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

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4 IN THE MATTER OF:)
 5)
 6 TEXAS UTILITIES ELECTRIC)
 7 COMPANY, ET AL)
 8)
 9 (COMANCHE PEAK STEAM)
 10 ELECTRIC STATION, UNITS)
 11 1 AND 2))

DOCKET NOS.
 50-445 06-2
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12 PREFILED TESTIMONY OF
 13 C. THOMAS BRANDT
 14 OCTOBER 3, 1984

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 17 PREFILED TESTIMONY OF C. THOMAS BRANDT, taken on
 18 the 3rd day of October 1984, in the above-styled and
 19 numbered cause, at Ramada Inn located at Beach
 20 Street and Interstate 30, in the City of Fort Worth,
 21 County of Tarrant and State of Texas, before Janet
 22 E. Schaffer, a Certified Shorthand Reporter in and
 23 for the State of Texas.

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APPEARANCES:

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BY: Bruce L. Downey, Esq.

APPEARING FOR APPLICANTS

1 C. THOMAS BRANDT,

2 the witness hereinbefore named, being first duly
3 cautioned and sworn to testify the truth the whole
4 truth and nothing but the truth, testified on his
5 oath as follows:

6 EXAMINATION

7 BY MR. DOWNEY:

8 Q. Mr. Brandt, do the travelers that you have
9 produced in this proceeding represent the travelers
10 that correspond to the fabrication and installation
11 of the liner plate for the refueling cavity for
12 reactor Unit 2 at Comanche Peak?

13 A. Yes, they do.

14 Q. And does each traveler correspond to a
15 single weld made in the process of fabricating and
16 installing that liner plate?

17 A. Yes.

18 Q. And do the travelers as a group correspond
19 to different types of welds made in the process of
20 fabricating and installing that liner plate?

21 A. Yes. There are several different types of
22 welds involved.

23 Q. Mr. Brandt, would you give some examples of
24 the types of welds made in the fabrication and
25 installation of this liner plate?

1 A. Examples would include plate to plate,
2 plate to angle, angle to angle, plate to pipe, embed
3 to plate. Those are some examples.

4 Q. Mr. Brandt, when you say the traveler
5 represents a plate-to-plate weld, would you describe
6 that weld?

7 A. Yes. This would be a weld adjoining two of
8 the large stainless steel plates, essentially
9 forming a seam.

10 Q. And when you referenced a plate-to-angle
11 weld, what kind of weld is that?

12 A. This would be one of these large stainless
13 steel plates to an angle, either at the side, the
14 corner, the top or the bottom of the pool.

15 Q. And when you mentioned an angle-to-angle
16 weld, what type of weld is that?

17 A. This would be a splice between two
18 different angles.

19 Q. Again, would these occur at the corners or
20 at the --

21 A. The top or the bottom.

22 Q. Mr. Brandt, when you mentioned a
23 plate-to-pipe weld, what kind of weld is that?

24 A. This would be a pipe welded on to the plate
25 using a fillet weld.

1 Q. And when you identified an embed-to-plate
2 weld, what kind of weld is that?

3 A. There were embeds which were to be placed
4 in the concrete. There were cutouts made in the
5 plates themselves to weld these embeds into and
6 that's part of the pressure boundary. In some cases
7 these embeds are welded to the plate utilizing a
8 full penetration weld and some cases they're welded
9 to the plate using a full penetration weld and a
10 fillet weld.

11 Q. And Mr. Brandt, did the number and type of
12 inspections performed by QC depend on the type of
13 weld that's being inspected?

14 A. Yes, it does.

15 Q. Mr. Brandt, you've testified that in many
16 cases the wrong traveler form was used to document
17 the construction and inspection activity with
18 respect to these welds. Is that a correct
19 characterization of your prior testimony?

20 A. Yes, it is.

21 Q. And when this matter was brought to your
22 attention, what were your principal concerns as a QC
23 supervisor at Comanche Peak?

24 A. I wanted to ensure that the procedurally
25 required inspections could be verified as having

1 been performed through objective evidence of the
2 performance of the inspections. In cases where such
3 evidence could not be found, I wanted to ensure that
4 appropriate deficiency paper was initiated to
5 describe the missing documentation.

6 Q. To the best of your knowledge, has that
7 objective been accomplished?

8 A. Yes, it has.

9 Q. Mr. Brandt, are you aware that the
10 intervenor in this proceeding has made numerous
11 allegations concerning alleged deficiencies in the
12 travelers that you have produced for the board?

13 A. Yes, I am.

14 Q. Mr. Brandt, I'd like to take you through
15 each of the traveler packages where such allegations
16 have been made and ask you some questions about
17 these allegations. And for orderliness, we'll start
18 and do these in numerical order.

19 Do you have before you now traveler package
20 2-A?

21 A. Yes, I do.

22 Q. Mr. Brandt, are you aware that in a
23 memorandum filed in this proceeding on September 27,
24 1984, the intervenor alleged that traveler package
25 2-A is deficient because certain documentation is

1 missing from the package and because the wrong
2 traveler form was used?

3 A. Yes, I am.

4 Q. Mr. Brandt, what kind of traveler form was
5 used for weld 2-A?

6 A. It was the eight-line form.

7 Q. Was this the proper form to use at the time
8 this package was initiated?

9 A. Yes, it is.

10 Q. And so when CASE alleges that the
11 eight-line traveler form was improperly used in 1978
12 and '79, that's an error; is that correct?

13 A. That's true.

14 Q. Which procedure required the use of this
15 particular traveler form in the period during which
16 this traveler package was issued?

17 A. This eight-line form was required by
18 interim change notice number 3 to CCP-38, which is
19 dated April 18th, 1979, and is referenced in the QC
20 inspection procedure QI-QAP 10.1-4 Rev. 0, dated
21 January 5th, 1979.

22 Q. So your testimony is that this traveler
23 package was initiated using the correct form?

24 A. Yes, it is.

25 Q. And when CASE alleged in its memorandum

1 dated September 27, 1984, that the wrong traveler
2 package, the wrong form, was used in this traveler
3 package, that's incorrect?

4 A. Yes.

5 Q. Now, Mr. Brandt, returning to the
6 allegation that there is documentation missing from
7 this traveler package, what is your understanding of
8 that allegation?

9 A. It's my understanding from intervenor's
10 memorandum that intervenor contends that the VT, PT
11 and VB test reports are missing.

12 Q. Mr. Brandt, with respect to Step 1 of the
13 traveler, has that inspection been performed?

14 A. Yes, it has.

15 Q. Is any documentation required other than
16 the signature of the inspector to document that
17 inspection?

18 A. No, it's not.

19 Q. Mr. Brandt, I observe that for Steps 2
20 through 6 on the eight-line traveler 2-A the lines
21 are marked "NA". Does that stand for Not Applicable?

22 A. Yes, it does. As the traveler is marked on
23 the top, embed to plate number 824, the embed to
24 plate welds do not have a leak chase channel, so
25 Steps 2 through 6 are not applicable.

1 Q. And has there been a final inspection of
2 this weld?

3 A. No, there has not.

4 Q. And will this traveler package be complete
5 prior to the performance of that final inspection?

6 A. No, it will not.

7 Q. Is this weld still in process?

8 A. Yes, it is.

9 Q. Based on your review of this package, is
10 there any documentation missing?

11 A. No. All documentation required for the
12 current status of the process is in the package.

13 Q. Mr. Brandt, are you aware that in the
14 memorandum filed September 27th, 1984, CASE alleged
15 a deficiency in this traveler package, that is
16 package 2-A, because an inspection was performed
17 before weld rod had been issued?

18 A. Yes.

19 Q. And in fact, was an inspection performed
20 before weld rod was issued?

21 A. No. There's nothing to indicate to me that
22 there was an inspection performed. I might explain
23 the front page of the traveler clearly indicates
24 that WMR was used to issue rod for the initial
25 fit-up and cleanliness. WMR's were the predecessor

1 to the WFML; changeover from WMR's to the WFML took
2 place sometime in 1979. There's no reason to
3 believe, for me to believe, that this WMR was not
4 issued prior to May 7th, 1979, which was the date of
5 the first inspection on this weld.

6 Q. Mr. Brandt, would you please refer to
7 traveler package number 4?

8 A. Okay.

9 Q. Mr. Brandt, are you aware that in the
10 handwritten list of allegations served on the
11 applicant during the hearings in this proceeding and
12 in the transcript of the hearing for September 18
13 the intervenor alleges that this traveler package is
14 deficient because line 5 of the traveler was marked
15 "Sat", but there is no inspector signature or date?

16 A. Yes, I am.

17 Q. Mr. Brandt, is that in any way a deficiency
18 in the package?

19 A. No, it's not.

20 Q. Why not?

21 A. I have no idea who wrote the "Sat" on line
22 5 of the traveler. However, the "Sat" serves
23 absolutely no purpose there without an inspector
24 signature. The current status of this weld is still
25 in process; that is, it has not received final

1 visual inspection of the inside weld; it has not
2 received a liquid penetrant examination and it has
3 not been vacuum boxed; the weld is still in process.
4 The final visual inspection of the inside weld is
5 yet to occur.

6 Q. And it's only when that inspection occurs
7 and an inspector signs and dates the traveler that
8 the line 5 of this traveler package takes on any
9 significance?

10 A. That's true.

11 Q. Mr. Brandt, would you please refer to
12 traveler package number 6. Are you aware that in
13 the handwritten list served on applicant in this
14 proceeding and in the transcript in the hearing for
15 September 18, 1984, the intervenor has alleged that
16 there's a deficiency in this package because line 5
17 of the package was marked "Sat" and there's no
18 inspector's signature or date on that line?

19 A. Yes, I am.

20 Q. Mr. Brandt, is that a deficiency in this
21 package?

22 A. No. For the same reasons that I described
23 in weld 4, it's not of concern.

24 Q. Mr. Brandt, are you aware that in the
25 handwritten list served on applicant in this

1 proceeding and the transcript of the hearing for
2 September 18 and in the memorandum served on
3 applicant on September 27th, 1984, the intervenor
4 alleged a deficiency in this package because of the
5 way in which line 1 of traveler package 6 is signed?

6 A. Yes, I am.

7 Q. Mr. Brandt, what inspection or inspections
8 does line 1 represent in this weld package?

9 A. The signature on line 1 by Mr. Cole dated
10 March 24th, 1980, indicates the fit-up and
11 cleanliness of the inside weld. The fit-up and
12 cleanliness of the outside weld is substantiated by
13 the existence of a chit which is attached to the
14 package signed by Larry Wilkerson, dated September
15 12th, 1978, which reads first fit-up and cleanliness
16 of plate to plate.

17 Q. Based on your review of traveler package 6,
18 is it your judgment that cleanliness and fit-up
19 inspections were conducted for both the inside and
20 outside weld?

21 A. Yes, it is.

22 Q. Based on your review of this package, are
23 there any deficiencies as a result of the way in
24 which line 1 was signed?

25 A. No. The package contains objective

1 evidence substantiating that both cleanliness and
2 fit-up inspections were performed.

3 Q. Mr. Brandt, would you please refer to
4 traveler package number 7. Are you aware that in
5 the handwritten list served on applicant in this
6 proceeding, the transcript of the hearing for
7 September 18 and the memorandum served on applicant
8 on September 27, 1984, intervenor alleges that this
9 package is deficient because of the way in which
10 line 1 of the traveler is signed?

11 A. Yes, I am.

12 Q. Mr. Brandt, would you please review the
13 package and state whether there's any impropriety in
14 the way in which line number 1 is signed in this
15 package?

16 A. No, there is not. But to understand this
17 weld, you have to look at the weld description,
18 which indicates that it's a plate to a pipe weld,
19 which is the fillet weld. It's not a two-sided weld
20 as the seam welds are, in that the fit-up and
21 cleanliness only occurs once. Here the fit-up and
22 cleanliness inspection was signed off on line 1 by
23 Mr. McCoy on February 1, 1979. This inspection is
24 for the fit-up of the fillet weld that attaches the
25 pipe to the plate.

1 Q. Mr. Brandt, are you aware that in
2 handwritten list of allegations and the transcript
3 of the hearing of September 18 and in the memorandum
4 dated September 27th, the intervenor has alleged
5 that there's documentation missing from traveler
6 package number 7?

7 A. Yes, I am.

8 Q. Mr. Brandt, for traveler package number 7
9 what inspections have been performed?

10 A. The fit-up and cleanliness for the fillet
11 weld and the final visual inspection of that fillet
12 weld.

13 Q. And would you please review the package to
14 see if any documentation with respect to those
15 inspections is missing from the package?

16 A. Per procedure chits were required for the
17 fit-up and final VT inspections; these are not in
18 the traveler package, but both inspections are
19 documented on the face of the traveler.

20 Q. Mr. Brandt, would you please refer to
21 traveler package number 8. What kind of weld is
22 represented by traveler package number 8?

23 A. It's a fillet weld between a flange and a
24 pipe.

25 Q. Mr. Brandt, are you aware that in the

1 handwritten list of allegations and the transcript
2 of the hearing September 18, 1984, and in the
3 memorandum served on the applicant on September 27th,
4 the intervenor alleges that there was a deficiency
5 in this package because of the way in which line 1
6 of the traveler is signed?

7 A. Yes, I am.

8 Q. Mr. Brandt, in your judgment, is there a
9 deficiency in the way in which line 1 is signed?

10 A. No, there's not, for the same reasons as I
11 described on weld number 7. This is a fillet weld.
12 There's only one fit-up required. It's clear that
13 the signature of Mr. Wilkerson is for that fit-up.

14 Q. Mr. Brandt, would you please refer to
15 traveler package number ten?

16 A. Yes.

17 Q. Are you aware that in the handwritten list
18 of allegations and in the memorandum filed on
19 September 27 intervenor has alleged that this
20 package is deficient because line 5 of the traveler
21 is marked "Sat" without an inspector's signature and
22 date?

23 A. Yes, I am.

24 Q. Mr. Brandt, is that a deficiency in this
25 package?

1 A. No, it's not.

2 Q. Why not?

3 A. For the same reasons I described on welds 4
4 and 6 previously.

5 Q. Mr. Brandt, would you please refer to
6 traveler package number 14.

7 A. Yes.

8 Q. Mr. Brandt, are you aware that in the
9 handwritten list of allegations and in the
10 transcript of the hearing for September 18
11 intervenor alleged that this package is deficient
12 because line 5 is marked "Sat" without an
13 inspector's signature and date?

14 A. Yes, I am.

15 Q. Mr. Brandt, is that a deficiency in this
16 package?

17 A. No, it's not.

18 Q. Why not?

19 A. For the same reasons previously stated for
20 welds 4, 6 and 10.

21 Q. Mr. Brandt, would you please refer to
22 traveler package 15?

23 A. Okay.

24 Q. Are you aware that in the memorandum dated
25 September 27th, 1984, the intervenor alleged that

1 traveler package 15 is deficient because of the way
2 in which line 1 is signed?

3 A. Yes, I am.

4 Q. Mr. Brandt, is traveler package 15
5 deficient for that reason?

6 A. No, it's not deficient.

7 Q. What kind of weld is represented by
8 traveler package 15?

9 A. It's a plate-to-plate weld.

10 Q. Is this the kind of weld that has inside
11 and outside weld?

12 A. Yes, it is.

13 Q. Is there evidence that both the cleanliness
14 and fit-up of the inside and outside portion to this
15 weld was performed?

