not mine. It is Commonwealth Edison Company's.

14 THE WITNESS: I certainly feel that any time one
15 goes beyond the minimum requirements as described by law or,
16 in this particular case, industry standard, that when one
17 goes beyond that minimum, that one could construe that as
18 an enhancement, yes.

19 BY MR. GUILD:

20 Q Do you agree with the statement made in the
21 Commonwealth Edison Company response in that respect?

22 A That this could be construed as an enhancement?

1 Q No, sir. Just take the statement as it is stated.
2 I am not trying to paraphrase it or misstate it. Read it,
3 digest it, and tell me whether you agree with it.

4 A I do believe I agree with the response that
5 states Commonwealth Edison does not agree that this is an
6 example of noncompliance, and whatever comes after that
7 I would tend to agree with.

8 Q Let me be real precise, now. Do you, George Orlov,
9 believe that as stated in the Commonwealth Edison Company
10 response, the use of the Level II inspectors enhances the
11 inspection program at Braidwood? If you don't have an
12 opinion, that is certainly satisfactory, as well.

13 A I do have an opinion but it can get rather long
14 and complicated.

15 Q I have all afternoon, sir.

16 A I could expand on this. I mean you can take
17 any person out there who is qualified to a Level II and you
18 can call them a Level I also. So just because you are a
19 Level I or a Level II doesn't mean that you have any
20 additional abilities to perform inspections. But what it
21 does mean generally is that a Level II generally has more
22 experience than a Level I. And yes, if you required across

1 the board Level II, one could easily say that that would be
2 an enhancement of the program in that it is increasing
3 a requirement above the minimum requirements.

4 So yes, I agree with that statement, as I have
5 explained it.

6 Q Does that complete your answer?

7 A Yes, it does.

8 Q Thank you.

9 Page 11 of your affidavit on this sub-item, Mr.
10 Orlov. Answer 30 makes reference to page B-15 of the BCAP
11 report.

12 A Yes.

13 Q I have a copy of page B-15 before me. It states
14 under a heading that is entitled "Additional Observations:"
15 "A recurring observation in documentation reviews for a
16 number of different construction categories related to the
17 use of certified Level I inspectors to perform QC inspections.
18 CECO maintains that this is permitted by ANSI standard. The
19 issue is under consideration by the NRC Staff."

20 What was the recurring observation that is
21 described on that page of the BCAP report? And you are
22 welcome to have my copy of what I just read.

(Witness reviewing document.)

1 A The recurring observation would be that in more
2 than one case, Level I inspectors may have performed an
3 initial inspection for welding for the electrical disciplines.

4 Q All right.

5 Now, is "observation" used as a term of art in
6 the same fashion it is employed in the BCAP program?

7 A Yes.

8 Q So there is more than one observation of the use
9 of Level I's for performing this work?

10 A No. If you will take a look at the observation
11 that describes this, it is what is known as a generic
12 observation which describes a condition which is applicable
13 in more than one CSR sample item.

14 Q All right. Can you identify that generic obser-
15 vation, please?

16 A I believe I have identified it in my affidavit,
17 and it is CSR RG ELE XXX, and that should be 171.

18 Q Where are you looking, sir?

19 A The same question, No. 30.

20 Q All right. Question 30, page 11?

21 A Yes. And that should be 171, not 17.

22 Q It should be 171 in question 30 for the number of

1 observations?

2 A That is it, yes. What happened is the copy you
3 have attached here got Xeroxed and it got cut off at the
4 end.

5 Q Okay. And that observation is attached to your
6 affidavit?

7 A Yes, immediately following the last question.

8 Q Is that the completed observation?

9 A No. Page -- all the subsequent parts after
10 Part 11 would have been filled out, and there would have
11 been a page 2 associated with this, but this is what I
12 produced out of my files before I turned it in.

13 Basically, Part 12 would have said none. It
14 would have been signed by me. Page 2 would have said this
15 observation is valid and would have been signed by me and
16 Dr. Kaushal.

17 Q Is there a page 3?

18 A For this particular one, no.

19 Q Why not?

20 A Because if you read the BCAP 06 procedure, some
21 doc review observations do not need to be forwarded to
22 Sargent & Lundy for review of design significance.

1 Q I'm sorry. You said some document review?

2 A Some document review observations that become
3 discrepancies need not be forwarded to Sargent & Lundy for
4 review of design significance.

5 Q Do you know whether or not the additional
6 portions of this BCAP observation have been identified and
7 made available in discovery?

8 A I personally do not know.

9 MR. GUILD: Can counsel help?

10 MR. STEPTOE: I think all the BCAP observations
11 have been made available during discovery, at least down
12 at the site. I do not know whether they have been physically
13 brought up to ILB's offices or, for that matter, mailed to
14 you. I just don't know.

15 THE WITNESS: I did describe to you the essence
16 of what was on page -- the bottom of page 1 and page 2.

17 BY MR. GUILD:

18 Q That's fine. I'm just simply asking whether or
19 not the rest of this BCAP record has been made available
20 to Intervenor in discovery.

21 A I know for a fact now that it has been because
22 it is part of the Intervenor -- excuse me. It is part of the
BCAP files, and I saw a document which Susan Babb transmitted

1 to you, I think, on January 10th indicating that these
2 documents were available for discovery. I also saw a copy
3 of an interrogatory response which forwarded to you the
4 files for the BCAP program, an index of those files. So
5 you have had those for quite some time.

6 Q I have had the index. Have I had the document?

7 A Well, I believe you had an appointment to come
8 to Zimmer -- excuse me -- to Braidwood on site, which you
9 never showed up. I was all prepared and ready to walk
10 you through, but apparently you were in South Carolina.

11 Q It will happen again.

12 A Okay. So they were made available to you.

13 MR. GUILD: I guess, counsel, my problem is there
14 are hundreds of thousands of documents that I am told are
15 down someplace at the site. If Applicant is pressing its
16 Motion for Summary Disposition on this item and has
17 represented that this is the BCAP observation record, and I
18 am only given one page of a multipage document, I would ask
19 why the other pages have not been included.

20 THE WITNESS: You were actually given two pages,
21 if you will look at the next page.

22 MR. GUILD: Yes. I see that there is an

1 attachment, and I am really talking to your lawyer, so if
2 you would hold the chit-chat, I would appreciate it.

3 MR. STEPTOE: The answer to the question is I
4 didn't know there were other pages when I filed this motion.
5 However, I do not know whether we have provided you the
6 other pages or not, but certainly we have offered to
7 bring documents up from Braidwood which you identified to
8 us as long as they are in manageable volume. I don't even
9 know that this hasn't been previously provided to you through
10 some other mechanism.

11 MR. GUILD: I would ask if you would find out. All
12 I am saying to you is that I want to be playing with a full
13 deck of cards.

14 MR. STEPTOE: Sure. I understand perfectly.

15 MR. GUILD: If you give me partial documents,
16 it is just not fair.

17 MR. STEPTOE: I certainly didn't intend to give
18 you a partial document, and I will make sure that you get a
19 copy of this as soon as I can get it, the full document.

20 MR. GUILD: All right.

21 BY MR. GUILD:

22 Q This observation did not receive a review from

1 design significance by Sargent & Lundy; is that correct?

2 A Correct. Well, if I could clarify that, Sargent
3 & Lundy as a group looked at a number of document review
4 observations and provided us with the judgment that they
5 could not make a determination of design significance because
6 it is very difficult based on documentation to define
7 design significance.

8 Q Did they review this item?

9 A At this point in time I don't know whether they
10 looked at this specific observation, but considering they
11 probably looked at all of them, I would say there is a good
12 chance they looked at this.

13 Q Have you made available any documentation of
14 Sargent & Lundy's design-significant review of this
15 observation?

16 A Yes. There is a letter basically describing
17 what I have just told you in the BCAP files which were
18 indexed and made available to you.

19 Q Did you describe such a review in any response
20 to discovery questions on this sub-item?

21 A I would have to say no.

22 Q Was there any quantification of the recurring

1 character of this observation, and that is the observation
2 with regard to Level I weld inspection?

3 A We did not attempt to quantify a number. What
4 we did try and do is describe that it was generic because
5 it was Level I inspectors were allowed to perform inspections
6 with a review and validation by a Level II inspector for
7 all Comstock inspections.

8 Q All right.

9 How is this observation identified as a generic
10 observation, if it is, Mr. Orlov?

11 A There is a "G" there in front of the "ELE," and
12 there is also a "XXX" there in the observation number.

13 Q What of those symbols indicate the generic
14 character of the observation?

15 A Well, the "G" stands for generic.

16 Q Right.

17 A And the "XXX" identifies, in accordance with
18 the procedure, that this document is not applicable to
19 any specific package.

20 Q Do you know how many installations or packages
21 this observation relates to?

22 A Well, it has the potential for applying to those

1 items which are in the populations for which welding is
2 applicable, and that would be the conduit hangers, the
3 cable pan hangers, electrical equipment installation.

4 Q And are those populations described in the BCAP
5 report?

6 A Those populations are not described in the
7 BCAP report. The results of the reviews are described in
8 the BCAP report.

9 Q Does the BCAP report set out the number of
10 members of those populations?

11 A Yes, it does.

12 Q Page B-15 of the BCAP report, the term a "number"
13 of different categories. What are those construction
14 categories?

15 A I just described them to you.

16 Q Are there any others?

17 A Electrical equipment, cable pan hanger, and
18 conduit hanger. No, this doesn't apply to any others.
19 This observation doesn't apply to any others.

20 Q Do you know whether or not Level I inspectors
21 were employed for the visual inspection of welds by any
22 other contractor besides L.K. Comstock?

1 MR. STEPTOE: Objection. Relevance. The witness
2 may answer.

3 THE WITNESS: I believe that one other contractor
4 may have used Level I inspectors for the visual inspection
5 of welding, and I believe that is PTL, although I would
6 have to refresh my recollection on that, but I think that
7 may be the case

8 BY MR. GUILD:

9 Q And do you know over what period PTL employed
10 Level I's, if they did?

11 A That I don't know. But again, their procedures
12 were similar to Comstock's in that they identically reflected
13 the requirements of ANSI N.45.2.6, and as such, they would
14 have allowed Level I inspectors.

15 Q Do you know whether PTL actually employed Level I
16 inspectors in the visual inspection of welds?

17 A I personally do not.

18 Q Did BCAP make a review of that issue?

19 A I believe there may be an observation in the
20 files related to that, although again, the contractor may
21 not be PTL. I know there is one other contractor.

22 Q Newberg?

1 A Again, my recollection on that is fairly
2 strained. I would have to go back through the files to
3 determine that.

4 Q Do you know what, if any, action has been taken
5 with respect to the use of Level I's by any other contractor
6 besides Comstock?

7 A That I don't know.

8 MR. STEPTOE: Objection. Lack of foundation.

9 BY MR. GUILD:

10 Q You don't know?

11 A No. Again, in the role of BCAP, we don't know
12 what the corrective actions are. We simply identify the
13 problem and corrective action is the responsibility of other
14 site organizations.

15 Q Your belief is that an observation was initiated
16 with respect to the use of Level I's for weld inspection by
17 at least one other contractor?

18 A Yes. That is my current recollection.

19 Q Do you know whether that observation was
20 determined to be valid or not?

21 A I'm sure it was valid.

22 Q Was it initiated after the electrical generic

1 observation?

2 A Yes, it was. And the reason for that is that
3 work on those populations occurred in sequence after the
4 electrical populations.

5 Q Do you know what population it related to?

6 A Again, if I knew the contractor specifically,
7 I could probably tell you, but I don't. And to be quite
8 frank, it may not even have been weld inspections, now that
9 I come to think of it.

10 Q It may have been use of Level I's for some other
11 inspection activity?

12 A Yes, which was never brought into question by
13 anybody else. Even the NRC didn't question the use of
14 Level I's for any other inspection besides welding. The
15 differentiation between welding and nonwelding I could
16 never determine, but that is neither here nor there.

17 Q Did BCAP ever review the manner in which the
18 Level II inspectors at Comstock reviewed and approved the
19 work of the Level I's who actually did the visual weld
20 inspections?

21 A No, we didn't, and the reason for that is that
22 the BCAP program defined how -- well, the extent to which

1 we perform inspections and doc reviews, and that would have
2 actually involved interviewing people and performing audits
3 and going far beyond the scope of what BCAP was supposed to
4 do, and that is review documents and perform inspections.

5 Q BCAP, then, reached no conclusion about the
6 character of the actual supervision that the Level II's
7 exercised over the Level I's?

8 A Well, I believe we have -- BCAP has documented
9 the question in that observation. I believe you will see
10 it on the second page of the one-page observation. Down in
11 the bottom line it says, "Do these procedures adequately
12 describe the Level II inspector's validation of Level I
13 inspection procedure implementation?"

14 Q Was that question ever answered by BCAP?

15 A It wasn't meant to be answered by BCAP. Again,
16 that is a finding the corrective action for which is not
17 within BCAP's domain.

18 Q Are you aware of efforts to provide an answer to
19 that question?

20 A The only way I have become familiar with any
21 corrective action for this is in reading or scanning
22 responses by SECo to your interrogatories. And I believe
there is some mention of the LRP program, with which I am

1 not familiar other than that there is a name called LRP.
2 That is L-I-R-P, I believe, or L-l-R-P. That's about as
3 much as I know about it, other than that it extends to
4 Level I inspectors, perhaps.

5 Q Page 12 of your affidavit. You state, "I have
6 been informed that steps PCD has taken to resolve this
7 concern are discussed in Mr. Gieseke's affidavit submitted
8 in response to Contention Item 3C." And I think you told us
9 that that information was submitted to you by counsel;
10 correct?

11 A Well, I was informed that the steps PCD is taking
12 to resolve this concern were discussed in Mr. Geiseker's
13 affidavit, so it says exactly -- I was so informed.

14 Q By counsel?

15 A Yes. Well, I was informed by counsel, yes.

16 Q And have you read Mr. Gieseke's affidavit?

17 A No, I have not.

18 Q So you don't know whether his affidavit does
19 discuss those matters or not. You have simply been informed
20 that --

21 A That's exactly how I said it in my affidavit.
22 I was so informed.

1 Q Page 5, please. Question 13 is: "When did BCAP
2 first identify this practice?" Can you be more precise
3 than the answer that is stated there, late fall of 1984?

4 A Well, I would like to have been able to, but
5 it was sometime in the development of the BCAP checklist
6 and instructions, and that was, for these series of
7 populations, late fall of '84, perhaps in October, November
8 time period. That's about the best I can pin it down.

9 Q Did the matter come to your attention at that
10 time?

11 A Yes, it did.

12 Q And how did it?

13 A Well, I believe I was discussing the development
14 of the GRELE checklist with the lead electrical engineer
15 for BCAP, and we came across this practice of Level I
16 inspectors performing inspections with a Level II review of
17 the documentation associated with that.

18 Q All right. And who was the lead electrical
19 man that you referred to?

20 A Dave Patel, although Dave is just -- that is,
21 I guess, his nickname, but Dave Patel.

22 Q How is his last name spelled?

1 A P-a-t-e-l.

2 Q Did you document your identification of this
3 practice at the time?

4 A Well, at the time, we really didn't know whether
5 or not it represented an observation or a deficiency of
6 any type, so at that point in time, not knowing whether or
7 not an observation existed, we did not document it as such.

8 Q Did you document it in any other fashion? Not
9 as an observation at that time?

10 A No, we did not.

11 Q What action, if any, did you take upon identifica-
12 tion of the practice?

13 A Well, we took steps to review the FSAR, the Reg
14 Guide, the ANSI standard in more detail to determine what
15 the actual requirements relating to the use of Level I
16 inspectors were. We had some general knowledge, some
17 brief occasion to look at ANSI N.45.6, and we wanted to
18 become more intimately familiar with those requirements.

19 Q When you say "we," you mean you and Mr. Patel?

20 A It would have been myself, Mr. Patel, and perhaps
21 people who were working for Mr. Patel at the time. I don't
22 have any specific names. But he had a large group.

1 Q Did you bring this matter to anyone else's
2 attention in management? Did you bring it to Dr. Kaushal's
3 attention?

4 A At that point in time, I don't remember whether
5 or not I brought it to Mr. Kaushal's attention. Again, it
6 was just a question in our minds, as we had many other
7 questions in our minds when we developed other checklists
8 and instructions. It was in -- we were in the process of
9 trying to define requirements, reviewing specifications,
10 trying to put our checklists together. We had many, many
11 other questions relating to what specific requirements were
12 aside from this one, so this would not have been unique in
13 any way, shape or form.

14 Q Were there any procedures that specified the
15 manner of documenting questions of interpretation of codes
16 or standards that were encountered in the course of the
17 checklist development or other BCAP work?

18 A Well, there is certainly a procedure that
19 describes how checklist development takes place and how
20 one goes about developing checklists, what resources one
21 uses, on what one bases those requirements, and that is
22 Procedure BCAP 22, I believe. We hadn't identified any

1 discrepancy at this point in time but we were just
2 questioning further whether or not -- well, we were
3 questioning exactly what the requirements were. We had
4 no basis for which to document this as an observation or
5 a discrepancy --

6 Q Perhaps you missed my question. Aside from
7 documenting it as an observation, and aside from what
8 procedures you had that said how you do checklists, I am
9 asking you was there any procedure that called for the
10 documentation of a concern, a question regarding the
11 interpretation of the Code as you were developing these
12 checklists or performing any other BCAP activities?

13 A Well, there were a number of -- there is a thing
14 called the TIR, technical information request, where if
15 we have specific questions of architect engineer specifica-
16 tions or ASME Code requirements, we have often requested
17 information on a TIR, usually when we can't come up with
18 a resolution ourselves. But in this case we weren't
19 at that stage at that point in time; we were still in the
20 information gathering stage.

21 Q What does TIR stand for?

22 A Technical Information Request. And it is

1 governed by BCAP 04.

2 Q Did you ever document this matter on a TIR?

3 A No, we did not, for the reason basically that we
4 had never decided that it was -- we had never gotten
5 around to deciding that it was, in fact, an actual discrepancy.

6 Q Well, does the TIR procedure require that it
7 be identified as a discrepancy before you employ the TIR
8 device?

9 A A TIR is an optional method of asking questions
10 of the architect engineer when one needs to ask questions
11 of the architect engineer. In this particular case we did
12 not feel that we needed to go to the architect engineer at
13 this point in time because we felt that we could review
14 the facts, the requirements regarding this particular
15 question by ourselves, as we have reviewed many other
16 questions within BCAP.

17 Q How was this concern or how was this question,
18 the question of the use of Level I's, first documented?

19 A First documented by anyone?

20 Q Yes.

21 A It would have been identified in a February --
22 I think I have an NRC inspection report, a February
inspection report.

1 Q February what year?

2 A 1985. I believe it was one of the documents
3 that I initially identified as having brought with me but
4 you didn't want to put it in the record. Let's see if I
5 can find that.

6 Q That's all right. I can find the report.
7 That NRC inspection report was the first documentation of
8 the question regarding the use of Level I's that we have
9 been discussing?

10 A I believe so. Let me open it up here, and I
11 believe the NRC identified it as an open item, 85-02-01.

12 Q Had the matter been previously documented by
13 BCAP, to your knowledge?

14 A No, it had not been. If you are trying to ask
15 did we put it down in writing and then destroy it later,
16 no, it was never put down in writing.

17 Q No, that wasn't my question at all. Was it ever
18 in writing, to your knowledge?

19 A No, it was never in writing within BCAP before
20 I documented it on the observation which is attached.
21 At least to my knowledge. And I was fairly intimately
22 involved with this matter.

Q Okay.

1 (Discussion off the record.)

2 BY MR. GUILD:

3 Q Page 7 of your affidavit, Mr. Orlov. Question
4 21, Answer: "I initially requested the CSR lead electrical
5 engineer to document this matter on an observation report."
6 Who was that engineer?

7 A That would have been Dave Patel, as previously
8 referenced.

9 Q Did you document that instruction to Mr. Patel?

10 A No; word of mouth.

11 Q Did Mr. Patel originate a BCAP observation?

12 A No, he did not.

13 Q Did he fill out the piece of paper?

14 A No, not to my knowledge. I never saw one.

15 Q You state, "In reviewing the requirements to be
16 documented on the observation, it was observed." And who did
17 the review and who made the observation? Page 7, second
18 to the last line. Answer 21.

19 A I believe it was first Dave and then shortly
20 thereafter myself after having reviewed the actual documents
21 myself.

22 Q I'm sorry, I didn't mean to interrupt. Did you
complete your answer?

1 A Yes. I believe it was first Dave and then
2 shortly thereafter, when he presented this to me, I read
3 the documents, ANSI N.45.2.6, carefully, and I came up
4 with the same conclusion, that Comstock's procedures
5 regarding this were verbatim out of ANSI N.45.2.6, and
6 therefore, there could not have been an inconsistency with
7 ANSI N.45.2.6; thus, there was no basis for an observation
8 saying that ANSI N.45.2.6 requirements had been violated.

9 Q When you say verbatim, do you mean that it
10 quoted the ANSI standard accurately and completely and in
11 all respects?

12 A I think word for word, yes.

13 Q Did it employ the language that is used in the
14 chart on Table 1 to the ANSI standard?

15 A No. It used -- well, it may have used both,
16 actually. I know for a fact that it used the words right
17 out of the text, and I believe there was a chart also that
18 had verbatim the words in the chart, although I'm not quite
19 sure about the latter. But I know the words in the text
20 were repeated verbatim.

21 Q So your belief is that the L.K.Comstock visual
22 weld inspection procedure completely quoted verbatim the

1 applicable provisions of the ANSI standard?

2 A No, I didn't say the visual inspection
3 procedure. It was the procedure for filling out documentation
4 and for performing inspections and certifying inspections.
5 Excuse me. Certifying inspectors.

6 Q What procedure is that?

7 A I don't know the exact one, but I can refresh
8 my memory, I could limit it down to three, if you like.

9 Q It would be helpful.

10 A If you take a look at the second page of my
11 one-page observation -- again, that is CSRRGELEXXX171 --
12 you will see there are three procedures referenced there,
13 4.1.3, 4.13.1, and 4.8.3. I believe 4.8.3 is the visual
14 inspection procedure; 4.1.3 and 4.13.1 are procedures that
15 would govern documentation and inspector certification.

16 Q And it's one of those two?

17 A It would be one of those two. And I believe
18 I even give the revs way down at the bottom in the
19 references there, just to put you in touch with the
20 exact ones that I was looking at.

21 Q Now again, my question with respect to the
22 procedures that you were referring to at page 7 --

1 A Those are the three.

2 Q All right.

3 Did they quote the ANSI standard verbatim and
4 completely?

5 A It would be either 4.1.3 or the 4.13.1, and again,
6 I don't think it quoted the ANSI standard completely
7 because there quite a number of pages of the ANSI standard
8 that really aren't applicable.

9 Q Did it quote it completely and verbatim in all
10 applicable respects?

11 A Let me try and define what it did quote, if I
12 could. That way we won't worry ourselves with whether
13 your applicable or my applicable are different. I would say
14 yes to that answer just now. I'm trying to find for you
15 the specific -- to the best of my recollection which
16 specific ones it talked about.

17 I believe under 3, qualifications, and 3.5 --
18 well, all of 3, specifically 3.2, 3.3, 3.4 and 3.5.1, 3.5.2,
19 those particular sections. The important parts of those
20 were basically verbatim. It looked like a good cut and
21 paste job to me. I mean that's, you know -- a good way
22 to write a procedure is to take the standard and cut it up.

1 That way you are sure you incorporate the requirements of
2 the procedure. You can't make a mistake.

3 Q Is there a table --

4 A It's on page 5 of ANSI N.45.2.6.

5 Q Your belief is that the Comstock procedure also
6 included the applicable language from the Table 1 and it's
7 verbatim quoted?

8 A That's my recollection at this time.

9 Q Page 9, Answer 23, with reference to your
10 conversation with Mr. Gardner on the subject. Did Mr.
11 Gardner raise the question about the use of Level I's in
12 the BCAP action on that matter?

13 A I don't remember specifically whether or not he
14 raised it. I believe it was actually raised by Dr. Kaushal
15 or myself. We were discussing a number of issues at the time
16 in question, specifically the "redline" drawings. That is, I
17 guess, under Contention Item 12F. That was probably -- is
18 that the one -- yes, 12F. That probably took up most of
19 the time in that conversation.

20 I believe, just an aside, at the end of the
21 conversation we mentioned that we had, in fact, initiated
22 an observation, and it was either Dr. Kaushal or myself, but

1 I am sure that we did inform him of that. And at that point
2 in time, we had spent some time discussing the 37 "redline"
3 drawing and validation question.

