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COPY

IN THE MATTER OF:

SWORN STATEMENT OF ROBERT MESSERLY

PRESENT AT THE TAKING OF STATEMENT:

MR. ROBERT MESSERLY, Witness;

MR. B. BROOKS GRIFFIN;

MR. RICHARD K. HERR, Interrogators;

MS. JUANITA ELLIS

MR. DAVID COGBURN, Court Reporter,

SWORN ORAL STATEMENT IN QUESTION AND ANSWER
FORM of ROBERT MESSERLY, taken before David Cogburn,
a Court Reporter in and for the State of Texas at
the United States Federal Courthouse in the City
of Fort Worth, County of Tarrant on the 14th day
of April, 1983 at 2:00 p.m., at which time the
following proceedings were had:

P R O C E E D I N G S

1
2 MS. ELLIS: For the record, we should
3 indicate that we have handed the NRC officials
4 an April 13th letter from CASE addressed to
5 Edward Markey regarding this matter, and also a
6 copy of an affidavit of J.R. Dillingham,
7 D-i-l-l-i-n-g-h-a-m. And I believe Mr.
8 Messerly has a copy of some documentation which
9 he will be providing also to the NRC.

10 MR. GRIFFIN: Anything else, Ms.
11 Ellis?

E X A M I N A T I O N

12
13 BY MR. GRIFFIN:

14 Q Mr. Messerly, this investigation is being
15 taken pursuant to the rules of the Nuclear
16 Regulatory Commission and we are at the U.S. Federal
17 Courthouse, a part of the U.S. Attorney's Office,
18 Room 524 in Fort Worth, Texas. This is Thursday,
19 April the 14th, 1983 and we're commencing this, it
20 look~ like, at 2:01 p.m. Present for the NRC is
21 Richard K. Herr, the director of office of
22 investigations and myself, H. Brooks Griffin.

23 I understand, Mr. Messerly, that you are a
24 former employee of Brown & Root and were employed at
25 Comanche Peak Steam Electric Station in Glen Rose,

1 Texas. Is that correct?

2 A Yes I was, uh-huh (affirmative).

3 Q And present with you is Ms. Juanita
4 Ellis.

5 MR. GRIFFIN: Ms. Ellis, if I might
6 ask you, what is your role in relation to Mr.
7 Messerly?

8 MS. ELLIS: All right. Mr. Messerly
9 is one of the individuals which we had planned
10 to call in hearings which have been postponed
11 for the time being, at least, in the Comanche
12 Peak operating license proceedings.

13 MR. GRIFFIN: All right. And you are
14 here in his behalf?

15 MS. ELLIS: Well, yes. He asked that
16 I come and join him so that he would have
17 someone here that he felt comfortable with. He
18 felt that he would feel a little more
19 comfortable with someone else here.

20 MR. GRIFFIN: Do you represent him in
21 any way other other than just an associate or
22 in the manner you have already described?

23 MS. ELLIS: In the hearings -- I'm
24 not an attorney first of all. In the hearings,
25 though I am CASE's primary representative and

1 as such do what an attorney, I should say,
2 would do for CASE. And so to that extent I
3 guess sort of a quasi representative status.

4 Q All right. Our purpose here today is to
5 ask Mr. Messerly questions concerning an earlier
6 statement that I believe he made to you in which he
7 identified a number of issues that are of concern to
8 the NRC, and we would like to find out more specific
9 details about these issues. So my questions will be
10 directed to you, Mr. Messerly.

11 A Okay.

12 Q The first issue I would like to go into
13 is the use of a rebar drill or a drill at Comanche
14 Peak that I believe you have indicated was used,
15 that you used in your job and was also used to drill
16 through cement and rebar; is that correct?

17 A That's correct.

18 Q Would you mind telling me in more detail
19 what this drill is?

20 A Well, it's like it says. They call it a
21 rebar eater, it's made by Drilco manufacturer who is
22 out of Miami, Florida and it's a -- well, they have
23 a diamond tip on them or they have a real hard steel
24 tip on them that cuts through other steel, concrete,
25 anything else that gets in its way. And they are

1 operated by anywhere from a half to a three-quarter
2 horse electric motor.

3 Q Okay. And did you use this machine in
4 your capacity as an employee of Brown & Root?

5 A Well, I was foreman over the crew that
6 used this machine.

7 Q All right. Did the use of this machine
8 require documentation from --

9 A It did.

10 Q -- from engineers?

11 A It did.

12 Q And these were Brown & Root engineers?

13 A Right. Not Brown & Root, they were Gibbs
14 and Hill. They are the ones that first started it
15 when they first come on the job.

16 Q All right.

17 A A guy named Dean Fellingner is the one if
18 you want his name.

19 Q He was the one that issued --

20 A He was the one that started out with me
21 on the rebar drilling, and later it changed into
22 fourteen different people if you want to know the
23 truth about it.

24 Q What was his last name?

25 A Fellingner. He is still with Gibbs and

1 Hill and he is out of the Dallas office now.

2 MS. ELLIS: I believe that's
3 F-e-l-l-i-n-g-e-r. I have seen his name.

4 THE WITNESS: Do you know who I'm
5 talking about?

6 Q During the time that members of your crew
7 used rebar eater, did they make sure they had this
8 documentation?

9 A Most of the time yes, but there are times
10 that I was ordered by my superiors, a guy named Mike
11 Sanders, to order or go out the gate, as I stated in
12 my affidavit before.

13 Q Are you saying he asked you or told you
14 or ordered you to drill holes or use this drill in
15 the manner in which it was to be used without
16 documentation as required by procedure?

17 A I am saying that.

18 Q How many instances did this occur?

19 A I wouldn't -- I mean, just to give you a
20 number, I couldn't do it. Many times.

21 Q Okay --

22 A As far as number, you're going to say
23 more than this or less than this, I can't give you a
24 number. I won't give you a number because I don't
25 have that much -- well, how can I say it, I'm just

1 not there. The drill -- I was ordered to loan the
2 drill out at times. I was ordered to loan a guy a
3 drill bit that he would go get a motor, a drill
4 motor out of the tool room and I'd never see these
5 three, four, five, six bits again. Now, how many
6 holes were drilled with it there's no telling how
7 much rebar was cut.