16 A. Yes, there is.

17 Q. Would you please, by reference to the
18 traveler package, indicate what evidence exists to
19 substantiate these two inspections?

20 A. There's a chit in the package dated August
21 31st, 1978, which states that it's for the first
22 fit-up and cleanliness of plate to plate signed by
23 Phil Davis as acceptable and the first page of the
24 traveler clearly indicates that the inside fit-up
25 and cleanliness of above is Sat, signed by Don R.

1 Vogt, dated December 5th, '79.

2 Q. Mr. Brandt, are you aware that the
3 intervenor alleged in its memorandum filed on
4 September 27 that traveler package 15 is deficient
5 because the cleanliness of the inside part of this
6 weld was not reverified?

7 A. I believe their claim was that welding
8 started in 1979 and resumed in 1983 without
9 reverification of cleanliness. There's no
10 procedural requirement for QC to reverify it. The
11 cleanliness of the surface to be welded must be
12 reverified by the welder prior to starting. It's
13 part of the welder's training to see that the
14 surface is properly cleaned prior to additional
15 welding.

16 Q. Is there any deficiency in this package
17 because the cleanliness was not reverified by a QC
18 inspector prior to resumption of welding?

19 A. No, there was not.

20 Q. Mr. Brandt, are you aware that with respect
21 to traveler package number 15 intervenor alleged in
22 its memorandum dated September 27 that this package
23 is deficient because an inspection was performed
24 before weld rod was issued?

25 A. Yes, I am.

1 Q. Mr. Brandt, would you review the package
2 and determine, if you can, the correctness of this
3 allegation?

4 A. As I described earlier for one of the
5 previous welds, I believe it was weld number 2-A,
6 the WMR was the predecessor of the WFML. The
7 traveler clearly indicates that ten WMR's were
8 issued in connection with hold points 1 through 4.
9 There's no reason to believe, for me to believe,
10 that these WMR's were not issued prior to the
11 initial outside fit-up.

12 Q. Mr. Brandt, are you aware that the
13 intervenor in its memorandum dated September 27th
14 and in the transcript of the hearing for September
15 18th has alleged that this package is deficient
16 because line 5 is marked "Sat", but there's no
17 inspector's signature and date?

18 A. Yes, I am.

19 Q. In your judgment, is that a deficiency in
20 this package?

21 A. No, it's not.

22 Q. Why not?

23 A. For reasons I've described previously on
24 welds 10 and 14, for example. The "Sat" without an
25 inspector's signature does not indicate the

1 performance of any inspection. The weld will not be
2 finally accepted until the inspection is performed
3 and the traveler is signed.

4 Q. Mr. Brandt, are you aware that the
5 intervenor in its memorandum dated September 27th
6 has alleged that traveler package 15 is deficient
7 because it includes an eight-line traveler for a
8 weld initiated in the 1978-1979 time frame?

9 A. Yes, I am.

10 Q. Mr. Brandt, is there such a traveler in
11 that package?

12 A. There is such a traveler in the package.
13 It's a copy of the stainless steel inspection
14 traveler that was referenced by QA-QP-11.14-6, which
15 I believe was issued in March '82. So that's
16 evidence to me that that traveler was added in '82
17 or more recently. But in the event that they had
18 used an eight-line traveler in the '78 to '79 time
19 frame, which this package does not indicate, it
20 would have been proper, as it was prescribed by
21 CCP-38 Rev. 2 ICN#3 I believe. We discussed it
22 earlier.

23 Q. Mr. Brandt, are you aware that the
24 intervenor has alleged that traveler package 15 is
25 deficient because it's missing certain documentation

1 that it's required to substantiate inspections
2 performed?

3 A. Yes, I am.

4 Q. Mr. Brandt, does traveler package 15
5 contain all the documentation necessary to
6 substantiate the inspections that have been
7 performed?

8 A. It contains sufficient documentation to
9 substantiate the fact that all required inspections
10 were performed. There was a note in CP-QCI-2.11-1
11 which required the chits to be forwarded to the QA
12 vault. The chit for the VT of the backing strip,
13 which is hold point number 2, and the chit for the
14 cleanliness of the channel, liner and backing strip,
15 which is hold point number 3, are not included in
16 the package; however, the traveler is signed as
17 required by procedure by the inspector,
18 substantiating that these two inspections were
19 performed.

20 Q. Mr. Brandt, would you please refer to
21 traveler package number 17.

22 A. Okay.

23 Q. Are you aware that in the handwritten list
24 of allegations served on applicant in this
25 proceeding the intervenor alleged the traveler

1 package 17 is deficient because line 5 of the
2 traveler was marked "Sat", but there's no inspector
3 signature or date?

4 A. Yes, I am.

5 Q. Mr. Brandt, in your judgment is that a
6 deficiency in this package?

7 A. No, it's not. For reasons I've previously
8 stated on welds 10 and 14, for example.

9 Q. Mr. Brandt, would you please refer to
10 traveler package 19.

11 A. Yes.

12 Q. Are you aware that in the handwritten list
13 of allegations in the transcript of the hearing for
14 September 18 and the memorandum served on the
15 applicant on September 27th, the intervenor alleges
16 that this package is deficient because it is missing
17 documentation required to substantiate the
18 inspections that have been signed off?

19 A. Yes, I am.

20 Q. Mr. Brandt, would you please review
21 traveler package 19 and determine whether any
22 document -- required documentation is missing from
23 that package?

24 A. My understanding of the allegation is the
25 intervenors are concerned about the lack of chits to

1 substantiate certain inspections. The chit for the
2 original cleanliness inspection is present. The
3 chit for the VT of the backing strip tack welds is
4 not present. However, this inspection is signed off
5 on the face of the traveler. Additionally, the
6 backing strip was later removed and replaced for
7 which all required inspections are documented on an
8 eight-point traveler, and this traveler did not
9 require the use of chits.

10 Q. Mr. Brandt, would you please refer to
11 traveler packages 20, 21, 22, 25, 27 and 39.

12 A. Okay.

13 Q. Mr. Brandt, are you aware that in the
14 handwritten list of allegations and in the
15 transcript for the hearing of September 18 the
16 intervenor alleges that these packages are deficient
17 because line 5 of the traveler is marked "Sat", but
18 there's no inspector's signature or date on that
19 line?

20 A. Yes, I am.

21 Q. Mr. Brandt, are these traveler packages or
22 any of these traveler packages deficient because of
23 this item?

24 A. No, they're not.

25 Q. Why not?

1 A. For reasons I previously described on welds
2 10 and 14, for example.

3 Q. And for clarity of the transcript, Mr.
4 Brandt, would you please state again the reasons why
5 you don't believe this is a deficiency.

6 A. The "Sat" on line 5 means nothing without
7 corresponding inspector's signature.

8 Q. And are these welds still in process?

9 A. They are still in process.

10 Q. Prior to final acceptance of these welds,
11 is an inspector required to sign line 5 and indicate
12 that his or her inspection has found the weld to be
13 satisfactory?

14 A. Yes, it does require that.

15 Q. Mr. Brandt, directing your attention
16 specifically to traveler package 25 and traveler
17 package 32, are you aware with respect to these two
18 packages that the intervenor in the handwritten list
19 of allegations and in the transcript of the hearing
20 for September 18th has alleged that the packages are
21 deficient because writing on the traveler, and
22 specifically writing on single lines of the traveler,
23 appears to be made by two different persons?

24 A. Yes, I am.

25 Q. Mr. Brandt, is that a deficiency -- first

1 is that true?

2 A. It would appear to me that it's different
3 handwritings.

4 Q. Is that a deficiency in these traveler
5 packages?

6 A. No, it's not.

7 Q. Why not?

8 A. In my review of all these travelers I have
9 not noted a single occasion where an inspector
10 indicated Unsat in the results column. The form
11 could have been designed without the results column
12 even there and it could have just had an inspector's
13 signature indicating satisfactory completion of the
14 hold point.

15 Additionally, these two travelers have
16 corresponding NDE chits attached, which substantiate
17 the fact that for weld 25 Mr. Stinson performed the
18 fit-up inspection, fit-up and cleanliness inspection,
19 on the 15th of January, and it was acceptable. And
20 for weld number 32, that he performed the fit-up and
21 cleanliness inspection on the 20th of January, 1982,
22 and it was acceptable. The chits substantiate the
23 signature on line 1 of the traveler in both cases.

24 However, I might note that absence of the
25 chits would not in my opinion make the traveler any

1 less acceptable.

2 Q. So it's your testimony that it's the
3 signature of a certified inspector that
4 substantiates the acceptability of the hold points?

5 A. Yes, sir. No certified inspector would
6 have signed something with "Sat" written in for him
7 if the results of his inspection were not Sat.

8 Q. So whoever writes the word "Sat" on line 1,
9 that's really an irrelevant consideration?

10 A. It's somewhat irrelevant, yes, sir.

11 Q. Could it have been typed for example?

12 A. It could have easily been typed.

13 Q. It could have been typed by a secretary or
14 someone unrelated to the inspection?

15 A. Yes, it could.

16 Q. Mr. Brandt, would you please refer to
17 traveler package 34.

18 Are you aware with respect to traveler
19 package 34 the intervenor in his memorandum dated
20 September 27th, 1984, alleges that an inspection was
21 performed relative to this weld prior to weld rod
22 being issued?

23 A. Yes, I am.

24 Q. Mr. Brandt, is that true?

25 A. There's nothing to indicate to me that it's

1 true.

2 Q. Mr. Brandt, would you please refer to
3 traveler packages 36 and 59.

4 Mr. Brandt, are you aware that at various
5 places in the handwritten list of allegations, the
6 hearing transcript of September 18th and its
7 memorandum dated September 27th, the intervenor
8 alleges that these packages are deficient because of
9 the way in which line 1 of the traveler is signed?

10 A. Yes, I am.

11 Q. First, Mr. Brandt, what kind of weld is
12 represented by these packages?

13 A. In both cases they're an embed to a plate.

14 Q. Mr. Brandt, based on your review of these
15 packages, is there any deficiency based on the way
16 in which line 1 of the traveler is signed?

17 A. No. Weld number 36 was signed originally
18 in 1980 by James Cole. Excuse me. It was signed
19 originally by Larry Wilkerson on September 26, 1978.
20 The chit states first fit-up and cleanliness of
21 embed to plate. The traveler is signed "Sat" by
22 James Cole in April 1980, indicating the inside weld
23 was inspected for cleanliness and fit-up. And it
24 was reverified in December '81 by Dave Stinson.
25 Apparently, welding --

1 Q. Let me just go back to that reverification
2 point, Mr. Brandt. Wasn't it your prior testimony
3 that the reverification is not required?

4 A. Yes, it was.

5 Q. And so in this case the reverification by
6 an inspector is something above and beyond the
7 requirements of the program?

8 A. Yes, it was.

9 Q. Now, is there any deficiency, in your
10 judgment, in the way line 1 of traveler package 36
11 is signed?

12 A. No, there's not.

13 Q. In fact, doesn't the way in which line 1 is
14 signed indicate that the inspection effort was above
15 and beyond the requirements of the program?

16 A. Yes, it does.

17 Q. Referring to package 59, Mr. Brandt, is
18 there a deficiency in the way line 1 is signed?

19 A. No, there's not.

20 Q. Why not?

21 A. There's a chit dated September 27th, 1978,
22 entitled first fit-up and cleanliness of embed to
23 plate signed by Larry Wilkerson. And the inside
24 fit-up and cleanliness is signed by Dave Stinson
25 dated September 29th, 1981, on the face of the

1 traveler and also on a chit, which is attached to
2 the traveler.

3 Q. Mr. Brandt, would you please refer to
4 traveler package number 52.

5 First, Mr. Brandt, what kind of weld is
6 represented by traveler package 52?

7 A. It's angle to a plate.

8 Q. Mr. Brandt, would you refer to traveler
9 package 52. Are you aware that in its memorandum
10 dated September 27th the intervenor has alleged that
11 this package is deficient because the chits
12 associated with the package are written by two
13 different people?

14 A. Yes, I am.

15 Q. Mr. Brandt, is that a deficiency in this
16 package?

17 A. No, it's not.

18 Q. Why not?

19 A. Chits are filled out by the craft, as I
20 think I've testified in this proceeding, in order to
21 obtain an inspection. The craft fills out part of
22 it and QC arrives and performs the inspection. QC
23 signs and dates it.

24 Q. So in fact, per procedure necessarily at
25 least two people would write on a chit; isn't that

1 right?

2 A. That's true.

3 Q. Mr. Brandt, are you aware with respect to
4 traveler package 52 intervenor alleges in its
5 memorandum dated September 27th that this package is
6 deficient because an inspection was performed before
7 weld rod was issued?

8 A. Yes, I am.

9 Q. Is that true?

10 A. There's nothing to indicate to me that
11 that's true.

12 Q. Why is not a deficiency, Mr. Brandt?

13 A. As I've stated before, the WMR's are not
14 required to be attached to the package and the
15 traveler indicates that at least four WMR's were
16 used.

17 Q. Is there a requirement to attach the WMR's
18 to the package?

19 A. No, there is not.

20 Q. Mr. Brandt, are you aware with respect to
21 traveler package 52 CASE has alleged in memorandum
22 filed September 27th that the package is deficient
23 because line 7 of the traveler is marked "Sat" but
24 there's no inspectors' signatures or date on that
25 line?

1 A. Yes, sir.

2 Q. Is that a deficiency?

3 A. No, it's not.

4 Q. Why not?

5 A. As I've stated before, the "Sat" without an
6 inspector's signature means absolutely nothing. The
7 weld is still in process until that inspection is
8 performed and signed by a certified inspector.

9 Q. Mr. Brandt, are you aware that CASE in its
10 memorandum dated September 27th has alleged that
11 this package is deficient because it consists of an
12 eight-line traveler that was initiated in the period
13 1978-79?

14 A. Yes, I am.

15 Q. Is that a deficiency?

16 A. No, it's not. In fact, it's proper. As I
17 discussed earlier, ICN#3 to CCP-38 introduced the
18 eight-line traveler in April '79. This traveler
19 appears to have been initiated in July 1979.

20 Q. Mr. Brandt, are you aware that in the
21 various representations made at the hearing and in
22 papers served on applicant that the intervenor in
23 this proceeding alleges that traveler package 52 is
24 deficient because it is missing certain
25 documentation which they believe should be included

1 in the package?

2 A. Yes, I am.

3 Q. Mr. Brandt, what's your understanding of
4 that allegation?

5 A. Apparently, CASE was referring to the lack
6 of the inclusion of WFML's in the package.

7 Q. And is there a requirement to include
8 WFML's in the package?

9 A. No, there's not.

10 Q. And is all required documentstion, to the
11 best of your knowledge, included in this package?

12 A. Yes, it is.

13 Q. Mr. Brandt, would you please review
14 traveler package for weld number 60.

15 A. Okay.

16 Q. Are you aware that in the handwritten list
17 of allegations and in the transcript of the hearing
18 of September 18 the intervenor alleged that traveler
19 package 60 is deficient because the last line of the
20 traveler is marked "Sat", but there's no signature
21 for an inspector and no date for the inspection?

22 A. Yes, I am.

23 Q. Mr. Brandt, is that a deficiency in the
24 package?

25 A. No, it's not.

1 Q. Why not?

2 A. Without the inspector's signature, the word
3 "Sat" serves no purpose. The weld is still in
4 process until the final inspection is performed and
5 signed by a certified inspector.