4 Q I think you misstated. Page 9, Answer 23, as
5 stated there, you said you did not --

6 A Oh, I'm sorry.

7 Q -- document it as an observation.

8 A I'm sorry. I am looking at the next question down,
9 or a few down. I am very sorry. Let's start over. Can
10 you repeat your question?

11 Q Yes. February '85, as you answer in Answer No.
12 23, you state that you informed Mr. Gardner that you would
13 not be documenting this as an observation. And my question
14 was: Did Mr. Gardner raise the question?

15 A I think I brought it to his attention first, and
16 the reason for that was we had just come up with that
17 conclusion, although I remember him distinctly sitting down
18 in my office and I remember the conversation starting. I
19 don't remember exactly who started it or what the subject
20 was. To the best of my recollection, I called him into my
21 office to let him know that the observation he identified
22 in this inspection report here -- I think I have got a copy
of this -- and shortly thereafter I saw him coming by our

1 office, and I asked him, Mr. Gardner, you identified some-
2 thing in here that we were about to write an observation,
3 and based on the following reasons, we don't feel that that
4 in fact is an observation.

5 Q Now, when you say "this," which inspection
6 report are you referring to?

7 A I'm sorry. I am pointing to the inspection
8 report dated February 13, 1985, and the number is 85-02,
9 and that is dated February 13, 1985.

10 Q Yes. And you had received that report and that
11 is what prompted you to bring the matter to Mr. Gardner's
12 attention?

13 A That is to the best of my recollection, yes.

14 Q Now, that meeting was different from the meeting
15 that you started to describe at which the "redline" drawing
16 issue was discussed?

17 A Right. At that point in time -- well, go ahead
18 and ask the question? Yes, that's correct, it's a different
19 meeting.

20 Q Now, page 10, Answer 26 describes further contact
21 between you and Mr. Gardner. Is that the same meeting that
22 you describe in Answer 23 where you informed him that you

1 were not issuing an observation?

2 A Yes, that is the same time.

3 Q Can you be more precise about the date when
4 that meeting occurred with Mr. Gardner?

5 A I wish I could be. I can certainly say that
6 was after February 13, 1985. In fact, it probably would have
7 been a few days after that because we don't get a copy of
8 these inspection reports instantaneously.

9 Q I see you are looking at a copy, apparently, from
10 your files. It shows a "received" date on it. Does that
11 help?

12 A Unfortunately, I can't see the "received" date.
13 It was in blue ink and it didn't Xerox. That's when it
14 would have been received by Licensing, I think, and we would
15 get it a few days after that. But it would have been --

16 MR. STEPTOE: May I interrupt? There are other
17 stamps in the document.

18 THE WITNESS: Oh, excuse me. I see. I'm sorry.
19 BCAP received it on February 20th, and I probably would have
20 received it any time shortly after that.

21 BY MR. GUILD:

22 Q So sometime between the 20th and the 27th is when
 you had this meeting with Mr. Gardner?

1 A Correct.

2 Q And the 27th is the date that in Answer 27 you
3 relate you had a telephone conversation subsequently with
4 Mr. Gardner?

5 A Correct.

6 Q Answer 26 relates to Mr. Gardner reiterated his
7 concerns -- I am paraphrasing -- and that concluded your
8 meeting with Mr. Gardner?

9 A Well, I wouldn't describe it as he reiterated
10 his concerns. I think a better way to characterize that
11 would be I explained our basis for not documenting an
12 observation and he didn't respond with enthusiasm that "I
13 agree," although at that point in time I don't believe he
14 disagreed. I think he wanted to look at what I had
15 presented to him and reflect on it further. That's a better
16 way that I would describe that meeting.

17 Q When you say look at what you had presented to
18 him, did you have anything in writing that you presented to
19 him?

20 A Well, I personally didn't write anything on this
21 subject. What I did have was copies of the ANSI standard,
22 and I particularly pointed out the relevant paragraph. I

1 had copies of the L.K. Comstock procedures, those three
2 which I had referenced in my observation report which we
3 discussed earlier, and I provided him with that information
4 and led him through the different paragraphs and how the
5 Comstock procedures apparently met the requirements of
6 ANSI N.46.2.6.

7 Q Did you have anything else in writing that
8 you provided to Mr. Gardner?

9 A No. I didn't provide him anything in writing.

10 Q When did you then speak with Dr. Kaushal as
11 you relate in Answer 26?

12 A It probably would have been either later on that
13 day or sometime during that week. I may not have been able
14 to get in to see Dr. Kaushal right away, but I certainly
15 would have told Dr. Kaushal about our conversation with Mr.
16 Gardner.

17 Q Did you document in any way your communication
18 with Dr. Kaushal?

19 A No. As a rule, we don't document informal
20 discussions amongst BCAP members.

21 Q Did you document in any way your discussion with
22 Mr. Gardner?

1 A No, I did not. I usually don't document
2 informal discussions, or even formal discussions between
3 myself and Mr. Gardner that I initiate. Otherwise, my files
4 would be rather onerous.

5 Q You state in Answer 26, page 10 that at Dr. Kau-
6 shal's direction, you did initiate the observation; correct?

7 A Yes.

8 Q And that observation bears a date under the Block
9 11 of 2/27.

10 A Yes.

11 Q And is that your signature in the preparation
12 box?

13 A It is.

14 Q Does that reflect the date that you prepared
15 the observation?

16 A I think I may have prepared it the day before,
17 but I have some -- basically, I put it into the word
18 processor for typing and I had to correct some spelling
19 errors and some format of the second page, so I probably
20 wrote it the day before and signed it the 27th.

21 Q Did you write it the same day that Dr. Kaushal
22 directed you to initiate the observation?

1 A Yes.

2 Q So it is likely the 26th, then?

3 A It may very well have been, assuming that the
4 turnaround time in word processing was one day.

5 Q Why were you and Mr. Gardner talking on the 27th
6 by telephone as opposed to face to face?

7 A Well, it's the end of the month -- well, because
8 he was in his office, which was across the other side of the
9 site, and it is usual for us to call -- it was rather
10 usual for us to call him on the telephone.

11 Q So he was on the site but you communicated by
12 telephone nonetheless.

13 A Yes. His office was in the service building and
14 ours was in a construction trailer a few hundred yards away,
15 and being February, I think it may have been a little cold,
16 and it wasn't worth walking across the street.

17 MR. STEPTOE: Off the record for a moment.

18 (Discussion off the record.)

19 Q Page 10, Answer 28 describes the Edison response
20 to Inspection Report 85-06, which was issued March 8th.

21 A Excuse me? What page?

22 Q Page 10, Answer 28. Did you have any involvement

1 in the preparation of the Edison response?

2 A Yes, I did.

3 Q In what respect, please?

4 A Well, we had a number of meetings with various
5 people in the site, Quality Assurance, PCD, BCAP, and we
6 tried to come up with an answer to both BCAP's part of the
7 noncompliance and also the site's response, PCD's response
8 to the item of noncompliance. I guess there were two
9 separate noncompliances, one for using Level I's on the
10 site, and then the other for BCAP not identifying the use
11 of Level I's on the site. We had a number of conversations
12 about the pros and the cons and what should we include in
13 the response and what shouldn't we and what our position
14 should be, and we gathered up all the information in the
15 old inspection reports and we had a number of meetings on
16 it. People like Mr. Fitzpatrick, Dan Shamblin and a number
17 of other people on the site were involved.

18 Q And what was your involvement?

19 A Well, I provided them with the copy of ANSI N.45.2.
20 6 and a copy of the inspection -- well, the inspection
21 reports, but the Comstock procedures, and basically told
22 them how BCAP felt on the matter, and I also provided them

1 a copy of the BCAP observation, and then I imagine we also --
2 I imagine I drafted up a couple of words regarding this.
3 I don't know if I can in detail define for you what
4 portions I drafted up or was responsible for drafting.

5 Q If you could try, I would appreciate it if
6 you could tell me what portions you drafted of the
7 response.

8 A It doesn't look very much like the way I drafted
9 it initially. In fact, it has gone through some major
10 revisions. And again, I can't say who may have done that,
11 but the quotes from ANSI that are on page 2 of attachment to Enclo-
12 sure 1 I would have provided. Probably things under the heading
13 of -- on page 1 of attachment to Enclosure 1, under Review
14 of ANSI N.45.2.6, 1978. Some of that I would drafted up.
15 The bottom of page 2 of attachment to Enclosure 1, I would
16 have drafted up some of that. And for this particular
17 subcontention item, those are probably the things I would
18 have provided drafts for.

19 Again, I didn't keep any copies of those because
20 I submitted them to Licensing. And again, it was a long time
21 ago so it's hard to remember specifically what I may have
22 written up. But that's to the best of my recollection.

1 Q When you and Dr. Kaushal discussed the matter
2 on or about the 26th of February, what did Dr. Kaushal say?

3 A Well, the conversation, to the best I can remember,
4 was my describing to Dr. Kaushal my reasoning for not having
5 written the nonconformance -- excuse me -- the observation
6 report, and again, I went through much the same discussions
7 that I had gone through with Mr. Gardner to try and bring
8 Dr. Kaushal up to speed on that.

9 And then I expressed to Dr. Kaushal that Ron
10 Gardner didn't look particularly convinced. At least he
11 didn't seem to be in agreement with me at that point in
12 time. And therefore, Dr. Kaushal felt that it was prudent
13 to go ahead and document this matter on an observation
14 report, and that's when he told me to go ahead and write
15 it up.

16 Then I tried to put everything together and
17 worded it as you see in the observation report.

18 Q What did Dr. Kaushal say?

19 A Specifically? I couldn't even begin to remember,
20 other than he gave me directions based on Ron Gardner's
21 residual concerns to go ahead notwithstanding any of my
22 arguments to document the condition as an observation.

Q Did he express any opinion about the matter?

1 A It's hard to say whether or not he expressed an
2 opinion. The best I could recollect was that he understood
3 what I had to say and he could certainly see my point, but
4 being that Ron Gardner may not have been happy with this
5 and this was an open item, he felt that it would be
6 conservative and a prudent measure to, in fact, document
7 this and let the site respond and let the site resolve this
8 issue and bring it up, you know, if there was any question,
9 to go ahead and document it.

10 Q Did he use the words "prudent" or "conservative"?

11 A Again, I don't know his exact words. It's not
12 a conversation that I would have catalogued distinctly away
13 in my memory. Those are probably my words in trying to
14 describe a tone that he may have provided to that conversa-
15 tion.

16 Q Did Dr. Kaushal say he agreed with your analysis
17 of the provisions of the ANSI standard and the Comstock
18 procedures?

19 A Again, I can't really remember, and at that point
20 in time I don't think that it was even germane to the
21 conversation in that at this point in time we realized that
22 Ron Gardner was somewhat displeased at us not having
 identified it, notwithstanding our arguments, and such

1 that we felt, notwithstanding the merits of any argument
2 pro or con, that we ought to go ahead and identify it as an
3 observation.

4 Q Had Gardner expressed a displeasure?

5 A I don't know if he expressed his displeasure
6 verbally, but I could see that he wasn't overwhelmingly
7 impressed with my arguments. That's as best I can put it.
8 I don't think he said anything negative about my arguments.
9 I think he nodded his head and looked and saw, and I
10 don't think -- again, this is my recollection. I don't think
11 he expressed vehemently any displeasure with my arguments,
12 but rather he took it as a considered opinion on my part,
13 and as I remember it, he seemed to go away kind of ambivalent
14 about the matter.

15 Q Did Mr. Gardner in any respect suggest that he
16 had understood BCAP to have committed to issue an
17 observation on this matter in prior dealings with him?

18 A I don't think that he expressed to me his opinion
19 that we had, in fact, committed to doing that. I'm sure he
20 might have recollected that we discussed writing an observa-
21 tion report, but I don't know if he took that at that time
22 as a commitment. Again, the first time that I believe I saw

1 a memorialization of that was in the February 13, 1985
2 NRC inspection report. Although again, he may well have,
3 but I am unable to, like, really at this point in time tell
4 you what was on his mind at the time.

5 MR. GUILD: I believe counsel has obtained
6 copies of the balance of the observation.

7 MR. STEPTOE: I think so, Mr. Guild. What I have
8 here is something, a three-page document which was telecopied
9 to us this afternoon. I would like the witness to identify
10 whether it is complete or not. It's a telecopy. It comes
11 from the Braidwood site, the Licensing Department.

12 I have not been able to determine yet whether we
13 provided you with this complete document in some other form
14 of discovery prior to today. I do note that there is some
15 handwriting on the top of the first page of the document.
16 It says: "To Matt Payne, Extension 7542," and that obviously
17 the telecopy or something that was done today because Matt
18 Payne is our paralegal, but maybe Mr. Orlov can go through
19 the document and find out whether it's complete.

20 (Witness reviewing document.)

21 BY MR. GUILD:

22 Q Mr. Orlov, you have been handed a document. Can

1 you identify that?

2 A Yes. That is the observation, the SRRGELEXXX171
3 that we have been discussing previously, and it is the
4 page 1 and the page 2 that we previously had in front of
5 us, with additional writing in Blocks 12, 13, 14, and there
6 is, in addition, a page 2 of 3 of the document which formerly
7 we did not have in our possession.

8 MR. GUILD: Let me ask the Reporter to mark this
9 document as the next hearing exhibit.

10 (Orlov Deposition Exhibit No. 3
11 was marked for identification.)

12 BY MR. GUILD:

13 Q Page 3 of 3 has an evaluation under Box 16. Is
14 that in your handwriting?

15 A Yes, it is. In fact, everything above Line 21 is
16 in my handwriting.

17 Q Now, when did you perform that evaluation?

18 A That's dated on the 27th of February, the same
19 day that I wrote the -- well, I documented the observation
20 on page 1.

21 Q The same day you wrote page 1 and signed the
22 preparation box 11?

1 A Yes.

2 Q You did it all at one time?

3 A All at one time, Yes.

4 Q And it reflects "Approved by N.N. Kaushal" the
5 same date.

6 A Correct.

7 Q Blocks 19 and 20 on page 3 reflect N/A. Why is
8 that?

9 A Well, Block 19 is used for observations which are
10 invalidated that require the originator's acknowledgement
11 there. Obviously, since this observation has not been
12 invalidated, that block is not applicable. Therefore, it
13 is annotated N/A. Block 20, that is a function that is
14 normally performed by the CSR supervisor in the case of
15 CSR observations. And in this case, since I had already
16 performed the evaluation in Block 18, there was no need for
17 a further review by a subordinate of this observation.
18 Therefore, I designated that block as not applicable,
19 initialed it and dated it.

20 Q And for the evaluation portion, Block 16, 17, 18,
21 who normally performs that function?

22 A Normally that function would be the CSR lead
discipline engineer, but in this case, since I had written

1 the observation myself, I felt that it wasn't appropriate
2 for a subordinate to verify whether or not something that
3 I had written was valid, and therefore I took it upon myself
4 to designate that authority up to myself and performed that
5 review.

6 Q What portion of the review of an observation, then,
7 is normally performed by Sargent & Lundy?

8 A Sargent & Lundy would have reviewed the descrip-
9 tion if this were a valid observation, would have evaluated
10 the description in Block 10. And if pertaining to a hardware-
11 type discrepancy, they would have performed the calculations
12 to determine the design significance of this particular
13 observation on a particular item.

14 Q And would that have been an additional portion
15 of the observation record?

16 A Yes. That would usually have been documented
17 on a page 3 of 3. The top part.

18 Q Under the evaluation portion?

19 A No. There would be a page --

20 Q I'm sorry. Page 3 of 3.

21 A Yes. The page 2 that you see in here is
22 actually at attachment to page 1. There is no such form on

1 here because Sargent & Lundy, as I said earlier, reviewed
2 quite a number of document review observations and determined
3 that it is impossible to review for design significance --
4 or it's not impossible. How should I say it? For most
5 document review observations, it is not germane to perform
6 a design significance evaluation.

7 Q Who made the determination, if anyone, not to
8 refer this observation to Sargent & Lundy for such a
9 review?

10 A I believe this observation, as all the other
11 document review observations, were, in fact, submitted to
12 Sargent & Lundy for their review. In the review -- and I
13 believe they reviewed each and every one that we had submitted
14 to them -- they documented the fact that for those document
15 review observations which would not describe a hardware
16 condition, that a review for design significance would not
17 provide meaningful results. They documented that to us in
18 the form of a letter for a number of observations which they
19 received, and I believe there was a letter back to them
20 saying yes, we agree, and the Procedure BCAP 06 was
21 modified to reflect that, that document review observations
22 which, in fact, do not represent a hardware discrepancy

1 would, in fact, not require design significance by the
2 architect engineer.

3 Q Was there any unique evaluation by Sargent &
4 Lundy of the BCAP observations with respect to the Level I
5 QC inspections?

6 A I personally can't answer for that. I imagine
7 that Sargent & Lundy may have files as to which particular
8 observations, doc review observations they reviewed to make
9 this type of determination.

10 Q You just have no knowledge of any particular
11 specific review of this observation by Sargent & Lundy?

12 A I do not, know.

13 Q Let's turn, Mr. Orlov, to Contention Item 12F.
14 Let's make sure that the court reporter has everything.

15 Do you have available to you the statement of
16 material facts, the top document with respect to 12F?

17 A Which top document is that?

18 Q It's entitled, "Material Facts To Which There is
19 No Genuine Issue to Be Heard." Under Rorem Contention Item
20 12F. Page 1 of the stack of pages that are associated with
21 this item.

22 MR. STEPTOE: I have a copy but it has notes on
it, Mr. Guild.

1 MR. GUILD: Perhaps you could show him yours,
2 counsel, so I could ask him questions from that.

3 THE WITNESS: Let me see if I have another copy
4 here. No, I don't think I brought that with me.

5 MR. STEPTOE: Do we have an agreement that you
6 won't ask any questions about the notes on my copy?

7 MR. GUILD: Sure. That's fair enough.

8 (Counsel handing document to witness.)

9 BY MR. GUILD:

10 Q Page 1 of that statement. Do you have that
11 before you?

12 A Yes, I do.

13 Q All right. Page 1 refers to relevant SECO
14 and Phillips-Getschow procedures. Can you identify those
15 procedures, please?

16 A Well, the Phillips-Getschow procedures that
17 would be applicable would be PGCP-40.

18 Q How about the Commonwealth Edison procedures,
19 if any?

20 A I'm not familiar with -- well, there probably
21 would be some part of the Edison quality assurance
22 program that within that are contained SECO procedures

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1 which basically reflect the requirements of Appendix B, and
2 those are that for activities affecting quality, that there
3 be quality control involvement or QA involvement in those.
4 I could certainly look them up for you if you had a copy
5 of the QA manual.

6 Q Well, I don't, but do you know what those
7 procedures are? You are cited as the source for that fact,
8 and that is that there are CECco procedures that are
9 relevant to the requirement for QC verification of
10 information containing "redline" drawings.

11 A Well, I don't think that there would be
12 specific -- and in fact, I know that there won't be
13 specific requirements in the CECco procedures that say you
14 must have QC verification of a "redline" drawing. It will
15 be a more generic type requirement saying thou shalt have
16 QA/QC involvement in activities affecting quality, much
17 like Appendix B will not require QC verification of "redline"
18 drawings but rather gives a rather broad generic instruction.

19 Q What I would like you to tell me is what are
20 those relevant procedures, the CECco procedures, if you
21 know?

22 A I don't know off the top of my head, but I could

1 certainly identify them for you if you gave me a QA manual.

2 Q That's all right.

3 A I don't think you will find any specific
4 references to either "redline" drawings or QC verification
5 of "redline" drawings, if that's your question. They more
6 provide a generic guidance.

7 Q Page 2, BCAP Task -- at the top of the page,
8 paragraph 3. BCAP Task Force initially interpreted the
9 relevant PGC Co procedure to require that there be a QA
10 signature on each "redline" drawing. When did they do that?
11 When did the Task Force do that?

12 A I can't give you an exact date off the top of
13 my memory, but it would have corresponded to the issuance
14 of Rev. 1 to CSR checklist CSRRM-1.

15 Q CSR-RML.

16 The issuance of Rev. 1?

17 A Yes.

18 Q And what is the significance of the issuance of
19 Rev. 1 to the interpretation of the procedure?

20 A Well, the checklist that I have referenced
21 specifies what the document review in BCAP -- what
22 requirements they should be looking for in the documents,

1 and that particular checklist requires the BCAP Task Force
2 doc reviewer to verify that there is a QA signature of a
3 QC signature on the "redline" drawing.

4 Q And were you involved in the preparation or
5 review of that checklist?

6 A I was involved in the review of that checklist,
7 yes.

8 Q Were you involved in the preparation or review
9 of the initial revision of that checklist?

10 A I was involved in the review of that initial
11 checklist also.

12 Q So both the initial and the revision?

13 A Correct.

14 Q And what occasioned the revision to that checklist?

15 A I believe there was a QA comment from BCAP QA
16 that asked us to require a QA signature on the "redline"
17 drawing itself rather than the documents associated with
18 that particular "redline" drawing.

19 Q Okay. And what was the form of that BCAP QA
20 comment?

21 A It would have been a comment sheet similar to the
22 ones that are in front of the two NCRs that you have already

1 received. That is the format, the two thick NCRs.

2 Q Yes, the ones that were previously identified.
3 I don't have those before me.

4 A Well, if you take a look at the front cover,
5 there is a BCAP -- excuse me -- a QA review sheet, and that
6 would be the form of the QA comments on the checklist.

7 Q Is that QA comment contained in the documents
8 that you have identified and produced today?

9 A No, I did not produce those. I mean I am sure
10 they have been made available for your review and inspection,
11 and in fact, they have been indexed as such and the index
12 has been provided to you, but we did not produce it for you.

13 Q That was the basis for the review of the check-
14 list?

15 A Excuse me?

16 Q The QA comment was the basis for the review of
17 the checklist? The revision of the checklist? Excuse me.

18 A That was a basis for the revision to the
19 checklist, the Revision 1, yes, correct.

20 MR. GUILD: I would ask that that document be
21 produced, please.

22 MR. STEPTOE: Sure. You mean you want a physical
copy of it?

1 MR. GUILD: Yes. I ask that the documents be
2 produced that were the basis for the witness's affidavit,
3 and if that is the basis, then I would like that document.

4 THE WITNESS: That really wasn't the basis for
5 my development of this affidavit. I never referred to it or
6 looked at it when I was developing this affidavit. Therefore,
7 I did not feel that it was relevant to bring with me today.

8 BY MR. GUILD:

9 Q I appreciate your feeling on that score, sir,
10 but I asked that you bring documents that were relevant to
11 your testimony. I ask that that be produced and would assert
12 that it appears to be relevant.

13 A Can I see the request, please?

14 MR. STEPTOE: Do we have Deposition Exhibit 1?

15 (Pause.)

16 THE WITNESS: I believe you say the deponent
17 shall bring with him all documents in their possesssion
18 subject to their control which are the basis for the
19 witness' affidavit in support of Applicant's December 20,
20 1985 Motion for Summary Disposition, and since I did not
21 use it as a basis or even refer to it or look at it or in
22 any way, shape or form reflect upon that document, that's

1 the reasons that I did not bring that document with me.

2 Q I appreciate your opinion on that score, but I
3 still assert that it should be produced and I would ask
4 that it be produced.

5 MR. STEPTOE: Well, I will assert that it has
6 been produced and made available to you down at the
7 Braidwood site, and we will be glad to provide you a copy
8 now, but I reject your revisionist approach to your notice
9 of deposition.

10 MR. GUILD: Counsel.

11 MR. STEPTOE: Please let me finish.

12 MR. GUILD: Please finish.

13 MR. STEPTOE: I reject your implication that it
14 should have been produced here today by this witness.

15 MR. GUILD: And I think you are just incorrect,
16 sir. Since Applicant bears the burden of demonstrating the
17 propriety of summary disposition and I'm asking for
18 documents and have asked for documents for quite some time
19 that support the Company's position on these items, if your
20 continued assertion is that all documents at the Braidwood
21 site have been identified and are available and you wish to
22 rely and rest on that decision, that's just fine. I don't

1 think that is responsive and I don't think that any judge,
2 court or board would find that is responsive, sir.

3 If this document exists and has not been produced,
4 I ask that it be produced.

5 THE WITNESS: It has been produced and made
6 available to you.

7 MR. GUILD: Well, sir, then show it to me.

8 THE WITNESS: Come to the Braidwood site and I
9 will show it to you.

10 MR. GUILD: I don't want to argue with you, sir.
11 If it is here and you are prepared to discuss it at this
12 deposition, as you were asked to --

13 THE WITNESS: I did discuss it.

14 MR. GUILD: -- then I would like to see the
15 document and I am prepared to examine you from it.

16 MR. STEPTOE: Okay. I don't think it is profitable
17 for this argument to go on.

18 MR. GUILD: I agree with you. And you know, Mr.
19 Orlov may be a fine engineer, but I don't intend to debate
20 him about evidentiary questions and questions of discovery.
21 It would be helpful simply if he would restrict himself to
22 responding to questions.