8 A man comes up and says, I want you to
9 give so and so six drills, he's got a pipe hanger
10 that has to go down or a cable tray that has to go
11 down - a cable tray support - and we have got three
12 holes in it and we need the fourth one bad. And I
13 went to my general foreman at that time who was Pete
14 Mason, and I told Pete, I said Pete, Mike keeps
15 giving me these orders to get this drill out, loan
16 it out to drill holes that are not authorized. I
17 haven't got the paperwork from Dean Fellingner. I
18 said, what can I do? He said, man, he's my boss,
19 what do you want me to do?

20 Q Do you know for sure that the people that
21 you loaned this drill to did not acquire the
22 documentation that they needed to stay within
23 procedure and use this drill?

24 A I'm positive they did not get the
25 procedure, because any time the procedure paperwork

1 came through it came directly to me from Dean
 2 Fellingner and I handed it to my men and seen that
 3 the job was done. Because there were areas out
 4 there that there was -- strictly was illegal at all
 5 to drill any kind of rebar or cut any kind of rebar,
 6 Reactor One was one of them. No rebar of any kind
 7 was allowed to be cut in that building anywhere.

8 Q Is this the containment building?

9 A Containment building, Reactor One.

10 Q What the NRC would like to know in this
 11 instance is the specific locations where holes were
 12 drilled without proper documentation. Is there any
 13 way that this information or these locations can be
 14 determined, reconstructed or anyplace we can go,
 15 anybody we can go talk to to find out specific
 16 locations?

17 A Let's see, Danny Brown borrowed it
 18 several times to drill holes. He's still working
 19 out there. Other than getting ahold of Mike
 20 Sanders, Danny Brown is the only one I can think of.
 21 And as far as sitting here and telling you
 22 locations, evidently you haven't been out to that
 23 plant.

24 Q I have, yes.

25 A Well, I had access to every building on

1 that place. I have been in every building. I have
2 cut rebar in every building but containment one,
3 except the dam. Now, does that tell you anything?
4 Now, to go tell you to go to a certain wall and see
5 if the rebar is cut is impossible.

6 Q You understand what we're trying to do
7 with the information. We're trying to find out
8 specific locations --

9 A Right.

10 Q -- so that we can verify what you're
11 saying. Let me ask you, in your statement that you
12 made to Ms. Ellis, you identified a diary that you
13 have kept and in this diary -- it's my understanding
14 in this diary you logged in instances or times when
15 this rebar eater was used to drill holes when you
16 did not have the proper documentation; is that
17 correct?

18 A No. This is --

19 Q Was this just a work --

20 A This goes from 9-7-78 to 10-17-79. This
21 was the period in which I was in charge of the rebar
22 eater. And this documentation, there's some of them
23 most of them have documentation. It also has the
24 CMC number, and like at the beginning it was a DCDDA
25 or something. I got it wrote on there someplace.

1 DCDDA is what they started drilling rebar with.
2 Then they find out this was not the right
3 documentation. Then they changed it to a CMC, but
4 when they first got it they were doing it on
5 three-part memos.

6 Q But --

7 A And this is every hole that I drilled,
8 legal and illegal, and except for the ones where my
9 equipment -- I was ordered to loan my equipment out.

10 Q All right.

11 MS. ELLIS: Just for the record, we
12 probably should mention that Mr. Messerly is
13 referring to a -- looks like a twenty-four page
14 listing which he had prepared of these
15 different items and he will be giving that to
16 you.

17 Q Is this a complete rendering of this
18 diary --

19 A Uh-huh (affirmative).

20 Q So --

21 A It is in complete form.

22 MR. HERR: Is it marked? You said
23 legal and illegal. Have you got the illegal
24 stuff marked on it?

25 THE WITNESS: No, I really haven't

1 but if it doesn't -- it's going to have to be
2 interpreted by me, which I'll try to explain to
3 you or I can tear off a page and y'all can look
4 at a page --

5 MR. HERR: Perhaps take a blue pen or
6 a red pen and we'll mark the illegal stuff.

7 THE WITNESS: No, I won't do that. I
8 can't do that because I didn't keep that much
9 of it. I mean, you can take a look and flip
10 through it to see what it's talking about. I
11 didn't do that -- as far as that, if I had kept
12 that kind of a record, it would have been a
13 separate record or something like that.

14 Q Would any of these entries in this
15 document lead us to the locations of where holes
16 were drilled without authorization?

17 A It's very possible. It is very possible.

18 MS. ELLIS: If I can call your
19 attention to this third column here, it says
20 "rebar cut" -- it's upside down. But in this
21 column, this is where specific rebar was cut
22 apparently and --

23 THE WITNESS: Yeah, what I did was, I
24 marked down -- this was my own deal and my own
25 idea, because there were certain areas that you

1 were supposed to take out a percentage of the
2 rebar. If you cut a hole in the rebar it
3 should have been reported and thus and so
4 forth.

5 Q In those instances, did you report it?

6 A Yes, I'm legal. So is this thing.

7 Q Okay.

8 A But it gives the direction of the rebar,
9 which way it was running, north, south, east, west.
10 It gives the depth that I cut the rebar and it also
11 gives the percentage of rebar, just me looking at a
12 piece of rebar and saying I cut fifty percent, ten
13 percent or if I just nicked it, just whatever after
14 the hole was drilled.

15 Q But on each of those entries, does it
16 tell the location on the site out there?

17 A It tells you the location, what building,
18 what print number it was taken off of or the hanger
19 number itself. So all you got to do is look up that
20 hanger number and it will give you the area and
21 exact location of this particular hanger.

22 Q All right. So any -- which column shows
23 the authorization?

24 A This one here.

25 Q Okay. So if that column is left blank,

1 then that would be an example?

2 A Not necessarily blank. I don't know how
3 in the hell to put that without sounding silly.

4 Q We are going to need to identify -- we're
5 not interested in the ones that were done properly.
6 We're only -- we want to look at the ones that were
7 done without documentation as required by procedure.

8 MS. ELLIS: We're referring to the
9 fifth column now on the far right.

10 A No, there's really not no way of telling,
11 not without looking up the hanger number and find
12 out what was done on the hanger. You will just have
13 to go over each individual hanger and check the CMC
14 and see what was legal to cut and what was not legal
15 to cut.

16 MS. ELLIS: You might mention, too,
17 in this column the ones on the front page all
18 seem to have items by them, but on several of
19 them throughout the listing there were none.
20 So it's not -- each one of these items, in
21 other words, doesn't have rebar cut
22 necessarily. It's just as indicated on there.