6 Q. Mr. Brandt, would you please refer to
7 traveler packages 61 and 62. With respect to those
8 packages are you aware that the intervenor in its
9 memorandum dated September 27, 1984, alleges that
10 these packages are deficient because inspections
11 were performed before weld rod was issued?

12 A. Yes, I am.

13 Q. Is there any evidence that this allegation
14 is true?

15 A. No, there's not.

16 Q. Based on your review of the package, can
17 you ascertain any deficiencies in the package that
18 correspond to this allegation?

19 A. No, I cannot.

20 Q. What's your understanding of this
21 allegation?

22 A. They're apparently alleging due to the fact
23 that there's a WFML attached that's dated after the
24 first fit-up was signed off, drawing the conclusion
25 that the weld was made before -- excuse me -- the

1 fit-up was signed off before any rod had been drawn.
2 In reality, the rod was drawn on WMR's, which are
3 not attached to the package.

4 Q. Is there any requirement to attach the
5 WMR's to the package?

6 A. No, there's not.

7 Q. Mr. Brandt, are you aware that at various
8 points in the handwritten list of allegations, the
9 transcript of the hearing of September 18 and the
10 memorandum prepared and filed on September 27th, the
11 intervenor alleges that traveler packages 61 and '2
12 are deficient because the last line of the traveler
13 is marked "Sat", but there's no corresponding
14 signature of an inspector or date for the inspection?

15 A. Yes, I am.

16 Q. Is this a deficiency in these documents?

17 A. No, it's not for reasons that I stated in
18 describing the allegation for weld number 60.

19 Q. And like weld 60 are welds 61 and 62 still
20 in process?

21 A. Yes, they are.

22 Q. Mr. Brandt, would you please refer to
23 traveler packages 68, 69, 71, 74 and 80. Let me add
24 a few more travelers to that list, Mr. Brandt.
25 Would you add to your list of travelers to review

1 traveler packages 81, 84, 88, 89, 91, 98, 99.

2 A. Okay.

3 Q. Mr. Brandt, are you aware that at various
4 points in the handwritten list of allegations, the
5 transcript of the hearing September 18 and in the
6 memorandum filed on September 27th the intervenor
7 has alleged that this group of travelers is
8 deficient because the last line of each traveler is
9 marked "Sat", but there's no signature present or
10 date present on that line of the traveler?

11 A. Yes, I am, Mr. Downey.

12 Q. And in your judgment, is the absence of a
13 signature and date on the last lines of these
14 travelers a deficiency in the packages?

15 A. No, it's not.

16 Q. Why not?

17 A. As I've stated numerous times earlier,
18 without an inspector's signature, the word "Sat"
19 serves no purpose. Without the inspector's
20 signature, the welds are still in process and still
21 require final visual inspection.

22 Q. Mr. Brandt, would you please review
23 traveler package number 80.

24 A. Okay.

25 Q. Are you aware that in the handwritten list

1 of allegations and in the transcript of the hearing
2 of September 18 the intervenor has alleged that
3 package -- traveler package 80 is deficient because
4 package contains an eight-line traveler and it was
5 initiated in 1978-79 time period?

6 A. Yes, I am.

7 Q. Are you aware of that allegation?

8 A. Yes, I am.

9 Q. Mr. Brandt, is the use of the eight-line
10 traveler for this package a deficiency?

11 A. No, it's not.

12 Q. Why not?

13 A. It was the correct traveler at the time.

14 Q. Do you recall the procedure that required
15 the use of this traveler during this time period?

16 A. Yes. The procedure was CCP-38 Revision 2,
17 ICN#3 dated April 1979.

18 Q. Mr. Brandt, are you aware that in the
19 transcript of the hearing of September 18, 1984, the
20 intervenor alleged that traveler package 80 is
21 deficient because certain documentation is missing
22 from that package?

23 A. Yes, I am.

24 Q. What's your understanding of that
25 allegation?

1 A. They're apparently referring to the fact
2 that some of the WFML's are not attached.

3 Q. Is that a deficiency?

4 A. No, it's not.

5 Q. Why not?

6 A. They're not required by procedure to be
7 attached.

8 Q. Is all other documentation necessary to
9 substantiate the inspections that have been
10 performed with respect to traveler package 80
11 present in that package?

12 A. Yes, it is.

13 Q. Mr. Brandt, would you please refer to
14 traveler package 81?

15 A. Okay.

16 Q. Are you aware that the intervenor alleged
17 during the hearing on September 18 that that package
18 was deficient because an inspection was performed
19 before weld rod was issued?

20 A. Yes, I am.

21 Q. Is that allegation true?

22 A. There's nothing to indicate to me that it's
23 true. Once again, they're probably referring to the
24 fact that there are no WMR's attached to the package.
25 The WMR's were what were used in the 1978 time frame,

1 which is when the first inspection occurred.

2 Q. And was there a requirement to attach the
3 WMR's to this package?

4 A. No. Additionally, the procedure at the
5 time required that all the chits be forwarded to the
6 vault. There's no indication, at least in this
7 package, that chits exist for the VT of the backing
8 strip, tack and fillet welds or the VT of the embed
9 fillet weld. There is, however, a chit attached to
10 substantiate the fit-up, the outside fit-up, dated
11 September 26th, 1978.

12 Q. Does that package contain objective
13 evidence to substantiate that every required
14 inspection was performed with respect to this weld?

15 A. Given the fact that the weld is still in
16 process, there's evidence that all required
17 inspections previous to that point were performed
18 and documented.

19 Q. Mr. Brandt, would you please refer to
20 traveler package 84.

21 A. Okay.

22 Q. Mr. Brandt, are you aware that the
23 intervenor has alleged that traveler package 84 is
24 deficient because of the way in which line 1 of the
25 traveler was signed?

1 A. Yes, I am.

2 Q. Is the package deficient because of the way
3 in which line 1 of the traveler was signed?

4 A. No, it's not.

5 Q. Why not?

6 A. There's an NDE chit attached dated August
7 21, 1978, signed by Larry Wilkerson, which states
8 that it's for the first fit-up and cleanliness of
9 plate to plate. The traveler on line 1 indicates
10 that it's the inside fit-up and cleanliness of above,
11 which was signed by Don Vogt on December 4, '79, and
12 then reverified Sat for the inside fit-up by Dave
13 Stinson on February 8th, 1982.

14 Q. Mr. Brandt, is this reverification part of
15 the procedure?

16 A. No, it was not.

17 Q. So that's an inspection that was done above
18 and beyond the requirements of the program?

19 A. The verification by QC inspector was not
20 required. In that sense it was above and beyond the
21 requirements of the program.

22 Q. And it's your testimony that reverification
23 is normally performed by the craftsman; is that
24 right?

25 A. That's true.

1 Q. Mr. Brandt, would you please review
2 traveler package 88?

3 A. Okay.

4 Q. Are you aware the intervenor alleged in its
5 handwritten list of allegations that traveler
6 package 88 is deficient because certain
7 documentation is missing from the package?

8 A. Yes, I am.

9 Q. Mr. Brandt, what's your understanding of
10 that allegation?

11 A. Apparently, they're referring once again to
12 the lack of WFML's and WMR's.

13 Q. And is the package deficient because WMR's
14 and WFML's are missing?

15 A. No, it's not.

16 Q. Why not?

17 A. They're not required to be attached.

18 Q. Mr. Brandt, would you please review
19 traveler package 110?

20 A. Okay.

21 Q. Mr. Brandt, are you aware that the
22 intervenor in this proceeding has alleged that
23 traveler package 110 is deficient because of the way
24 in which line 1 of the traveler is signed?

25 A. Yes, I am.

1 Q. Is traveler package 110 deficient because
2 of the way in which line 1 is signed?

3 A. No, it's not.

4 Q. Why not?

5 A. There's a chit attached dated October 4th,
6 1978, signed by Larry Wilkerson, indicating that the
7 first fit-up and cleanliness of angle to plate is
8 satisfactory. Line 1 of the traveler is marked,
9 quote, inside fit-up and cleanliness of above, close
10 quote, noted as satisfactory and signed by Don Vogt
11 on December 7th, 1979.

12 Q. So does the package contain verification
13 that both the inside and outside fit-up and
14 cleanliness inspections were performed?

15 A. Yes, it does.

16 Q. Mr. Brandt, are you aware that the
17 intervenor has alleged in its memorandum dated
18 September 27th that traveler package 110 is
19 deficient because the weld was inspected before rod
20 was issued?

21 A. Yes, I am.

22 Q. Mr. Brandt, is there any evidence that that
23 allegation was true?

24 A. No, there's not. Apparently, they're
25 referring to the lack of the inclusion of the early

1 WMR's in the package, which as I've stated before,
2 was not required.

3 Q. Mr. Brandt, are you aware that the
4 intervenor has alleged in the handwritten list of
5 allegations and in the transcript of this proceeding
6 for September 18, 1984, that traveler package 110 is
7 deficient because the last line of the package was
8 marked "Sat", the last line of the traveler was
9 marked "Sat", there's no inspector's signature or
10 date on that line?

11 A. Yes, I am.

12 Q. And is that a deficiency in this package?

13 A. No, it's not. As I've stated before, the
14 indication of Sat without the inspector's signature
15 serves absolutely no purpose.

16 Q. And is this weld still in process?

17 A. The weld is considered in process until the
18 final inspection is performed and signed by
19 certified QC inspector.

20 Q. Mr. Brant, would you please refer to
21 traveler package 111?

22 A. Yes, I would.

23 Q. Are you aware that the intervenor has
24 alleged that traveler package 111 is deficient
25 because the last line of the traveler is marked

1 "Sat", but there's no inspector's signature for that
2 line or no date for the inspection of that line?

3 A. Yes, I am.

4 Q. Is that a deficiency in this package?

5 A. No, it's not.

6 Q. And is it not a deficiency for the reasons
7 you've testified to several times before that this
8 is an in-process weld and the satisfactory
9 indication is meaningless until inspector's
10 signature is attached to the line?

11 A. It's meaningless in the fact that there's
12 not an inspector's signature, but it's not an
13 in-process weld in that sense. If you'll note on
14 the second package of the traveler in 1981 they had
15 switched to the eight-line traveler. And Mr. Cole
16 had signed off, albeit in the wrong place, and that
17 he signed off line 1 instead of line 5, but he had
18 signed off the fit-up and cleanliness. The outside
19 fit-up and cleanliness is substantiated by a chit
20 dated August 31, 1978, signed by Phil Davis. It's
21 my conclusion that Mr. Cole's signature indicates
22 the inside fit-up is based on the date that the weld
23 of the leak chase channel to the liner plate was
24 inspected -- October 26, 1978. Once this channel
25 was welded on the backside of the liner plate, the

1 backside of the weld was completely inaccessible.
2 The only weld to which Mr. Cole could have been
3 referring was the inside, or waterside, weld.

4 Q. Mr. Brandt, would you please refer to
5 traveler package 118?

6 A. Okay.

7 Q. Mr. Brandt, are you aware that the
8 intervenor in this proceeding alleged in its
9 memorandum dated September 27th that traveler
10 package 118 is deficient because of the way in which
11 line 1 of the traveler is signed?

12 A. Yes, I am.

13 Q. Mr. Brandt, is that package deficient
14 because of the way in which line 1 is signed?

15 A. No, it's not.

16 Q. Why not?

17 A. There's a chit attached dated August 10,
18 1978, signed by S. M. McCoy, which is entitled
19 fit-up and cleanliness. There is also a chit
20 attached signed by Dave Stinson dated January 22nd,
21 1982, for the inside fit-up and he reverified it
22 again on the 3rd of February, 1982, and signed the
23 traveler on that date.

24 Q. So does the package contain verification
25 that all required cleanliness and fit-up inspection

1 were performed?

2 A. Yes, it does.

3 Q. Mr. Brandt, are you aware that in its
4 memorandum dated September 27th, 1984, the
5 intervenor alleges that traveler package 118 is
6 deficient because cleanliness was not reverified
7 prior to the resumption of welding?

8 A. Yes, I am.

9 Q. Is the package deficient for that reason?

10 A. No. As I've stated earlier, there is no
11 requirement for QC to reverify cleanliness due to
12 starting and stopping of welding operation.

13 Q. Mr. Brandt, are you aware that with respect
14 to traveler package 118 the intervenor in its
15 memorandum dated September 27, 1984, alleges that
16 the package is deficient because certain
17 documentation is missing from that package?

18 A. Yes, I am.

19 Q. What's your understanding of that
20 allegation?

21 A. The only thing to which they could be
22 referring would be the missing WFML's and WMR's.

23 Q. And is the package deficient because
24 certain WFML's and WMR's are not included in the
25 package?

1 A. No, it's not. As I've stated earlier,
2 they're not required to be included in the package.

3 Q. And Mr. Brandt, does the package contain
4 all documentation required to verify that all
5 required inspections to this point in the process
6 were performed?

7 A. Yes, it does.

8 Q. Mr. Brandt, are you aware that in the
9 handwritten list of allegations and the transcript
10 of the hearing of September 18, 1984, and in
11 memorandum dated September 27, 1984, the intervenor
12 alleged that traveler page 118 is deficient because
13 the last line of the traveler has been marked "Sat",
14 but there's no inspector's signature or date on that
15 line?

16 A. Yes, I am.

17 Q. Mr. Brandt, is the package deficient for
18 that reason?

19 A. No, it's not.

20 Q. And is it not deficient for the reasons
21 you've given several times in your testimony today
22 of similar packages and other occasions?

23 A. Yes. The indication "Sat" without
24 inspector's signature serves no purpose.

25 Q. And is this weld still in process?

1 A. Yes, it is.

2 Q. And prior to final acceptance, is it
3 required that an inspector sign and date line 5 of
4 the traveler?

5 A. Yes, it is.

6 Q. Mr. Brandt, are you aware that the
7 intervenor in its memorandum dated September 27th,
8 alleges that traveler package 118 is deficient
9 because it contains an eight-line traveler that was
10 issued in the 1978-1979 time frame?

11 A. Yes, I am.

12 Q. Mr. Brandt, does the package contain such a
13 traveler?

14 A. No, it does not.

15 Q. Mr. Brandt, is there any eight-line
16 traveler in that package?

17 A. Yes, there is. The traveler that's
18 included in the package first appeared in QI-QP
19 11-14-6 in September 1982, so it's not possible that
20 this traveler was used in 1979. Additionally,
21 there's not a single signature on this traveler
22 included in the package.

23 Q. Mr. Brandt, are you aware that the
24 intervenor in this proceeding has alleged that
25 traveler package 118 is deficient because certain

1 required documentation is missing from that package?

2 A. Yes, I am.

3 Q. Mr. Brandt, what's your understanding of
4 the allegation?

5 A. From my review of the package, the only
6 thing to which they could be referring would be a
7 chit for the VT of the backing strip, which is hold
8 point number 2; a chit for the cleanliness and liner
9 of the backing strip, which is number 3; a chit for
10 the final VT of the channel fillet weld, which is
11 hold point number 4; and the WMR's and WFML's.

12 As I've stated previously, the WMR's and
13 WFML's are not required to be attached, and the
14 chits for hold points 2, 3 and 4, although
15 procedurally required, the lack of such is not
16 significant in the fact that the traveler was
17 updated as required and signed by the inspector on
18 the face of the traveler.

19 Q. So your testimony is that there is no
20 missing documentation from this package?

21 A. There is documentation missing in the fact
22 that the chits for hold points 2, 3 and 4 are not
23 included. However, it's without significance as the
24 inspector has signed the traveler for those three
25 inspections. Had they been included, it would have

1 been a redundant piece of documentation to
2 substantiate the performance of that inspection.