I would ask that the document be produced.

1 BY MR. GUILD:

2 Q Again, page 2, Mr. Orlov, of the Statement of
3 Material Facts. In accordance with BCAP procedures, it
4 states in paragraph number 4. Which procedures?

5 A BCAP-06.

6 Q Where are the BCAP observations? Can you identify
7 those, sir?

8 A Where are they?

9 Q Can you identify them by number? Do you have the
10 documents available to you? Can we discuss them?

11 A Yes, we can. I don't have the documents with
12 me, but I have their numbers with me and I know where
13 they are.

14 Q Where are they, sir?

15 A They are in the QA vault.

16 Q Where is that, sir?

17 A At the Braidwood site.

18 Q You have not brought those documents with you
19 today?

20 A No, I have not.

21 MR. STEPTOE: May I interject for a moment?

22 Because we provided those two NCRs to you earlier today, I

1 wonder if you could ask the witness whether they are
2 included in there because we saw some BCAP observation forms.

3 MR. GUILD: I don't have the documents in front
4 of me. If they are here and that would help, I'd be happy
5 to show them to the witness.

6 MR. STEPTOE: I just want to know whether those
7 observations that you are referring to are in those packages.

8 MR. GUILD: I don't know, either. All I know
9 is I showed him the documents that were the NCR's and he
10 said he'd never seen them before. Now if they're in there,
11 fine, that answers the question.

12 THE WITNESS: Let me clarify a point that you
13 just made. I hadn't seen the NCRs, but many times those
14 non-conformance reports will be included by reference and by
15 putting copies of our BCAP observations in them. So they
16 may very well be in there.

17 MR. GUILD: Well, I don't have them physically
18 here and apparently they are out for copying, so I am unable
19 to put them before you and ask you that question. But
20 I'll be happy to do that when they reappear.

21 BY MR. GUILD:

22 Q And would those observations also reflect the

1 Sargent & Lundy review that is referred to at page 2 of
2 the statement, paragraph 4?

3 A Excuse me, can you repeat your question?

4 Q I'll try. Page 2, you got it?

5 A Yes, I have page 2.

6 Q Item 4?

7 A Yes.

8 Q Sargent & Lundy review of 37 observations.
9 Would that Sargent and Lundy review be reflected in the
10 observation documents?

11 A Yes, they would be.

12 Q The Sargent & Lundy recommendation that is
13 indicated in that same paragraph as being made the end
14 of December 1984 -- also contained in the observation
15 documents?

16 A I previously said yes, affirmative. That is
17 one and the same review.

18 Q Paragraph 5 reflects that the BCAP Task Force
19 never accepted S&L's recommendations. What consideration
20 did the task force give to the Sargent & Lundy recommendation,
21 if any?

22 A We reviewed their recommendation. Consistent

1 or in parallel with that recommendation, we received a
2 letter from the Project Construction Department, that
3 I believe I have produced as I brought with me.

4 Q All right, let's see if we can find that.

5 A That goes into greater detail expounding upon
6 the Sargent & Lundy recommendation.

7 Q I hand you Group Exhibit 2, Mr. Orlov; is it
8 among those documents -- 11?

9 A Yes, it's right here. It's BRPCD 85-43.

10 Q All right. I'm sorry, would you describe the
11 significance of this letter?

12 A As I said previously, it expounds upon Sargent
13 and Lundy's recommendations in more detail.

14 Q What is PCD's role in passing on the validity
15 of BCAP observations as reflected in this document?

16 A In accordance with BCAP-06, BCAP receives
17 recommendations from Sargent & Lundy and PCD; recommendations
18 for our determining the validity of observations.

19 Q Whose decision is it to determine validity or
20 invalidity?

21 A It would be the BCAP organization's determination
22 in accordance with BCAP-06.

1 Q What was your role in reviewing those
2 recommendations, if any?

3 A I was present at the meeting that memorialized
4 in the PCD letter that you have in your hand.

5 Q The January 15, 1985 letter?

6 A Yes.

7 Q And did you agree with the opinion that's
8 reflected in Mr. Shamblin's letter, the January 15, 1985
9 letter?

10 A Well, I took into consideration the information
11 which they provided, and based on that information I
12 undertook a series of steps which would assure me that
13 that was an adequate representation of the actual
14 condition.

15 Q And what steps did you undertake?

16 A The steps were a review of the Phillips-
17 Getschow procedure and then, a re-review of the documentation
18 that Phillips-Getschow would have regarding the "redline"
19 drawings, and that would have been done formally by a
20 checklist and instructions, and that would be Rev. 2 to
21 CSRR -- excuse me, that would be Rev. 2 to CSRRM.1.

22 In addition to that --

1 Q Let me stop you there; I just didn't follow
2 you. The re-review would be pursuant to the revised
3 checklist that you just described?

4 A Yes. We in BCAP have to do things in accordance
5 with certain steps. In order to review documentation we
6 must have a checklist and an instruction. And that checklist
7 and instruction was revised to review the documentation
8 that was proffered by PCD as being the correct documentation.

9 Q All right. The Rev. 2 to the checklist; did
10 it follow the January 15, 1985 Shamblin letter?

11 A Yes. In fact, -- I don't know the exact
12 date, but it would have been the end of January, maybe
13 the beginning of February.

14 Q And did you perform the document review?

15 A I did not, no.

16 Q Who did?

17 A In accordance with our procedures, the BCAP
18 Level II inspectors and doc reviewers would have performed
19 that document review.

20 Q Did you review the checklist?

21 A Yes, I did.

22 Q The Rev. 2 of the checklist?

1 A Yes, and my signature is affixed to it
2 indicating my review.

3 Q Are Rev. 1 and Rev. 2 of that checklist
4 identified in discovery?

5 A Yes, they have been.

6 Q Where?

7 A In the index of BCAP records which were
8 provided to you previously.

9 Q Are they identified elsewhere in response to
10 any of the specific interrogatories, including for example
11 the interrogatories with respect to 12F?

12 A Not to my knowledge, no. Actually, I take
13 that back. I think they may have been produced in one of
14 the initial 58, 59.

15 Q Do you know?

16 A I remember they probably were, but again, that
17 was quite sometime ago and I have produced many documents
18 since.

19 Q Page 2, the statement, Item 6, the word "same"
20 appears in the second line from the bottom -- the third
21 line from the bottom.

22 A I think that was corrected to "some."

1 Q "Some" or "name"?

2 MR. STEPTOE: May I interject? It was
3 corrected twice. The first time it was corrected to
4 "some of the redline drawings," and then I corrected it
5 last week to "the name of the redline drawings."

6 BY MR. GUILD:

7 Q Do you accept that correction, Mr. Orlov?

8 A Let me read the sentence through.

9 (Witness reviewing document.)

10 Yes, that is what the IEOG observation does
11 indicate.

12 Q Can you identify that IEOG observation?

13 A Certainly. In fact, it's in the stack right
14 in front of you which I brought with me.

15 Q It's Exhibit 2.

16 A This is the observation right here (indicating).

17 Q And when the statement uses the word "name" in
18 describing the technicality embodied in Sargent & Lundy
19 recommendation --

20 A Those are IEOG's words, I believe.

21 Q Yes. Is that point reflected in the following
22 language in the observation, "Whether it is called a
'redline' drawing, a verification drawing or a field-

1 verified installation drawing is a technicality."

2 A Correct, yes.

3 Q What is the purpose of the stop work order, or
4 SWO form that is referred to on page 3, end of paragraph 7?

5 A It is a traveler that is associated with the
6 "redline" drawing. Are you familiar with the word traveler?

7 Q Yes, I am.

8 A It is a traveler that accompanies the "redline"
9 drawing through its various routes to various departments,
10 and the terminology "stop work" simply implies that this
11 pipe system or this subsystem as described on the "redline"
12 drawing has now been as-built, and as such no other work
13 should proceed on it which would somehow invalidate the
14 as-constructed drawing.

15 Therefore, don't do anymore work on that piping
16 isometric without some additional notification.

17 Q Is it, in fact, a stop work order?

18 A Not in the context that you think of when a
19 stop work order is issued for adverse quality problems, no.
20 If that's the term you're using.

21 Q Or in the sense that the term may be employed
22 with respect to a non-conformance?

1 A No, it has no relation to that whatsoever.
2 In fact, it has no negative connotations whatsoever. It
3 is simply a method whereby craft shouldn't do anymore work
4 to revisions to piping systems without letting the QC
5 supervisor know, such that he can then -- if there are
6 subsequent changes made -- that he can go out and
7 re-"readline", or re-as-construct that particular piping
8 system. It's an administrative form, an administrative
9 control.

10 Q All right, page 3, paragraph 8. "Based on this
11 explanation, the BCAP Task Force modified its instructions
12 to its document reviewers to take into account the use of
13 the SWO form as an acceptable means of documenting QC
14 verification of piping, as-constructed dimensions and
15 configurations." Does that reflect the revision of the
16 document review checklist?

17 A Yes, that is Rev. 2, correct. Rev. 2 to
18 CSRPM.1.

19 Q Reading further, "The BCAP Task Force reviewers
20 were told to re-review the PGCo small bore piping
21 documentation." Mr. Steptoe may have corrected this one,
22 too.

1 MR. STEPTOE: Yes, I did.

2 MR. GUILD: All right, I apologize. They were
3 told to re-review.

4 MR. STEPTOE: That's correct. That is the way
5 it should read.

6 BY MR. GUILD:

7 Q All right. Who told them to perform that
8 re-review, Mr. Orlov?

9 A Where are we now?

10 Q 3, beginning of the paragraph.

11 A Weyl, I imagine that I told Sam Crow, who is
12 the lead piping discipline engineer, he would have
13 re-issued packages to the inspectors, and upon their
14 getting the re-issued packages they would go out in the
15 field -- well, not to the field, but over to the vault and
16 re-review these records to the new criteria.

17 Q "BCAP QA arranged to have CEC Co Site QA perform
18 a surveillance of PGCo to confirm that the SWO form was, in
19 fact, used..." et cetera.

20 A Yes.

21 Q Who arranged for that surveillance?

22 A Phil Lau, to the best of my knowledge.

1 Q And who is Mr. Lau?

2 A He is in BCAP QA, or he was in BCAP QA when
3 BCAP QA was in existence.

4 Q And was such a surveillance performed?

5 A Yes, it was.

6 Q Can you identify a surveillance report that
7 reflects that surveillance?

8 A Yes, I have brought that document with me, and
9 it is surveillance report No. 4151, which I think you have
10 in your stack immediately in front of you.

11 Q It's part of Group Exhibit No. 2, a document
12 dated 2/14/85. Page 3 and on to page 4 of your statement,
13 Mr. Orlov, "On January 25, the BCAP Task Force responded
14 to the IEOG observations." And can you identify that
15 response?

16 A Yes. I believe I gave you a copy of the IFOG
17 observation. It had contained in it also the response on
18 the same form.

19 Q The document that has the number at the bottom,
20 0853J-A --

21 A No, that is just a Wang number. That will mean
22 nothing for you.

1 Q We'll pass on that. It's entitled, Response
2 to NRC Observation -- ERC Observation, BCAP OBS007. Is
3 that the response?

4 A Yes, that is the response.

5 Q And who wrote the response?

6 A Initially, Sam Crow drafted up a response.
7 Later, Phil Lau revised that draft, and that draft that I
8 have is -- I previously gave you that. That's one of the
9 first documents.

10 Q That's the document you described as the cut
11 and paste, penciled document, two pages?

12 A Yes. And although I don't know whether that
13 draft reflects this word for word. In fact, there were
14 some changes made to it, probably by me, to reflect what
15 is here now.

16 Q You reviewed the final document, the final
17 response?

18 A Yes. This reflected that I concurred with this.

19 Q Page 4 again at the top. "The BCAP Task Force
20 response did not refer to the Site OA surveillance of
21 PGCo's use of the SOW form." Why didn't it?

22 A Well, as I say in my affidavit, that task
force response was a response of our actions, and even

1 though we were well aware of Site QA's activities in that
2 area, we did not want to commit another organization to
3 perform a review which we didn't have responsibility for.

4 Q All right. Did you make ERC, the Independent
5 Expert Overview Group, aware in any fashion of the
6 existence of the QA surveillance on the subject?

7 A I'm sure they were aware of that at the time.

8 Q How are you sure?

9 A Well, they were over every day and discussed
10 each of these aspects with us, and they were also equally
11 involved with BCAP QA in following their activities very
12 closely, also. So I imagine that although I don't remember
13 personally walking up to any one of them at any particular
14 point in time and defining that to them, I imagine that they
15 were aware of that.

16 Q Do you have any personal knowledge that anyone
17 with the Independent Expert Overview Group was informed
18 of the existence of the surveillance?

19 A Again, at this point in time, my recollection
20 on that matter is not strong. I wouldn't remember, myself.

21 Q Do you recall any particular ERC person or
22 representation of the Independent Expert Overview Group who
 would have had knowledge of it is because of his or her

1 involvement on this issue?

2 A I imagine that it would have been Wayne Chase
3 because he had initiated this observation and would have
4 followed up on it.

5 Q So if anyone knew in ERC, it would likely have
6 been Mr. Chase?

7 A Most likely it would have been Mr. Chase.

8 Q Paragraph 10 on page 4, IEOG concurred. Is
9 that concurrence reflected in a document?

10 A Yes. I believe there is a memo attached to
11 the response that I handed you. If you'd like, I could
12 help you identify it.

13 Q Yes, that would be a help.

14 A BCAP -- it's a letter from ERC dated January 28,
15 1985, identified as BCAP 130, which I provided to you,
16 so here it is.

17 Q In that concurrence, did you understand ERC
18 to be agreeing with the BCAP conclusion that the observation
19 was to be deemed invalid?

20 A Well, the way I took that to mean was that they
21 agreed with our corrective action as specified, which
22 included quite a number of steps prior to actually making

1 those observations invalid.

2 Q Did their concurrence include the agreement
3 that the observation should be deemed invalid?

4 A Well, if I could take a look at their letter --.

5 Q Well, look at your corrective action. I
6 direct your attention to the response.

7 A I reviewed their letter, and it basically says,
8 "We have reviewed your response and proposed corrective
9 action to the subject observation. We concur with your
10 response and corrective action. This observation will
11 remain open until the proposed corrective action has been
12 completed and verified."

13 Now, our corrective actions specify a series
14 of steps, all of which eventually will lead to the
15 invalidation of the observations. But as previously
16 identified in my affidavit, we never got to the last step
17 of invalidating the observations because of the negative
18 results we found in the initial steps of our corrective
19 actions.

20 Q Which steps are those, to be specific or
21 precise, please?

22 A Well, I can read right here from our corrective

1 action to BCAP-07, "The small bore piping configuration
2 doc review checklist will be revised to reflect the change."
3 And that change is to review the stop work order instead
4 of the "redline" drawing. "Those portions of the doc
5 reviews performed to date affected by this revision will
6 be redone using the revised checklist and instructions.
7 The observations describing the lack of OC signature on
8 the 'redline' drawings previously processed as valid will
9 be then reprocessed as invalid observations."

10 Q Particularly which step was the step that you
11 just described as indicating that --

12 A -- something had gone awry?

13 Q Or that you were not going to treat it as an
14 invalid observation.

15 A That step is, "Those portions of the doc reviews
16 performed to date affected by this provision will be redone
17 using the revised checklist and instruction.

18 Q It was in the course of re-reviewing the
19 documents that the task force changes its position?

20 A Yes. We found that in re-reviewing the stop
21 work orders, we found the same problem or a slightly
22 different problem; that in fact, the OC inspectors who were

1 out in the field performing the inspections were, in fact,
2 not the same people signing the stop work order. And that
3 led us to believe that neither system was consistently
4 used in the way that PCD had described.

5 And therefore, we did not take that next
6 step and invalidate the observations. Thus, they remain
7 valid and invalid to this day. And again, the one other
8 step that although it wasn't particularly written in that
9 corrective action response but was included in the draft
10 that I showed you was that Site QA independently at the
11 same time would also perform a surveillance of the
12 "redline" activity. And the reason that QA would have done
13 that rather than us is that BCAP really doesn't do
14 surveillance type activities of ongoing work; they review
15 documents that have been done and they review hardware.
16 I can point that out to you if you'd like.

17 Q I'm showing you the two handwritten pages --

18 A It's right on the bottom. It says, "We
19 understand..." -- and again, this is Phil Lau from BCAP
20 QA commenting on a draft that we provided to him. And he
21 adds, "Comments: We understand that Construction QA is
22 performing a surveillance of this subject." And that is

1 what Phil Lau gave to me, and obviously we have that
2 understanding, and that is what I subsequently took out of
3 our response because obviously, this is Construction QA
4 doing an activity and I felt at the time that it would be
5 inappropriate in our corrective action to specify an
6 activity that another organization was doing.

7 Q And it was your decision to remove that language
8 from the draft?

9 A Yes. And again, at this point in time I
10 probably I regret doing that, looking backwards at all the
11 confusion that it may have caused, but so be it.

12 Q Page 4, paragraph number 11 of the Statement of
13 Material Facts, "In February of 1985, the result of the
14 BCAP re-review and the Site Quality Assurance surveillance
15 indicated...", et cetera. Can you be more precise about
16 the dates for each of those activities?

17 A Well, I believe the dates of the Quality
18 Assurance surveillance are given on the front page of the
19 QA surveillance number 4151, which I just pointed out to you.

20 Q And that document reflects a surveillance date
21 of January 22 to 24, and February 4 to February 5.

22 A Correct.

1 Q And a final sign-off, "reported and approved,
2 2/14/85."

3 A Correct.

4 Q Now those would be the dates --

5 A -- of the QA surveillance.

6 Q All right. And when did the BCAP re-review
7 take place?

8 A I don't have the exact dates in front of me,
9 but probably in the end of January or the beginning of
10 February when we revised the checklist. That is, revised
11 it up to Rev. 2, and the checklist is CSRRM.1. We would
12 have then generated new document review packages, issued
13 those over to the document reviewers, and they would have
14 gone then to Phillips-Getschow's vault and reviewed
15 those records. All of that may have taken a total of
16 one week to initiate. It's a rather cumbersome process
17 but it ensures validity of the results.

18 Q And do you know when that culminated in the
19 identification of the disparity between the OC inspector
20 who did the field verification and the OC inspector that
21 did the stop work order?

22 A Again, that would be February 1985. I could

1 probably pin that down more specifically by reviewing
2 the actual inspection packages that are in the QA vault,
3 which are rather voluminous at this point in time. But I
4 can certainly pin it down for you if you'd like.

5 Q When were you informed of the results of the
6 QA surveillance with respect to the disparity between
7 the verification function performed by the QC technician
8 and the QC field inspector?

9 A I think it may have been around -- I'm looking
10 at the signature date. I got a copy of the surveillance
11 report right before it was signed off in draft form, so it
12 may have been on or about the 14th of February; maybe a
13 little earlier, maybe a little -- well, probably a little
14 earlier than that.

15 Q And at the time you got the surveillance report,
16 Mr. Orlov, did you know of the results of the BCAP document
17 re-review?

18 A Those results had started to come in at that
19 time, and that's why I went over and got a copy of the
20 QA surveillance report, or tried to get a draft of it to
21 see what they had found. Obviously, we had found something
22 awry there.

1 Q So you had identified already that at least on
2 a preliminary basis, something awry was coming in and you
3 went to look for the surveillance results?

4 A Yes, just to see what their results were. We
5 would have found that independently, but I think they may
6 have been contemporaneous. Again, I can detail the dates
7 at which the inspections were --

8 (Discussion off the record.)

9 Q You said that they were contemporaneous.

10 A They were approximately contemporaneous. I
11 could identify the dates on which the document reviews were
12 done. I think I found out the same day because I was
13 following this fairly closely. I found out the day the
14 doc reviews were being done that the results were coming
15 out in a negative fashion. I was informed by Sam Crow
16 immediately, who was informed by the inspector at the time
17 or the doc reviewer at the time. I found out either the
18 day or the day after the actual re-reviews were performed.

19 And again, that date I can pin down for you
20 by looking at those records in the QA vault.

21 Q Can you recall whether you saw the results of
22 the QA surveillance at the same time, or later?

1 A I'm guessing that I would have seen the results
2 of the QA surveillance after that because it seemed to me
3 that something caused me to go out and search out that
4 QA surveillance; otherwise, I probably wouldn't have
5 immediately looked for it. In any event, I had all this
6 information before the end of February because I was able
7 to, at the exit meeting, identify to Mr. Gardner all the
8 events that had occurred. In fact, even prior to that
9 exit meeting I was able to identify to Mr. Gardner and
10 Mr. Kropp the results of both our reviews and the QA
11 surveillance report.

12 Q And when was the -- when was that exit meeting?

13 A I imagine that would have had to have been the
14 end of February, although I'm sure we can pull the document
15 out here and identify the exact date. Why don't we do that.

16 Q Yes, let's do it.

17 A I think it's in the March 8, 1985 letter which
18 would be Inspection Report 85-06. It says, Note 2 denotes
19 those present at the exit interview. Here we go. The
20 inspector met with the Licensee and contractor representa-
21 tive -- I'm reading from page 7 now. It talks about exit
22 interview -- during and at the conclusion of the
inspection on March 5, 1985. So the exit must have been

1 on March 5, 1985. Although I certainly remember discussing
2 these facts with him definitely on the 27th of February.

3 Q The face of the inspection report reflects an
4 inspection conducted between December 28, 1984 and
5 February 12, 1985.

6 A I think you're looking at a different inspection
7 report. I'm looking at the one that's dated March 8th, and
8 it says Ron Gardner on February 4th to March 1st. Are you
9 looking at the same one I am? You're looking at an old
10 version.

11 Q Well, you're right. 3442 is what I'm looking
12 at.

13 A You're looking at the wrong one. I have it in
14 front of me and I can pass it to you if you like.

15 Q 85-06?

16 A 85-06, yes.

17 Q The date is February 4 through March 1st.

18 A Correct. And at the close of that inspection
19 period, towards the end, we were already discussing with
20 Mr. Gardner his concerns about this matter at some length.

21 Q Page 4 of the statement, paragraph 12, quote,
22 "Also in February 1985, NRC Project Inspector Ron Gardner
performed a follow-up review of the BCAP's response to the

1 IEOG observation...", et cetera. When in February of 1985
2 did Mr. Gardner perform that review? Do you know?

3 A Well, the only thing I can tell is it would
4 have been between February 4th and March 1st, as indicated
5 in the cover letter to Inspection Report 85-06. I really
6 don't have the specific dates but it would have been
7 between the 4th of February and 1st of March of that year 1985.

8 Q I just reviewed the body of Mr. Gardner's
9 inspection report with respect to this subject and I
10 don't see a date in the body there that puts it down any
11 closer.

12 Pages 4 and 5 I believe are discussing this
13 subject.

14 A Right. But again, I wasn't sure of the exact
15 dates, and that's why I just put down in February of 1985
16 because that's when I knew he did his inspection.

17 Q Well, at the point where Mr. Gardner was doing
18 his re-review, were you aware that he was performing that
19 activity?

20 A No, I was not. Well, I imagine at some point
21 after he had finished his review over at Phillips-Getschow
22 and when he came over to discuss it with us he told us

1 what he had done and at that point in time I was aware
2 of his review.

3 Q Well, he described a number of steps that
4 involve reviewing BCAP's work on this subject, and were
5 you aware of those actions? I'm looking at page 4 of that
6 inspection report.

7 A No, I personally was not aware of his early
8 activities in that regard. He basically has free run,
9 or had free run of all files and everyone in BCAP, and I
10 never asked him to come see me first and discuss with me
11 what he was going to look at. Basically, he had total
12 access to all BCAP personnel and files, and I really didn't
13 keep track of his daily activities.

14 Q Was Mr. Gardner informed of the actions that
15 were underway by the BCAP Task Force with regard to the
16 document re-review and the QA surveillance on the same
17 subject?

18 A Well, I definitely remember discussing it with
19 him at some length in February, but I don't know -- I
20 don't know whether or not we discussed our actions with
21 him prior to or after his review of Phillips-Getschow.
22 I would guess that we had not informed him of what our

1 IFOG observation...", et cetera. When in February of 1985
2 did Mr. Gardner perform that review? Do you know?

3 A Well, the only thing I can tell is it would
4 have been between February 4th and March 1st, as indicated
5 in the cover letter to Inspection Report 85-06. I really
6 don't have the specific dates but it would have been
7 between the 4th of February and 1st of March of that year 1985.