23 Q At this point I was just trying to limit
24 it to holes drilled without proper authorization,
25 regardless of whether rebar was cut or just

1 concrete. If the drill was used improperly, we're
2 trying to identify those instances.

3 Can you think of any way with this
4 document or any other documents you may know exist
5 that would lead NRC inspectors to specific locations
6 where holes were drilled without proper
7 authorization? Do you see what we're trying to get?

8 A I see exactly what you're trying to do.
9 You're trying to make your job real easy and there's
10 no easy way way to do it. I'm serious as hell
11 there's just no easy way to go to it because you
12 have so many things out there that's been like this,
13 and for me to pinpoint and give you an exact area by
14 this or any other means -- I might be able to walk
15 out there and show you things if I walk with you and
16 say, this was done here and this was done here. But
17 you're asking me to remember back three, four years,
18 too, and if you have ever been in that area, if you
19 go in there a week later it's all different.

20 Q I understand what you're saying. Can you
21 think of any way that I can transmit this
22 information to an inspector or to a group of
23 inspectors where we might be able to identify these?
24 You're right, we are trying to make it easier in
25 that we can't reinspect all the holes drilled at

1 Comanche Peak since its beginning, since the
2 foundation was poured.

3 A This rebar didn't come in until this date
4 here.

5 Q In other words, we want to address this
6 potential problem.

7 A I can't think of the guy's name. There's
8 one area down in the tunnel what they call the
9 tunnel area, and he was foreman over it when he
10 borrowed that drill. He cut a bunch of rebar down
11 in there and it would be a damn good place to start.

12 Q If we talked to this man, do you think he
13 would be willing to tell us?

14 A I can't think of his name. Yeah, I do.
15 I really do. I'm trying to think of his name; I
16 can't think of it.

17 Q If you cannot remember his name today
18 would you mind giving us that name when you do
19 remember it?

20 A He's still working out there. He got
21 fired and he was -- he went into the pipe department
22 at Green Hat now. He's a welder.

23 Q Do you think you will remember the name
24 eventually?

25 A If I don't I've got it at home I would

1 call you, but he might testify. And if you could
2 get ahold of a Richard Montjar (phonetic), he was a
3 man --

4 MS. ELLIS: Do you know how to spell
5 that?

6 A M-o-n-t, something like that. It's
7 pronounced Montjar, but he's in Germany now, I'll
8 tell you that much.

9 Q Now?

10 A Yes. Well, he married a girl in the
11 service is the only reason -- well, he was a year
12 ago. He might be back over here, now but he's
13 married to a girl in the service.

14 Q Okay.

15 A But he worked and drilled a lot of holes
16 illegally.

17 Q Now, these illegal holes that you are
18 referring to that he drilled, this was when the
19 rebar was, or the rebar eater was on loan?

20 A No, he worked for me. But he was also
21 around and could be a character witness to what I am
22 stating as to when I was ordered to do this. And if
23 you could pin that Danny Grisso (phonetic) down,
24 Danny Grisso used to work for me, too. And if you
25 put him on a stand and square him in, he will either

1 perjure himself or tell you about holes he drilled
2 when he was working for me and now he is in charge
3 of that operation.

4 If you could pin him down, but that
5 company has got him sewed down tight. He's a
6 puppet.

7 Q First of all, let me tell you, I'm not an
8 engineer. I have an engineering or technical
9 background, but let me see if I can phrase this.

10 In the holes that were drilled by your
11 crew members without proper documentation, can you
12 remember any instances or did you witness any
13 instances where damage was done to containment or
14 any of these other areas where the drill was used
15 that would constitute a safety or health hazard or
16 possible weakening of the structure?

17 A Well --

18 Q I know that's detailed.

19 A I'm not an engineer either. I have been
20 in steel, I have been in supervision, I have been
21 out there working. And when an engineer designs
22 something, he designs it for that particular thing,
23 for that particular strength. All right. If
24 somebody comes in there and cuts part of that out
25 without documentation, there's your answer. But I'm

1 not an engineer.

2 Q So you're saying, if I understand you
3 correctly, you're saying that if it's done, then who
4 knows what the effect will be?

5 A Well, the engineer knows, the engineer
6 that designed it. If he puts in fourteen rebars
7 there and you cut out seven of them, then you have
8 weakened half of them, what he designed it to hold.
9 And I have went down walls in that particular tunnel
10 that I was talking about and we were putting up to
11 hold thirty-two inche lines down there. I wasn't,
12 this guy was if I could think of his name. And we
13 had to cut a bunch of rebar down in there.

14 This was, I'm -- well, quote me if you
15 want to, I think, I'm not sure, but I think this was
16 an area that wasn't supposed to have any rebar cut
17 out of it.

18 Q All right. Let me ask you one more time
19 because you have accused me of looking for the easy
20 way. I would like to be able to walk out of this
21 room today and go find examples or instances of
22 holes drilled down there without proper
23 authorization. I hope there's some way we can
24 figure out how that can be done because we would
25 like to follow up on this.

1 A If I could just think of one exact hole
2 that I could remember. I know of three on the
3 turbine deck, but I'll be damned if I can remember
4 what area. There's another deal where I would have
5 to go out and it's completely changed over now, and
6 it would be a spot check between three or four
7 hangers.

8 Q All right.

9 A In fact, out of the three or four, I
10 think you will find a Hilti-bolt welded on the back
11 side because they couldn't get a hole in the ground.

12 Q What would it take to refresh your memory
13 as to a possible location?

14 A I have no idea. The documents you could
15 get is -- now, this would be Turbine One area which
16 would cut it down quite a bit. It's around them
17 tanks that they covered with the aluminum siding and
18 insulation. I don't know what tanks, what they are
19 called, them big long tanks up on the turbine deck.
20 And it was right alongside one of them tanks there
21 that three holes rebar was cut in without
22 documentation.

23 Q Was there anybody else present that might
24 be able to further identify, help us identify this
25 location?

1 A There was Richard Montjar. I should have
2 brought my time books with me. I'm not really sure
3 if Danny Grisso was there or not.