3 Q. Mr. Brandt, would you please refer to
4 traveler package 126. Is it your understanding that
5 the intervenor in this proceeding has alleged that
6 traveler package 126 is deficient because
7 documentation required to be in the package is
8 missing?

9 A. Yes, it is.

10 Q. What's your understanding of that
11 allegation?

12 A. They're apparently referring to the WFML's
13 and WMR's, which I've previously stated are not
14 required to be attached.

15 Q. Based on your review of that package, is
16 all documentation required to be in the package
17 there?

18 A. Yes, it is.

19 Q. Mr. Brandt, would you please refer to
20 traveler package 130.

21 A. Okay.

22 Q. Mr. Brandt, is it your understanding that
23 the intervenor alleges in its memorandum of
24 September 27th, transcript of September 18 and in
25 the handwritten list of allegations that this

1 package is deficient because of the way in which
2 line 1 of the traveler is signed?

3 A. Yes, it is.

4 Q. Mr. Brandt, is the package deficient
5 because of the way in which line 1 is signed?

6 A. No, it's not.

7 Q. Why not?

8 A. The outside fit-up was accepted by S. M.
9 McCoy on August 18th, 1978, on an NDE chit, which
10 states first fit-up and cleanliness of plate to
11 plate. The inside fit-up was accepted by Robert
12 Kanney on March 27th, 1980, and the inside was
13 reverified as satisfactory by Dave Stinson on
14 February 8, 1982.

15 Q. So is your testimony that all required
16 inspections, all required cleanliness and fit-up
17 inspections can be substantiated by documents in the
18 package?

19 A. Yes.

20 Q. And that line 1 is properly signed?

21 A. Yes, it is.

22 Q. Mr. Brandt, would you please refer to
23 traveler package 1337

24 A. Okay.

25 Q. Mr. Brandt, is it your understanding that

1 the intervenor has alleged in its handwritten list
2 of allegations and on the transcript of the hearing
3 of this proceeding for September 18 that traveler
4 package 133 is deficient because that package
5 contains an eight-line traveler issued in the
6 1978-1979 time frame?

7 A. Yes, it is.

8 Q. Mr. Brandt, is the package deficient for
9 that reason?

10 A. No, it's not.

11 Q. Why not?

12 A. The eight-line traveler was required by
13 procedure at that time. It had been introduced into
14 CCP-38 Revision 2 by ICN#3 dated April 10, '79, and
15 the first inspection performed on this traveler is
16 dated May 1979. Consequently, it was the correct
17 traveler.

18 Q. Mr. Brandt, are you aware that on the
19 transcript of this proceeding for September 18, 1984,
20 the intervenor alleged that traveler package 133 is
21 deficient because certain required documentation is
22 missing from the package?

23 A. Yes, I am.

24 Q. Mr. Brandt, what's your understanding of
25 that allegation?

1 A. Apparently, what they're referring to is
2 the lack of the WMR's and WFML's or this package
3 which I've previously stated were not required to be
4 attached and consequently no deficiency exists. If
5 they're referring to chits, chits were not required
6 to be used with the eight-line traveler.

7 Q. So it's your testimony that there is no
8 documentation missing from this package?

9 A. That's true.

10 Q. Mr. Brandt, would you please refer to
11 traveler packages 134 and 135?

12 A. Okay.

13 Q. Are you aware that in the handwritten list
14 of allegations and on the transcript of the hearing
15 in this proceeding for September 18, 1984, the
16 intervenor alleged that these packages are deficient
17 because inspections were performed before weld rod
18 was issued?

19 A. Yes, I am. Once again, apparently, they're
20 drawing the conclusion, this conclusion based on the
21 lack of WMR's and WFML's being attached to the
22 package, which I've stated previously was not and is
23 not a requirement. There is nothing else to
24 indicate to me -- excuse me. There's nothing at all
25 in these packages to indicate inspections were

1 performed prior to the issuance of weld rods.

2 Q. Mr. Brandt, would you please refer to
3 traveler package 137.

4 A. Okay.

5 Q. Mr. Brandt, are you aware that on the
6 transcript of the hearing in this proceeding for
7 September 18, 1984, the intervenor alleged that
8 package 137 was deficient because it contains an
9 eight-line traveler that was issued in the period
10 1978-79?

11 A. Yes, I am.

12 Q. Does the package contain such a traveler?

13 A. Yes.

14 Q. Is it deficient because of that?

15 A. No, it isn't. The eight-line traveler
16 contained in the package was procedurally prescribed
17 and proper at the time it was used. The first
18 inspection date on this traveler is May 1979 and
19 this traveler had been incorporated into CCP-33 in
20 April 1979. Consequently, it was the proper form
21 for use.

22 Q. Mr. Brandt, would you please refer to
23 traveler package 138.

24 A. Okay.

25 Q. Mr. Brandt, are you aware that in the

1 handwritten list of allegations and on the
2 transcript of the hearing in this proceeding for
3 September 18, 1984, the intervenor alleges that this
4 package is deficient because certain lines on the
5 traveler are written in two different handwritings?

6 A. Yes, I am.

7 Q. And does it appear to you that lines on
8 that traveler are written in two different
9 handwritings?

10 A. It's possible. I'm not sure I'm willing to
11 draw that conclusion. In either case it's
12 insignificant. As I've stated before, what truly is
13 significant on that line is the inspector's
14 signature and date.

15 Q. And as long as the inspector signs the
16 inspection hold point, is that the critical issue
17 from the QC perspective?

18 A. Yes, it is.

19 Q. Mr. Brandt, would you please refer to
20 traveler package 142.

21 A. Okay.

22 Q. Are you aware that in the handwritten list
23 of allegations, on the transcript of the hearing for
24 September 18, 1984, the memorandum filed on
25 September 27, 1984, the intervenor alleges that this

1 package is deficient because of the way in which
2 line 1 of the package was signed?

3 A. Yes, I am.

4 Q. In your judgment, is the package deficient
5 because of the way in which line 1 is signed?

6 A. No, it's not.

7 Q. Why not?

8 A. A chit dated August 16, '78, by S. M. McCoy,
9 indicates that the first fit-up and cleanliness of
10 plate to plate was acceptable. The first line of
11 the traveler indicates that the inside fit-up was
12 acceptable on January 3rd, 1980, and reverified on
13 January 27th, 1982, by Dave Stinson for which a chit
14 is additionally attached. It's my understanding
15 from the fabrication sequence that took place and
16 from reading the chit that this is 6 inches of weld
17 on the west end of 142. It was a reverification of
18 cleanliness by Mr. Stinson prior to manual welding
19 of that portion of the seam weld where the automatic
20 welder would not reach.

21 Q. Based on your review of the package, is all
22 documentation required to substantiate the
23 cleanliness and fit-up inspections present in that
24 package?

25 A. Yes, it is.

1 Q. And is line 1 of that traveler properly
2 signed?

3 A. Yes, it is.

4 Q. Mr. Brandt, I'd now like you to review a
5 whole series of travelers for one specific point.
6 And would you please get before you traveler numbers
7 104, 105, 114, 115, 116, 117, 119, 120, 122, 124, 125,
8 126, 127, 129, 131, 132, 134, 135, 136 and 137.

9 A. Okay.

10 Q. Mr. Brandt, do you now have all those
11 travelers before you?

12 A. Yes, I do.

13 Q. Mr. Brandt, are you aware that in various
14 places in the handwritten allegations of the
15 transcript of the hearing of September 18 and in the
16 memorandum filed on September 27th the intervenor
17 alleges that these packages are deficient because
18 the last line of each traveler is marked "Sat", but
19 there's no inspector's signature and no date on
20 those lines?

21 A. Yes, I am.

22 Q. Mr. Brandt, are any of these packages
23 deficient because of that fact?

24 A. No, they're not. As I've stated previously,
25 the word "Sat" written on the line for the final

1 visual inspection of the inside weld without the
2 corresponding signature of a certified QC inspector
3 serves no purpose. These welds are still considered
4 in-process and will require completion of this
5 visual inspection and signature of the traveler by
6 QC inspector prior to the weld being considered
7 complete.

8 Q. Mr. Brandt, would you please refer to
9 traveler packages 205, 207, 227, 240, 241, 243, 245
10 and 249.

11 A. Okay.

12 Q. Mr. Brandt, are you aware that the
13 intervenor has alleged in various places in the
14 handwritten list of allegations, the memorandum
15 filed September 27th and in the hearing transcript
16 for September 18th that these packages are deficient
17 because they all use an eight-line traveler that was
18 issued in the 1978-1979 time frame?

19 A. Yes, I am.

20 Q. Mr. Brandt, do these packages use such a
21 traveler?

22 A. Yes, they do.

23 Q. Was that improper?

24 A. No, it's not.

25 Q. Why not?

1 A. In April 1979 an eight-line traveler was
2 introduced in CCP-38. Its use was required by the
3 QC procedure. And on every one of the travelers
4 we're talking about, the date of the first
5 inspection is after April 1979. Consequently, the
6 eight-line traveler was proper for use in the time
7 period it was used.

8 Q. Mr. Brandt, are you aware that with respect
9 to these same travelers, this same package of
10 travelers, the intervenor has alleged that various
11 places these travelers are deficient because
12 required documentation is missing from the packages?

13 A. Yes, I am.

14 Q. Mr. Brandt, what's your understanding of
15 the allegation?

16 A. If the intervenor was referring to the lack
17 of chits being attached to these packages, chits
18 were not required with the use of the eight-line
19 traveler. If the intervenor is referring to the
20 lack of WMR's or WFML's, as I've stated earlier,
21 neither of these two documents were required to be
22 attached to the procedure and consequently, no
23 deficiency exists.

24 Q. Mr. Brandt, you testified they weren't
25 required to be attached to the procedure. Did you

1 misspeak when you said that?

2 A. I intended to say they were not required to
3 be attached by the procedure.

4 Q. Thank you. And based on your review of
5 these travelers, do you find any evidence that
6 required documentation is missing from these
7 packages?

8 A. No, I do not.

9 Q. So it's your testimony that all
10 documentation required to substantiate the welds up
11 to this point in the processing of them is included
12 in the package?

13 A. All the documentation required to
14 substantiate that required inspections were
15 performed is in the package, yes, sir.

16 Q. Mr. Brandt, while you have that package of
17 travelers in front of you, would you please refer
18 specifically to travelers numbers 205 and 225.

19 A. Okay.

20 Q. Mr. Brandt, are you aware that with respect
21 to these two packages, these two traveler packages,
22 the intervenor has alleged in various points of the
23 record of this proceeding that these travelers are
24 deficient because the last line of the travelers is
25 marked "Sat" but there's no QC inspector's signature

1 and no date for the inspection?

2 A. Yes, I am.

3 Q. Mr. Brandt, would you please comment again
4 on whether this constitutes a deficiency in these
5 packages?

6 A. The presence of the word "Sat" without an
7 inspector's signature is not objective evidence that
8 the inspection was performed. In fact, these welds
9 are still in process and will require a final visual
10 inspection to be performed and the travelers signed
11 prior to the weld being considered completed.

12 Q. So your testimony is there was no
13 deficiency in the package because of the facts cited
14 by the intervenor?

15 A. Yes, sir.

16 Q. Mr. Brandt, again while you have this set
17 of travelers from the 200 series in front of you,
18 would you please refer to traveler 235?

19 A. Okay.

20 Q. Mr. Brandt, are you aware that the
21 intervenor in this proceeding has alleged that
22 traveler package 235 is deficient because a chit
23 attached to the package appears to be written in two
24 different handwritings or written by two different
25 people?

1 A. Yes, I am.

2 Q. Mr. Brandt, is there anything improper
3 about -- first, based on your review, do you believe
4 that it was written by two different people?

5 A. One of them clearly so. The other one I'm
6 not quite sure of.

7 Q. Mr. Brandt, assuming both of them were
8 written by two different people, does that indicate
9 any kind of deficiency in the traveler package?

10 A. No, it does not.

11 Q. Why not?

12 A. The NDE chit was filled out by the foreman.

13 Q. The foreman being the craft foreman?

14 A. Yes, sir. And forwarded to QC to perform
15 an inspection. QC signed the chit and indicated
16 results when they performed the inspection.

17 Q. So in the normal course of business, one
18 would expect them to be written in two different
19 handwritings; is that right?

20 A. Yes.

21 Q. Mr. Brandt, would you please refer to
22 traveler package 221?

23 A. Okay.

24 Q. Is it your understanding that the
25 intervenor in this proceeding has alleged that

1 traveler package 221 is deficient because required
2 documentation is missing from that traveler package?

3 A. Yes, it is.

4 Q. Mr. Brandt, what's your understanding of
5 the allegation, the specific nature of the
6 allegation concerning traveler package 221?

7 A. They're referring to missing chits, the
8 chits are missing to substantiate hold points 2, 3
9 and 4; however, these hold points are properly
10 signed off on the face of the traveler itself. If
11 they're referring to missing WMR's and WFML's, as
12 I've stated previously, neither of these two
13 documents are required to be attached to the package.

14 Q. And Mr. Brandt, is it your testimony that
15 there is in that package all the documentation
16 necessary to substantiate the inspections that have
17 so far been performed?

18 A. Yes, it is.

19 Q. Mr. Brandt, would you please refer to
20 traveler package 356.

21 A. Okay.

22 Q. Mr. Brandt, is it your understanding that
23 the intervenor in this proceeding has alleged that
24 traveler package 356 is deficient because there is
25 documentation missing from that package, which is

1 required to be there?

2 A. Yes, it is.

3 Q. Mr. Brandt, what's your understanding of
4 that allegation?

5 A. They could be referring to a number of
6 things here. If they're referring to missing chits,
7 chits were clearly not required.

8 Q. Why not?

9 A. The time frame of those travelers is 1981.
10 The requirement that chits be retained was deleted
11 from procedures in 1979.

12 They could be referring to missing WFML's.
13 As I've stated a number of times, the WFML's are not
14 required to be attached to the package.

15 They could be referring to a missing PT
16 report. The PT was done by Mr. Cole on February
17 16th, 1981. During this time frame PT reports were
18 not included in the package. They were kept in a
19 separate file. The purpose of including this
20 information on the traveler was simply to indicate
21 to the craft that the PT had been performed as
22 required and that QC could file their NDE report
23 independently. The results of the penetrant
24 inspection are clearly indicated by Mr. Cole on page
25 2 of 2 in Section 5.B of the traveler.

1 Q. And Mr. Brandt, based on your review of the
2 traveler, is there any documentation missing that
3 should be there?

4 A. No, there is not.

5 Q. Mr. Brandt, I'd like to ask you to collect
6 and get before you a whole series of travelers from
7 the 400's, and those travelers are traveler numbers
8 400, 401, 402, 403, 404, 405, 406, 417, 418, 420
9 through 439 except for 424.

10 A. Okay.

11 Q. Mr. Brandt, is it your understanding that
12 with respect to these travelers the intervenor
13 alleges in their handwritten list of allegations
14 that these travelers are deficient because they
15 indicate that rod was burned prior to the fit-up and
16 cleanliness inspection?

17 A. I understand that that's their allegation,
18 yes, sir.

19 Q. Mr. Brandt, it's my recollection that there
20 is another allegation that appears in many of these
21 sources that alleges that there's a deficiency in
22 other travelers because inspections were performed
23 prior to weld rod being issued. Have you testified
24 about such allegations?