8 Q I just reviewed the body of Mr. Gardner's
9 inspection report with respect to this subject and I
10 don't see a date in the body there that puts it down any
11 closer.

12 Pages 4 and 5 I believe are discussing this
13 subject.

14 A Right. But again, I wasn't sure of the exact
15 dates, and that's why I just put down in February of 1985
16 because that's when I knew he did his inspection.

17 Q Well, at the point where Mr. Gardner was doing
18 his re-review, were you aware that he was performing that
19 activity?

20 A No, I was not. Well, I imagine at some point
21 after he had finished his review over at Phillips-Gettschow
22 and when he came over to discuss it with us he told us

1 what he had done and at that point in time I was aware
2 of his review.

3 Q Well, he described a number of steps that
4 involve reviewing BCAP's work on this subject, and were
5 you aware of those actions? I'm looking at page 4 of that
6 inspection report.

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8 activities in that regard. He basically has free run,
9 or had free run of all files and everyone in BCAP, and I
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11 what he was going to look at. Basically, he had total
12 access to all BCAP personnel and files, and I really didn't
13 keep track of his daily activities.

14 Q Was Mr. Gardner informed of the actions that
15 were underway by the BCAP Task Force with regard to the
16 document re-review and the QA surveillance on the same
17 subject?

18 A Well, I definitely remember discussing it with
19 him at some length in February, but I don't know -- I
20 don't know whether or not we discussed our actions with
21 him prior to or after his review of Phillips-Getschow.
22 I would guess that we had not informed him of what our

1 actions were other than he had received a copy of our
2 response to the IEOG observation and had reviewed that
3 response. So I don't know -- I don't remember personally
4 telling him, here is what we're going to do. I'm sure he
5 had a copy of the IEOG response because we always send him
6 a copy of all correspondence between us and the IEOG in
7 accordance with our protocol. They receive copies of
8 everything that goes back and forth.

9 Q In our discussions with regard to the other
10 Contention Subitem 12E, you identified a meeting with
11 Mr. Gardner at which the Level I issue was discussed, but
12 which you characterized as principally involving discussions
13 on the subject of the "redline" drawing issue. And I
14 believe you identified that as February 27, 1985.

15 A Yes. In fact, there were a number of meetings
16 with him on this subject culminating in the meeting over
17 the telephone on the 27th. There were earlier meetings
18 with Gardner and myself and Dr. Kaushal and Wayne Kropp
19 to discuss our "invalidation" or our improper invalidation
20 of these observations, at which time we tried to make as
21 many of our -- many of the facts known, and we let him
22 know about the fact that we had not invalidated them; that

1 we intended to take the sequential steps in order to
2 assure ourselves that the observations were, in fact,
3 invalid.

4 (Discussion off the record.)

12

5 BY MR. GUILD:

6 Q So you recall a conversation on the 27th of
7 February with Mr. Gardner. And in that conversation did
8 you relate the results of the re-review?

9 A I think at that point in time we were
10 reiterating the results of the re-review. I believe we
11 had previously discussed those points in detail with him.

12 Q All right. The surveillance was available at
13 that time.

14 A Yes, it was.

15 Q It was issued the 14th of February.

16 A Correct.

17 Q And by the 27th you were also aware of the
18 results of the BCAP re-review?

19 A In fact, probably a number of days before that.

20 Q Did you believe, prior to the performance of
21 the re-review, that the QC personnel who signed the
22 stop work order form was the same QC personnel who performed

1 the field verification of the "redline" drawings?

2 A Well, I based my answer on having read the
3 procedure, PGCP-40, which I think I have. I will read
4 the appropriate paragraphs of that. On page 6 of my
5 affidavit; I think you can probably follow, the procedure
6 states in pertinent part that, "The Supervisor, Quality
7 Control shall..." and "dimensionally verify installed
8 piping, compare the as-constructed drawing to the
9 as-installed condition, return the verified drawing and
10 Form PGQA533, Section 3A properly signed by the project
11 engineer." Now let it be known that that form with the
12 long number behind it is the stop work order form.

13 And so it would seem like the Supervisor,
14 Quality Control dimensionally verifies the piping,
15 compares the as-constructed drawing to the as-installed
16 condition and then signs that form and returns it.

17 So by looking at that procedure, I gather
18 that this person who is doing the verification in the field
19 is also signing the stop work order form.

20 Q Well, that's from an interpretation of the
21 procedure.

22 A Yes, although it seems rather logical that it's

1 a step-by-step method and this one person is supposed to
2 do all these things sequentially. It doesn't say in here
3 to transfer it to a different person and do it. So unless
4 it specifically said hand it over to another person to do,
5 one would have to assume, unless there was a notation to
6 the contrary, that it was one person doing all these
7 activities.

8 Q All right. Prior to the re-review of the
9 documentation under the revised checklist, did you have
10 any independent knowledge of the actual practice?

11 A No, I did not. Again, when we develop our
12 checklist we go by contractor's procedures and specification
13 requirements and things that the contractor has in his
14 program and then we review his documentation against what
15 he has in his program, assuming that his program is correct
16 or is acceptable.

17 Q Had you made any efforts, prior to the
18 re-review of the documentation with the revised checklist,
19 to determine the actual practice?

20 A Well, no, and the reason for that is in BCAP,
21 the formal way we do things is we develop a checklist, and
22 then based on that checklist we do document reviews. So

1 we followed our procedures in order to do this. We really
2 had no formal method of performing surveillances on
3 current, ongoing contractor activities. That's really not
4 within the scope because our scope of work includes
5 activities prior to 6/30/84 for the CSR.

6 Q Did you interpret the provisions of the
7 Phillips-Getschow procedure that is described on page 6
8 of your affidavit, PGCP-40, to mean that the Supervisor
9 Quality Control would personally perform the verification
10 steps that are specified in the procedure?

11 A No. If you take a look at all PGCo procedures
12 and if you take a look at their QA manual, their procedures
13 are such that the responsibility for performing activities
14 is always assigned to the supervisor of that particular
15 organization. And then as you look on page 6 of my affidavit,
16 I make a reference to paragraph 4.4 of that same procedure,
17 PGCP-40, which allows a delegation of authority to
18 appropriately certified personnel which we assume to mean
19 certified inspectors who are certified in the activity of
20 small bore piping.

21 Q All right.

22 A And that is in fact, all the procedures are

1 written such that activities in Phillips-Getschow are
2 assigned to the supervisors, and then the supervisor
3 like the procedure said, allows delegation of authority
4 to their responsible people.

5 Q All right. But the procedure did not specify that
6 a single QC inspector or certified personnel would perform
7 both the field verification and the sign-off of the stop
8 work order form.

9 A Well, the way we had read that procedure is
10 that that stop work order form is a traveler that
11 accompanies the as-constructed drawing as it goes through
12 its various steps. And it would not have seemed to make
13 much sense that a QC inspector verifies one thing and then,
14 with that document in front of him, hands that document to
15 someone else and says, here, you sign for what I did. To
16 me, that wasn't a realistic interpretation of the procedure.

17 Q That, in fact, reflected what happened.

18 A In some cases, yes.

19 Q It was a QC technician who was primarily
20 responsible for review of documents in a non-field setting,
21 an office setting, who signed the stop work order form?

22 A Yes. It's my understanding -- and again, it

1 would be from the surveillance report 4151 and subsequent
2 discussions with people in BCAP QA and QA, that there were
3 certified inspectors in the field performing these
4 verifications, and their supervisor would make sure that
5 they were the ones performing these inspections. And then
6 they would gather up all the documentation and the
7 supervisor would bring it into the office and the office
8 people would verify that someone else who is properly
9 certified had done that work.

10 To me personally, that doesn't seem like an
11 efficient way of doing things, but again, you know, that's
12 after the fact.

13 Q Not efficient nor in conformity with the
14 requirements of the site Quality Assurance Program or
15 regulatory requirements.

16 A Well, that's a hard one to identify. If they
17 had had a more formalized structure for that, it certainly
18 could have been okay. But as I had read the procedure,
19 they certainly didn't have that structure well defined in
20 their procedures, which would lead one to believe that what
21 they were doing wasn't quite right. In fact, that is what
22 was documented eventually in our BCAP final report.

1 Q In your judgment, was it acceptable under
2 regulatory requirements and the quality assurance program
3 for the site for a person other than the person who
4 performed the verification of the "redline" drawings to
5 evidence that verification by signing the quality document
6 to that effect?

7 A Well, I could envision establishing programs
8 that -- as the fundamental basis -- would have the system
9 that you described, and that would be in effect in
10 accordance with Appendix B as long as you put sufficient
11 controls and define them well enough in the procedures.

12 For example, if inspectors kept log books that
13 they could refer to and then they turn those field log
14 books over to a QC technician, if all that were described
15 someday somehow, I think that would be an acceptable method
16 of doing things.

17 Q No such procedure exists at the site?

18 A Not to my knowledge, no. And again, that's
19 why these are still valid, and I think that's why we
20 described in our final report that there is some
21 inconsistency in this practice. That again is being
22 addressed by PCD.

1 Q I am looking at, Mr. Orlov, at a portion of
2 one of the two large stacks of paper that were identified
3 as CECO NCRs earlier, and I am looking at page 34 of 165
4 and the stack that's entitled NCR 6124, and it appears to
5 be a BCAP observation; right?

6 A Yes, it is.

7 Q And is it on this subject?

8 A Yes, it certainly is.

9 Q All right. Now, where is the -- why don't
10 you walk me through the portions of the observation record
11 if you would, please, if this is a typical one that
12 reflects this issue.

13 A Sure. The important part is in Item No. 10
14 under -- in Section 10, Description of Observation, and
15 it basically describes under the heading, one, "Contractor
16 had not produced a 'redline' record copy of isometric;
17 and two, an as-constructed isometric verified by a
18 certified quality inspector." And I can interpret that
19 for you if you'd like.

20 Q Yes.

21 A In the process, if you take a look at PGCP-40,
22 and I believe I described this in my affidavit, that a

1 blue line of the isometric is issued to the field. The
2 construction side; in other words, the field side, the field
3 superintendent marks this drawing up to reflect field
4 changes to the piping isometric drawing. This "redlined"
5 marked-up drawing is then forwarded to QC. QC verifies
6 the changes in the dimensions to be an accurate reflection
7 of the field condition. And then supposedly he either
8 signs the "redline" drawing or he signs the stop work order
9 or does whatever, sends this back to the office.

10 The office personnel or Field Engineering draw
11 up a new drawing, a clean drawing based on all the field-
12 changed dimensions. They make a mylar out of that, and
13 then a QC technician verifies that the dimensions that
14 were recorded on the "redline" drawing had been accurately
15 reflected in the new mylar, in the new "as-constructed"
16 drawing.

17 And what we have here is a condition where our
18 document reviewer could not find a copy of the "redlined"
19 isometric that was signed by a certified quality inspector.
20 That would have been that document that existed in the
21 first part of the program that I just described to you.
22 Did you follow that?

1 Q Yes. And that conclusion that's reflected in
2 the Description of Observation was as a result of employing
3 the document review checklist?

4 A Yes. And that would have been to Rev 1 of CSRRM.1.

5 O Okay.

6 A You see that in block 5. It will tell you
7 which checklist we used, and it's attribute number 2, and
8 that's what is signified by "/2."

9 Q All right. And how about the notation that
10 is second in block 10, Note 2.

11 A That is, "Asconstructed isometric was approved
12 by an inspector prior to certification. Date approved,
13 8/20/83." He was actually certified 10/17/83.

14 Q That's an additional unrelated observation
15 on that document?

16 A I would say that probably he identified there
17 was an inspector who signed it, but he wasn't a certified
18 inspector. And in fact, that could have been the QC
19 technician who later became certified as an inspector.

20 Q Now the second page -- well actually, if we
21 move on to that "prepared by" and it has Mr. Sigrest's name?

22 A Yes, Howard Sigrest. He is a Level II QC

1 inspector in the piping area.

2 Q And the review at the bottom by --

3 A That's Ed Shevlin, whom you met yesterday.

4 Q And box 13, "Suitable for further processing."

5 A That would have been checked by Mr. Shevlin
6 who at that time reviewed box 10 for conciseness, clarity,
7 and it seemed to be an accurate observation as reflected
8 in the fact that it was a deviation from the checklist
9 requirements.

10 Q And is that what is indicated by the check "yes"
11 in box 13?

12 A Yes. And again, if you want to make sure, BCAP06
13 specifies what each of these blocks are, and that review is
14 for clarity, conciseness and otherwise reasonableness of
15 description.

16 Q Turn to page 33 of the observation record.
17 What is reflected in box 16 of the evaluation?

18 A Basically, it is Mr. Lennie Duss who at the
19 time was the CSR -- the discipline engineer in the piping
20 group. He was later succeeded by Mr. Crow, whom I later
21 mentioned.

22 Q I'm sorry, how do you spell the gentleman's
last name?

1 A Duss, D u s s.

2 Q Does Mr. Duss' name appear on the document?

3 A Yes, that's in block 18, "evaluation and
4 determination by".

5 Q What is the significance of the evaluation
6 that appears in block 16?

7 A It basically says it is valid for the following
8 reasons, and that's more or less boilerplate for this
9 particular item.

10 Q And that evaluation was performed the 8th of
11 January, 1985?

12 A Yes.

13 Q And that was prior to the revision of the
14 checklist?

15 A Correct.

16 Q And the document re-review?

17 A Correct.

18 Q And are the results of the re-review reflected
19 in the observation record?

20 A There are other observations that reflect that.
21 There are many other observations that reflect that. If you
22 take a look at the -- we would have written separate
observations.

1 Q So for this particular package, would there
2 be a separate observation documenting the results of the
3 re-review?

4 A Yes, there most likely would be.

5 Q To the extent that this particular package had
6 the same flaw that all the rest of them did with respect
7 to the lack of QC verification of the drawing itself, that
8 conclusion should be reflected in an additional observation,
9 should it not?

10 A Well if I can clarify to this extent. When we
11 started re-reviewing these observations, these packages,
12 to the new checklist, the Revision 2, we got about halfway
13 through and we realized that a re-review was coming up with
14 entirely different sets of observations, but it was
15 indicative that neither checklist, Revision 1 or 2, was an
16 adequate representation of the way the contractor was doing
17 business.

18 And so at some point in time before we completed
19 re-reviewing all of them, we stopped the re-review because
20 at that point in time it was pointless.

21 Q I am going to extract from this NCR the two
22 pages we have just been discussing, and that is sheets 34
and 35 of 165 or NCR 6124, and ask that those two documents

41

1 be marked as an exhibit.

2 (Orlov Deposition Exhibit No. 4
3 was marked for identification.)

4 MR. GUILD: That is for observation CSRRM.1-001.
5 Am I missing a portion of that number?

6 THE WITNESS: Look at the second page; it will
7 describe it a little better. I think some of it got cut off.
8 It's observation number CSRRM.1001-1.

9 BY MR. GUILD:

10 Q For completeness, can you identify in this
11 package, either of these two NCR packages, an observation
12 record that reflects the findings on the re-review?

13 A I'm sure I'll be able to do that if you'll hand
14 me the stack.

15 It is sheet 166. You'll see observation
16 number CSRRM.1-83-1. And you will see that it is written
17 as, "stop work order was approved 3/2/84 by certified QC
18 technician. Checklist instructions require a Level II
19 QC personnel; no level of certification was indicated for
20 QC technician."

21 Q And that reflects an observation that was
22 prepared the 20th of February; correct?

1 A Correct.

2 Q And that is for observation number CSRRM.1083-1;
3 correct?

4 A Yes.

5 MR. GUILD: We'll mark those pages, 1 of 3 and
6 2 of 3, as Exhibit No. 5, please.

7 (Orlov Deposition Exhibit No. 5
8 was marked for identification.)

9 BY MR. GUILD:

10 Q Now I have an observation record, Mr. Orlov,
11 that appears at sheets 36 through 38 of that same NCR. It
12 reflects the same basic description of observation; correct?
13 AS the first --

14 A As the first one but not the second one, right.

15 Q Under the unrevised list.

16 A Yes. Well, that would be Rev 1 but not Rev 2.

17 Q Rev 1 of the checklist.

18 A Correct.

19 Q And is that indicated on the checklist, block 5?
20 Can you tell which rev of the checklist?

21 A No, but I can tell by looking in the package,
22 and it would have been Rev 1 by just the dates. This used

1 to be part of a BCAP observation reverification package
2 which in it would have a copy of the checklist, and that
3 would identify the date -- or excuse me, -- the revision
4 number. You can tie everything together that way.

5 Q All right. So this is a typical description
6 of the finding, or observation findings resulting from
7 the document review to Rev 1 of the checklist; correct?

8 A Yes, correct.

9 Q And a typical evaluation of that observation,
10 page 2?

11 A Yes.

12 Q And page 3, there appears to be an evaluation
13 of discrepancy/concern for this particular observation
14 reflecting the decision that this is an invalid observation;
15 correct?

16 A Right. That is your -- you asked for S&L's
17 evaluation of these, and this page 3 represents Sargent
18 and Lundy's evaluation in Part 4.

19 Q And that reads under block 23, Evaluation,
20 "There is no requirement for a 'redlined record copy
21 isometric' as per S&L's specification F/L 2739,
22 Article 301.11, and per Phillips-Getschow procedure
QCP-B21, Rev 6 and PGCP-40 Rev 3." Correct?

1 A Correct.

2 Q And who performed that evaluation?

3 A That would have been performed by Sargent and
4 Lundy and was prepared by Kent Novatny, as you see
5 indicated in block number 27. He is a Sargent & Lundy
6 employee.

7 Q And done 12/27/84?

8 A Correct. This page 3 spawned the IEOG -- this
9 was one of the 37 that spawned the IEOG observation No. 7
10 that we had previously talked about. Just to give you a
11 linkage for that. I hope that's helpful to you.

12 Q It is, thank you. What's the significance of
13 the notation at the top of the page that says "duplicate
14 original" with the signature and date, July 12, 1985?

15 A All of these page 3's were lost at one point
16 in time, and the reason they were lost, to the best I can
17 tell you, is at this point in time when we started to
18 re-review the documentation to the new Rev 2 of the checklist.
19 I handed this entire stack of evaluations to Sam Crow and
20 told them not to process them one way or the other until
21 we found out the results of the re-review. And for some
22 reason or other he lost them, so we had to then get copies

45

1 from the files because we keep copies of all these things
2 in the files, and basically -- the original of this now will
3 represent a Xerox copy with the annotation "duplicate
4 original" by Dennis Fisher, who is a Sargent & Lundy
5 personnel authenticating this as a certified, true copy of
6 what was originally lost.

7 Q But it is a Xerox copy and a complete and true
8 copy to the best of your knowledge?

9 A It is a complete and true copy to the best of
10 my knowledge because it looks like exactly like when they
11 first came out. It's a complete and true copy because
12 Dennis Fisher is attesting to it and we had copies of all
13 these things in the files. And if you look, this is word
14 for word with what the NRC had identified and the IEOG had
15 identified as the wording for this.

16 Q All right. Block 28 shows an approval. Who --

17 A That looks like Bruce Parduhn who would have
18 been an approver for the preparer's work. He is also with
19 Sargent & Lundy.

20 Q And was Mr. Novatny and Mr. Parduhn located at
21 the site?

22 A Yes, they were both located at the site at this
time.

46

1 Q And were they performing BCAP-related work at
2 the time?

3 A Yes. Mr. Novatny and Mr. Fisher and Mr. Parduhn
4 were all associated with evaluation of BCAP discrepancies
5 and other BCAP-related matters.

6 Q All right. And do they have a particular area
7 of work?

8 A Yes. Parduhn, Novatny and Fisher were all
9 piping mechanical type people. There's a different set of
10 people for electrical, a different set of people for
11 structural, concrete.

12 MR. GUILD: Let's have marked, please, as
13 Exhibit No. 6 this observation document of three pages.
14 It appears to be CSRRM.1002-2; a document of three pages.

15 (Orlov Deposition Exhibit No. 6
16 was marked for identification.)

17 BY MR. GUILD:

18 Q Mr. Orlov, I direct your attention to a meeting
19 that you described that occurred on the 14th of January,
20 1985 that led to the revision of the document review
21 checklist, except the QC verification of the stop work order
22 as adequate verification of the "redline" drawing. Who was

1 present at that meeting?

2 MR. STEPTOE: If you know.

3 BY MR. GUILD:

4 Q Yes.

5 A It doesn't have an attendance sheet. To the
6 best of my recollection, there were probably a total of
7 10 people there; a few people from Sargent & Lundy, a number
8 of people from BCAP, and a number of people from PCD. If
9 you want me to try and find who those were --

10 Q Let me start at the end. Who can you recall
11 was present from PCD, Project Construction?

12 A It's been quite some time, but I imagine since
13 Bruce Berglin wrote this letter, as I can tell by the
14 initials, Bruce Berglin was probably involved in PCD.

15 Q Who is Bruce Berglin?

16 A He is a construction engineer within PCD.

17 Q Is he responsible for this area of work?

18 A Well, he is involved in non-conformance writing
19 and dispositioning, or at least some aspects of that, for
20 PCD. Oh excuse me, also a number of people from Phillips-
21 Getschow were there. I definitely remember that because
22 they were explaining how we should be interpreting their

1 procedure.

2 Q And who from Phillips-Getschow was present?

3 A I remember -- I can picture his face but I
4 can't picture his name.

5 Q Was Mr. Stewart present?

6 A No. Well, I really didn't know Mr. Stewart at
7 that time but I doubt if he was there. It was another
8 person from the engineering group whose name is at the
9 tip of my tongue. I wish I could give it to you.

10 Q Was it a person who was responsible for the
11 area of work in question?

12 A Well obviously, anybody within Getschow -- he
13 would be associated with this work. I think he was in the
14 Engineering Department. Again, my memory for names in this
15 particular area is pretty bad and I'm sorry. I can picture
16 him in my mind, but I could tell you some other day.

17 Q Was there anyone present in this meeting who
18 was familiar with the actual implementation of the Phillips-
19 Getschow procedure in question?

20 A That I don't know. I really didn't know who,
21 at the time, in Phillips-Getschow was responsible for the
22 implementation of the procedure.

1 Q Was there any discussion of the implementation
2 of the procedure?

3 A Well, I believe there was discussion of the
4 interpretation -- of our interpretation versus their
5 interpretation of what should be the quality document. And
6 I believe the item in question was -- if you look at the
7 bottom of the first page of that letter you will see under
8 subheading 2, paragraph 5.3.3, "return verified drawing
9 and Form PGCP-40, Section 3A properly signed by field
10 engineer." It was their interpretation that it wasn't both
11 the drawing and the form that should be properly signed,
12 but rather just the form that should be properly signed.
13 As you can see, there is some ambiguity in that statement.
14 You could interpret it to be either one or both being signed.
15 And to us, we had interpreted it to be the first and they
16 interpreted it to be the second. And we deferred to them
17 since it was their procedure and they had written it and
18 they were hopefully living by it. And their interpretation
19 would hopefully carry some weight.

20 Q Did anyone ask whether it was the same QC
21 inspector who verified the field condition that signed the
22 stop work order?

1 A Well, I can't say that that would have been one
2 of the questions that would have come up. It certainly
3 wouldn't seem like a question that would have come up since
4 from reading the procedure, to us although there was an
5 ambiguity as to which of the two documents they would have
6 signed, there was no ambiguity as to who should have performed
7 that signature. So the question on our part never came up
8 and I doubt if they volunteered that.

9 Q Was anyone present who knew what the actual field
10 practice was? By that I mean to say the QC technician
11 signed the stop work order document but that a QC inspector
12 in the field did the verification of the "redline" drawing.

13 A Well, I'll have to answer that by saying I
14 don't know because I don't know, one, who in Getschow was
15 responsible for that activity, and I don't know whether or
16 not they would have been there had I known who was responsible.
17 So in all good faith I really can't answer that although I
18 wish I could.

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

20 MS. CHAN: Staff has no questions.

21 MR. STEPTOE: Let's take a five-minute break.

22 (Short recess.)

t14

1 MR. STEPTOE: Back on the record. I have two
2 additional questions, or areas of inquiry.

3 EXAMINATION

4 BY MR. STEPTOE:

5 Q First you were asked about a QA comment in
6 connection with Rev 1 of the inspection checklist, CSRRM.1,
7 which was used in reviewing the "redline" drawings. Do
8 you recall that question?