4 Q Is it your personal belief that Grisso
5 could identify locations?

6 A Yeah, I think he could, but I doubt if
7 you will get him to do it.

8 Q Is he still employed by them?

9 A Yes, he's very much employed.

10 Q All right. Well, I'll tell you, let's
11 move on. We have got several other --

12 MS. ELLIS: Perhaps if you had Mr.
13 Grisso appear under these circumstances, you
14 know, sworn with a stenographer and so forth,
15 maybe it might enable him to say things that he
16 might not feel comfortable saying not under
17 oath.

18 A I seriously think Danny would. I have
19 known Danny for quite a few years. I went through a
20 divorce with him and everything else when he was
21 working for me. But right now that company has got
22 him bought and paid for.

23 Q I can assure you the NRC is not bashful
24 about going and asking, so we will --

25 MR. HERR: I have one question I

1 would like to ask. Did you see any of these
2 people using the drill improperly? I know you
3 said you loaned them the drill out, but did you
4 ever see them use it?

5 THE WITNESS: Oh, yeah.

6 MR. HERR: And that was during the
7 time frame --

8 THE WITNESS: That was during this
9 time frame that this covers.

10 MR. HERR: Okay. That's the only
11 question I have.

12 Q Will that document that you are providing
13 us, will examination of this document, say, by an
14 engineer, would it lead to any locations where such
15 holes were drilled? Seems this fifth columns seems
16 to be filled in.

17 A What I would do if I was you, I would go
18 pull these CMC's and DCDDA all through it with an
19 engineer, bump it against the number of the hanger
20 and see what was authorized to cut and what was not
21 authorized to cut, and then come back and bump it
22 against this, like a hundred percent cut out and if
23 that was really legal in that area to cut out a
24 hundred percent.

25 Q Do you think, then, a random sampling

1 done like that is going to reveal instances of holes
2 cut without authorization?

3 A Uh-huh (affirmative). I really do.

4 MS. ELLIS: It would seem to me on
5 that third column there where it shows the
6 amount that was cut out, that it would be
7 prudent at least to check all the ones where it
8 says a hundred percent or maybe as much as
9 fifty percent have been cut out.

10 A Because the way I understand that, on the
11 first part, all this -- these DCDDA's and all that
12 and the three parts were all illegal.

13 Q You mean where it says DCDDA?

14 A Yes.

15 Q Those are illegal cuts?

16 A At the beginning they were, and then they
17 changed it to a CMC. Now, if they went back and
18 covered their butts on that DCDDA I don't know.

19 Q If we checked all the ones that -- the
20 DCDDA and checked that number it might lead us to
21 locations?

22 A I would try that first and find out if
23 this was a legal document, because according to Dean
24 Fellingner the engineer, that was all wrong until he
25 come up with the CMC -- talk Bob -- CMC idea that

1 had to be wrote by a specific engineer.

2 Q As I flip through here, I only see that
3 DCDDA recorded twice. Are some of these other items
4 also that type of number?

5 A All right. Here's one that was wrote on
6 an RPIC. That was illegal, too. And a DCDDA --

7 MS. ELLIS: Are all of these numbers
8 here, are those all --

9 THE WITNESS: They could be CMC's and
10 they could be DCDDA's. I'm not real sure about
11 which they were. God, that's been, '78?

12 Q Right.

13 A I really need to sit down -- I haven't
14 looked at this other than a couple of days ago since
15 I have been out of it, and I could probably sit down
16 with somebody, and be glad to, to try to more or
17 less interpret exactly how it was wrote and what it
18 is.

19 Q Okay. We would greatly appreciate that.

20 A I would. I will; I'll be glad to do it.

21 MR. GRIPPIN: Do you have any more
22 questions, Dick?

23 MR. HERR: No.

24 Q Tell me now, you say, if I understand
25 correctly that this unauthorized use of this rebar

1 easter, is it true you were threatened with
2 termination if you failed to loan it out --

3 A If I failed to do anything that this man
4 said as far as that rebar eater loan-out or drill
5 bits or the whole operation or failed to drill
6 something myself and my crew, I was told that I
7 would be terminated if I didn't do it.

8 Q Tell me what his name is again.

9 A Mike Sanders. You have to understand out
10 there exactly what the deal was. At that time Hal
11 Goodson was the superintendent. Mike Sanders was, I
12 guess, twenty-six, twenty-seven years old and had
13 never done any kind of work like that in his life
14 and he was right underneath Hal Goodson as a
15 three-stripe general foreman. And Hal Goodson had
16 one thing out of his mouth, and that was production.
17 He didn't come out and say it, but he didn't give a
18 damn how you got it --

19 Q Okay.

20 A -- as long as it showed up on paper. He
21 wanted production, he wanted pipe hangers up, he
22 wanted cable tray supports up and he wanted them on
23 the wall and completed and bought off. He didn't
24 give a damn how they were put up, and this is what
25 Mike Sanders did. And in doing so, if they ran into

1 a problem, you've got to to figure some holes were
2 drilled, a hundred and something holes for one
3 hanger to try and find a decent spot to hang it
4 without hitting rebar. This brings on frustration
5 on the men, they go to their foreman, the foreman
6 goes to Mike Sanders, Mike Sanders says go down and
7 see Messerly and drill the damn thing and put it up.

8 Q I understand. Let's move on. You stated
9 in your affidavit to CASE that you observed or
10 witnessed the use of the polar (phonetic) crane to
11 pull up a piece of thirty-two inch pipe; is that
12 correct?

13 A That is absolutely correct.

14 Q I'm not an engineer; I don't understand
15 the significance of this. Could you explain it to
16 me, please?

17 A All right. What it amounts to is the
18 main steam pipe has a condensation joint like for --
19 expansion joint is what it's called. It's a huge
20 horseshoe type shape, and this thing is coming out
21 of the turbine building. All right. This
22 thirty-two inch main steam pipe, it's coming out --
23 it's anchored in concrete all the way around it,
24 it's a fixed object, you can't move it, right? It
25 comes into this expansion joint, makes huge

1 horseshoe shape and it goes down into each one of
2 the steam generators, which there's four of them, in
3 the containment building.