25 A. Yes, I have.

1 Q. Are these two allegations inconsistent with
2 one another?

3 A. Seem to be.

4 Q. Mr. Brandt, what's your evaluation of the
5 allegation that weld rod was burned prior to the
6 fit-up and cleanliness inspection?

7 A. It's an indication to me that the person
8 making the allegation has a lack of understanding
9 about the welding process itself. Prior to
10 performing a fit-up inspection the two pieces to be
11 joined by the welding process are fitted up, in that
12 they're drawn close enough together to make the weld,
13 a specified gap is maintained, and in this case, a
14 backing strip is tack welded to each of these pieces,
15 bridging the gap formed by the two pieces to be
16 welded. In order to make these tacks, weld rod must
17 be issued to qualified welders and the backing strip
18 tacked on to the two plates being joined.

19 Q. When you say "tacked on", Mr. Brandt, does
20 that mean they're actually welded together?

21 A. They are welded together by what is termed
22 a "tack weld", which is a small weld.

23 Q. Like a spot weld?

24 A. Precisely.

25 Q. So is it necessary, in fact, to issue and

1 burn welding rod prior to the time of fit-up and
2 cleanliness inspection is performed?

3 A. Yes, it is. In all of these cases that I
4 have in front of me, I believe the only rod burned
5 prior to the first inspection was either one or two
6 rods, which is a clear indication to me that the rod
7 was used only to make the tacks, as one weld rod
8 will not deposit a significant amount of filler
9 material.

10 Q. Mr. Brandt, will you please review each of
11 these travelers that you have before you to confirm
12 that only one or two weld rods were burned prior to
13 fit-up inspection in each case?

14 A. Yes, sir. All of these cases involved the
15 burning of only one or two weld rods prior to the
16 inspection.

17 Q. In your review of the travelers did you
18 find any indication of a deficiency in them because
19 weld rod was burned prior to fit-up and cleanliness
20 inspection?

21 A. No, I did not.

22 Q. Mr. Brandt, I'd like for you to get before
23 you another series of travelers in the 400 series.
24 Those are travelers 408, 411, 463 through 484.

25 A. Okay.

1 Q. Mr. Brandt, directing your attention first
2 to travelers 408 and 411, is it your understanding
3 that the intervenor alleges that these two travelers
4 are examples of travelers where a Mr. Hawford,
5 H-a-w-f-o-r-d -- which I believe was incorrectly
6 spelled as Halford, H-a-l-f-o-r-d, in their papers.
7 In any event, is it your understanding that these
8 are examples of which the intervenor sites of
9 travelers where Mr. Hawford issued an inordinately
10 large number of weld rods on particular days?

11 A. No, Mr. Downey. It's my understanding that
12 the intervenor's contention for welds 408 and 411 is
13 that Mr. Hawford signed the WFML, and next to it the
14 line is blank. This is an example of Mr. Hawford
15 apparently intending to issue weld rod to one of his
16 welders for these two welds and either the welder
17 did not come in that day or Mr. Hawford reassigned
18 the welder prior to the time of issuance. In either
19 case, no weld rod was issued as a result of his
20 blank signature.

21 To understand what the signature means, you
22 must understand the process by which a welder
23 obtains rod. To obtain weld rod, a welder obtains
24 the WFML signed by his foreman authorizing issuance
25 and takes the WFML to the rod issue shack to receive

1 weld rod. Although these two WFML's have been
 2 signed by Mr. Hawford, they were never taken to the
 3 issue shack to receive filler material, and no
 4 filler material was issued as a result of those
 5 signatures.

6 Q. So is there any deficiency in these papers
 7 as a result of the signature of Mr. Hawford?

8 A. Mr. Hawford should have lined through his
 9 signature, initialed it and dated it so that the
 10 next entry on the WFML could be used. As these
 11 copies are two to three weeks, possibly even a month
 12 old at this point, it's possible that it's been
 13 corrected by this time. I do not know.

14 Q. Mr. Brandt, is it your understanding that
 15 the intervenor has alleged in the transcript of the
 16 hearing of September 18th there's some impropriety
 17 in a number of travelers because Mr. Hawford signed
 18 a large number of travelers authorizing issuance of
 19 weld rod on a single day?

20 A. It is my understanding, yes, sir.

21 Q. Is there anything wrong with Mr. Hawford
 22 signing a large number of travelers on a single day
 23 or a large number of WFML's on a single day?

24 A. No, sir. Some of these welds are not very
 25 long; they can be completed in a relatively short

1 period of time. Mr. Hawford is a foreman over a
2 crew of millwrights. He's responsible for that
3 crew's activities, and as I've described, he must
4 sign a WFML each time a welder is to receive weld
5 rod. In the course of a day he could sign quite a
6 number of these depending on the length of welds his
7 welders were working on, the number of welders
8 working and how many rods they were withdrawing at a
9 time. There's no reason to believe that due to the
10 number of WFML's which have been signed by Mr.
11 Hawford that any improprieties took place.

12 This is another example of the person
13 making the allegation not fully understanding either
14 the welding process or the process by which a welder
15 receives his weld rods.

16 Q. Mr. Brandt, I'd like to ask you to now
17 refer to traveler packages 463 through 484.

18 A. Okay.

19 Q. Mr. Brandt, is it your understanding that
20 with respect to these packages the intervenor has
21 alleged in the handwritten list of allegations that
22 the packages are deficient because of the large
23 number of inspections and signatures entered on
24 these travelers by Mr. Jimmy Duncan on a single day?

25 A. Yes.

1 Q. Mr. Brandt, have you had a chance to review
2 traveler numbers 463 through 484 to determine the
3 number of inspections that Mr. Duncan conducted on
4 May 3, 1983?

5 A. Yes, I have.

6 Q. First, let me ask you what kind of
7 inspections was Mr. Duncan performing on that day if
8 you can generalize.

9 A. First I'd like to clarify that welds number
10 477 through 481 were not inspected by Jimmy Duncan.
11 Jimmy Duncan merely marked some hold points on the
12 traveler "Not Applicable".

13 Q. How long does it take to mark hold points
14 as not applicable, Mr. Brandt?

15 A. Maybe three seconds a line. It could have
16 conceivably taken 15 to 20 seconds a traveler.

17 For the remaining welds it was essentially
18 a fit-up and cleanliness inspection and a visual
19 inspection of the tacks on the backing strip. It's
20 a very simple inspection.

21 Q. Do you find any evidence from reviewing
22 those travelers that Mr. Duncan made an inordinately
23 large number of inspections on that date?

24 A. Absolutely not.

25 Q. In fact, could he have performed a good

1 deal more work beyond what's verified in these
2 travelers?

3 A. Depending upon how much the millwrights had
4 ready for him to inspect when they called him, Mr.
5 Duncan could have done considerably more than what's
6 found on these travelers.

7 Q. Do you find any cause for alarm by the
8 amount of work done?

9 A. Absolutely not. Once again this appears to
10 be a result of a general lack of understanding of
11 the welding and welding inspection process. These
12 inspections, as I said, are extremely simple
13 inspections. If Mr. Duncan had performed even two
14 to three times that number, it would not be any
15 reason for concern.

16 Q. Mr. Brandt, would you please review
17 traveler 589.

18 A. Okay.

19 Q. Are you aware that intervenor in this
20 proceeding alleged in the memorandum filed on
21 September 27th, 1984, that this traveler package was
22 deficient because it fails to contain certain
23 documentation that the intervenor contends should be
24 in that package?

25 A. Yes, I am.

1 Q. Mr. Brandt, what's your understanding of
2 that allegation?

3 A. The allegation could be referring to the
4 lack of WFML's, which I've previously stated are not
5 required to be attached. It could be referring to
6 the lack of chits, which for this time period were
7 not required or I guess could be conceivably
8 referring to the lack of a liquid penetrant test
9 report, which has not yet been performed.

10 Q. Based on your review of the traveler
11 package 889, do you find any indication that
12 documentation that should be there at this stage in
13 the process is missing?

14 A. No, I do not.

15 Q. Mr. Brandt, would you please refer to
16 traveler packages 859, 867, 868, 871, 877, 878 and
17 879?

18 A. Okay.

19 Q. Mr. Brandt, are you aware that with respect
20 to these traveler packages the intervenor in the
21 handwritten list of allegations and in the
22 transcript of the hearing of September 18, 1984,
23 alleged that these packages were deficient because
24 they all use an eight-line traveler which was
25 originated in the 1978-1979 time frame?

1 A. Yes, I am.

2 Q. Mr. Brandt, do all these packages use an
3 eight-line traveler that was initiated in the
4 1978-1979 time frame?

5 A. Yes, they do.

6 Q. Is that improper?

7 A. No, it's not. They're all dated after the
8 inclusion of the eight-line traveler in CCP-38 Rev.
9 2 in April 1979.

10 Q. Is there any deficiency, any problem in the
11 use of the eight-line traveler included in these
12 packages for this time period?

13 A. No, there is not. It's in compliance with
14 procedural requirements at the time.

15 Q. Mr. Brandt, are you aware with respect to
16 the same group of travelers, that is traveler
17 numbers 859, 877, 879 and 878 that the intervenor in
18 this proceeding has alleged these travelers are
19 deficient because they're missing certain
20 documentation which the intervenor contends should
21 be included in the package?

22 A. Yes, I am.

23 Q. What's your understanding of that
24 allegation, Mr. Brandt?

25 A. I'm not sure to which they're referring.

1 If they're referring to the missing WMR's and/or
2 WFML's, as I've stated numerous times previously,
3 they're not required to be attached. If they're
4 referring to the lack of NDE chits, chits were not
5 required in this time frame. Other than that, all
6 documentation that's required to be present to
7 substantiate the inspection process for each of the
8 welds is present in the package. The PT reports for
9 welds 877, '78 and '79, as I stated earlier, were
10 filed separately during this time frame. The
11 purpose of the signature line on page 2 of the
12 traveler is to indicate to the craft that the PT had
13 been performed and was satisfactory. And in all
14 three of these cases the inspector did sign on page
15 2 indicating that the PT had been performed and was
16 satisfactory.

17 Q. Based on your review of these traveler
18 packages, do you find any indication that
19 documentation that should be there in this stage of
20 processing of the welds is missing?

21 A. No, I don't.

22 Q. Mr. Brandt, I'd like to ask you another
23 question about your testimony in which you indicated
24 that WFML's were not required to be attached to
25 these travelers and similar testimony that the WMR's

1 are not required to be attached to these travelers.

2 Are there some kinds of welds at the site
3 which do require the inclusion of these documents in
4 traveler packages?

5 A. Yes, there are.

6 Q. Do you know why some welds require the
7 inclusion of those documents in traveler packages
8 and these stainless steel liner travelers do not?

9 A. Some welds require traceability for the
10 weld filler material. These welds do not. Where
11 applicable, traceability is mandated by either a
12 code, a specification or both. For example, an ASME
13 class 3 pipe weld requires that weld filler material
14 be traceable to the weld. That is a requirement of
15 the code itself. Consequently, the program for
16 inspection of pipe welds requires the inclusion of
17 the WFML as part of the package. These particular
18 welds are governed by no code and there's no
19 requirement in the specification for filler material
20 traceability. Consequently, there's no requirement
21 that either the WMR or WFML be attached and made
22 part of the package.

23 Q. Mr. Brandt, would you now refer to traveler
24 packages 867 and 868?

25 A. Okay.

1 Q. Mr. Brandt, is it your understanding that
2 intervenor in this proceeding alleges in the
3 handwritten list of allegations and the transcript
4 of the hearing of September 18th that these
5 particular packages are deficient because certain
6 lines on the traveler have been written by two
7 different people?

8 A. Yes, it is.

9 Q. Mr. Brandt, based on your review of these
10 two travelers, do you agree that certain lines on
11 these travelers are written in handwriting placed on
12 the travelers by two different people?

13 A. I don't claim to be a handwriting expert,
14 Mr. Downey, and some of them are close enough that
15 I'm not willing to state one way or the other what I
16 feel is different handwriting.

17 Q. Mr. Brandt, for purposes of my question,
18 would you please assume that in fact the intervenor
19 is correct and that certain lines on that traveler
20 have been prepared by two different people. With
21 that assumption in mind, with making that assumption,
22 do you find anything improper about that?

23 A. No. As I stated earlier, the significant
24 feature of line 1 is the inspector's signature. The
25 word "Sat" could have been written by anyone. In

1 fact, it could have been typed in, as I think we've
2 previously discussed. The inspector's signature
3 indicating satisfactory completion of the
4 examination and inspection is the critical portion
5 of that.

6 Q. Mr. Brandt, will you please refer to
7 traveler package 1091?

8 A. Okay.

9 Q. Mr. Brandt, is it your understanding that
10 the intervenor in this proceeding alleges that
11 traveler package 1091 is deficient because of the
12 way in which line 1 of the traveler was signed off?

13 A. Yes, it is.

14 Q. Mr. Brandt, first what's your understanding
15 of the allegation, intervenor's allegation, with
16 respect to this traveler?

17 A. I don't understand it. Typically the
18 concern over line number 1 has been where the
19 five-line traveler was used, what the signature on
20 line 1 stood for. In this case, the five-line
21 traveler was not used. It was the eight-line
22 traveler, and I don't understand the allegation.

23 Q. Mr. Brandt, in line with your observation
24 that the eight-line traveler was used, is it your
25 understanding that the intervenor has alleged that

1 traveler package 1091 is deficient because it in
2 fact does use an eight-line traveler that was
3 initiated in the 1978-1979 time frame?

4 A. Yes, it is.

5 Q. Is there anything wrong with the use of the
6 traveler, the eight-line traveler, in the 1978-1979
7 time frame?

8 A. To clarify, Mr. Downey, it's clear that the
9 traveler was used in the 1981 time frame, not in the
10 1978-1979 time frame. In either case it would have
11 been acceptable provided that it was used after
12 April 1979 as that was the date the eight-line
13 traveler was introduced in CCP-38.

14 Q. Do you find any evidence that an improper
15 traveler package form was used in traveler package
16 1091?

17 A. No, I do not.

18 Q. Mr. Brandt, you've now reviewed in the
19 course of the past several hours and testified about
20 what may be several hundred specific allegations
21 made by the intervenor with respect to these
22 travelers. Based on your review of the travelers
23 and these allegations, have you found any reason to
24 believe that the required inspections were not
25 performed or that deficiency paper does not exist

1 where such inspections can not be documented?

2 A. No, I have not.

3 Q. Mr. Brandt, I perhaps prematurely asked you
4 that last question. Before we move on to another
5 subject, I would now ask you to review travelers
6 number 23 and 151.

7 A. Okay.

8 Q. Mr. Brandt, is it your understanding that
9 with respect to traveler number 23 the intervenor
10 has alleged that there's some impropriety because
11 the chit associated with that traveler states that
12 the inspection was for a partial cleanliness
13 inspection?

14 A. Yes, it is.

15 Q. Mr. Brandt, does that conform with what the
16 chit actually says?

17 A. Yes, it does.

18 Q. Is there any kind of problem associated
19 with that notation on the chit?

20 A. None that I see, Mr. Downey. The chit is
21 dated February 25th, 1980. The chit clearly states
22 that it's for the partial cleanliness of the seam.
23 This would be the inside cleanliness and fit-up
24 inspection. The entire seam was signed off
25 satisfactory by James Cole on March 3rd, 1980, after

1 the partial sign-off which is perfectly acceptable.