9 A Yes, but it's actually to Rev 0. The comment
10 is to Rev 0.

11 Q What did QA comment on?

12 A They commented on the checklist and they suggested
13 that we, in addition to other checks of quality documentation,
14 that we review for a QC inspector's signature on the
15 "redline" drawing.

16 Q QC inspectors?

17 A QC inspector's signature on the "redline"
18 drawing.

19 Q What was BCAP's response to that QA comment?

20 A We incorporated that comment into Rev 1 of
21 the checklist instruction.

22 Q Approximately when did this all take place?

1 A What do you mean "all"?

2 Q When did QA issue this comment on Rev 0 of the
3 inspection checklist?

4 A Specifically, it would have been right after
5 we issued Rev 0 to the checklist, and that probably would
6 been in early December of 1984.

7 Q And when approximately did BCAP issue Rev 1 to
8 the inspection checklist?

9 A I believe it was the middle of December, shortly
10 thereafter; the middle of December 1984.

11 Q Referring to Orlov Deposition Exhibit No. 4,
12 I notice that that has two pages; is that correct?

13 A That is correct.

14 Q Is there a page 3 of 3 to this BCAP observation
15 record?

16 A There probably will not be a page 3 of 3 for
17 this BCAP observation record.

18 Q Why not?

19 A Sargent & Lundy was sent all of these doc review
20 observations. They commented on the first 37 of them and
21 those are the 36 "redline" drawing observations for which
22 Sargent & Lundy recommended an invalidation. Those were the

1 last of the doc review observations they reviewed
2 specifically for which they gave us a page 3. There were
3 some minor exceptions but they, Sargent & Lundy, performed
4 that review for the first 37 and then stopped based on
5 some adverse comments from us about whether or not these
6 observations should or should not be invalid.

7 Q You mean the "redline" observations?

8 A Yes, the "redline" observations.

9 Q What was the nature of the adverse comments
10 you are referring to?

11 A Well, we basically told them that they were,
12 in fact, valid and that their comments were -- for
13 invalidty on these were not well founded.

14 Q Do you have an example of the S&L comments which
15 you considered were not well founded?

16 A Certainly. There are approximately 37 of them
17 and I believe they are documented on sheet 38 of the
18 copy of that NCR. Is this also a deposition exhibit?

19 Q Yes, that's your Exhibit No. 6 that you're
20 referring to.

21 A It's page 3 of Deposition No. 6. And it is a
22 copy of page 3 where Sargent & Lundy indicates in their

1 evaluation section of the observation, "There is no
2 requirement for a "redline" record copy isometric as per
3 Sargent & Lundy specification FL2739.

4 Q Why did BCAP tell Sargent & Lundy that that
5 comment was not well founded?

6 A Because we felt that their reasons as stated
7 there were insufficient for us to invalidate an observation,
8 and we felt that the observations were, in fact, at that
9 time valid.

10 Q Did you tell Sargent & Lundy this before or
11 after the IEOG observation that you discussed in your
12 testimony today?

13 A I think at that point in time we had received
14 these. Then we later received the IEOG observation, and at
15 some point in time concurrent with the IEOG observation
16 I think we probably would have let Sargent & Lundy know
17 that this particular amount of documentation or evaluation
18 would not have been sufficient to invalidate those
19 observations.

20 Q Was it due to the IEOG observation that you
21 told S&L that their evaluation on page 3 was not well founded?

22 A No, I think it was based on other grounds.

1 Based on our own -- both based on our own review of Sargent
2 and Lundy's evaluation on this particular one.

3 Q Do you know told Sargent & Lundy that?

4 A That I don't know. We had some general
5 discussi - amongst BCAP people regarding this, and I
6 don't know whether or not we got around to telling
7 Sargent & Lundy before or after the IEOG.

8 Q Who was present at those discussions, Mr. Orlov?

9 A I can't remember specifically.

10 Q Were you present?

11 A Yes, I was, yes.

12 MR. GUILD: I'm sorry, just for clarity, which
13 discussion is he referring to?

14 THE WITNESS: Discussing Sargent & Lundy's
15 evaluation of these observations.

16 BY MR. STEPTOE:

17 Q Do you know who at Sargent & Lundy was told
18 that those evaluations were not well founded?

19 A It may have been Kent Novatny, but again, I
20 don't know.

21 Q Can you recall anything else with respect to
22 this communication between BCAP and Sargent & Lundy

1 concerning the Sargent & Lundy evaluation on page 3 of
2 your Exhibit No. 6?

3 A No, it's very vague in my memory but it did
4 predicate, or it did result in no more invalidations of
5 document review observations by Sargent & Lundy.

6 Q Did Sargent & Lundy invalidate the BCAP
7 observation record which you are holding?

8 A No, I'd like to clarify that. That block 24
9 as described by the procedure is in fact a recommendation
10 to the BCAP to invalidate those observations. Sargent and
11 Lundy does not, in fact, have the authority or the power
12 to, by itself, unilaterally, invalidate observations.

13 We would have had to have concurred with their
14 recommendation.

15 MR. STEPTOE: I have no further questions.

16 EXAMINATION (Further)

17 BY MR. GUILD:

18 Q What's the procedure that specifies that
19 Sargent & Lundy merely recommends its validation?

20 A It's BCAP-06.

21 Q And does it use the word "recommend"?

22 A I believe at this point in time it doesn't

1 discuss it at all because their ability to even recommend
2 invalidation I believe was removed in, I think Revision 9
3 or 10.

4 Q How about the revision that was applicable at
5 the time that Sargent & Lundy evaluated these observations?

6 A My memory doesn't go back that far to those
7 specifics, but I do recall seeing at some point in time that
8 there were recommendations. In any case, the procedure is
9 very clear that documentation coming back from Sargent and
10 Lundy with recommendations of invalidity would have to go
11 back through the approval chain of BCAP before in fact they
12 actually become invalid.

13 Q And on the face of the observation record is
14 there indicated a place for the concurrence, as you describe
15 it, by the BCAP after the Sargent & Lundy recommendation of
16 invalidation?

17 A Yes. As a matter of fact, -- it wasn't
18 specifically on this form at the time because this is an
19 earlier revision of the form. But if you notice in Part 5
20 we have a section that says Comments, training, programmatic
21 recommendations. When we use this document we would say
22 either we agree with Sargent & Lundy's evaluation as defined

1 in Part 4 or we disagree with Sargent & Lundy's recommenda-
2 tions. A later revision of the procedure actually had a
3 block down at the bottom which said agree or disagree with
4 Sargent & Lundy recommendation for invalidity.

5 Q On the revision at the time now, when Sargent
6 and Lundy recommended, as you say, invalidation of the
7 "redline" drawing observations, where on that form is
8 indicated the BCAP concurrence or lack of concurrence with
9 that observation?

10 A It would have been down in Part 5, Section 29.

11 Q Now the portion of Exhibit 6 to your deposition
12 that I am looking at -- that is the page 3 of 3 for the
13 observation CSRRM.1002-02 -- has nothing in the blank
14 that says -- nothing in blank 29 under Comments. Why is that?

15 A Well, at the point in time when this copy was
16 sent to PCD, this observation had not been completely
17 processed. There are copies in the QA vault on these
18 particular observation page 3's which indicate that BCAP
19 does not concur with Sargent & Lundy's recommendations. And
20 that these observations, notwithstanding their recommendations,
21 do in fact remain valid.

22 Q And are those presented in any of the documentation

1 that's in the NCRs?

2 A I don't believe those are in theirs because
3 Sargent -- well, no, they are not in those files.

4 Q Why not?

5 A Because according to our procedures, -- let's see.
6 Invalid documentation that would not have changed the
7 validity of an observation would not have been forwarded to
8 PCD; it would have just gone to the QA vault. In other
9 words, if we had some recommendations that changed the
10 validity determination which we had previously provided to
11 PCD, we would have sent that information to PCD. If it made
12 no change to the substance of the previous observation we
13 had sent to PCD, we would not have sent it. If it did
14 materially affect it, we would have sent it.

15 Q The package of documents that was provided to me
16 appears to be a package closing NCR 6124, and attaching all
17 of the appropriate documentation including the observation
18 forms that relate to that NCR; correct?

19 A Correct.

20 Q Well, why isn't there a complete version of the
21 observation record, including if there is one, a BCAP
22 comment in block 29 disagreeing with the Sargent & Lundy

1 evaluation of invalidity?

2 A Well, the way the procedures work is that we
3 would send PCD page 1 and 2 at the same time we sent S&L
4 page 1 and page 2 after they have been determined to be
5 valid. In fact, most of these observations will not in fact
6 have a page 3 associated with them when we send them to PCD
7 because this information is relevant only in most cases to
8 design significance, which is irrelevant to the non-
9 conformance program.

10 All PCD needs in most cases is page 1 and page 2
11 which describe the non-conforming, or the observation
12 condition and a description of its validity. So in most
13 cases, PCD will not have the determination for design
14 significance sent to them.

15 In those rare cases where the validity determination
16 of an observation has changed; in other words, where Sargent
17 and Lundy has recommended an invalidity and we have
18 concurred with it and we have so noted in Part 5, then in
19 those cases we will send a copy of page 3 to PCD informing
20 them of information that is relevant to non-conformance
21 report processing. But as a rule, this page 3 is usually
22 in 99 cases out of 100 irrelevant to the non-conformance

1 report processing.

2 Q Well Mr. Orlov, the status of the document as it
3 appears in your Exhibit 6 is that Sargent & Lundy, as the
4 architect engineer of the Braidwood Nuclear Station, takes
5 the position that the BCAP observation is invalid, and that
6 there is no discrepancy; that the "redline" drawing record
7 copy isometric need not have a QC signature because of their
8 interpretation of the cited specification in Phillips-
9 Getschow procedures. Correct?

10 MR. STEPTOE: I have to objection to that
11 characterization.

12 BY MR. GUILD:

13 Q Is that right?

14 A The actual observations that are attached to the
15 NCR I believe are for reference only. The actual non-
16 conforming conditions are described in the NCR itself, and
17 I believe if you take a look at the NCR that you have in
18 front of you, they describe as valid the conditions that
19 are described on the observation records.

20 MR. GUILD: Let me mark sheets 1 -- I have a
21 stack of paper here that appears to be the top of NCR 6124
22 documentation. There is a document review sheet; one page.

1 There is a transmittal memo to Shamblin from Quaka dated
2 February 11, 1986; one page. There is a transmittal memo
3 dated January 13, 1986 from Quaka to, it appears to be
4 Kaushal. And then there is the non-conformance reports,
5 Commonwealth Edison Non-Conformance Report 6124, sheets 1, 2,
6 3 and 4 of 4. And the balance of the document appears to be
7 an attachment to that non-conformance report; an addendum
8 to that report. And I'd like to have the series of
9 documents through sheet 4 of 4 for the NCR 6124 marked as
10 Exhibit No. 7.

11 (Orlov Deposition Exhibit No. 7
12 was marked for identification.)

13 BY MR. GUILD:

14 Q Mr. Orlov, this appears to be a PCD NCR and it
15 appears to be -- it reflects an observation of nonconformance
16 of January 10, 1986; correct? I'm looking at --

17 A Yes, it would seem to be that; initiated
18 January 10, 1986.

19 Q And it seems to reflect -- and I'm looking at
20 what appears to be the most recent dates under Quality
21 Assurance Review. It appears to be February 10, 1986; correct?

22 A It seems to be that.

1 Q And does that reflect the disposition of the
2 non-conformance report; the closing of the NCR?

3 A Well let me take a look at this.

4 (Witness reviewing documents.)

5 It doesn't seem to be the closing of it, no. It
6 seems to be an approval rather of the disposition and
7 evaluation, the way I read this form. So it seems to me
8 that it has not yet been closed.

9 Q So it approves the disposition of this NCR?

10 A Correct.

11 Q Now can you tell me from reviewing that document
12 or any other portion of the document whether there appears
13 to be an identification of the status of the BCAP observation?
14 The validity of the observation?

15 A Well, it says "specific corrective actions are
16 shown in addendums to the NCR," so I will have to take a
17 look at the addendum to the NCR. But it seems here that
18 this says, and I quote, "Three generic items were addressed
19 in this non-conformance report as constructed isometrics
20 approved by personnel prior to certification date, stop
21 work orders approved by personnel prior to certification
22 date, and as constructed "redline" drawings not being

1 located. And again, it references the addendum. So if
2 you could possibly hand me the addendum to this I could
3 probably tell you whether or not there's invalid
4 discrepancies.

5 Q All right. And this is the addendum absent the
6 pages that have been removed and marked as exhibits already.
7 So if you need those pages --

8 A Well, pick one. Let's see. Let's take one
9 which you thought may have been reflected as invalid.

10 Q Sure, Exhibit 6 which appears at -- page 3 of
11 that exhibit appears to be sheet 38 of the NCR in question.

12 A This particular observation is described on
13 sheet 1 of addendum 1, and it is described here as
14 observation CSRRM.1-2-2, which I think you have in your hand.
15 And it is clearly -- well, it is included on a non-
16 conformance report and addressed in a non-conformance
17 report, and therefore, one can conclude that it was processed
18 as valid by PCD; otherwise, it wouldn't be on a non-
19 conformance report.

20 Q Otherwise I wouldn't have it because I found it
21 in this stack of paper.

22 A Correct. And again, this identifies it as being

1 valid in terms of being on a non-conformance report.

2 Q Its presence in the document indicates to you
3 that it was treated as a valid --

4 A Not only its presence but its specific reference
5 in the addendum, and it has a specific corrective action
6 associated with it. Therefore, one could very easily
7 conclude that it is certainly treated as valid by Project
8 Construction Department.

9 Again, invalid observations do not need to be
10 addressed and are not addressed on non-conformance
11 reports.

12 Q Is there any other document that's available to
13 you at this point in time that evidences BCAP's disagreement
14 with Sargent & Lundy's invalidation of the "redline"
15 drawing observations?

16 A Yes, certainly. There would be two. Again, one
17 would be this document in its original form, in the QA
18 vault which does indicate our disagreement.

19 Q You mean page 3 of 3 for that observation?

20 A Yes.

21 MR. STEPTOE: For Exhibit 6?

22 THE WITNESS: Yes.

1 BY MR. GUILD:

2 Q And is that available to you now? Is it here?

3 A No. They are all in the QC vault because they
4 are original records. And also we have a computer status
5 of all observations in BCAP that is used for tracking
6 purposes for PCD and BCAP, and they are indicated on that
7 printout as being valid. And we also have things called
8 load sheets which are created. It's a third document; they
9 are created by the BCAP engineers to make sure that we have
10 a final reconciliation of valid and invalid observations
11 and those are also available in the BCAP files at the site.
12 And those also indicate that these are valid.

13 Q You didn't produce that document for your
14 deposition today?

15 A No.

16 MR. STEPTOE: Which one?

17 MR. GUILD: The document that, according to the
18 witness' testimony, evidences BCAP's disagreement with the
19 Sargent & Lundy invalidation.

20 THE WITNESS: And the reason I didn't provide
21 it is because I didn't use it in preparing my affidavit,
22 because having done that work myself I knew that to be true.

1 BY MR. GUILD:

2 Q And when was that block 29, the evidence of
3 disagreement with Sargent & Lundy's invalidation of this
4 observation, completed?

5 A I believe I did it right after I got my
6 duplicate copy from Sargent & Lundy. So it would have been
7 in the July timeframe.

8 Q July 1985?

9 A Whatever the date is up there in the righthand
10 corner, it would have been within a day or two of that,
11 because I asked them for a duplicate copy, having not been
12 able to find the original. And shortly thereafter, after
13 receiving it, I indicated that notwithstanding Sargent and
14 Lundy -comments, these observations remain invalid --
15 excuse me, valid.

16 Q All right. So you documented your disagreement
17 with Sargent & Lundy's position more than six months after
18 Sargent & Lundy communicated their evaluation of invalidity?

19 A Well again, we no longer had the original
20 documents so anything that would have been written on them
21 at that time would have been lost. I don't think anything
22 was written on there because I told Sam Crow not to process

1 them further.

2 Q You didn't document your disagreement with
3 Sargent & Lundy's invalidation until, as you stated, July
4 of 1985.

5 A Correct. At least not on the observation form.

6 Q Well, did you document it otherwise?

7 A Sure, in a response to the NRC, in a response
8 later to the IEOG.

9 Q You stated that you disagreed with their
10 invalidation?

11 A Well, we stated they would remain valid unless
12 some other good reason or good cause could be shown. Do
13 you want me to pull that reference for you?

14 Q I have seen it.

15 A It's in one of our earlier responses to the
16 item of noncompliance.

17 Q And why didn't you document disagreement with
18 the Sargent & Lundy invalidation before July of 1985?

19 MR. STEPTOE: Objection; mischaracterization of
20 the witness' previous testimony.

21 BY MR. GUILD:

22 Q Why didn't you document it on the BCAP observation

1 record before July 1985?

2 A The only thing I could suggest to you as a
3 reason is we have many, many things to do and we knew that
4 those would remain valid, and in the matter of processing
5 the paperwork in a timely manner for that particular set of
6 observations it was not that important to us.

7 MR. GUILD: Okay, that's it.

8 MR. STEPTOE: I have a few more questions.

9 EXAMINATION (Further)

10 BY MR. STEPTOE:

11 Q First of all, I would like to get agreement that
12 we could add two more pages to Orlov Deposition Exhibit NO. 7.
13 They are the next two pages occurring in sequence in NCR
14 No. 6124 after the pages which have already been identified
15 as part of Exhibit NO. 7. And I believe the second of these
16 pages was what Mr. Orlov was referring to in response to
17 the most recent batch of questions. Is that correct, Mr. Orlov?

18 A That is correct.

19 MR. GUILD: That's fine.

20 BY MR. STEPTOE:

21 Q First, you testified that page 3 of 3 of
22 Deposition Exhibit No. 6, the form changed so that there

1 would be a box for concurrence.

2 A Correct.

3 Q I believe you also testified that after a certain
4 point in time, S&L didn't offer recommendations on page 3
5 of 3 with respect to certain BCAP observations; is that right?

6 A Correct.

7 Q Why was it necessary to change the form if S&L
8 wasn't offering any recommendations with respect to BCAP
9 observations?

10 A They were no longer making recommendations as
11 to validity for document review observations, but they were,
12 on some occasions, offering recommendations for invalidity
13 for inspection observations. And as such, we needed a more
14 formal way, a more regimented way to concur with that
15 recommendation. And therefore, there were additional
16 blocks established in Part 5 of the BCAP observation form
17 on page 3 that would signify whether or not BCAP concurred
18 with their recommendation for invalidity proffered in
19 block 24.

20 Q Finally, I believe you stated in response to
21 a question from Mr. Guild that design significance -- or
22 the determination of design significance is irrelevant for

1 purposes of the NCR program. Why is that the case?

2 A Well, the non-conformance reports had to
3 disposition the discrepancies identified on observation
4 reports, irrespective of their design significance. Whether
5 they -were design significant or insignificant or non-
6 design significant, they would still have to be put on a
7 non-conformance report and processed.

8 I would just like to state that there in fact
9 were no design-significant discrepancies identified in the
10 course of BCAP. In other words, --

11 MR. STEPTOE: I have no further questions.

12 EXAMINATION (Further)

13 BY MR. GUILD:

14 Q Mr. Orlov, when were the procedure revisions
15 made which you just spoke to?

16 A I really can't specifically answer that. There
17 have been 10 revisions to BCAP-06. I believe you most
18 recently copied that entire file, or got a copy of that
19 entire file. It is circled, so all 10 revisions are in
20 there. It may have been sometime around Revision 4, 5 or 6.
21 I really don't know.

22 Q Were the revisions that you spoke to in response

1 to your counsel's questions those having to do with more
2 explicit boxes for BCAP concurrence or Sargent & Lundy
3 recommendations as to validity -- were they added before or
4 after the processing of the observations regarding the
5 "redline" drawings?

6 A Well, when you mean processing, it's taking
7 some time --

8 Q Let's start with the origination of the
9 observations.

10 A At that point in time, the observation form
11 looked just like that.

12 Q Like Exhibit 6?

13 A Yes. It did not have the boxes at the bottom
14 on Part 5 which clearly defined whether or not we agreed
15 with Sargent & Lundy's recommendations. If-- it was done
16 primarily for ease of the engineers who were performing that
17 review. Previous to that time they had to write out in
18 handwriting, we concur or we do not concur, each time. It
19 was just a matter of putting two blocks, we concur, we do
20 not concur, onto the form. It was administrative. It was
21 a matter of convenience for the processing.

22 Q The Sargent & Lundy evaluation in question that's

1 reflected in Exhibit 6 was indicated to be prepared
2 December 27, 1984. Was the revision that you speak of to
3 the observation record before or after that date?

4 A I would imagine after that date. AGain, I
5 could review BCAP-06 in detail and point that out, but I
6 would gather rather strongly that it was after that date.

7 Q The exit meeting with Mr. Gardner was the 5th of
8 March, 1985. Was the revision to the observation record
9 made before or after that date?

10 A The revision of the observation record?

11 Q The revision you have speaking to, to the
12 observation record.

13 A You mean the revision to the procedure and to the
14 form that is contained in the procedure?

15 Q Both.

16 A My guess right now --

17 MR. STEPTOE: Well I object to the witness
18 guessing.

19 THE WITNESS: All right. I really don't know.
20 I just don't know. I would have to look at BCAP-06.

21 BY MR. GUILD:

22 Q I only asked you the question because your lawyer

1 elicited the testimony. You don't know when the revisions
2 were made that you spoke to?

3 A No, I don't.

4 Q You don't know whether they were before or after
5 the NRC identified the item of noncompliance?

6 A I really don't know.

7 MR. GUILD: Okay, that's all I have.

8 MR. STEPTOE: Is the deposition concluded?

9 MR. GUILD: It certainly is.

10 MR. STEPTOE: We do not waive signature.

11 MR. GUILD: Notwithstanding the desire of the
12 witness to waive signature, it's my intention to file a
13 copy of the transcript with the licensing board to the
14 extent that it's referred to --

15 MR. STEPTOE: I understand.

16 (Whereupon, at 6:40 p.m., the taking of the
17 instant deposition was concluded.)

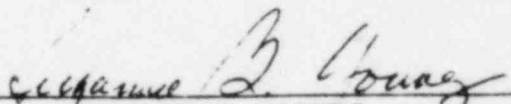
18
19 _____
20 GEORGE M. ORLOV

21 SUBSCRIBED AND SWORN TO before me this _____
22 day of _____, 198__.

My Commission expires: _____

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CERTIFICATE OF NOTARY PUBLIC

I, Suzanne B. Young, the officer before whom the foregoing deposition was taken, pages 1 through 246, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was taken by me and thereafter reduced to typewriting by me or under my direction; that said deposition is a true record of the testimony given by the witness; that I am neither counsel for, related to nor employed by any of the parties to the action in which this deposition was taken; and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.


SUZANNE B. YOUNG

Notary Public in and for the
District of Columbia

My Commission expires: December 14, 1989

Bob

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USNRC

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86 FEB 18 12:04
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DEPOSITION
EXHIBIT

ORLOV ~~depo~~ Depo
Ex. to 1

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)
COMMONWEALTH EDISON COMPANY) Docket No. 50-456
(Braidwood Nuclear Power) 50-457
Station, Units 1 and 2))

INTERVENORS ROREM, ET AL.
NOTICE OF DEPOSITIONS

Pursuant to 10 C.F.R. §2.740(a), Intervenor Rorem, et al., hereby give notice that they shall take the depositions of the following witnesses, who are employees of Commonwealth Edison Company or its contractors: James W. Geiseke; Kenneth T. Kostal; Edward M. Shevlin; George Orlov and Thomas E. Quaka. The depositions shall commence on Wednesday, February 12, 1986, at 10:00 A.M., and shall continue thereafter until completed, at the offices of Isham, Lincoln and Beale, Three First National Plaza, Chicago, Illinois; or at such time and place between February 12-14, 1986 as the parties may agree. The depositions shall be taken before a certified court reporter, and shall be on the subject of the witnesses' knowledge of the quality assurance deficiencies at the Braidwood nuclear power station alleged in Intervenor's Amended Quality Assurance Contention.

The deponents shall bring with them all documents in their possession, or subject to their control, which are the basis for the witnesses' affidavit in support of Applicant's December 20, 1985, Motion For Summary Disposition.

DATED: January 30, 1986

Submitted by,

A handwritten signature in cursive script, reading "Robert Guild", is written over a horizontal line.

Robert Guild
One of the Attorneys for
Intervenors Rorem, et al.