4 It was attached through the wall and it
5 was also attached to the steam generator in the
6 compartment inside the containment building.
7 Somebody come along after these pipes had been in
8 there, because somebody else was hollering,
9 production, production, production, and found out
10 that the main steam line was six inches off of
11 location on the vertical way and four inches on the
12 horizontal way off of location. There is a guy --

13 THE WITNESS: What was that guy's
14 name? Have I got his name down there?

15 MS. ELLIS: I don't think you have
16 got a name in here.

17 A I'm hell on names today, ain't I? But
18 what this gold hat did was ordered his people to
19 raise it up with the polar crane. I can't remember
20 the exact tonnage that was put on this because they
21 had a big gauge on it that showed tonnage when you
22 pull on it. A big round gauge looks like big clock,
23 and whatever tonnage -- seemed like to me it was
24 eighty-five tons, it was ungodly because everybody
25 scattered when they seen that needle going up as the

1 crane was pulling on it. The reason I know this for
2 a fact is because I was pipe hanger foreman at that
3 time between 860 and 905 elevation in the
4 containment building. I had all of main steam and
5 all of fourteen-inch feedwater lines that run all
6 through that area.

7 Q Supports for them?

8 A I had all the pipe supports. And I had
9 to undo my pipe supports, let him pull this up, Rex
10 Broom, which is a guy about -- I don't know, if you
11 seen him you would think he's eight foot tall, but
12 he's only about seven feet tall and four foot wide,
13 I'm serious. Look him up out there, you will --
14 he's got a head on him that big around.

15 He was on three tons come-alongs pulling
16 the horizontal way. And they put it into position
17 and once they got into position, I had to go back
and change my pipe support dimensions and hold that
in position. When they cut the temporary
cup that they had welded to the steam generator
base, it flopped like fourteen inches and echoed
through that whole containment building.

Q So you're saying they put this complete
pipe under tension in this movement?

A (Nods head affirmatively).

1 Q And it was secured into the wall on one
2 end and temporarily unsecured to the steam
3 generators?

4 A It was temporarily secured, welded to the
5 steam generators with temporary pipe. It's a
6 thirty-two inch line that goes into the steam
7 generators.

8 Q So the pipe was attached at both ends and
9 the center portion or some portion in between the
10 two ends --

11 A The expansion chambers is where they
12 moved the pipe at.

13 Q And they were -- this is a complete unit,
14 so it was put under tension; is that what you're
15 saying?

16 A Yeah.

17 Q And then you put in the supports to hold
18 it in that position?

19 A The supports were already there. In
20 fact, several of my supports could not be used no
21 longer, that's how far they moved the pipe because I
22 was allowed so many degrees for my pipe hangers to
23 be off of dead center of that thirty-two inch main
24 steam pipe. And when they moved it with these
25 come-alongs, and the overhead crane -- several of my

1 pipe hangers had to be completely removed and
2 started over again and redesigned to move over to
3 the center of the pipe. They moved it six inches
4 horizontally or six inches -- damn it -- six inches
5 up vertically and four inches horizontally.

6 Q And yet the ends remained in the same
7 place?

8 A (Nods head affirmatively).

9 Q Today would that same -- would it be in
10 the same condition as far as you knew it was when it
11 was -- when your supports were put back in place, or
12 reconnected or --

13 A What do you mean, the same position?

14 Q In other words, is it still under
15 tension?

16 A I would say yeah. Because I know they
17 did -- well, they moved from where it was welded to
18 the steam generator with the temporary pipe. I
19 would imagine now that they have the thirty-two inch
20 pipe going down after they got it on its last
21 location, that they have got permanent pipe in there
22 now, which would still put where it comes through
23 the wall in the same bind that it was originally
24 when they done it.

25 Q When did this occur? Do you remember

1 what year?

2 A Had to be right before I got fired, in
3 that summer I'm pretty sure.

4 Q Summer of what?

5 A '82.

6 Q Summer of '82?

7 A Might have been earlier than that.

8 Q From the way you described it, sounds
9 like everybody knew this was taking place?

10 A Hell, yes, anybody that was in the
11 reactor. My general foreman, Ed Dean told me to get
12 my people and get the hell out of 860 and go
13 someplace and hide until that idiot got done.

14 Q Was there an engineer in charge?

15 A Hell, no, there wasn't no engineer up
16 there. It was just that stupid gold hat that they
17 got up there that they call the pipe fitters. A
18 good friend of mine got fired -- what the hell was
19 his name -- he got fired once because of his --

20 MR. HERR: What's his name, the gold
21 hat?

22 THE WITNESS: Damn, I can't remember
23 his name either. I should brought my paper; I
24 had all that crap wrote down.

25 MR. HERR: Was he the guy in charge

1 of moving this thing, the gold hat?

2 THE WITNESS: Yeah.

3 MR. HERR: Is there any documentation
4 on that?

5 THE WITNESS: To my knowledge, no. I
6 knew the foreman real well. Don't ask me his
7 name. All of a sudden names escape me. I got
8 his name at home, too.

9 Q You may not know the answer to this
10 question, but just for my information, is it
11 possible for all these people to be involved in what
12 sounded like a major operation and management all
13 through the company not know that this event was
14 taking place, including the engineers that would
15 have -- might have an opinion on any kind of
16 movement of such a large piece of material? I'm
17 just asking your opinion.

18 A I want to give my opinion, but I want to
19 try and explain something to you. It's very
20 possible, because you got no communication out there
21 between the crafts. You have a pipe engineer -- say
22 you're a pipe engineer and I am a cable tray
23 engineer and so forth and so on down, just name any
24 branch in there. We're sitting across from each
25 other in the same office, but we don't tell each

1 other a damn thing. We don't talk to each other
2 about coffee and yes, it was possible because your
3 management out there, your upper management controls
4 the place. If they want to do it, all they have to
5 do is say, do it. Well, we haven't got the correct
6 paper works. I don't give a damn, I said do it.

7 Now, what choice have you got? You're out
8 there trying to make a buck and feed a family. You
9 ain't got no choice and most of your upper
10 supervision out there at that particular time, they
11 were all a clique that came up from North Carolina
12 and all buddy-buddies, and most of the upper
13 supervision -- how in the hell I ever got to be a
14 supervisor out there I don't know because I don't
15 know anybody and I ain't got no kin out there, but
16 that's what all your upper supervision was, and
17 ninety percent of your foremen out there are the
18 same way.

19 Q I noticed that at one place in your
20 affidavit here -- moving on to a different subject
21 now -- you talk about the fact that you reinstalled
22 hangers on the feedwater system?

23 A Uh-huh (affirmative).

24 Q This was, I guess, what, a major rework
25 project?

1 A I would call it a major rework. I wish I
2 had them books. I would like to show you how many
3 times I rebuilt hangers out there.