2 Q. Do you find any deficiency in traveler
3 package 23 as a result of that notation on the NDE
4 chit?

5 A. No, I do not.

6 Q. Mr. Brandt, with respect to traveler
7 package 151, is it your understanding that the
8 intervenor has alleged that there's a deficiency in
9 that package because the chit attached to the
10 package indicates that the cleanliness inspection
11 was for one half of the seam?

12 A. Yes, it is. That's my understanding.

13 Q. And in fact does the chit indicate that?

14 A. Yes, it does.

15 Q. Is that a deficiency in traveler package
16 151 in your judgment?

17 A. No, it is not.

18 Q. Why not?

19 A. Here the chit, once again, is dated March
20 31, 1980, for approximately one half of the seam.
21 The final inside fit-up and cleanliness inspection
22 for the entire seam was not noted as satisfactory
23 until April 2nd, which is after the partial, which
24 once again, is perfectly proper.

25 Q. And do you find any deficiency in traveler

1 package 151 as a result of the allegation made by
2 the intervenor?

3 A. No, I do not.

4 Q. Mr. Brant, in your prior testimony in a
5 hearing in this case you indicated that as far as
6 you're aware, the principal problem with this set of
7 travelers was that for some of the travelers the
8 inspections were recorded on the wrong form. Do you
9 recall that testimony?

10 A. Yes, I do.

11 Q. Do you find in your review of travelers
12 that you testified today and other travelers you
13 reviewed over the past few weeks, do you find any
14 evidence that your prior testimony was incorrect?

15 A. No, I do not.

16 Q. Mr. Brandt, in addition to the allegations
17 about these specific travelers you have been
18 reviewing this morning and this afternoon, is it
19 your understanding that the memorandum filed by the
20 intervenor on September 27th contains another series
21 of allegations about improprieties with respect to
22 these travelers?

23 A. Yes, it is.

24 Q. Mr. Brandt, I'd like to refer you to page 2
25 of that memorandum. In particular I'd like to

1 direct your attention to the sentence that says:
2 After the production of the travelers for Unit 2
3 Refueling Building there is no question that Ms.
4 Neumeyer had every reason to be apprehensive about
5 the condition of the liner plates and the specific
6 assignment she was given by her supervisor.

7 Do you see that?

8 A. Yes, I do.

9 Q. Do you agree with that sentence?

10 A. I assume by the term "Unit 2 Refueling
11 Building" the intervenor's referring to the reactor
12 building as there is no Unit 2 Refueling Building
13 and the travelers produced were for the Unit 2
14 Reactor Building.

15 As I stated previously, I think what Ms.
16 Neumeyer was asked to do and what she did was
17 correct, that her signature clearly indicates which
18 inspection it stands for as it refers to an attached
19 NDE chit. I see nothing wrong with that practice.
20 I am unable to address what Ms. Neumeyer was feeling
21 at the time; however, I don't believe that it's
22 reasonable to assume or it would not have been
23 reasonable for her to feel apprehensive about
24 signing off these travelers as she signed them off.

25 Q. Mr. Brandt, again directing your attention

1 to page 2 of the memorandum filed by the intervenor,
2 I'd like to direct your attention specifically to
3 the sentence in the second full paragraph that reads,
4 quote: OI investigators apparently never reviewed
5 the stainless steel liner plate travelers which were
6 the subject of her -- and I note parenthetically
7 that "her" refers to Ms. Neumeyer -- concern,
8 neither did the Technical Review Team, paren, TRT,
9 close paren, close quote.

10 Do you see that sentence?

11 A. Yes, I do.

12 Q. Do you agree with that sentence or is that
13 sentence correct to your knowledge?

14 A. If the Technical Review Team that they're
15 referring to in this sentence is the Technical
16 Review Team headed by Mr. Ippolitto which is
17 currently on site and has been, the sentence is not
18 correct.

19 Q. Why do you say it's incorrect if that's the
20 reference in the intervenor's memorandum?

21 A. I know for a fact that the Technical Review
22 Team has looked at these travelers.

23 Q. Mr. Brandt, I'd now like to direct your
24 attention to the next paragraph on page 2 of the
25 memorandum, which reads, quote: During the September

1 1984 hearings on this issue applicant produced
2 approximately 1300 travelers, including some of
3 those signed off by Ms. Neumeyer and another Quality
4 Control inspector, Fred Evans, on March 3, 1983.

5 Do you see that paragraph?

6 A. Yes, sir.

7 Q. Is that paragraph accurate?

8 A. It appears that the point that the
9 paragraph's trying to make is Ms. Neumeyer and Fred
10 Evans signed off travelers other than those produced
11 by the applicants as a part of this proceeding. To
12 my knowledge, that is not the case. I have not
13 reviewed all the travelers for the Unit 1 Refueling
14 Cavity, nor have I reviewed the travelers for the
15 Fuel Building. However, as I previously stated in
16 this proceeding, the review effort that occurred the
17 first week in March 1983 was for the Unit 2
18 Refueling Cavity and not the Fuel Building or the
19 Unit 1 Reactor Building.

20 The only travelers for Unit 2 which have
21 not been produced that were signed by Mr. Evans or
22 Ms. Neumeyer are for welds number 285, 344, 345, 346
23 and 347, which were part of those inadvertently not
24 copied as part of the original box full of travelers
25 presented in the September hearings by the applicant.

1 Q. Mr. Brandt, on again page 2 of the
2 memorandum filed September 27th, the intervenor
3 asserts, quote: A review of the travelers
4 demonstrates that at least as to the fabrication and
5 installation of the stainless steel liner plates
6 there has been a complete quality control breakdown,
7 close quote.

8 See that assertion?

9 A. Yes, I do.

10 Q. Do you agree with that assertion?

11 A. No, I do not.

12 Q. Why not?

13 A. The overwhelming majority of weld numbers
14 indicates that all inspections were performed as
15 required. There are scattered instances where the
16 documented evidence of performance of these
17 inspections could not be located and there's
18 deficiency paper initiated for these specific weld
19 numbers. As I stated initially in this hearing
20 process, the QC inspectors failed to use the correct
21 form in some cases. In this regard, it was a lack
22 of procedural compliance by QC. But to categorize
23 such as a, quote, complete quality control breakdown,
24 end quote, is an outrageous statement.

25 Q. Mr. Brandt, I'd like to direct your

1 attention to page 3 of the memorandum filed by the
2 intervenor on September 27th. In particular, I'd
3 like to direct your attention to the second full
4 paragraph, the first sentence of that paragraph,
5 which reads in part, quote: Our -- referring to the
6 intervenor -- preliminary research into the
7 technical merits reveals that the vacuum box test
8 and penetrant test are unacceptable substitutes for
9 insuring that the weld was clean, that is, free from
10 foreign materials.

11 And it continues: These welds must last
12 the lifetime of the reactor and the damage caused by
13 impurities in a weld cannot be detected by vacuum
14 box, hydrostatic or penetrant test. The impurities
15 may not manifest themselves for months or years, but
16 when the impurities eat their way out of unclean
17 welds, it is likely that the impurity will extend to
18 the liner plate also.

19 Do you see that text that I just quoted?

20 A. Yes, I do.

21 Q. Do you agree with that text?

22 A. I agree with portions of it and disagree
23 with portions of it.

24 Q. What portions do you agree with?

25 A. They seem to imply the vacuum box test and

1 penetrant test were designed to insure that the weld
2 was free of foreign materials. That's simply not
3 the case. Their assertion that these two tests will
4 not detect all foreign materials that will be
5 present within the weld itself is a valid assumption.
6 However, the purpose of the liquid penetrant test
7 and the vacuum box test was to insure a
8 watertight barrier exists between the waterside of
9 the fuel pool and the concrete. These tests are
10 capable of determining that.

11 They also imply that these impurities may
12 not manifest themselves for months or years, but
13 when impurities, quote, eat their way out, end quote,
14 of unclean welds, it is likely that the impurity
15 will extend to the liner plate also. I don't
16 understand that statement. The mechanism by which
17 the hypothetical impurities could, quote, eat their
18 way out, end quote, of unclean welds is beyond me,
19 whatever these impurities may be.

20 Q. Mr. Brandt, I'd now like to direct your
21 attention to page 4 of intervenor's memorandum and
22 particularly the paragraph in the middle of the page
23 which reads, quote: The liner plates are also
24 susceptible to being hit or jostled by the fuel as
25 it moves through the canal and refueling cavity and

1 into the spent fuel pool. Because of this, it is
2 important that the structural integrity of the welds
3 be adequate. Further, the NRC requires that the
4 fuel pool and other cavities be seismically
5 qualified, and therefore dictate that all quality
6 assurance requirements of Appendix "D" to 10 C.F.R.
7 Part 50 be applied to these structures and
8 components, close quote.

9 Mr. Brandt, do you agree with the text of
10 that paragraph?

11 A. No, I do not.

12 Q. In what ways do you disagree with the Text
13 of that paragraph?

14 A. They're implying as spent fuel is removed
15 from the reactor, that it is moved by some manual
16 process and could bump up against these fuel pool
17 liners, thereby causing a breach of the fuel pool
18 liner itself. There are several things that make
19 that virtually impossible. Number one, as fuel is
20 removed, it's removed in bundles. Each bundle is
21 approximately one foot square, the length of which
22 is probably 12 to 13 feet. But they're moved
23 through the canal by the fueling machine -- excuse
24 me. They're placed in a spent fuel cask and moved
25 through the refueling cavity by the refueling

1 machine and it's carried down the center of the
2 canal. This is done to maximize shielding that the
3 water provides. As it's moved down the middle --
4 and I don't have a drawing in front of me, but I
5 would guess the refueling cavity to be at least 25
6 feet wide, and given that these fuel bundles are a
7 foot wide, there's at least 12 feet of space on
8 either side of the fuel bundle as it moves down the
9 refueling cavity. For that reason, it's virtually
10 impossible for a bundle to hit the fuel pool liner
11 itself. Additionally, these welds forming the seams
12 between the liner plates are not structural welds.
13 This tends to imply --

14 Q. By "this", do you mean the paragraph that I
15 quoted you?

16 A. Right. This paragraph seems to imply that
17 in the event that these liner plate was bumped by
18 something, it would cause plate flexure, and
19 therefore, could cause a breach of the liner plate
20 itself. This is not the case. The welds are
21 non-structural. The liner plate is placed solidly
22 up against concrete and is one quarter or
23 three-eighths of an inch thick, and it would simply
24 not cause enough plate flexure to cause breach of
25 the weld in the event that something did hit it.

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As far as the NRC requiring that the fuel pool and other cavities be seismically qualified, the Comanche Peak PSAR has stated the requirements for these pools. Appendix B requirements are applicable to the installation, and the inspection of these and the program designed and implemented did satisfy the requirements of Appendix B.

Q. Mr. Brandt, I'd like to direct your attention to page 5 of the memorandum filed by the intervenors on September 27th, and particularly that sentence that appears as Subparagraph A approximately halfway down the page. And for clarity of the transcript, I'll quote that sentence which reads: The failure to use the correct S/S Liner traveler testified to by Brandt was a violation of Criteria V, VI and VII -- V, VI and VIII -- excuse me.

And I will note that those references are references to criteria contained in 10 CFR Appendix B.

Mr. Brandt, in your judgment, was the failure to use the correct form with respect to some of the travelers about which you've been testifying a violation of Criteria V, VI or VIII of 10 CFR 50 Appendix B?

A. No, they're not.

1 Q. With respect to Criterion V, why is the use
2 of the wrong form in some cases not a violation of
3 that criterion?

4 A. Criterion V requires that instructions,
5 procedures or drawings include appropriate
6 acceptance criteria for determining that important
7 activities have been satisfactorily accomplished.
8 As I've stated previously in this proceeding, these
9 procedures did include appropriate acceptance
10 criteria and did provide inspection forms for
11 documenting inspections to substantiate
12 acceptability of installed items.

13 Q. Do you find any evidence that the
14 acceptance criteria developed for these welds, for
15 the inspection of these welds, were inadequate in
16 any way?

17 A. No, I do not.

18 Q. Do you find any evidence that those
19 criteria were not applied in the inspections?

20 A. No, I do not.

21 Q. Mr. Brandt, with respect to Criterion VI,
22 do you find the use of the wrong form in some cases
23 to violate that criterion?

24 A. No, I do not.

25 Q. Why not?

1 A. Criterion VI is normally associated with
2 procedures, drawings, specifications and
3 instructions, of which this form was none. There's
4 no evidence to me that the procedure was improperly
5 prepared, that it was improperly -- there's no
6 evidence to substantiate that it was not reviewed
7 for adequacy. There's no evidence that it wasn't
8 approved for use. The only evidence there could
9 possibly be applied to Criterion VI as the criterion
10 also requires that the procedure be used at the
11 location where the prescribed activity is performed.
12 There's no indication that the procedure was not
13 used at the location being performed to the extent
14 that all required inspections were performed. It's
15 not evident, however, that the proper traveler was
16 used, so I guess by inference you could speculate
17 that the lack of use of the correct traveler was in
18 some respects the lack of use of the procedure.

19 Q. Mr. Brandt, with respect to Criterion VIII,
20 do you find any evidence in these travelers that
21 Criterion VIII was violated?

22 A. No. Criterion VIII requires identification
23 and controlling of materials, parts and components.
24 These materials were identified by part number;
25 records traceable to that part number are maintained.

1 And I feel that that meets the requirements of
2 Criterion VIII.

3 If the intervenor is attempting to imply
4 that weld rod traceability was not maintained, as
5 I've stated earlier, there was no requirement for
6 such.

7 Q. Mr. Brandt, I'd like to direct your
8 attention to Subparagraph B at the bottom of page 5,
9 about two-thirds of the way down the page, which
10 reads, quote: The lack of sufficient documentation
11 violates Criterion VI.

12 Do you find any evidence of that sort?

13 A. I'm not sure what the intervenor means by
14 lack of sufficient documentation. As I stated
15 earlier, the failure of QC inspectors to use the
16 appropriate form in some cases is an indication that
17 the procedure was not properly used even though all
18 inspections required by that procedure were
19 performed. If they're attempting to state that the
20 lack of sufficient documentation is the fact that
21 some of the chits are lost, I don't feel that's a
22 violation of Criterion VI. However, Appendix B does
23 not assume perfection. It merely requires that when
24 you do have a violation of requirements, you note
25 such on deficiency paper, which in this case did

1 occur.

2 Q. Mr. Brandt, directing your attention to
3 subparagraph C of page 5 of the intervenors
4 memorandum which reads, quote: The lack of QC
5 verification in supporting documentation violates
6 Criteria V, VI and VIII and includes all the
7 categories, close quote.

8 Do you agree with that statement?

9 A. No, I do not.

10 Q. Why not?

11 A. I feel that the statement implies that
12 there was a lack of QC verification and supporting
13 documentation, which from my review I cannot draw
14 the same conclusion. To the contrary, in the
15 overwhelming majority of cases there was evidence
16 that the inspections were performed and documented,
17 albeit in some cases on the wrong form. That being
18 so, there's no violation of the cited criteria.

19 Q. Mr. Brandt, I'd like now to address your
20 attention to Subparagraph D, the last subparagraph
21 on page 5 of intervenor's memorandum, which states,
22 quote: The failure to include all supporting
23 documentation, WMR's and WFML's in the welding
24 package is, a violation of Criterion VIII that
25 requires identification of traceability of materials

1 used and to prevent the use of incorrect or
2 defective parts, materials and components, close
3 quote.