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1/30/86

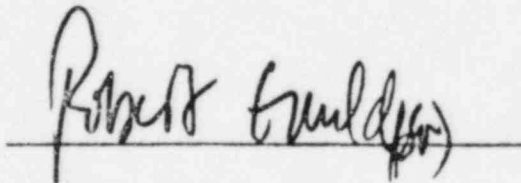
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)	
)	
COMMONWEALTH EDISON COMPANY)	Docket No. 50-456
)	50-457
(Braidwood Nuclear Power)	
Station, Units 1 and 2))	

CERTIFICATE OF SERVICE

I hereby certify that I have served copies of Intervenor's Rorem, et al. Notice of Depositions on each party listed on the attached Service List by having said copies placed in envelopes, properly addressed and postaged (first class) and deposited in the U.S. mail at 109 North Dearborn, Chicago, Illinois 60602, on this 30th day of January, 1986; except that NRC Staff Counsel Mr. Treby was served via Federal Express overnight delivery and Mr. Stahl, counsel for Edison, was served by messenger on Friday, January 31, 1986.



BRAIDWOOD SERVICE LIST

50-456/50-457 OL

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Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

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During the association phase of the Checklist and Instruction CSR-R-M-03 Rev. 0, Documentation Review for Small Bore Piping Configuration, the following were used as source documents from Phillips Petroleum Co.: a) Procedure QCP-X0 Rev. 3 and QCP-B21 Rev. 6. From these documents CSR engineering derived the accept/reject criteria for Quality Control acceptance of "as constructed" isometric drawings. They interpreted the procedures and instructions for forms as requiring "QC inspector signatures" on the verification ("Red Line") drawing.

Several observations were written by the BCAP inspectors and processed as rel'd. As a result of the observations, a meeting was held on January 14, 1985 between CECO PCD, S/L, PECO, and BCAP. During this meeting, ~~the~~ ~~PECO procedures were inspected~~ ~~provided~~ ~~for the interpretation of~~ ~~the intent of~~ ~~the procedures~~ ~~was~~ ~~not~~ ~~to~~ ~~require~~ ~~a~~ ~~QC~~ ~~signature~~ ~~on~~ ~~the~~ ~~verification~~ ~~drawing~~ ~~but~~ ~~for~~ ~~QC~~ ~~to~~ ~~sign~~ ~~the~~ ~~section~~ ~~3(a)~~ ~~of~~ ~~the~~ ~~"Stop~~ ~~Work~~ ~~Order~~ ~~"~~ ~~signifying~~ ~~completion~~ ~~and~~ ~~to~~ ~~sign~~ ~~the~~ ~~QC~~ ~~approval~~ ~~block~~ ~~on~~ ~~the~~ ~~mylar~~ ~~of~~ ~~"As-Constructed"~~ ~~drawing~~ ~~PCD~~ ~~issued~~ ~~SR/PCD~~ ~~85-43~~ ~~on~~ ~~January~~ ~~15~~ ~~1985~~ ~~confirming~~ ~~the~~ ~~interpretation~~ ~~of~~ ~~the~~ ~~PECO~~

Based upon the above information it has been determined that the accept/reject criteria for a QC signature on the verification ("Red Line") ~~the~~ drawing was invalid. Therefore the observations written against this criteria were incorrect.

Actions

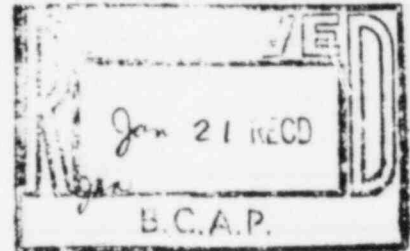
1. Those checklist attributes will be revised which are effected by this change.
2. All Small Bore Piping Configuration Document Review samples reviewed using Rev 0. of the checklist will be re-reviewed using the revised attributes only.

Comments

We understand that Construction QA is performing a surveillance on this subject

January 15, 1985
BR/PCD 85-43

Subject: Braidwood Station - Units 1 & 2
BCAP Observations PCD Believes are Invalid
(Redlined Drawings)



Mr. N. N. Kaushal:

The BCAP Observations listed on the attachment are considered invalid by Project Construction Department (PCD). These observations address the lack of a certified quality inspector's signature on a PGCo verification drawing.

In a PCD/S&L/PGCo/BCAP meeting of January 14, 1985 it was explained that PGCo was following the requirements established by their approved procedures. The Q.C. signatures on the "Stop Work Order" (Reference PGCP-40, Revision 0) was a sufficient verification signature.

PGCo performed dimensional verification of as-constructed drawings in accordance with the applicable procedures approved at the time the work was performed. The applicable procedures in effect during the time frame of the subject BCAP Observations were QCP-B21, Rev. 4, S1, Rev. 2 and PGCP-40, Rev. 0.

QCP-B21, Rev. 4, S1 Rev. 2 States:

- 1) Paragraph 5.4.5: "The Supervisor - Quality Control shall dimensionally verify installed piping in accordance with Procedure PGCP-40 and Section 6 of this procedure."
- 2) Paragraph 6.3: "The Supervisor - Quality Control shall monitor "as-built" dimensional checks performed by the superintendent . . ."

QCP-B21 later revisions after revision 4 states:

Paragraph 11.6, Note 1: "Where installation was accomplished to Revision 4 of this procedure or prior approved revisions, as constructed verification shall be accomplished in accordance with procedure PGCP-40."

From this, it is apparent that PGCP-40, Rev. 0 is the controlling procedure for dimensional verification of as-constructed drawings during the time frame of those observations.

PGCP-40, Rev. 0 States:

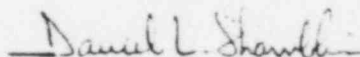
- 1) Paragraph 4.2: "The Quality Control Supervisor shall be responsible for dimensional verification of installed piping . . ."
- 2) Paragraph 5.3.3: "Return verified drawing and form PGCP-40, Section 3(a) properly signed to the Field Engineer." (This form is the "Verification of Completed Work and Stop Work Order").

- 3) Stop Work Order, Section 3(a): "Obtain and field verify installation drawing, or subsystem drawing indicated. Upon completion of verification, sign and date drawing in appropriate QC approval box on the drawing, sign and return this notice to the Field Engineering Department."

This procedure specifically addresses that the "Stop Work Order" will be signed and accompany the verified drawing. The "Stop Work Order" refers to the as-constructed mylar drawing when it specifies that "the drawing will be signed and dated in the appropriate QC box". The QC Supervisor is responsible for the dimensional verification, and his signature indicates that the verification is complete and correct.

Later and current revisions to these procedures have additional requirements than the revisions referenced here. Therefore, when evaluating these observations, the applicable procedures approved at the time which the work was performed should be referenced.

Upon agreement with this letter please change the status of these observations from "Valid" to "Invalid". Contact Bruce Berglin (Ext. 2347) if further information is required.



D. L. Shamblin
Proj. Construction Superintendent
Braidwood Station

BB/kje
(1290a)

Attachments

cc: M. J. Wallace (1/0)
W. E. Vahle (1/0)
T. E. Quaka (1/0)
D. Fisher-S&L (1/0)
D. Vandergrift (1/0)
R. J. Farr/M. Gorski/B. Berglin (1/0)
File (1/0)

ATTACHMENT

<u>BCAP Memo</u>	<u>Observation Number</u>
405	CSR-R-M-1-046-2
405	CSR-R-M-1-047-2
405	CSR-R-M-1-049-2
405	CSR-R-M-1-050-1
405	CSR-R-M-1-051-1
405	CSR-R-M-1-052-1
405	CSR-R-M-1-053-1
405	CSR-R-M-1-054-1
405	CSR-R-M-1-057-1
405	CSR-R-M-1-058-1
405	CSR-R-M-1-059-1
386	CSR-R-M-1-033-1
386	CSR-R-M-1-034-1
386	CSR-R-M-1-035-1
386	CSR-R-M-1-040-1
371	CSR-R-M-1-002-2
371	CSR-R-M-1-003-2
397	CSR-R-M-1-041-1
385	CSR-R-M-1-025-2
385	CSR-R-M-1-027-1
385	CSR-R-M-1-028-1
385	CSR-R-M-1-030-2
385	CSR-R-M-1-031-1
385	CSR-R-M-1-032-1
377	CSR-R-M-1-004-1
377	CSR-R-M-1-005-1
377	CSR-R-M-1-006-1
377	CSR-R-M-1-007-1
377	CSR-R-M-1-009-1
377	CSR-R-M-1-010-1
377	CSR-R-M-1-014-1
377	CSR-R-M-1-018-2
377	CSR-R-M-1-019-1
377	CSR-R-M-1-020-1
377	CSR-R-M-1-021-1
377	CSR-R-M-1-022-1
377	CSR-R-M-1-023-2
377	CSR-R-M-1-024-2

SURVEILLANCE DATE: January 22 - 24, 1985
February 4 - 5, 1985

FILE NO. 2739.22S

BRAIDWOOD Q.A. SURVEILLANCE REPORT NO. 4151

Contractor/
Organization: Phillips, Getschow Co.

Category #: 6

Item Observed:

During the period 1/22-24/85, this surveillance examined the area of as-construct drawings for large & small bore piping from the aspect of processing, generation, and supporting documentation. Particular emphasis was put on adherence to procedure requirements for PGCP-40 and QCP-B21; however procedure adequacy was also addressed.

The sample size encompassed six (6) large bore and four (4) small bore piping drawings where the following items were checked:

Q.C. Verified Drawing

1. All dimensions have note signifying verification
2. Valve orientation is noted
3. Valve serial numbers are noted
4. Q.C. inspector sign-off on drawing (not required)
5. Welded attachment position noted

Stop Work Order (Form PG/QA-5-33)

1. Drawing and revision or subsystem noted which is complete
2. Q.C. sign off by inspector performing verification

Reported by: J. Shumade ^{for} ESS Date 2/14/85

Approved by: J. Shumade Date 2/14/85
TED 2/20/85

FU Action Verified _____ Date _____
Q.A. Engineer

FU Action Approved _____ Date _____
Q.A. Supervisor

ESS/mjv (1689S)

cc: W. J. Shewski/G. F. Marcus
E. E. Fitzpatrick
D. L. Shamblin
B. H. Kulik
PGCo
E. S. Steckhan
N. P. Smith
Q. A. File 2739.22S
(1689S) T.E. QUAKA

As-Construct Drawing

1. Dimensions and valve serial numbers match verified drawing
2. Q.C. sign-off in title block

PGCo personnel responsible for this area of work were also questioned on the particulars of their processing.

A table detailing the drawings and items checked is attached. From this review and discussion with PGCo personnel it appears all the dimensions and configuration verification from the marked up Q.C. drawings have been incorporated into the "as-construct" drawings. However, the following summarizes the deficiencies noted:

1. Q.C. is performing as-constructed verifications on installations which are not complete (large bore piping with missing valves). (Violates Section 5.1, 5.2.2, 5.2.3 of PGCP-40)
2. Q.C. is provided drawings to perform as-construct verifications which do not reflect the as installed configuration (i.e. large bore piping). This results in Q.C. performing data taking, not verification (see item 3 below). (Violates Section 5.2.2, 5.2.3, PGCP-40)
3. Q.C. is provided drawings to perform as-construct verifications but dimensions are not provided in most cases. Therefore, Q.C. inspectors are taking first line dimensions and are not performing verifications (large bore piping). Also spool drawing dimensions are not being cross checked to the as-construct line drawing which would have given the double check required. Some drawings have two Q.C. verifications noted which is acceptable since one serves as the production dimension, but the majority do not. (Violates Section 5.2.2, 5.2.3, 5.3.1 of PGCP-40)
4. The Q.C. sign-off on the Stop Work Order (SWO) signifying verifications complete is not provided by the inspector performing the actual verifications (all large bore piping and small bore piping prior to 1-27-84 that had as-constructed verifications performed to Procedure PGCP-40). In some cases the Q.C. inspector has signed the Q.C. verified drawing but approximately half do not. (Violates Section 5.3.4 of PGCP-40)

5. Of the Q.C. verified drawings which were signed, one case was found where the Q.C. inspector was not qualified in the area of "process piping and instrumentation." He was qualified in the area of "MTV - Material Traceability Verification" which doesn't address dimensional verifications. (Violates Section 13.1 of QCT-20.15)
6. Several SWO's for large bore piping did not indicate the drawing revision which shows what installation is complete. (Violates Section 5.1 of PGCP-40).
7. Since the SWO does not specify the drawing that was Q.C. verified (usually the as-construct revision), the Q.C. sign off can not be traced to a particular drawing which has Q.C. verifications on it (procedure inadequate).
8. In processing the as-constructed drawing and checking it to the Q.C. verified drawing for large bore piping, no check for adherence to the design drawing requirements is performed (procedure inadequate).
9. For small bore piping; four (4) cases were found where the Q.C. verified items were not incorporated into the as-construct drawing (one [1] dimension error and three [3] cases of unincorporated valve serial numbers). For large bore piping; one (1) case was found where the Q.C. verified drawing had a change to configuration noted in two (2) conflicting sketches with no other documentation to resolve this conflict. (Violates Section 7.2 of PGCP-40)
10. In most cases, Section 3 (a) of the SWO is signed by Q.C. before the as-construct mylar drawing Q.C. approval box is completed (violates Section 3 (a) of the SWO in PGCo-40).

Of the deficiencies noted above, those that are considered to have the most significant impact have been underscored. These items were briefly discussed with PGCo engineering personnel while this surveillance was in-progress.

On 2/4/85 a meeting was held with PCD, PGCo and Q.A. personnel in attendance, to discuss the above to obtain resolution. A subsequent check was performed by Q.A. on 2/5/85 to clarify the specific problems associated with the PGCo "As-Construct" program activities. These are summarized below.

A) Items Presented In Above Discussion:

Item #1

PGCo Procedure PGCP-40, Rev. 4 Section 5.0 states in part: (underlines added)

- 5.1 "When the Superintendent has verified that an installation drawing, or sub-system portion of an installation drawing has been completed he shall notify the Project Engineer by means of a "Notification of Completed Work and Stop Work Order" From (PG/QA-5-33).
- 5.2 Upon notification by the Superintendent that an installation drawing, or sub-system portion of an installation drawing has been completed, the Project Engineer shall:
 - 5.2.1 Issue a stop work order for dimensional or configurational changes for that portion of the completed system or sub-system."

Contrary to these requirements, as indicated on drawing M-06-67, valves had not been installed. FCO's had been generated to identify status the missing valves, however PGCP-40 has no provision to use an FCO in this manner.

Item #2

The concern of this item is addressed under PGCo NCR 1546 as identified in CECO Q.A. audit 20-83-62 (see comp. surv. 3814 for details). Action related to this item is being followed under follow-up for that audit.

Item #3

To implement the action for PGCo NCR 1546, Q.C. is measuring the as installed dimensions to be recorded on the as-construct drawings. This is per PGCP-40 however PGCo Q.A. Manual Section 10.10 states the following:

(1689S)

"10.10 As-Built Data

- 10.10.1 The definition of "As-Built" as used in this Manual shall be the same as "As-Constructed" in accordance with the definition in the Summer 75 Addenda of the Code.
- 10.10.2 As-Built data shall consist of the latest revision to the following documents that have been used for construction:
 - 10.10.2.1 Field Change Order
 - 10.10.2.2 Engineering Change Notice or Field Change Request
 - 10.10.2.3 Field Fabrication Drawings
 - 10.10.2.4 Customer Design Drawings
- 10.10.3 Preparation of "As-Built" drawings shall be the responsibility of the Project Engineer.
 - 10.10.3.1 The Supervisor - Quality Control shall be responsible for verifying the "As-Built" dimensions recorded by the Superintendent on the "As-Built" drawing."

An inconsistency exists between PGCP-40 and QAM Section 10.10

Item #4

The general practice being utilized by PGCo at this time is to have the Q.C. Inspectors (who have performed the as-installed verification) to sign-off on the red-line drawing (generally in the lower right hand corner). There is no provision in PGCP-40 to define and require this signature to be applied. (Similar activities for small bore pipe defined in PGCo procedure QCP-B21 do include such a provision, via an inspection stamp traveler, which has been in effect since January, 1984).

Item #5

For this item only one case was identified during the surveillance. PGCo should make sure personnel performing the as-construct verifications are properly qualified/certified.

(1689S)

Item #6 & 7

Form PG/QA-5-33, Rev. 0 (Stop Work Order, SWO) requires that the Drawing No. & revision be recorded on the SWO. Some of the SWO's sampled did not have the as-construct drawing revision number recorded. Without the revision number recorded it may be difficult to trace the SWO document to the as-construct red-line drawing for which it applies.

Item #8

This item addresses the Q.C. review performed in the office for large bore and small bore. Comparison checks are made by Q.C. between the newly drafted mylar and the Q.C. as-construct "Red Line" drawing, (to make sure that the mylar is complete and all necessary entries are included). This review by Q.C. also includes a double check that the installations are within specification tolerances. None of these review practices are prescribed in PGCP-40.

Item #9

This item describes cases where the above practices/activities did not identify deficiencies. (Ref. drawing PG 2537C-50, PG 2542C-52, and PG 2544A-39). The one case cited in the large bore area is covered under PGCo NCR 1546 (see Item #2 discussion, above).

Item #10

The person providing the sign-off on the Stop Work Order is the Q.C. document clerk who works for the field QC Foreman. This sign-off is intended to attest to the acceptable completion of a given as construct drawing verification. It is not clear that this person is properly qualified/certified to do this function as stated under the requirements of delegation (Ref. Section 4.4 of PGCP-40).

B) Other items identified upon additional review of the as-construct program.

- 1) Stamps placed on the "as-construct" drawings to achieve sign-offs for documentation and statusing purposes are not defined or included in PGCP-40 or QCP-B21. These are presented as examples below:

- a) Installation Completion Date _____
Foreman's Signature _____
Remarks _____

(1689S)

- b) Q.C. Acceptance _____
Date _____ by _____
- c) HT # _____
Q.C. Sign _____
- 2) On the as-construct drawing a box is placed next to the dimension that is to be verified and in which the Q.C. Inspector records the as installed dimension. In some cases a triangle is "colored-in" in the upper left hand corner of the box when a previously verified dimension has been re-verified (due to comments/direction from PGCo Engineering or Office Q.C. personnel). There is no provision in PGCP-40 that defines the use of this box as the documentation method for recording the verified dimension or to use the "colored-in" corner to indicate a re-verification. Example: 3' 5 7/8"
- 3) A card file system and the Q.C. Foreman's Log are utilized by Q.C. to track the location of a given as-construct drawing. The card file is used to document when an as-construct drawing is received at the Q.C. field trailer from PGCo Engineering; to record to which Q.C. Inspectors it has been issued for verification; and to record when the completed as-constructed drawing is returned back to PGCo Engineering. The Q.C. Foreman's Log lists to which Q.C. Inspector(s) a given as-construct drawing was issued. There is no provision in PGCP-40 that address this nor is the card file system addressed in QCP-B29, the General Document Control procedure.
- 4) Though the red line drawing is the record that documents the results of the field Q.C. verification (a type of Q.C. inspection activity), there is no provision in PGCP-40 to retain this document. Furthermore, it is marked as "Uncontrolled, For Information Only", when in effect, it is controlled and identified by Revision letter.

In summary, PGCP-40 does not go far enough to address all of the aspects of the PGCo as-construct verification program. This applies to Large Bore Pipe in total and Small Bore Piping prior to January, 1984, (since that time as-construct activities have been performed to PGCo procedure QCP-B21). Key aspects to define how to document the results and acceptability of a given as-construct verification are not provided for in PGCP-40. The general practices being used by PGCo appear to be reasonable but at this time they are informal. Implementation of an activity in that manner may compromise meeting the requirements of Section 4.4 of ANSI N45.2.8 - 1975 (see attached).

As presented above, QCP-B21 does address some of the concerns for the current small bore pipe activity. In addressing this activity, PGCo should assure that there is consistency between the two procedures (QCP-B21 and PGCP-40).
(1689S)

SMALL BORE

DRAWING	PG 2537C-50	PG 2542C-52	PG 2550A-110	PG 2544A-39
As-Construct Revision	B	A	B	B
Q.C. Verified Revision	B	A	B	B
Stop Work Order Revision	A	O	O	A
Stop Work Num. Order	1390	547	5006	379
SWO, Q.C. Sign & Date	John Holland 11-05-83 (3)	John Holland 10-24-83 (3)	D. R. Quigley 08-07-84 (3)	John Holland 10-03-83 (3)
Verified Drawing Dim. Noted	Yes	Yes	Yes	Yes
Valve Serial No. Noted	Yes	Yes	Yes	Yes
Welded Attach Noted	N/A	N/A	N/A	N/A
Valve Orient Noted	Yes	Yes	Yes	Yes
Q.C. Sign Off On Verified Dwg.	N/A	N/A	G. Doyle G. L. Morse 08-06-84	N/A
As-Construct Dim. Match Verified Dwg	(1)	Yes	Yes	Yes
Valve Serial No. Match	(2)	(2)	Yes	(2)
Valve Orient Match	Yes	Yes	Yes	(2)
As-Construct Dwg. Q.C. Sign Off	11-17-83	11-10-83	10-03-84	12-21-84

(1) Dimension error when transposed from verification drawing.

(2) Valve orientation or serial number not noted on as-construct but shown on verification drawing.

(3) Q.C. sign-off not done by inspector performing verification.
(1689S)

LARGE BORE - PAGE 1 of 2

DRAWING		1A-AB-18	1A-CV-10	2A-FP-16	1A-OG-67	1A-SA-14	2A-SX-85
Drawing Info.	As-Construct Revision	A	A	O	O	O	O
	Q.C. Verified Revision	SWF (Byron) Drawing	A	O	O	O	O
	Stop Work Order Revision	None Indicated	None Indicated	Rev. 0	Rev. Fab	None Indicated	Rev. Fab
SWO Info.	Stop Work Order Num.	1164	5A, 5	4223	4791	1540	2317
	SWO Q.C. Sign & Date	John Holland (7) 09-13-83	R. Forsythe (7) 06-18-84 E. Ullrich 06-30-83	R. Forsythe (7) 05-03-84	D. Quigley (7) 07-18-84	J. Holland (7) 10-11-83	R. Forsythe (7) 02-17-84
Verified Drawing Info.	Verified Drwg. Dim. Noted	Yes	(3), (6)	(4), (6)	(4), (6)	(4), (6)	Yes
	Valve Serial No. Notes	Yes	Yes	N/A	(1)	N/A	N/A
	Welded Attach Noted	N/A	N/A	N/A	N/A	N/A	N/A
	Valve Orient Noted	Yes	Yes	N/A	(1)	N/A	N/A
	Q.C. Sign-Off on Verified Drwg.	J. Conroy (5) 10-09-84	M.A.B. 02-28-84 Illegible 06-20-84	J. Spiking G. Haase G. Doyle 05-02-84	T. Turner G. Haase G. Doyle 07-12-84	N/A	N/A

LARGE BORE - PAGE 2 of 2

As-Construct Drawing Info.	DRAWING	1A-AB-18	1A-CV-10	2A-FP-16	1A-OG-67	1A-SA-14	2A-SX-85
	As-Construct Dim. Match Verified Drawing	(2)	(3)	Yes	Yes	Yes	Yes
	Valve Serial No. Match	Yes	Yes	N/A	(1)	N/A	N/A
	Valve Orient Match	Yes	Yes	N/A	(1)	N/A	N/A
	As-Construct Drwg. Q.C. Sign-Off	10-07-83	06-28-84	01-28-82	07-30-84	06-03-82	02-27-84

- (1) Some valves not installed but SWO issued.
- (2) As-Construct drawing does not agree with verification drawing which was conflicting sketches.
- (3) Complete verification drawing missing, as-construct drawing complete and approved by Q.C.
- (4) Q.C. provided corrected configuration.
- (5) Inspector not qualified in area of process piping & instrumentation.
- (6) Initial dimensions provided by Q.C. on verified drawing.
- (7) Q.C. sign-off not done by inspector performing verification.

b. Nonconformances have been satisfactorily dispositioned or controlled.

c. Items have been cleaned in accordance with specified requirements.

3.5 Site Conditions

Inspections or checks as appropriate shall be performed to verify that conditions of the installation area conform to specified requirements and precautions have been taken to prevent conditions that will adversely affect the quality of the item during installation. These inspections or checks shall include, but not be limited to, the following to verify that:

a. Protection from adjacent construction activities is being provided including implementation of appropriate exclusion and area cleanliness requirements.

b. Protection from inclement weather and other ambient conditions adverse to quality is being provided.

c. Materials that may be deleterious to the mechanical items being installed, are controlled.

d. Installation of the mechanical item will not adversely affect the subsequent installation of materials and equipment and that repair or rework on any nonconforming items can be performed satisfactorily.

e. Nonconformances for adjacent items have been dispositioned or controlled.

f. Adequate permanent or approved temporary supports and mountings have been installed that will properly interface with the mechanical item.

g. Mating parts such as couplings and flanges are properly positioned and conditioned.

h. Servicing or maintenance activity related to installation has been performed.