4 Q The same hangers?

5 A Same hangers over and over and over
6 again.

7 Q I've only got one question on this. You
8 say you worked at that for a long time. Was the
9 work done by your crew done properly as far as you
10 know?

11 A Yes, sir. It was done exactly right,
12 bought off by QC and everybody else and somebody
13 came through there and said, hey, they have been
14 redesigned wrong, let's tear them down and redo
15 them. And as far as I know on December 7th, '82
16 when I left there they were still working on
17 feedwater lines and I had them all completed on the
18 big feedwater that floods that whole containment
19 area.

20 Q A different subject again. I notice in
21 your report that you make reference to notice to
22 employees. This is a notice -- I believe it's
23 called a form three NRC document?

24 A Yes.

25 MS. ELLIS: That's a two-folding

1 deal.

2 Q While you were employed at Comanche Peak,
3 did you see any of these documents posted?

4 A Never. In the four and a half, five
5 years I was out there, never did I see one on any of
6 the bulletin boards, and I had access to that whole
7 plant.

8 Q All right. If there had been one, do you
9 think you would have noticed it?

10 A Yeah, because I was always looking for a
11 deal. I read every pamphlet on all the bulletin
12 boards when I ain't got nothing else to do.

13 Q And what time period -- remind me, what
14 time period were you employed out there?

15 A From February of '77 until December the
16 7th of '82 -- or '78, I think. Well, in February of
17 '83 I would have been out there five years.

18 Q All right.

19 A And a foreman four years and -- little
20 over four years, or right at four years. I got
21 foreman in June, I went to work in February. I made
22 foreman and supervisor in June and I was fired in
23 June, so right at four years I was supervisor out
24 there.

25 Q Okay. I want to ask you about the use of

1 a cutting torch on hangers. I don't personally
2 know, is it improper to use a cutting torch to tear
3 down or alter a hanger?

4 A Not to tear down and alter, but it's
5 illegal to use it in the containment building where
6 I was the entire supervision, when I was hanging
7 pipe supports. You drill everything and everything
8 has to go on the wall according to the drill size.
9 I took down a hanger -- took down several hangers
10 that was put up by this general foreman out there
11 that I tried to fire.

12 Q Which one is this?

13 A Oh, boy.

14 Q Was it your general foreman?

15 A No, he wasn't my general foreman. He
16 worked for me. I tried to fire him while he was
17 working for me.

18 Q You were a foreman?

19 A Yeah. They call them supervisors out
20 there. You got a supervisor, a general supervisor,
21 a three-stripe general supervisor and then a
22 superintendent.

23 Q I see. Is a foreman higher than a
24 general foreman?

25 A No. The general foreman's got two

1 stripes on his hat.

2 Q So this guy was your boss?

3 A Huh-uh (negative). He later made general
4 foreman because he went out to Raymond Hebert's
5 house and built him a little sun deck and a little
6 porch and patio and all that, and then he became a
7 general foreman overnight over in pipe hangers. I
8 heard he got fired, which I hope he did.

9 He had taken a torch and cut the back side
10 of a tube out because a lot of bolts are put in like
11 this, the holes in the wall. They are supposed to
12 be straight, ninety degrees off the wall. They're
13 anchored in the wall, poured into the concrete.

14 MS. ELLIS: Richman inserts.

15 A Yes. And you go to hang a pipe hanger on
16 that and they give you a threaded piece of steel and
17 you're supposed to stick it in there and it's
18 supposed to come ninety degrees off the wall. Well,
19 they come off this way and come off that way and
20 come off this way and this way --

21 MS. ELLIS: For the record, could you
22 kind of try to describe those angles that you
23 are talking about? That's kind of hard to do
24 sometimes.

25 Q Let me just ask you, maybe it would be

1 more clear at least to me that -- were these, I
2 think these are called anchor bolts or something
3 like that?

4 A You got Richman inserts is what are in
5 the concrete wall, poured in around the concrete.

6 Q And you say these were installed at
7 improper angles --

8 A Yes.

9 Q -- for the supports that they were to be
10 attached to?

11 A Dh-huh (affirmative).

12 MS. ELLIS: Off the record.

13 (Discussion off the record.)

14 (Brief recess.)

15 Q These bolts that you are discussing, do
16 you know where they were located at the site?

17 A Are you talking about the Richman
18 inserts?

19 Q Yes.

20 A Well, narrow it down between 860 and 905.
21 I had that whole elevation and all of your
22 compartment rooms.

23 Q Well, do you know specific ones that were

24 A The only way I could give you a specific
25 would have -- my record of my hangers that I done

1 and be able to say, well, this hanger or that hanger
2 was done that way.

3 Q Would you have recorded the traveler for
4 the hanger if one of these bolts or these inserts --

5 A No.

6 Q -- were improperly installed?

7 A No, because we drilled holes this way, we
8 drilled holes up, we drilled holes down due to the
9 installation of the insert.

10 Q If you found an insert that was
11 improperly installed or not at the correct angle,
12 did you drill these holes to repair it?

13 A No. You don't drills holes in concrete.
14 Not in the insert.

15 MS. ELLIS: I misunderstood, so
16 explain how that works with these deals. How
17 do they get into the wall to start with?

18 THE WITNESS: They tie in the rebar
19 when they pour the concrete, and they got a
20 piece of foam in ther to plug the hole, and all
21 you do is dig the foam out and stick your
22 threaded rod in there.

23 MS. ELLIS: So rather than drilling a
24 hole to put them in to begin with, they have
25 some kind of a form or something and they are

1 poured -- initially when they pour the concrete
2 they are in there to start with?

3 THE WITNESS: Originally their plans
4 were to put in so many inserts in a wall area
5 or ceiling or whatever. They just put in a
6 bunch of inserts; ever so many feet they put in
7 an insert. And hopefully what they were hoping
8 was they could come back and put a pipe
9 support, a cable support or electrical support,
10 whatever, a conduit and use these inserts that
11 were put in there -- which turned out they
12 didn't use half of them -- and they had to be
13 grouted over the ones that weren't used or had
14 to have a hole drilled in there by a Hilti
15 drill in which they changed the entire
16 operation on unit two and went to a solid steel
17 wall imbedded in the concrete with studs welded
18 right to the steel wall and the concrete poured
19 around them.