4 Do you see that sentence?

5 A. Yes, I do.

6 Q. Do you agree with it?

7 A. No, I don't.

8 Q. Why not?

9 A. As I've stated on numerous occasions
10 already today, there was no requirement that WMR's
11 and WFML's be attached to the package. In fact,
12 there's no requirement in Appendix B that even
13 requires compilation of the documents associated
14 with a given weld into a package. Appendix B merely
15 requires that all inspections, examinations and
16 tests be documented and retained where applicable.

17 Q. So I take it you disagree totally with that
18 statement?

19 A. Yes, I do.

20 Q. Mr. Brandt, directing your attention to
21 page 6 of the intervenor's memorandum, the next
22 allegation which is Subparagraph E, states, quote:
23 There is no adequate traceability for any of the
24 welding packages reviewed, close quote.

25 Now, with respect to the welding packages

1 you have reviewed today in your testimony, is that
2 true?

3 A. I'm not sure what the allegation refers to,
4 but it appears to refer to the lack of the WFML's
5 and WMR's in the package and the weld rod
6 traceability. If this is the case, it's not
7 required by procedure, specification or code.

8 Q. Do you disagree with that statement?

9 A. I disagree fully with the statement. I
10 disagree with it to the extent that, number one, I
11 believe the statement's false; and secondly, even if
12 true, there's no requirement for weld rod
13 traceability to exist.

14 Q. Mr. Brandt, under Subheading 2 on page 6 of
15 the intervenor's memorandum there appears
16 Subparagraph A which states, quote: From at least
17 11-29-77 through 1-4-79 applicant used the wrong
18 traveler form, paren, admitted by Brandt, close
19 paren, failed to enter NDE chits on the traveler
20 each day when used, and failed to put the chits in
21 the QA vault daily as required by CP-QCI-2.11-1
22 Rev. 0, 1 and 2, Section 3.1.1, paren, note, close
23 paren, and used a chit for fit-up and cleanliness
24 when no chit for that inspection was authorized for
25 procedures in effect for that period, citing two

1 procedures.

2 Mr. Brandt, do you agree with that
3 statement, that Paragraph A7

4 A. I agree with portions of it and disagree
5 with portions of it.

6 Q. Mr. Brandt, would you go through the
7 paragraph point by point and state those parts you
8 disagree with and state why and identify the parts
9 of that paragraph with which you do agree.

10 A. The statement under Subheading A from at
11 least 11-29-77 until 1-4-79 applicant used the wrong
12 traveler form, paren, admitted by Brandt, close
13 paren, I agree with as it refers to the Unit 2
14 Refueling Cavity.

15 The statement failed to enter NDE chits on
16 the traveler each day when used, I agree with, but
17 only sometimes did they fail to update this. In
18 some cases the travelers were properly updated. As
19 a matter of fact, in the majority of cases for hold
20 points 2 and 3 the traveler was properly updated.

21 The statement failed to put the chits in
22 the QA vault daily as required by CP-QCI-2.11-1 Rev.
23 0, 1 and 2, Section 3.1.1, paren, note, close paren,
24 I agree with as there are a few chits that are not
25 available. However, there are a large number of

1 chits that are available, so I can only agree with
2 this on a partial basis.

3 And the statement used a chit for fit-up
4 and cleanliness when no chit for that inspection was
5 authorized for the procedure in effect for that
6 period, paren, CP-QCI-2.11-1 and 35-1195-CCP-38,
7 close paren, I disagree with. The procedure stated
8 Section 3.1.1 of CP-QCI-2.11-1 that the QC inspector
9 should inspect the items and document the results on
10 attachment 4-A, which is the traveler that was not
11 used for the Unit 2 liner. However, it mentions the
12 use of these chits, so I would maintain that the
13 chit's use was procedurally described and it was
14 proper to use the chit to document the inspection of
15 fit-up and cleanliness requirements.

16 I might add that in the earlier statement
17 in this very same paragraph the intervenor notes
18 that applicant failed to put the chits in the QA
19 vault daily as required by CP-QCI-2.11-1 Revision 0,
20 1 and 2, Section 3.1.1, which was the procedure in
21 effect from November 29th, '77, to January 4th, 1979,
22 and yet, later claims that a chit was used for
23 fit-up and cleanliness when no chit for that
24 inspection was authorized by procedures in effect
25 for that period seems to be inconsistent to me. I

1 don't understand the point they're trying to make,
2 and in fact, the two portions of the same sentence
3 seem to contradict each other.

4 Q. Mr. Brandt, directing your attention to the
5 next subparagraph on page 6, which is labeled
6 Subparagraph B and reads, quote: No QC procedure
7 published since 1-4-79 authorizes the use of NDE
8 chits to record fit-up and cleanliness inspections
9 having been performed. Procedures require that
10 sign-off for all inspections included on the
11 eight-line traveler be on the authorized eight-line
12 traveler, paren, see e.g. QI-QP-11.14-6, paren, Rev.
13 1, close paren, Section 3.8, close paren. Although
14 this was not followed in many instances and even
15 today unauthorized and uncontrolled chits are being
16 used to record inspections, close quote.

17 Mr. Brandt, do you agree with the
18 statements made in the paragraph I've just quoted to
19 you?

20 A. Some I agree with; some I disagree with.

21 Q. Mr. Brandt, would you please go through
22 Subparagraph B on page 6 of the intervenor's
23 memorandum filed September 27th, 1984, and identify
24 the portions of that subparagraph with which you
25 agree and those portions with which you disagree and

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state the reasons for your disagreement.

A. The statement that no QC procedure published since 1-4-79 authorizes the use of NDE chits to record fit-up and cleanliness inspection having been performed is true. I agree with that statement.

The statement that procedures require that sign-off for all inspection included on the eight-line traveler be on the authorized eight-line traveler, see e.g. QI-QP-11.14-6, paren, Rev. 1, close paren, Section 3.8, paren, although this was not followed in many instances, I don't agree with. As I believe I've stated earlier in this proceeding, the procedure was corrected in 1979 in April, and for any new work initiated past that point, an eight-line traveler was used. For new work initiated after April '79 the inspections were signed off on the eight-line traveler as performed. The error that occurred was for travelers existing in April '79 for which work was in process. The inspectors did not incorporate the use of the eight-line traveler in all of these cases, and in some cases chits were used to substantiate inspections performed after January 4, 1979.

The statement, quote, even today

1 unauthorized and uncontrolled chits are being used
2 to record inspections, end quote, is false. Chits
3 are being used today as a means for construction to
4 request QC inspection and for QC to notify
5 construction that that inspection has been performed.
6 The required documentation as a result of the QC
7 inspection is the traveler itself that's
8 procedurally described and from both the evidence in
9 front of me and from my personal knowledge, I
10 believe this to be true.

11 Q. And when you say the evidence in front of
12 you, Mr. Brandt, you have reference to the many
13 hundreds of travelers produced in this proceeding?

14 A. Yes, I do.

15 Q. Mr. Brandt, I'd like to direct your
16 attention to the allegation on the bottom of page 6
17 of the intervenor's memorandum filed September 27,
18 1984, which is listed under subparagraph C and
19 continues on to page 7 of that memorandum. And for
20 clarity of the transcript, I'll quote that section
21 which reads: With the adoption of QI-QAP-11.1-4 in
22 12-26-79 applicant had no QC authorized traveler
23 form for stainless steel liner inspections and no
24 chit forms for any inspection since this procedure
25 deleted any reference to 35-1195-CCP-38 and does not

1 include any traveler or chit forms.

2 Mr. Brandt, do you see that allegation on
3 pages 6 and 7?

4 A. Yes, I do.

5 Q. Do you agree with it?

6 A. No, I don't.

7 Q. Would you please state why you don't agree
8 with it?

9 A. All construction procedures are reviewed by
10 Quality Assurance. They are now and always have
11 been. There's no regulatory or code requirement
12 that process records or process documentation be
13 included in quality control procedures. It's
14 perfectly acceptable for inspection documentation to
15 appear in construction procedures. The procedure
16 QI-QAP-11.1-4 dated 12-26-79 states in Paragraph
17 3.1.1 and I'll quote: The QC inspector shall inspect
18 the following items during fit-up and welding of
19 liner material upon receipt of the stainless steel
20 liner inspection traveler. The stainless steel
21 liner traveler shall remain at the work area or
22 millwright office until it has been completed, and
23 upon completion, it shall be forwarded to the
24 permanent plant records vault by the Millwright
25 Department.

1 This traveler at that time was the eight point
2 traveler --

3 Q. When you say "at that time", Mr. Brandt, do
4 you mean at the time after the adoption of
5 QI-QAP-11.1-4 on December 26, 1979?

6 A. Yes, I do. I'm referring to the traveler
7 that was referenced by the QI-QAP-11.1-4 on December
8 26, 1979. And that was the traveler which was
9 contained in the construction procedure CCP-38 Rev 3
10 dated May 23rd, 1979, which was entitled stainless
11 steel liner inspection traveler.

12 Q. And does your review of the documents, the
13 traveler packages, indicate that that form was used
14 on many occasions?

15 A. Yes, it was.

16 Q. So Mr. Brandt, it's your testimony that you
17 disagree totally with subparagraph -- the thrust of
18 subparagraph C on pages 6 and 7 of the intervenor's
19 memorandum?

20 A. I totally disagree with the first part of
21 it. The second part states no chit forms for any
22 inspection since this procedure deleted any
23 reference to 35-1195-CCP-38 and does not include any
24 traveler or chit forms. I disagree with the portion
25 of that that refers to traveler because the QC

1 procedure does reference the traveler by title.
2 However, no chit forms are required by either
3 procedure at that time.

4 Q. Mr. Brandt, I'd like to direct your
5 attention to Subparagraph D on page 7 of the
6 intervenor's memorandum filed September 27th, 1984.
7 For clarity of the transcript, I'll quote that
8 subparagraph, which reads: As of March 26, 1982, in
9 per QI-QP-11.14-6, paren, Rev. 0-6, close paren,
10 Section 3.5, paren, in Rev. 0, close paren, the
11 issuance and distribution of inspection travelers
12 were to be governed by 35-1195-CCP-38, which
13 contains no instructions on issuance or distribution
14 of travelers, paren see Section 3.4.2, paren, page 5
15 of 18, double close paren. In addition, the March
16 26, 1982, instruction for inspections is woefully
17 inadequate compared to the level of detail and
18 guidance on the conduct of inspection contained in
19 its predecessors and successors, close quote.

20 Mr. Brandt, do you agree or disagree with that
21 allegation in the intervenor's memorandum?

22 A. I disagree.

23 Q. Would you state why you disagree with that
24 subparagraph?

25 A. This subparagraph seems to imply the

1 issuance and distribution of travelers was some
2 major operation. The format and content of the
3 traveler was procedurally described in a procedure
4 which had been reviewed and approved by Quality
5 Assurance. In order to issue the traveler, it was a
6 matter of writing a weld number on the traveler and
7 starting to work with it and there was no
8 distribution of the traveler. So that part of the
9 subparagraph I neither understand nor find
10 significant.

11 The statement that the March 26, 1982,
12 instruction for inspections is woefully inadequate
13 compared to detail and guidance on the conduct of
14 inspection contained in its predecessors and
15 successors, I disagree with. The fact that it
16 referenced other procedures rather than
17 incorporating all the inspection criteria
18 into one procedure does not make the procedure
19 inadequate, and I feel that the procedure -- that
20 procedure, namely Rev. 0 procedure, was adequate to
21 perform inspections to assure compliance with
22 specification.

23 Q. Mr. Brandt, directing your attention to the
24 allegation contained in Subparagraph E on page 7 of
25 the memorandum filed on September 27, 1984, which

1 reads, quote: QI-QP-11.14-6, paren, Rev. 4 and 5,
2 close paren, does not contain any traveler form at
3 all, although it is allegedly included as an
4 attachment.

5 And it cites to the procedure and then
6 continues: This condition continued from June 17,
7 1983, until January 10, 1984, paren, Rev. 6, close
8 paren.

9 Do you see that allegation, Mr. Brandt?

10 A. Yes, I do.

11 Q. Do you agree with it?

12 A. Yes, I do.

13 Q. What is the significance of the allegation?

14 A. It was a clerical mistake. The page --
15 that happens to be page 5 of the procedure states,
16 quote, Attachment One continued, Brown & Root
17 Stainless Steel Traveler Weld Inspection Sheet, end
18 quote. Page 1 of the traveler was inadvertently
19 omitted when the procedure was issued. However, the
20 same traveler existed in Rev. 3 and although
21 slightly different in format, exactly the same in
22 content in Revision 6 of this procedure. The same
23 traveler existed for this entire period as Figure
24 Three in CCP-38 Revision 3.

25 Q. Is that the construction procedure?

1 A. Yes, it is. I see no significance to the
2 clerical error of the admission -- omission --
3 excuse me -- of the first page of the traveler in
4 the QC proceeding.

5 Q. Mr. Brandt, do you see any evidence in your
6 review of the travelers that the wrong traveler form
7 was used during the period June 17, 1983, through
8 January 10, 1984?

9 A. No, I don't.

10 Q. Mr. Brandt, directing your attention to
11 subparagraph 8 or Subparagraph F on page 7 of the
12 intervenor's memorandum filed September 27, 1984,
13 which reads, quote: All forms authorized and/or
14 used for inspection of stainless steel liners and
15 all instructions required a fit-up and cleanliness
16 inspection for all welds. The NCR dispositioned the
17 inspection deficiency only as to cleanliness and not
18 as to fit-up. Thus the NCR does not fully address
19 the problem, close quote.

20 Do you see that?

21 A. Yes, I do.

22 Q. Mr. Brandt, do you agree with that
23 allegation?

24 A. No, I don't.

25 Q. Why not?

1 A. As I tried to explain last week or the week
2 before in this proceeding, the inside inspection is
3 really a cleanliness inspection to verify that the
4 weld joint is cleaned after the spacer bars are
5 removed. As the gap is maintained by the spacer bar
6 preventing the gap from getting narrower than
7 permitted and the two plates are prevented from
8 moving further away by backing bar welded on the
9 back side of the groove and a leak chase channel
10 fillet welded for the length of the channel on the
11 back side of the two plates, the gap could not
12 increase. The only situation which could occur
13 between the outside inspection and inside inspection
14 that in any way could be termed a fit-up inspection
15 of any significance is the backing bar could have
16 been dislodged by the tack welds cracking in transit
17 between the fabrication area and its final installed
18 position. In this case, the backing bar would have
19 come off the back side of the weld and you would be
20 able to detect the lack of the backing bar when you
21 perform the cleanliness inspection and it would have
22 been reported to that point. So essentially,
23 whether you call the inside inspection a fit-up and
24 cleanliness inspection or merely a cleanliness
25 inspection is to a large degree a matter of

1 semantics and not one of substance.

2 Q. So in your judgment, the NCR does address,
3 fully address, the problem of lack of documentation
4 for those few welds to which it applied?

5 A. Yes, sir.

6 Q. Mr. Brandt, I'd like to ask you a few
7 questions about the allegations contained in
8 Category 4, pages 11 and 12 in intervenor's
9 memorandum filed September 27, 1984. In that
10 portion of the memorandum intervenors allege that
11 the chits attached to travelers 1 through 175 appear
12 to be written in two -- one of two different
13 handwritings. Is that true?

14 A. From a quick review of the travelers
15 referenced it appears to me that the observation
16 made by the intervenor in this case is probably
17 correct. The writing describing the comments
18 appears to be in one of two different handwritings.
19 I might note, however, that these fit-ups were
20 performed all in the time frame of August, September
21 1978, and I don't find it unusual to have only one or
22 two foremen responsible for this activity on a two-month
23 time frame.