4. CONTROL DURING INSTALLATION PROCESS

4.1 General

Checking, inspection, examination or testing activities shall be performed during the installation of mechanical items to assure that the required quality is being obtained in accordance with prescribed procedures. These activities shall be performed in a systematic manner to assure surveillance throughout the installation process. A procedure shall be provided for the coordination and sequencing of these activities at established inspection points in successive stages of installation.

A method shall be implemented to assure that engineering and design changes are documented and controlled during installation.

4.2 Process and Procedure Control

Checks shall be made to verify that a system of

controls has been established and is being maintained at the construction site to assure the following:

a. The applicable revision of approved procedures, drawings and instructions are being followed.

b. Qualified and approved processes, materials, tools and other equipment are being used by qualified personnel.

c. The status of installation, inspections, examinations or tests is clearly indicated or identified in inspection records.

d. The installation, inspection and testing sequence is being maintained.

e. Identification, appropriate segregation, and disposition of nonconforming items are being controlled.

f. "As-built" information is being processed.

g. Inspection and test reports are current, accurate and complete.

4.3 Examination

Nondestructive examinations, when required, shall be performed to approved applicable procedures. Examples of these examinations are liquid penetrant, magnetic particle, ultrasonic, eddy current and radiography.

4.4 Inspection

Inspections of the work areas and the work in progress shall be performed to verify that mechanical items are being located, installed, assembled or connected in compliance with the latest approved-for-construction drawings, manufacturers' instructions, codes, installation instructions and procedures. Inspections performed shall include as appropriate, but not be limited to, the following:

a. Identification.

b. Location and orientation of components.

c. Levelling and alignment.

d. Clearances and tolerances.

e. Tightness of connections and fastenings.

f. Fluid levels and pressures.

g. Absence of leakage.

h. Physical integrity.

i. Cleanliness.

j. Welding operations including materials and process controls, adequate purging, and the removal of purge dams on completion.

k. Adequacy of protective measures to assure that the item will not be damaged during installation.

l. Adequacy of housekeeping, barriers and protective equipment to assure that items will not be damaged or contaminated as a result of adjacent construction activities.

March 25, 1985
BCAP Memo #969

TO: G. M. Orlov - Assistant Director - CSR/RPSR
R. L. Byers - Assistant Director - RSCAP/Inspection
A. A. Patterson - CSR Supervisor
P. Amoroso - RPSR Supervisor
M. Dougherty - RSCAP Supervisor

FROM: N. N. Kaushal, BCAP Director

SUBJECT: Mandatory Hold on Invalid Observation Processing

REFERENCE: Q.A. memo BRD #15,269 dated March 22, 1985

Per the referenced memo (attached), mandatory hold points have been established by BCAP QA on specific steps in the processing of invalid observations. You are to observe these hold points until Q.A. release is provided in writing. Please ensure that all of those designated to sign for you in your absence are properly informed of these requirements.

N N Kaushal

N. N. Kaushal
BCAP Director

NNK/jrl

cc: N. P. Smith
QG. 69.60.3
QG. 69.20.19 ✓

March 22, 1985
BRD #15,269

TO: N. N. Kaushal
BCAP Director

SUBJECT: Mandatory Hold Points #3, 4, 5, 6 - Invalid
Observations

REFERENCE: (a) BCAP-06 Rev. 7, Observation and Discrepancy/Concern
Processing

BCAP Q.A. hereby establishes Mandatory Hold Points in conjunction with the implementation of Reference (a). These are applied to the processing of invalid observations for the three (3) BCAP elements as follows:

- CSR (3) BCAP Q.A. to review before step A4.4.8, i.e. before the supervisor signature.
- (4) For the BCAP review of S & L evaluations, BCAP Q.A. to review invalid observations after step A4.7.2, i.e. before the supervisor signature in step A4.7.3.
- RPSR (5) BCAP Q.A. to review before step B4.4.8, i.e. before the supervisor signature.
- RSCAP (6) BCAP Q.A. to review before step C4.4.8, i.e. before the supervisor signature.

These Mandatory Hold Points provide for a quality assurance review of the various evaluations to substantiate specific justification for invalidation of observations.

The Mandatory Hold Points shall remain in effect until a memorandum of understanding is mutually agreed to by BCAP Q.A. and the BCAP Task Force and the hold points are removed by written notification from BCAP Q.A.

Please assure a clear understanding of this memorandum and then provide your acknowledgement of receipt by signing and dating in the space below.

N. P. Smith 3/25/85

N. P. Smith
General Supervisor Q.A.

Receipt Acknowledgement *N. N. Kaushal* 3/25/85
BCAP Director date

NPS/WJM/nlw (0322B)

cc: W. J. Shewski/G. F. Marcus
E. E. Fitzpatrick
M. J. Wallace
C. W. Schroeder
ERC Trailer #6
Q. A. File - QG 71.7
QG 71.9

✓ 15-67.00.3
July 15, 1985
BRD #16,811

TO: W. W. Kaushal
BCAP Director

SUBJECT: Mandatory Hold Point and #4

BCAP Q.A. hereby provides clarification of the scope of Mandatory Hold Point #4 for the processing of invalid observations based on PCN #2 to revision #9 of BCAP-06 as follows:

CSR (4) A review by BCAP Q.A. is only required if Part 5 is used to change the determination from valid to invalid

N. P. Smith
N. P. Smith
General Supervisor Q.A.

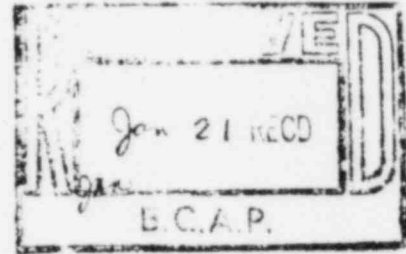
NPS/WJM/nlw (0554B)

cc: W. J. Shewski/K. J. Hansing
E. E. Fitzpatrick
M. J. Wallace
G. P. Marcus
C. W. Schroeder
ERC Trailer #6
Q. A. File - QG 71.7
71.9



January 15, 1985
BR/PCD 85-43

Subject: Braidwood Station - Units 1 & 2
BCAP Observations PCD Believes are Invalid
(Redlined Drawings)



Mr. N. N. Kaushal:

The BCAP Observations listed on the attachment are considered invalid by Project Construction Department (PCD). These observations address the lack of a certified quality inspector's signature on a PGCo verification drawing.

In a PCD/S&L/PGCo/BCAP meeting of January 14, 1985 it was explained that PGCo was following the requirements established by their approved procedures. The Q.C. signatures on the "Stop Work Order" (Reference PGCP-40, Revision 0) was a sufficient verification signature.

PGCo performed dimensional verification of as-constructed drawings in accordance with the applicable procedures approved at the time the work was performed. The applicable procedures in effect during the time frame of the subject BCAP Observations were QCP-B21, Rev. 4, SI, Rev. 2 and PGCP-40, Rev. 0.

QCP-B21, Rev. 4, SI Rev. 2 States:

- 1) Paragraph 5.4.5: "The Supervisor - Quality Control shall dimensionally verify installed piping in accordance with Procedure PGCP-40 and Section 6 of this procedure."
- 2) Paragraph 6.3: "The Supervisor - Quality Control shall monitor "as-built" dimensional checks performed by the superintendent . . ."

QCP-B21 later revisions after revision 4 states:

Paragraph 11.6, Note 1: "Where installation was accomplished to Revision 4 of this procedure or prior approved revisions, as constructed verification shall be accomplished in accordance with procedure PGCP-40."

From this, it is apparent that PGCP-40, Rev. 0 is the controlling procedure for dimensional verification of as-constructed drawings during the time frame of those observations.

PGCP-40, Rev. 0 States:

- 1) Paragraph 4.2: "The Quality Control Supervisor shall be responsible for dimensional verification of installed piping . . ."
- 2) Paragraph 5.3.3: "Return verified drawing and form PGCP-40, Section 3(a) properly signed to the Field Engineer." (This form is the "Notification of Completed Work and Stop Work Order").

- 3) Stop Work Order, Section 3(a): "Obtain and field verify installation drawing, or subsystem drawing indicated. Upon completion of verification, sign and date drawing in appropriate QC approval box on the drawing, sign and return this notice to the Field Engineering Department."

This procedure specifically addresses that the "Stop Work Order" will be signed and accompany the verified drawing. The "Stop Work Order" refers to the as-constructed mylar drawing when it specifies that "the drawing will be signed and dated in the appropriate QC box". The QC Supervisor is responsible for the dimensional verification, and his signature indicates that the verification is complete and correct.

Later and current revisions to these procedures have additional requirements than the revisions referenced here. Therefore, when evaluating these observations, the applicable procedures approved at the time which the work was performed should be referenced.

Upon agreement with this letter please change the status of these observations from "Valid" to "Invalid". Contact Bruce Berglin (Ext. 2347) if further information is required.



D. L. Shamblin
Proj. Construction Superintendent
Braidwood Station

BB/kje
(1290a)

Attachments

cc: M. J. Wallace (1/0)
W. E. Vahle (1/0)
T. E. Quaka (1/0)
D. Fisher-S&L (1/0)
D. Vandergrift (1/0)
R. J. Farr/M. Gorski/B. Berglin (1/0)
File (1/0)

ATTACHMENT

BCAP Memo

Observation Number

405	CSR-R-M-1-046-2
405	CSR-R-M-1-047-2
405	CSR-R-M-1-049-2
405	CSR-R-M-1-050-1
405	CSR-R-M-1-051-1
405	CSR-R-M-1-052-1
405	CSR-R-M-1-053-1
405	CSR-R-M-1-054-1
405	CSR-R-M-1-057-1
405	CSR-R-M-1-058-1
405	CSR-R-M-1-059-1
386	CSR-R-M-1-033-1
386	CSR-R-M-1-034-1
386	CSR-R-M-1-035-1
386	CSR-R-M-1-040-1
371	CSR-R-M-1-002-2
371	CSR-R-M-1-003-2
397	CSR-R-M-1-041-1
385	CSR-R-M-1-025-2
385	CSR-R-M-1-027-1
385	CSR-R-M-1-028-1
385	CSR-R-M-1-030-2
385	CSR-R-M-1-031-1
385	CSR-R-M-1-032-1
377	CSR-R-M-1-004-1
377	CSR-R-M-1-005-1
377	CSR-R-M-1-006-1
377	CSR-R-M-1-007-1
377	CSR-R-M-1-009-1
377	CSR-R-M-1-010-1
377	CSR-R-M-1-014-1
377	CSR-R-M-1-018-2
377	CSR-R-M-1-019-1
377	CSR-R-M-1-020-1
377	CSR-R-M-1-021-1
377	CSR-R-M-1-022-1
377	CSR-R-M-1-023-2
377	CSR-R-M-1-024-2



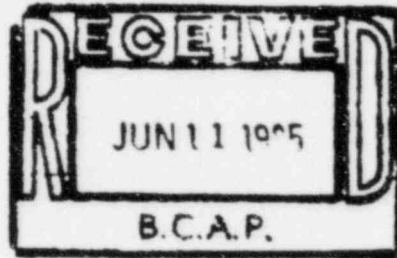
Q67 67.60.1.2
Q67 69.80.53
JAN

FIELD OPERATIONS

EVALUATION
RESEARCH
CORPORATION

800 Oak Ridge Turnpike
Suite 501
Oak Ridge, Tennessee 37830
(615) 482-7973

June 4, 1985
BCAP-261



Commonwealth Edison Company
Braidwood Station
R.R. #1, Box 81
Braceville, IL. 60407

ATTENTION: Mr. N. N. Kaushal

SUBJECT: ERC Observation BCAP-OBS-007

REFERENCES: 1. ERC Letter BCAP-130, dated Jan. 28, 1985.
2. CECO Letter to NRC dated May 6, 1985,
Response to Insp. Reports No.'s 50-455/85-006 and 50-457/85-006
3. BCAP Letter #45, dated May 29, 1985

Gentlemen:

Reference 1 provided the ERC concurrence with BCAP proposed corrective actions to ERC Observation No. BCAP-OBS-007. Reference 2 noted that the (37) BCAP observations would remain valid pending a determination of the existence of documentation to support QC verification of as-constructed drawings. Reference 3 indicated that BCAP instruction CSR-R-M-1 was revised and the results of the re-review of contractor documentation was that the (37) observations are to remain valid.

The corrective action taken by BCAP is considered to be acceptable. This observation is considered closed.

Very truly yours,

John L. Hansel
Project Manager

JLH:WLC:LPA/dlt

cc: T. Maiman
R. L. Byers
N. Smith
IEOG Team
(2) Files
R. N. Gardner
J. G. Kessler



Commonwealth Edison Co.

Braidwood Station
RR 1, Box 81
Braceville, IL 60407
Telephone 815/458-2801

May 29, 1985
BCAP Letter #45

Evaluation Research Corporation
1755 Jefferson Davis Highway, Suite 800
Arlington, VA 22202

Attention: Mr. John Hansel

Gentlemen:

Subject: ERC Observation Number BCAP-OBS-007

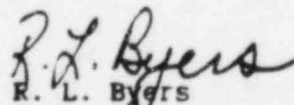
Reference: (1) ERC letter BCAP-130, dated January 28, 1985
(2) CEC Co letter to NRC dated May 6, 1985, Response to
Inspection Reports Nos. 50-456/85-006 and 50-457/85-006

The reference (1) ERC letter concurred with the BCAP proposed corrective actions contained in the BCAP response to ERC Observation Number BCAP-OBS-007. This observation concerned contractor QC acceptance of verification drawings ("red line") for small bore piping.

In accordance with the specified corrective actions, BCAP instruction CSR-R-M-1 was revised on February 1, 1985 and the re-review of the contractor's documentation began shortly thereafter. This re-review identified concerns similar in nature to those identified by the QA surveillance #4151 dated February 14, 1985 regarding certain examples of nonadherence to the contractor procedures. Because of these concerns, BCAP has not performed the final proposed corrective action, which was the invalidation of 37 BCAP observations. As noted in reference (2), these 37 observations will remain valid until a determination can be made as to the existence of acceptance documentation supporting certified QC inspectors verification of the as-constructed drawings.

Because of the above actions that have occurred since the BCAP response to the subject observation on January 25, 1985, we believe that no further corrective action is necessary or appropriate by BCAP. The 37 observations are to remain valid in accordance with reference (2).

Very truly yours,


R. L. Byers

BCAP Assistant Director

RLB/DW:lrw

cc: BCAP File QG 69.60.2.3
QG 69.80.3 ✓

(1621J)



96 64.60 1 3
96 69 80.5
FIELD OPERATIONS

**EVALUATION
RESEARCH
CORPORATION**

800 Oak Ridge Turnpike
Suite 501
Oak Ridge, Tennessee 37830
(615) 482-7973

January 28, 1985
BCAP-130

Commonwealth Edison Company
Braidwood Station
R.R. #1, Box 81
Braceville, IL. 60407

ATTENTION: Mr. N. Kaushal

SUBJECT: ERC Observation Number BCAP-OBS-007

Gentlemen:

We have reviewed your response and proposed corrective action to the subject observation. We concur with your response and corrective action. However, this observation will remain open until the proposed corrective action has been completed and verified.

Should you have any further questions or comments, please call me on extension 2787.

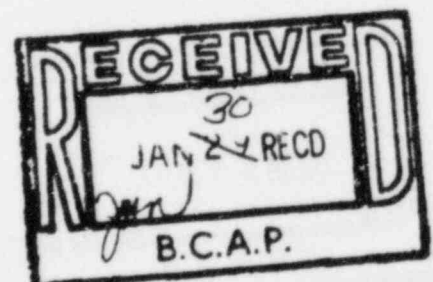
Very truly yours,

RE Hansel for
John L. Hansel
Project Manager

Enclosure

JLH:REH:WLC/dlt

cc: T. Maiman
R. L. Byers
N. Smith
IEOG Team
(2) Files
R. N. Gardner
J. G. Keppler



EVALUATION
RESEARCH
CORPORATION

OBSERVATION REPORT

RECEIVED
JAN 25 1985

EVALUATION RESEARCH CORP.
Observation No. BCAP-OBS-007

Date 1-14-85

To: N. Kaushal
BCAP Director

From: ERC Project Manager

R E Hamfall Hameel 1/14/85
Signature Date

Observation: S & L has responded to several BCAP Observations (See next page) declaring them to be invalid because no "red lined record copy isometric" is required. However, Phillips, Getschow Co. Procedures QCP-B21, Revision 6 and PGCP-40, Revision 3 both require some form of verification drawing to be signed by QC. This is a copy of the installation drawing which has been marked in the field to show actual dimensions and configuration of work completed in the plant for that part of construction. Whether it is called a "red line" drawing, a verification drawing, or a field verified installation drawing is a technicality. The name of the drawing was not the subject of the observations listed below. At issue in these observations is the lack of a signature or initials of a certified QC inspector. For this reason, the following S & L responses to BCAP Observations invalidly have been marked "Invalid".

Signature of Originator

Date

Thayne L. Chase

January 14, 1985

Response (Requested within 30 days of above date.):

See Attached

N. N. Kaushal

Jan 25, 1985

BCAP Director

Date

Response is

☐

Acceptable

☐

Unacceptable

RCA No. _____

Issued

Signature _____

Date _____

ERC Project Manager

CSR-R-M-1-002-2	CSR-R-M-1-030-1
CSR-R-M-1-003-2	CSR-R-M-1-031-1
CSR-R-M-1-004-2	CSR-R-M-1-032-1
CSR-R-M-1-005-2	CSR-R-M-1-033-1
CSR-R-M-1-006-1	CSR-R-M-1-034-1
CSR-R-M-1-007-1	CSR-R-M-1-035-2
CSR-R-M-1-009-1	CSR-R-M-1-040-1
CSR-R-M-1-010-1	CSR-R-M-1-041-1
CSR-R-M-1-014-1	CSR-R-M-1-046-1
CSR-R-M-1-018-2	CSR-R-M-1-047-2
CSR-R-M-1-019-1	CSR-R-M-1-050-1
CSR-R-M-1-020-1	CSR-R-M-1-051-1
CSR-R-M-1-021-1	CSR-R-M-1-052-1
CSR-R-M-1-022-1	CSR-R-M-1-053-1
CSR-R-M-1-023-2	CSR-R-M-1-054-1
CSR-R-M-1-024-2	CSR-R-M-1-057-1
CSR-R-M-1-025-2	CSR-R-M-1-058-1
CSR-R-M-1-027-1	CSR-R-M-1-059-1
CSR-R-M-1-028-1	

DISCUSSION:

During the preparation phase of Documentation Review Checklist, CSR-R-M-1, Rev. 0, "Small Bore Piping Configuration", the PGCO Procedures, QCP-40, Rev. 3 and QCP-B21, Rev. 6, were reviewed and interpreted to require a "QC Signature" on the verification drawing ("Red-Line"). During the subsequent document review activities, several observations were written by the BCAP Inspectors and processed as valid. As a result of these observations, a meeting was held on January 14, 1985 between CECO PCD, S&L, PGCo, and BCAP in which PGCo provided a clarification of the documentation requirements of the above referenced procedures. A QC Signature on the verification drawing was not required. Rather, QC was to sign section 3(a) of the "Stop Work Order", signifying completion, and to sign the QC approval block on the mylar of "As-Constructed" drawing. PCD later issued a memorandum, BR/PCD 85-43, on January 15, 1985 confirming this clarification.

Based upon this clarification and a subsequent review of the PGCo procedures by BCAP, it has been determined that the referenced observations are invalid. The PGCo Procedures do not require that the verification drawings ("Red-Line") require a QC signature. The inspector performs the field verification, marking as necessary on the verification copy and signs the Stop Work Order to signify completion. The Engineering Department then revises the drawing mylar, as necessary, to reflect the marked-up verification copy. The mylar is then resubmitted to the QC organization for review and approval. These QC signatures on the "Stop Work Order" form and the mylar of the "as-constructed" drawing provide adequate quality documentation of Quality Control's Verification of the as-constructed dimensions.

CORRECTIVE ACTIONS:

The QC-signed "Stop Work Order" form is the document which signifies QC acceptance of the "red-line" drawing, and will therefore be the document reviewed by BCAP in lieu of the "red-line" drawing. The Small Bore Piping Configuration Documentation Review Checklist will be revised to reflect this change. Those portions of the document reviews performed to date affected by this revision will be redone using the revised checklist and instructions. The Observations describing the lack of a QC signature on the "red-line" drawing previously processed as valid will be reprocessed as invalid Observations.

TO: MAT
Payne (x-7542)

1 of 3 Below
Depo. of. 103

SCAP OBSERVATION RECORD
Page 1 of 3

1. OBSERVATION NO. CSR-R-G-ELF-XXX-17

PART 1 OBSERVATION IDENTIFICATION & DESCRIPTION			
2. DESCRIPTION OF ITEM (Equipment, Material, Component, Procedure): <u>L.K. Constock Electrical Welding</u>		3. PACKAGE NO. <u>n/a</u>	
4. SYSTEM (if known): <u>n/a</u>		5. CHECKLIST/ITEM NO. <u>n/a</u>	
6. UNIT 1 <input type="checkbox"/>	<u>n/a</u>	UNIT 2 <input type="checkbox"/>	COMMON 0 <input type="checkbox"/>
8. ELEMENT		7. SUPPORT SERVICE REQ. NO. <u>n/a</u>	
<input checked="" type="checkbox"/> CSR <input type="checkbox"/> RPR <input type="checkbox"/> RSCAP		9. OBSERVED DURING: <input type="checkbox"/> Reinspection <input type="checkbox"/> Documentation Review <input checked="" type="checkbox"/> Procedure Review <input type="checkbox"/> Implementation Review <input type="checkbox"/> Other	

10. DESCRIPTION OF OBSERVATION:

See attached sheet(1 page)

11. PREPARED BY:
gmuir 2/27/85
Signature Date

PART 2 OBSERVATION CLARITY, COMPLETENESS, AND ACCURACY REVIEW

12. COMMENTS/CLARIFICATION:

none

13. SUITABLE FOR FURTHER PROCESSING:

YES ☒
NO ☐

14. REVIEWED BY:

gmuir 2/27/85
Signature Date

2 of 3

6-5-8-XXX-17;
CSR-12-~~XXXX~~
Attachment P.1 of 1
gmuw 2/27/85

Subject: Qualification of Inspection Personnel

During the development of CSR checklists and instructions for the review of electrical documentation, it was observed that it was general practice (prior to 6/30/84) within L.K. Comstock to use Level I inspectors to perform and document the performance of inspections. These inspections by Level I inspectors were performed in conjunction with a review and concurrence signature by a Level II inspector on the inspection record.

Example: L.K. Comstock Procedure 4.8.3 Rev. F specifies Level I or Level II certified inspectors to perform the visual inspection of welds (ref. Paragraph 3.24) and requires a Level II inspector to review the inspection record.

Concern: Do Comstock Procedures 4.1.3, 4.13.1, and 4.8.3, in allowing Level I inspectors to implement inspection procedures and perform field inspection, subject to review of the inspection results by a Level II inspector, adequately address the regulatory requirements established by the Braidwood PSAR, Reg. Guide 1.58 Rev. 1, ANSI N45.2.6 - 1978? Do these procedures adequately describe the Level II inspector's validation of Level I inspection procedure implementation?

References:

ANSI N45.2.6 - 1978

L.K. Comstock Procedures 4.1.3 Rev. B, 4.13.1 Rev. C, 4.8.3 Rev. F

383

BCAP OBSERVATION RECORD
Page 2 of 3

15. OBSERVATION NO. CSR-R-G-ELG-XXX-
171

PART 3

EVALUATION & DETERMINATION OF VALIDITY

16. EVALUATION

17. DETERMINATION OF VALIDITY:

☐ INVALID☒ VALID

Observation is deemed valid.

There exists a question concerning the practice of using

Level I inspectors to perform welding inspection and to

accept results. Also, the extent of the Level II review

of results recorded by Level I inspectors may not be

clearly delineated by the Comstock procedures.

18. EVALUATION & DETERMINATION

BY: gmm 2/27/85
Signature Date

19. ACKNOWLEDGED BY:

20. REVIEWED BY:

21. APPROVED BY:

N/A
Signature DateN/A gmm 2/27/85
Signature DateN. N. Kaushal 2/27/85
Signature Date

Below Reps.
Efr. No. 4

BCAP-06
EXHIBIT A
Page 2 of 6
Revision 6

BCAP OBSERVATION RECORD
Page 2 of 3

SHT 35

15. OBSERVATION NO. CSR-R-M-1-001-1

PART 3

EVALUATION & DETERMINATION OF VALIDITY

16. EVALUATION

Parts 1 & 2 of the observation Record Form

were reviewed and found to be

clear, complete and accurately written.