20 Q Are you saying that they put this steel
21 in the wall and started welding to that steel?

22 A Started welding direct in unit two. It
23 takes in safeguard two, auxiliary two, containment
24 two.

25 Q Are you saying that the problem then that

1 we're discussing was in containment one?

2 A Yes.

3 Q Where there was no steel wall --

4 A Well, they started on the -- I think on
5 the 905 pour, when they poured 905 floor and beams
6 in there, they started putting steel in them. But
7 from 905, the bottom of 905 down, there wasn't any
8 steel imbedded in the wall, just a few plates and
9 stuff.

10 Q The use of the steel in the wall took the
11 place of these inserts because you could attach
12 directly to the steel?

13 A Well, it had a sheet of steel there you
14 could put whatever hanger you wanted to.

15 Q Okay. When your crew ran into these
16 inserts that were at the wrong angle, placed at the
17 wrong angle, how did you attach the inserts normally
18 or how did you attach your hanger to these?

19 A I drilled the hole in the tubing at an
20 angle, whatever the angle was, because you don't
21 bend inch and a half threaded rod. Normally you
22 don't.

23 Q You drill a hole?

24 A Drill a hole at an angle, and then I have
25 seen them put in documentation on some of the

1 hangers they put a tapered washer on it to allow for
2 the angle that the threaded rod came out.

3 Q And then you say they grouted over the
4 other hole?

5 A Unused ones had to be grouted. You had a
6 dimension from one hole to another that you could
7 drill. There was a dimension in your nine point six
8 documentation out there how close you could drill to
9 a Richman insert, how close you could drill to
10 another Hilti-bolt or how close you could drill to
11 another attachment or steel plate or whatever.
12 There's all kinds in your nine point six.

13 Q Are you saying that these redrillings or
14 these angled drillings into these inserts
15 constituted a procedural violation on unauthorized
16 drilling?

17 A Well, there again, you can go back to
18 being that neither one of us are engineers. These
19 inserts are tied to rebar with wire, all right? To
20 be at a hundred percent, they have to be surrounded
21 by concrete a hundred percent, and they have to be
22 ninety degrees off the wall. When you stick
23 something in it, it should be ninety degrees off the
24 wall. If you have got this thing in there at, say,
25 at a ten-degree angle, you've not got the same

1 pulling capacity or coming out of the wall as you
2 have if it's straight.

3 Q Let me ask you this, then. How many
4 instances do you know of in which there were --
5 many?

6 A How about ten that were right and the
7 rest wrong.

8 Q Is that right?

9 A Now, that's the percentage.

10 Q What did QC said?

11 A QC never seen them. QC didn't see
12 nothing but the finished product.

13 Q So the finished product they saw was a
14 bolt sticking out that was attached to a hanger and
15 it looked to be proper?

16 A (Nods head affirmatively). QC don't get
17 in behind the hanger. You had a one-inch plate that
18 goes in behind, say -- for instance, we used a
19 six-inch tube vertical on the wall and say we had
20 two of these inserts. All right, we drilled
21 completely through the tube, used a one-inch washer
22 in the back of the tube, a one-inch washer in front
23 of the tube, and this one inch or inch and a half
24 threaded rod went through the washer, the tube, the
25 washer and into the wall.

1 Now, if it was at an angle, QC never sees
2 this because there's a nut on top of that.

3 Q Were the engineers aware of this manner
4 of altering these inserts when they were at an
5 improper angle?

6 A Man, I tell you what, I have been around
7 a lot of places in my life but I have never seen
8 anything out there -- if they call themselves
9 engineers -- I don't know what you'd call me, a
10 nigger aviator, I guess. But I'm telling you, they
11 don't communicate, they don't go out in the field.
12 How in the hell can you solve any problem if you sit
13 in this office and you don't go out into the plant?
14 That was their problem.

15 Q Would you mind telling me the original
16 instance of this manner of correcting these, the
17 angle of these inserts?

18 A Only way to correct it is not use it and
19 drill around it and drill a straight hole. You
20 don't put a Richman anchor in after the concrete is
21 poured.

22 Q Who was directing that they do it,
23 though?

24 A The Richman --

25 Q These redrillings.

1 A Your building department.

2 Q Who specifically? Somebody had to decide
3 that it was going to be done this way. Do you know
4 who?

5 A No. I imagine that comes from your
6 original Gibbs and Hill drawings or something.

7 Q I'm talking about the variation, this
8 changing the angle without -- to make it improper,
9 where the angle is wrong.

10 A I'm losing you someplace. I don't know
11 what you're saying.

12 Q You're saying it's supposed to be at
13 ninety degrees angles to the wall?

14 A Yeah.

15 Q And you-all were changing the angles so
16 it would fit --

17 A We weren't touching the Richman now.
18 Only thing we did was take the threaded rod, and
19 whatever angle it is, we would drill it at that
20 angle so that it would come through the tube and
21 when it come out the other side of the tube, it come
22 out as close to center as we could get it.

23 Q When you talk about tube, are you talking
24 about tube steel?

25 A Uh-huh (affirmative).

1 Q On the hanger?

2 A On the hanger. There was no way of
3 changing the insert.

4 Q So the insert remained the same and the
5 angle on the tube steel was changed?

6 A Wel, the holes through the tube steel was
7 changed.

8 Q Okay. So does that mean that the tube
9 steel had at least two holes in it, one of which was
10 used and the other unused?

11 A No. No. I don't know how to describe
12 that to you. Say that's the insert. All right, you
13 know me and my drawing. You got a piece of tube
14 steel here. We're going to run this one
15 horizontally. All right, looking at it, here is the
16 hole in the front like so. All right, this back
17 hole, we'll say that this angle runs this way to our
18 left. The back hole, if you know anything about a
19 print at all, might be drilled like that.

20 Understand what I'm saying, looking straight through
21 the tube?

22 Q I think so.

23 A Then this one here might be drilled like
24 thus. But when it come out the front it was
25 straight, so that means that this tube, if I was

1 sticking it in the wall here, would be at this angle
2 or -- no, this angle, in order to get out, and this
3 here be at this angle and get out. But when you
4 tighten on an inch-and-a-half screw, whatever gives
5 I don't know, but it's flat on the front. And see,
6 you got a big one-inch washer that goes here, the
7 size of the tube and also on the back side of it to
8 space it away from the wall.