24 However, it appears that the intervenor is
25 inferring that these comments were entered on these

1 chits after the inspection was performed, and
2 further, it seems that they're inferring that it
3 occurred after March 3rd, 1983. I find no evidence
4 that this is the case. My quick review of the
5 handwritings -- and as I stated earlier, I don't
6 claim to be a handwriting expert -- appears that for
7 each of the two types of handwriting, the
8 handwriting describing the date, the welder, the
9 drawing number and the comments appear to be in the
10 same handwriting on each chit, which is exactly what
11 one would expect if the foreman filled out the chit
12 at the time the inspection was requested. In all
13 cases the inspector's signature is different than
14 the handwriting that describes the date, the welder,
15 the drawing and the comment section, which is also
16 exactly what one would expect.

17 Q. Mr. Brandt, you testified at great length
18 about the documentation that exists to substantiate
19 the various inspections required by the QC
20 procedures on these liner plates. For purposes of
21 this question, I'd like you to assume that in fact
22 none of the outside or concrete side fit-up or
23 cleanliness inspections were performed. With that
24 assumption in mind, I'd like you to state what
25 significance that would have for the correct

1 fabrication and installation of the fuel pool liner?

2 A. Assuming that none of them were performed --
3 and we're talking at this point only about hold
4 point number 1. Hold point number 2, the VT of the
5 backing strip was performed for the welds which are
6 seam welds and have a concrete side and a water side.
7 Step numbers 3 and 4 were performed. All that would
8 have been missed by missing Step 1 was that the gap
9 between the two adjoining plates would not have
10 been verified by QC to be correct and the
11 cleanliness of the backside of the liner plate where
12 the backing strip is eventually attached, would not
13 have been verified.

14 And as the intervenor has pointed out, the
15 procedure required a reverification of that gap as
16 part of the waterside fit-up, which did occur in all
17 cases and is documented on the traveler, not on a
18 chit, which would substantiate that the fit-up gap
19 was proper. Once the inside weld is made, the
20 cleanliness inspection performed on the outside weld
21 prior to hold point 2 is totally without
22 significance.

23 Earlier in my testimony I stated that it
24 was a matter of semantics on whether you called the
25 inside inspection a fit-up and cleanliness

1 inspection or merely a cleanliness inspection. And
 2 I stated that the fit-up gap was maintained by the
 3 welds attaching the leak chase channel to the liner
 4 plate itself, they could not move. I based that
 5 answer, in part, on the fact that the outside fit-up
 6 inspection had been performed, as I believe the
 7 records show, but in this hypothetical example that
 8 you've included in your question that these outside
 9 fit-ups did not occur, I believe the inside fit-up
 10 and cleanliness inspection would have detected any
 11 anomalies.

12 Q. Mr. Brandt, I'd like to direct your
 13 attention to page 15 of the intervenor's memorandum
 14 filed September 27th, 1984. Particularly, I'd like
 15 to direct your attention to the last full paragraph
 16 on the page, which reads, quote: The NCR does not
 17 identify the discrepancy as a generic problem, which
 18 it was. The reference here -- and I add
 19 parenthetically is to NCR M83-00795. The paragraph
 20 continues: Nor does the disposition require that
 21 the review of welds be expanded to determine the
 22 root cause of the problem or include engineering
 23 evaluation of the requirements for the potential for
 24 rust-through during the lifetime of the weld if the
 25 weld could not have passed cleanliness, close quote.

1 Do you agree with that?

2 A. No, I do not.

3 Q. Would you please go through that paragraph,
4 Mr. Brandt, and point by point state what parts you
5 disagree with and why.

6 A. The NCR does not identify the discrepancy
7 as a generic problem, which it was. I guess whether
8 I agree or disagree with that statement depends on
9 the definition of, quote, problem, end quote. In my
10 view it's not a problem even today. If you're
11 talking about a safety problem or a technical
12 problem, there is none. There was a problem with
13 paper. The paper did not exist to substantiate that
14 some of the inspections were performed.

15 Their statement, quote, nor does the
16 disposition require that the review of the welds be
17 expanded to determine the root cause of the problem,
18 end quote, to determine the root cause of the
19 problem years after the cause has been resolved
20 seems absolutely meaningless to me. As I have
21 previously stated, the problem was the fact that
22 there weren't enough lines on the traveler being
23 used in the field for QC to document each inspection.
24 The construction traveler was revised in April 1979,
25 so I have a hard time imagining what we could have

1 done in the way of corrective action in March '83.
2 The cause of the problem was clearly eliminated by
3 that point.

4 I do not agree with the statement to,
5 quote, include engineering evaluation of the
6 requirements for the potential for rust-through
7 during the lifetime of the weld if the weld could
8 not have passed cleanliness, end quote. The
9 situation was clearly described on the
10 Non-Conformance Report, in that the NCR states
11 that there was no documented evidence that the
12 cleanliness inspection had taken place. The
13 Non-Conformance Report was dispositioned by
14 engineering in light of the fact that cleanliness
15 may not have been verified. The intervenor's
16 assumption that rust-through could occur on
17 stainless steel is a hypothesis I am not willing to
18 accept. Austenitic stainless steel does not rust.

19 Q. Mr. Brandt, directing your attention to
20 Subparagraph B on Page 16 of the intervenor's
21 memorandum, they reference an NCR number M83-0079
22 dated 3-17-84 and cite to attachment 4. Are you
23 aware of such an NCR?

24 A. I'm unable to find such an NCR as part of
25 attachment 4. Further, checking the NCR log at the

1 site, I'm unable to find any NCR numbered M83-0079
2 dated 3-17-84.

3 Q. Mr. Brandt, intervenor's subparagraph C on
4 Page 16 alleges that NCR M83-01000 was improperly
5 dispositioned. Do you agree with that allegation?
6 Can you identify that NCR?

7 A. I don't find it included in attachment 4.
8 However, I do have the NCR.

9 Q. Do you agree with the allegation that the
10 disposition is improper?

11 A. No. The disposition states that the two
12 welds in question may be used as is, based on
13 satisfactory completion of the vacuum box test. The
14 rationale for this disposition is exactly the same
15 as I discussed earlier in this proceeding when
16 discussing the disposition of NCR M83-00795, which I
17 believe was Brandt Exhibit 18 or 19. The function
18 of the liner is to provide a barrier to preclude
19 water from leaking from the pool. The vacuum box
20 test assures that the liner performs this function.

21 Q. Mr. Brandt, directing your attention to
22 Subparagraph D on Page 16 of the intervenor's
23 memorandum they assert in that subparagraph that NCR
24 M84-00669 Rev. 1 was improperly dispositioned. Do
25 you agree with that allegation? I note that

1 continues on to page 17.

2 A. This allegation appears to be another case
3 to where the intervenor doesn't understand exactly
4 what occurred. Weld number 1091 is a splice from
5 angle to angle, and as they assert on page 17,
6 signatures on form did make it appear as if the
7 inspections were performed in the proper
8 chronological order. This is true. They were
9 performed in the proper chronological order, except
10 that Mr. Cole who signed out step 8 of the traveler,
11 which is entitled completion of weld inspection,
12 erred when he deemed on page 2 of the traveler that
13 vacuum box was not required.

14 Intervenor draws the conclusion that if
15 these signatures were in the proper order, there was
16 no basis for the NCR. This is not the case. A
17 traveler which is signed by Mr. Cole is a complete
18 traveler. It's signed off on page 1, step 8, as
19 being complete and on page 2, step 5-C vacuum box is
20 marked "NA". And as the NCR properly describes,
21 step 7 has not been performed as required. Step 8
22 was signed as complete. These welds are pressure
23 boundaries and require vacuum box testing. The
24 disposition of the NCR was to reestablish the hold
25 point for performing vacuum box test and the vacuum

1 box test performed by QC. The second traveler to
2 which they're referring on the top of page 17, which
3 states, quote, this traveler originated to satisfy
4 the requirements of NCR M84-00669, end quote, was
5 originated in August 1984 to comply with the
6 disposition of the Non-Conformance Report in that a
7 traveler had to be established or had to be created
8 for QC to perform a vacuum box test and properly
9 sign the traveler as being complete. The only
10 purpose of the traveler to which CASE refers to as
11 Form C, quote, with no signatures or dates, close
12 quote, is this traveler. The only purpose of this
13 traveler is for QC to sign-off after satisfactorily
14 completing the vacuum box test and will be part of
15 the closure documents for NCR M84-00669.

16 Q. At the time this travel package was copied
17 had the vacuum box test been performed?

18 A. At the time that the NCR was written in
19 June '84 the vacuum box test had not been performed;
20 in fact, it wasn't until August that the NCR was
21 dispositioned stating perform the vacuum box test as
22 required.

23 Q. And my point is at the time this traveler
24 package was copied for presentation in this case had
25 the vacuum box test been performed?

1 A. No, it had not.

2 Q. And must that test be performed prior to
3 the final acceptance of this weld?

4 A. It must be performed prior to acceptance of
5 the weld and prior to closure of the NCR.

6 Q. When such test is performed, will it be
7 entered on the traveler that was generated as a
8 result of the NCR?

9 A. Yes. When they do complete the test, the
10 traveler which CASE refers to as Form C, will be
11 signed stating that the vacuum box has been
12 satisfactorily performed and the Non-Conformance
13 Report will be closed.

14 Q. Mr. Brandt, under Subparagraph E on page 17
15 of CASE's memorandum, the intervenor asserts that
16 NCR's number 200087 through 200088 and NCR 84-200018
17 are improperly dispositioned. Do you see that
18 portion of the memorandum?

19 A. Yes, I do.

20 Q. Do you agree with those assertions?

21 A. NCR M84-200018 was written and subsequently
22 voided as the inspector who wrote the NCR admitted
23 he was in error. The concrete that he thought was
24 exposed as a result of the backing strip slipping
25 was on the surface of the backing strip itself and

1 was not in structural concrete.

2 Q. Was that a proper disposition of that NCR?

3 A. Yes, it is.

4 NCR 200087, which is actually NCR
5 M84-200087, was dispositioned -- excuse me -- was
6 written due to the fact of cleanliness not being
7 reverified by QC after a discontinuance of welding
8 for a long period of time. In my opinion, this NCR
9 was improperly dispositioned in that the NCR
10 disposition implies that there was a subsequent hold
11 point to be signed off by QC every time welding
12 started and stopped. As I've stated earlier today,
13 that is not the case. In this case, although the
14 NCR was improperly dispositioned in my opinion, it
15 was on the side of conservatism and had it been my
16 decision, I would have voided the NCR and stated
17 that no procedural requirement existed.

18 NCR referred to as number 200088, which is
19 actually NCR number M84 200088, reports that the
20 backing strip has a gap in it an eighth of an inch
21 wide by three-sixteenths of an inch long and a union
22 of backing strips. NCR's dispositioned. There's no
23 requirement that the intersecting backing strips be
24 continuous; therefore, if there is no evidence of
25 discontinuities, the weld may be used as is. I

1 agree with that disposition and can state that the
2 NCR was properly dispositioned.

3 Q. Why did you agree with that NCR disposition?

4 A. There is no requirement for backing strips
5 to be continuous.

6 Q. Mr. Brandt, at the top of page 18, the
7 intervenor's memorandum dated September 27, 1984,
8 there are a number of allegations concerning field
9 weld number 52. Would you please review those
10 allegations, determine whether you agree or disagree
11 with them and for each that you disagree with,
12 please state the reason?

13 A. Might be more meaningful for me to just
14 discuss the allegations, Mr. Downey.

15 The statement Form A reveals no signature
16 on line 1, although the WMR log indicates that the
17 first fit-up was done during this time period and
18 the chit indicates first fit-up and cleanliness done
19 September 13, 1978. That is the case for this weld.
20 The back side fit-up was done on September 13th,
21 1978. The tack welds on the backing strip were
22 inspected on September 15, 1978. The results of
23 that inspection are indicated on line 2 of what CASE
24 refers to as Form A. The backing strip was
25 subsequently removed from this weld in order to trim

1 the plates to achieve the required elevation
2 tolerance, which is indicated on an inspection
3 report included in the package and signed by Don
4 Vogt. The backing strip was reinspected and
5 cleanlines was reverified as indicated on the
6 inspection report.

7 CASE also states that comments made on the
8 traveler, quote, cleanliness verified where
9 accessible, end quote, and indicates that it's
10 without signature or date. That I cannot agree with.
11 The initials M.N., which were an inspector named
12 Mike Norton who was working in this area at this
13 time and it is dated 8-17-79. This is an angle to
14 plate weld at the top of the Refueling Cavity. The
15 backing strip was removed and reinstalled, as I
16 stated, and cleanliness was reverified. The notation
17 by Mr. Norton was made for a portion of the weld and
18 was made before the final cleanliness inspection was
19 made by Mr. Vogt.

20 Cleanliness for the inside weld was
21 reverified by Dave Stinson on 12-30-81. I have
22 confirmed that this is for the inside weld,
23 although signed in the wrong place, by confirming
24 that the backside of the weld was embedded in
25 concrete on 9-21-79.

1 Q. Is it your testimony, Mr. Brandt, that all
2 required inspections have occurred for weld 52?

3 A. Yes. As I stated, Mr. Stinson signed the
4 traveler in the wrong place; however, my review
5 indicates that all required inspections have been
6 performed.

7 Q. Assuming that Mr. Stinson's signature is
8 not for the inside weld, do you feel that there is
9 reason to question the adequacy of the weld?

10 A. No. An analogous situation is described in
11 NCR M83-01000 that we discussed earlier. Weld 273
12 is exactly the same type of weld as weld 52. It is
13 a weld of the top angle to a plate. No
14 documentation exists to substantiate performance of
15 the inside cleanliness inspection for weld 273. This
16 is exactly the same situation as would exist for
17 weld 52 if you assumed that Mr. Stinson's signature
18 dated 12-30-81 is not for the inside weld. NCR
19 M83-01000 is dispositioned use as is based on the
20 satisfactory results of a vacuum box test and if the
21 hypothetical situation you have posed for weld 52
22 were described on an NCR, it would be dispositioned
23 the same way.

24
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1 STATE OF TEXAS)

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3 I, Janet E. Schaffer, RPR, Certified Shorthand
 4 Reporter in and for the State of Texas, do hereby
 5 certify that there came before me on the 3rd day of
 6 October, A. D., 1984, at the Ramada Inn Central,
 7 Fort Worth Texas, the following named person,
 8 to-wit: C. Thomas Brandt, who was previously duly
 9 sworn to testify the truth and nothing but the truth
 10 of his knowledge touching and concerning the matters
 11 in controversy in this cause; and that he was
 12 thereupon examined upon his oath and his examination
 13 reduced to writing; same to be sworn and subscribed
 14 to by said witness before any notary public.

15

16 I further certify that I am neither attorney or
 17 counsel for, nor related to or employed by, any of
 18 the parties to the action in which this deposition
 19 is taken, and further that I am not a relative or
 20 employee of any attorney or counsel employed by the
 21 parties hereto, or financially interested in the
 22 action.

23

24 In witness whereof, I have hereunto set my hand
 25 and affixed my seal this 15th day of October, A.D.,

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1984.

Janet E. Schaffer

JANET E. SCHAFFER, 1543, RPR, CSR
IN AND FOR THE STATE OF TEXAS
1226 Commerce, Suite 411
Dallas, Texas 75202
(214) 742-3035

My commission expires December 31, 1985