17. DETERMINATION OF VALIDITY:

☐ INVALID

☒ VALID

The observation has been determined to be valid since recording of dimensional deviations of small bore pipe configuration on a copy of the design drawing is a requirement of Sargent and Lundy Spec. F/L 2739 Par. 301.11 implemented by Phillips Getschow Co. procedure QCP-B21. The review was conducted in accordance with procedure BCAP-06 Rev 6 article 4-3-3. As noted above the determination was based on a review of the S&L specified design and Phillips Getschow Co. procedure

18. EVALUATION & DETERMINATION

BY: Donald H. [Signature] 1-8-85
Signature Date

21. APPROVED BY:

N/SS
Signature Date

19. ACKNOWLEDGED BY:

N.A.

Signature Date

20. REVIEWED BY:

A. A. Patters. - 1-9-85

Signature Date

BCAP OBSERVATION RECORD
Page 1 of 3

1. OBSERVATION NO. CSR-R-M-1-001

PART 1 OBSERVATION IDENTIFICATION & DESCRIPTION			
2 DESCRIPTION OF ITEM (Equipment, Material, Component, Procedure): <u>Doc. Review. SD. PIPE. INUG# PG-2537A-118 Rev. A</u>			3. PACKAGE NO. <u>CSR-R-M-1-001</u>
4. SYSTEM (if known): <u>CC</u>			5. CHECKLIST/ITEM NO. <u>CSR-R-M-1-001/2</u>
6. UNIT 1 <input type="checkbox"/>	UNIT 2 <input checked="" type="checkbox"/>	COMMON 0 <input type="checkbox"/>	7. SUPPORT SERVICE REQ NO. <u>N/A</u>
8. ELEMENT <input checked="" type="checkbox"/> CSR <input type="checkbox"/> RPSR <input type="checkbox"/> RSCAP			9. OBSERVED DURING: <input type="checkbox"/> Reinspection <input type="checkbox"/> Procedure Review <input checked="" type="checkbox"/> Documenta- <input type="checkbox"/> Implementation tion Review <input type="checkbox"/> Review <input type="checkbox"/> Other
10. DESCRIPTION OF OBSERVATION:			

① CONTRACTOR COULD NOT PRODUCE A RED-LINED RECORD COPY OF ISOMETRIC LEADING TO THE AS-CONSTRUCTED ISOMETRIC VERIFIED BY A CERTIFIED QUALITY INSPECTOR. ② AS-CONSTRUCTED ISOMETRIC WAS APPROVED BY INSPECTOR PRIOR TO CERTIFICATION DATE

APPROVED 8-20-83 CERTIFIED 10-17-83

11. PREPARED BY:
[Signature] 12/1/83
Signature Date

PART 2
OBSERVATION CLARITY, COMPLETENESS, AND ACCURACY REVIEW
12. COMMENTS/CLARIFICATION: NONE

13. SUITABLE FOR FURTHER PROCESSING:

YES ☒
NO ☐

14. REVIEWED BY:

[Signature] 12-1-83
Signature Date

Flow Reps.
Ref. No. 5

SHT 161

BCAP OBSERVATION RECORD

Page 1 of 3

1. OBSERVATION NO. CSR-R-M-1-083-1

PART 1		OBSERVATION IDENTIFICATION & DESCRIPTION	
2. DESCRIPTION OF ITEM (Equipment, Material, Component, Procedure): <u>SM. BORE PIPE DOC. REVIEW, DWG. # PG-2539A-124 REV B</u>		3. PACKAGE NO. <u>CSR-R-M-1-083</u>	
4. SYSTEM (if known): <u>SI</u>		5. CHECKLIST/ITEM NO. <u>CSR-R-M-1-083/3</u>	
6. UNIT 1 <input checked="" type="checkbox"/>	UNIT 2 <input type="checkbox"/>	7. SUPPORT SERVICE REQ. NO. <u>N/A</u>	
8. ELEMENT <input checked="" type="checkbox"/> CSR <input type="checkbox"/> RPSR <input type="checkbox"/> RSCAP		9. OBSERVED DURING: <input type="checkbox"/> Procedure Review <input type="checkbox"/> Reinspection <input type="checkbox"/> Implementation <input checked="" type="checkbox"/> Documentation Review <input type="checkbox"/> Review <input type="checkbox"/> Other	
10. DESCRIPTION OF OBSERVATION:			

STOP WORK ORDER WAS APPROVED 3-2-84 BY A CERTIFIED

QC TECHNICIAN, CHECKLIST INSTRUCTIONS REQUIRE A LEVEL II

QC PERSONNEL ... NO LEVEL OF CERTIFICATION WAS INDICATED

FOR A QC TECHNICIAN.

11. PREPARED BY:
[Signature] 2/20/85
Signature Date

PART 2. OBSERVATION CLARITY, COMPLETENESS, AND ACCURACY REVIEW

12. COMMENTS/CLARIFICATION: NONE

13. SUITABLE FOR FURTHER PROCESSING:

YES ☒
NO ☐

14. REVIEWED BY:

[Signature] 2-20-85
Signature Date

SH7 162

BCAP OBSERVATION RECORD
Page 2 of 3

15. OBSERVATION NO. CSL-R-M-1-083-1

PART 3		EVALUATION & DETERMINATION OF VALIDITY	
16. EVALUATION <u>Parts 1 & 2 of Observation</u> <u>Record Form were reviewed</u> <u>and found to be clear and complete</u> <u>The observation has been determined to be</u> <u>valid based on a review of the Sargent</u> <u>and Lundy design and the Phillips, Getschow</u> <u>Procedures.</u> <u>The review was conducted in accordance with</u> <u>Procedure BCAP - 06, Rev. 7, Art 4.3.3.</u>	17. DETERMINATION OF VALIDITY: <input type="checkbox"/> INVALID <input checked="" type="checkbox"/> VALID		
19. ACKNOWLEDGED BY: <u>N.A.</u> Signature _____ Date _____		20. REVIEWED BY: <u>A. Mather -</u> <u>4/8/85</u> Signature _____ Date _____	
		18. EVALUATION & DETERMINATION BY: <u>Col 2/16/85</u> <u>Jed Crowe</u> <u>3/19/86</u> Signature _____ Date _____	
		21. APPROVED BY: <u>NA</u> Signature _____ Date _____	

Orlow Depos.
Ex. No. 6

SHT 36

BCAP OBSERVATION RECORD

Page 1 of 3

1. OBSERVATION NO. CSR-R-M-1-0

PART 1		OBSERVATION IDENTIFICATION & DESCRIPTION	
2. DESCRIPTION OF ITEM (Equipment, Material, Component, Procedure):		3. PACKAGE NO.	
<u>PG 2545A - 16 R/A Ø FPG 6A - 1 1/2"</u>		<u>CSR-R-M-1-002</u>	
4. SYSTEM (if known):		5. CHECKLIST/ITEM NO.	
<u>EP</u>		<u>CSR-R-M-1-002-2</u>	
6. UNIT 1 <input checked="" type="checkbox"/>	UNIT 2 <input type="checkbox"/>	COMMON 0 <input type="checkbox"/>	7. SUPPORT SERVICE REQ NO. <u>N/A</u>
8. ELEMENT			9. OBSERVED DURING:
<input checked="" type="checkbox"/> CSR <input type="checkbox"/> RPSR <input type="checkbox"/> RSCAP			<input type="checkbox"/> Reinspection
			<input checked="" type="checkbox"/> Documentation Review
			<input type="checkbox"/> Procedure Review
			<input type="checkbox"/> Implementation
			<input type="checkbox"/> Review
			<input type="checkbox"/> Other

10. DESCRIPTION OF OBSERVATION:

CONTRACTOR COULD NOT PRODUCE A RED-LINE RECORD COPY OF ISOMETRIC LEADING TO THE AS-CONSTRUCTED ISOMETRIC VERIFIED BY A CERTIFIED QUALITY INSPECTOR

11. PREPARED BY:

[Signature]
Signature

PART 2

OBSERVATION CLARITY, COMPLETENESS, AND ACCURACY REVIEW

12. COMMENTS/CLARIFICATION: NONE

13. SUITABLE FOR FURTHER PROCESSING:

YES ☒
NO ☐

14. REVIEWED BY:

[Signature] 12-11-84
Signature Date

BCAP OBSERVATION RECORD
Page 2 of 3

547 37

15. OBSERVATION NO. CSR-B-M-1-002-2

PART 3	EVALUATION & DETERMINATION OF VALIDITY
16. EVALUATION <u>Parts 1 & 2 of the observation Record Form</u> <u>were reviewed and found to be</u> <u>clear, complete and accurately written.</u>	17. DETERMINATION OF VALIDITY: <input type="checkbox"/> INVALID <input checked="" type="checkbox"/> VALID

The observation has been determined to be valid since
recording of dimensional deviations of small bore pipe
configuration on a copy of the design drawing is a
requirement of Sargent and Lundy Spec. F/L 2739 Par.
301.11 implemented by Phillips Getschow Co. procedure
QCF-B21. The review was conducted in accordance with
procedure BCAP-06 Rev 6 article 4-3-3. As noted above
the determination was based on a review of the S&L
specified design and Phillips Getschow Co. procedure

19. ACKNOWLEDGED BY:		20. REVIEWED BY:		18. EVALUATION & DETERMINATION	
<u>N.A.</u>		<u>W. P. H. B. O. N.</u>	<u>12-18-84</u>	<u>[Signature]</u>	<u>12-17-84</u>
Signature	Date	Signature	Date	Signature	Date
				21. APPROVED BY:	
				<u>[Signature]</u>	<u>12/21/84</u>
				Signature	Date

Duplicate
Original

BCAP OBSERVATION RECORD

SHT 38

Page 3 of 3

22. OBSERVATION NO. CSR-R-M-1-002-02

PART 4 EVALUATION OF DISCREPANCY/CONCERN

23. EVALUATION (Include Root Cause):

There is no requirement
for a "red-lined record copy
isometric", as per S&L

☒ 24 INVALID DISCREPANCY/CONCERN

☐ VALID DISCREPANCY/CONCERN

☐ 25 Not Design Significant

☐ Design Significant

Specification F/L-2739, Article 301.11 and per
Phillips Gatschow Procedures RCP-B21, Rev. 6
and PGCP-40, Rev. 3.

26. S & L Calc. #: N/A

27. PREPARED BY:

KR [Signature]

S&L Signature

12/27/84

Date

28. APPROVED BY:

[Signature]

S&L Signature

2/27/85

Date

PART 5

BCAP REVIEW

29. COMMENTS, TRENDING, PROGRAM RECOMMENDATION:

30. REVIEWED BY:

Signature

Date

31. ELEMENT SUPERVISOR:

Signature

Date

REQUIRED Q.A. REVIEW (DATE): _____

Orlov Depas.
Ext. no. 7

SITE QUALITY ASSURANCE

SHEET 1 OF 1

FOR INFORMATION

DOCUMENT REVIEW SHEET

FILE CODE: 52.1

TO: ~~D. BERG~~

ACKNOWLEDGEMENT REQUIRED: YES/NO

P.C.D.
Organization

BY (DATE): _____

DOCUMENT (NO., REV., TITLE, ISSUE DATE, AS APPROPRIATE) _____

BCAP CEC Co NCR 6124 (original)

DOCUMENT REVISION AND RESUBMITTAL DUE BY (DATE): _____

ITEM NO.	SECTION/ PARA.	COMMENTS	ACKNOWLEDGEMENT (RESPONSE)
1.	16, 17	<p>There appears to be 3 generic problems/deficiencies resulting from this population</p> <ol style="list-style-type: none">1. Isometrics approved by personnel prior to cert. date.2. Stop work orders approved prior to cert dates3. Red line drawings not being located. (Should specific C/A be to accept as-is) <p>Please address C/A and ATPR for each of these.</p>	<p><u>Chris</u> Please talk to Steve Hunsader regarding this...</p> <ol style="list-style-type: none">1. Procedures didn't require certification2. Procedures didn't require certification3. Redline dngs weren't required to be maintained <p>No changes required.</p> <p>Changes made RCB</p>



PREPARED BY: R.C. Belford

ACKNOWLEDGEMENT BY: RCB

DATE: 12-26-85

DATE: 1-6-86

REVIEW/APPROVAL: T. Chaker

Q.A. ACCEPTANCE: R.C. Belford

DATE: 12/26/85

DATE: 1-13-86

CC: _____

SQI-03
Attachment 6.7

DATE 2-11-86

TO: Mr. D. L. Shamblin

SUBJECT: Non-Conformance Reports Braidwood Station

In accordance with Quality Assurance Procedure #15-1,
NCR # 6124 w/ADDENDUM 1 is being transmitted for
completion of final disposition.

D. A. Quaka 2/11/86
T. E. Quaka
Q. A. Superintendent
Braidwood Station

TEQ (0013F)

cc: Q. A. File/52.1
Q. A. Scope Operator

DATE JANUARY 13, 1986

RECEIVED
PFE

JAN 20 1986

TO: ~~Mr. [REDACTED]~~

SUBJECT: Non-Conformance Reports
Braidwood Station
S & L Specification # L-2739

In accordance with Quality Assurance Procedure #15-1, copies of
NCR # 6124 w/Appendix 1 are being transmitted for
review, information and resolution, if needed.

D.A. Hoffer 1/14/86
T. E. Quaka
Q. A. Superintendent
Braidwood Station

TEQ (0012F)

cc: D. Elias
W. C. Cleff
D. L. Shamblin
E. L. Martin (excluding observations for BCAP NCRs)
Q. A. File 52.1
Contractor, if applicable PHILLIPS, GETSLOW Co.

NONCONFORMANCE REPORT FOR CONSTRUCTION AND TEST

Commercial Edition

Station or Site Location BraidwoodNCR NO. 6124
SHEET 1 OF 4

PART 1

3. DESCRIPTION OF ITEM (EQUIPMENT, MATERIAL, COMPONENT, PART)

S.B. Pipe Configuration CSR-R-M-01 (Documentation)

4. ITEM NO (PART NO., SER NO., EQUIP NO.)

See Addendum 001

5. SYSTEM AND UNIT

See Addendum 001

6. MANUFACTURE/SUPPLIER

P.G. CO.

8. CATEGORY

☐ DEFECT
☐ FAILURE

DAMAGE

☐ DRG NONCONFORMANCE
☐ SPEC NONCONFORMANCE

UNSAT CONDITION

☐ DOCUMENTATION

9. OBSERVED DURING

☐ SUPPLIER INSPECTION
☒ CONSTRUCTION☐ CONTRACTOR
☐ TEST

10. DESCRIPTION OF NONCONFORMANCE

BCAP Observations related toCNS Code Related Yes ☒ No ☐

11. P.O. NO. & P.O. ITEM NO.

194349

12. HOLD TAG NO.

See Addenda

13. WORK REQUEST NO.

N.A.

S.B. Pipe Config. Documentation Reviews are listed on addenda to this NCR. It appears that some documentation is incomplete, contains minor errors, etc. and is not in total compliance with approved procedures and design documents.

14. SIGNATURES

NAME	DEPARTMENT	DATE
<u>BBB</u>	<u>PCD</u>	<u>1-10-86</u>
<u>R. B. B.</u>	<u>PCD</u>	<u>1/10/86</u>
<u>D. B. B.</u>	<u>QA</u>	<u>1/19/86</u>
<u>D. B. B.</u>	<u>PD</u>	<u>1/10/86</u>

10a. WORK LIMITATIONS: ☒ WORK CAN PROCEED ☐ WORK CANNOT PROCEED ☐ OTHER LIMITATIONSEXPLAIN WORK LIMITATION: As deemed appropriate on addenda to this NCR.

10b. DATE EVALUATION AND DISPOSITION REQUIRED BY:

EVALUATION & DISPOSITION

PART 2

15. CAUSE OF NONCONFORMANCE

Contractor inspection personnel did not perform documentation in strict conformance with specification and procedures. In some cases Documentation was not found for the installation.

16. ACTION REQUIRED TO CORRECT THE NONCONFORMANCE

Accept-As-Is(Refer to sheet 2 for justification)

10CFR50.55(a) Reports

Required Yes ☐ No ☒

10CFR51.101 Notification

Required Yes ☐ No ☒

Name Date Time

NRC

Designated OECa Officer

17. CORRECTIVE ACTION REQUIRED TO PREVENT REOCCURRENCE OF NONCONFORMANCE (WRITE S.A. IF NOT KNOWN)

Not required - P.G. CO. procedure PGCP-40 has already been revised (Rev. 5) and implemented (8-23-85).

18. REVIEW AND APPROVAL

REVIEWED BY	DATE	APPROVED BY	DATE	REVIEWED BY	DATE
<u>N. N. Karahal</u>	<u>1/30/86</u>	<u>J. C. Carr</u>	<u>4/6/86</u>	<u>R. B. B.</u>	<u>2-2-86</u>
ENG. PROJ. ENG. DATE		ENG. DEPT. HEAD DATE		QUALITY ASSURANCE DATE	

19. DESCRIPTION OF ACTIONS TAKEN TO CORRECT THE NONCONFORMANCE

FORM _____ (SHEET)

20. DESCRIPTION OF CORRECTIVE ACTION INITIATED TO PREVENT REOCCURRENCE

21. DISPOSITION COMPLETED BY

22. DISPOSITION COMPLETION APPROVED BY

NAME	DEPARTMENT	DATE	PROJECT OR STATION CONSTRUCTION SUPV.	DATE
------	------------	------	---------------------------------------	------

23. CORRECTIVE ACTION (CA) REVIEW

BASIS:

☐ CA NOT REQUIRED☐ CA ADEQUATE☐ ADDITIONAL CA REQUIRED

ACTION ITEM NO:

APPROVED BY:

SITE SA SUPV. OR PEA. SA SUPV.

DATE

16. Action Required to Correct the Nonconformance:

Specific corrective actions are shown on addendums to this NCR.
Three (3) generic items were addressed in this nonconformance report.

1. As-construct isometric approved by personnel prior to certification date.
2. Stop Work Orders approved by personnel prior to certification date.
3. As-construct redline drawings not being located.

ACCEPT-AS-IS: Items 1 through 3 above based on the following:

1. Prior to PGCP-40, Revision 5, implemented on 8/23/85, specific instructions and certification requirements were not specified in the contractor's procedures regarding QC signature on the as-construct isometric drawings, QC signature on the Stop Work Order, and the requirement to retain the as-construct redline drawing.
2. No further action to prevent recurrence is needed as specific instructions are now included in PGCo procedure PGCP-40, Rev. 5, implemented 8/23/85.
3. Past work is acceptable (prior to implementation of PGCP-40, Rev. 5 on 8/23/85) based on the following:
 1. No requirement exists which required the acquisition of as-construct data to be performed by Level II inspectors. the PGCo procedure assigns these activities to the Quality Control Department to provide organization and consistency for the completion of these activities.
 2. Field QC personnel utilized to obtain and verify as-construct data were, at a minimum, trained to PGCP-40, or were trainees, participated in these activities and supervised by a QC Level II. The card index maintained by field QC for each safety related SWO indicates the verification drawing that was assigned to the QC foreman who was a certified QC Level II Inspector.
 3. An independent field verification of as-construct drawing dimensions by BCAP (Population Sample: CSR-I-M-01 & 04) found the installations to be technically acceptable. Deficiencies identified were of a minor nature indicated that the work done was performed by qualified personnel and resulted in valid data.
 4. It is not a requirement that a certified Level II Inspector sign the SWO. The SWO was/is utilized as a "transmittal" and "status sheet" to indicate the as-construct activities have been completed.

NCR - 6124

SHT 3 of 4

CONSTRUCTION DEFICIENCY EVALUATION

Part 1	DESCRIPTION	S.B. PIPE CONFIGURATION DOCUMENTATION	CSR-R-M-01- ADDENDUMS (X)
Describe The Deficiency (Attach references)			
<p>BCAP OBSERVATIONS RELATED TO S.B. PIPE CONFIGURATION</p> <p>DOCUMENT REVIEWS ARE LISTED ON ADDENDUMS TO THIS A</p> <p>IT APPEARS THAT SOME DOCUMENTATION IS INCOMPLETE,</p> <p>CONTAINS MINOR ERRORS, ETC, AND IS NOT IN TOTAL</p> <p>COMPLIANCE WITH APPROVED PROCEDURES & DESIGN DOCUMEN</p>			
Part 2	EVALUATION		
2A Safety Impact			
<p>YES NO</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Does this deficiency, whether or not safety related, effect safe operati</p> <p>of the facility.</p>			
2B Significance			
<p>YES NO</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Is a breakdown in QA Program apparent which requires \$100,000 in resource</p> <p>to re-establish assurance of program?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Are expenditures of \$100,000 necessary to <u>rework</u> structures, systems,</p> <p>components into compliance with approved design?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Are expenditures of \$100,000 necessary to <u>repair</u> structures, systems,</p> <p>components into compliance with approved design?</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Is approved final design inadequate to assure compliance with SAR and</p> <p>construction permit?</p>			

NCR 6124
SMT 4 OF 4

YES	NO	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	During Installation/Testing is it apparent that a structure, system, component supplied by others can not meet the required performance Specifications and should be reported (10CFR21) other users? (i.e. Potential Industry Deficiency)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does <u>Inadequate</u> Management review/corrective action exist which ignores significant adverse trends?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Do pre-operational or start-up test results determine a system that does not meet safety analysis report or technical specification requirements?

Part 3	REPORTABILITY OF 50.55a NOTIFICATION
--------	--------------------------------------

If the answer to Part 2A is Yes and any answer in Part 2B is Yes, this deficiency shall be reported to Nuclear Regulatory Commission Region III Headquarters.

☒ Items not reportable

☐ Items reported to _____ date _____
NRC Region III

Evaluated/Reported by B. B. B. date 12-18-85
Commonwealth Edison

Date 12-18-85

Braidwood Station - Units 1 & 2
Nonconformance Report No. 6124 Addendum No. 001

Mr. T. E. Quaka:

This package consists of additional BCAP Discrepancies/Concerns which should be included as a part of Engineering evaluation of MCR # 6124. The person observing the items are as noted in the Addendum. The nonconforming condition was verified by B. D. BERGLIN. Work limitations, the cause of the nonconformance action required to prevent recurrence, and the 50.55(e) evaluation contained in the Addendum are the same as those noted in the original MCR unless specifically noted otherwise.

Please forward to Engineering Department for evaluation of this Addendum and the proposed corrective actions.



D. L. Shamblin
D. L. Shamblin
Proj. Construction Superintendent
Braidwood Station

FINAL ADDENDUM

NCR No. 6124Addendum No. 001Sheet 1 of 165

PLD-28

EXHIBIT B

Population No. & Name: CSR-R-M-1 S.B. PIPE CONFIGURATIONRevision: 0

ITEM NO: <u>PG-2537A-118</u>	SYSTEM: <u>CC</u>	UNIT: <u>2</u>	HOLD ENG(S): <u>N/A Doc Def (Txe)</u>
OBSERVATIONS	PROPOSED CORRECTIVE ACTION		
1. <u>CSR-R-M-1-001-1</u> Pages <u>34</u> to <u>35</u>	1. <u>ACCEPT-AS-IS</u> <u>REFER TO JUSTIFICATION</u> <u>ON NCR-6124.</u>		
2. _____ Pages _____ to _____	2. _____		
3. _____ Pages _____ to _____	3. _____		
4. _____ Pages _____ to _____	4. _____		
5. _____ Pages _____ to _____	5. _____		

CORRECTIVE ACTION COMPLETE (PCD)

CORRECTIVE ACTION REVIEWED (QA)

Name

Date

Name

Date

ITEM NO: <u>PG-2545A-16</u>	SYSTEM: <u>FP</u>	UNIT: <u>1</u>	HOLD ENG(S): <u>N/A</u>
OBSERVATIONS	PROPOSED CORRECTIVE ACTION		
1. <u>CSR-R-M-2-002-2</u> Pages <u>36</u> to <u>38</u>	1. <u>ACCEPT-AS-IS</u> <u>REFER TO JUSTIFICATION</u> <u>ON NCR-6124.</u>		
2. _____ Pages _____ to _____	2. _____		
3. _____ Pages _____ to _____	3. _____		
4. _____ Pages _____ to _____	4. _____		
5. _____ Pages _____ to _____	5. _____		

CORRECTIVE ACTION COMPLETE (PCD)

CORRECTIVE ACTION REVIEWED (QA)

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