9 Q Okay.

10 A So we don't change the insert.

11 Q And you are saying because it's not at
12 the proper angle that it is less than whatever the
13 load factor of its ability to support whatever
14 weight it is supporting?

15 A Well, again, I'm not an engineer but if
16 something is designed to go in a certain way and
17 it's not there, it's not in that way, then it's not
18 designed right. And it is a weaker point.

19 Q Okay.

20 MR. HERR: Did you bring this to
21 anybody else's attention.

22 THE WITNESS: Yeah. It don't do no
23 good.

24 MR. HERR: Do you know who you
25 brought it to?

1 THE WITNESS: Oh, you could just
2 about mention anybody else's name of my
3 superiors from Hal Goodson to Mike Sanders to
4 Mike Robinson to Ed Dean to Jim Starkey.
5 There's a jewel you ought to hang.

6 MR. HERR: What did they say when you
7 brought it to their attention?

8 THE WITNESS: Do you want a quote?
9 "Hang the damn thing". What do you do? And
10 that is all my upper supervisors. You don't
11 know how glad I am to be away from that place.
12 I ain't got no job, but I'm still glad to be
13 away from it. I've never seen anything in my
14 forty-three years on earth run like that place.

15 Q Can you think of any way that we can
16 identify specifics again of hangers that were, where
17 these holes were improperly --

18 A I tell you what. I just about bet you,
19 Mr. Griffin, I'm telling you what I bet you. Just
20 go out there and pull any damn studded rod out of
21 there, pull three of them and two of them is
22 crooked.

23 Q And these were never addressed by QC from
24 that inspection?

25 A There's no way of checking it. No way of

1 knowing what angle that thing is in there unless you
2 pull the hanger off and screw a straight rod in
3 there and look at it. But I would say, I would just
4 damn near bet you that out of three rods you get two
5 of them that's crooked.

6 MS. ELLIS: Just to be sure I
7 understand, when you look at this straight on
8 like QC would come and look at it, ~~everything~~
9 looks all right from the front and all of the
10 part that you are talking about that's at an
11 angle is, in effect, hidden?

12 THE WITNESS: It's inside the
13 concrete. Nobody knows it. It's inside of
14 solid concrete.

15 Q Can you think of any way that we can
16 identify particular areas where this was done? Is
17 this all the areas that don't have steel plate
18 against the wall?

19 A No. Most of the places that had the
20 threaded rod would be in the compartments,
21 compartments one, two, three and four, and then you
22 have a lot of your other buildings, safeguard and
23 auxiliary, they all got the threaded rod imbedded
24 inserts.

25 Q Okay.

1 A But in the containment itself, you would
2 probably find them in the compartments would
3 probably be the major part of them.

4 Q All right. Let's go back to this, the
5 use of the cutting torch. Is that --

6 A That's what I'm saying. This hanger in
7 these compartments, if they didn't have enough
8 intelligence to find out what kind of angle it is
9 and how to drill the hole from the back and make it
10 come out center from the front, what this foreman
11 done out there or general foreman on nights, what he
12 done was take a torch and cut about a three-inch
13 hole. And you can see, if I cut -- if I got this
14 angle here and say we have another one here and the
15 back was at another angle, we just cut that sucker
16 out like that so we can move that thing any way we
17 want to to get it started.

18 Q How do they fill in the hole or is it --

19 A They don't fill it in; it's covered with
20 a washer. The only reason I found it out, the
21 hanger that was particularly put up by this guy was
22 designed wrong. I had to go down there and tear it
23 down. And I went to my superior Ed Dean and I said,
24 what are you going to do about this? I mean, I got
25 my butt tore up yesterday because I put something in

1 wrong or because one of my men had forgot to grout
2 behind a plate. I got called up to the front office
3 about a plate I put up three or four years ago. And
4 it wasn't grouted, the holes wasn't grouted behind
5 the plate. And I was called in and told if they
6 found one more hanger like that that I was going out
7 the gate. I said, Raymond, what the hell are you
8 talking about? I can't stand there and watch
9 fifteen men every five minutes put up every plate,
10 and you're going to fire me for something that
11 happened four years ago, fire me.

12 And then I go down there and I report
13 something like this to my general foreman. He
14 reports to Raymond Hebert -- well, this same guy is
15 the one that built the little sun deck or whatever
16 you want to call it at Raymond Hebert's house.

17 MR. HERR: What's his name?

18 THE WITNESS: Raymond Hebert.

19 MR. HERR: No, the guy that did the
20 building.

21 THE WITNESS: That's the name I can't
22 remember.

23 MR. HERR: The night foreman?

24 THE WITNESS: He was the general
25 foreman. I sold him a car. Hell, he used to

1 be a good friend of mine. I don't have nothing
2 against the guy except he don't know nothing.

3 Q Can you think of anybody else that we can
4 go talk to that can identify some hangers where they
5 specifically remember that this was done, these cuts
6 were made in the tube steel?

7 A Let me go home and I can give you a call
8 and I can give some names. If they are going to
9 talk I don't know. If they are still out there,
10 ninety-nine out of a hundred of them are in the
11 clique and they ain't going to talk unless they are
12 utterly threatened, because their jobs are on the
13 line. Hell, they are making thirty-five, forty
14 thousand dollars a year for doing nothing and they
15 ain't going to come over here and take a chance on
16 losing their job. Several of them are still there.
17 I think about seventy-five percent of my crew is
18 there. But if they would talk, I don't know.

19 Q Okay.

20 MR. GRIFFIN: Off the record.

21 (Discussion off the record.)

22 Q Now, you say the fellow that was drilling
23 the holes with the drill, is that this guy --

24 A The one I was drilling for. He was
25 foreman in that area. I was drilling holes for him.

1 Q And his name is Nathan?

2 A Nathan Hammers or something like that,
3 Hammers.

4 Q And Hammers might know specific holes
5 drilled --

6 A True.

7 Q -- with the rebar eater?

8 A Yeah. If you could corner him, I think
9 he would go.

10 Q All right. Now, the use of the cutting
11 torch on this tube steel, you say this was at the
12 direction of the general foreman?

13 A No. He wasn't a general foreman at that
14 time.

15 Q He became --

16 A He became general foreman later. He was
17 boy, I tell you what, if you could get in my print
18 shack out there and get my log that I kept on every
19 damn hanger I got in there, I could tell you who
20 worked on it, the name of the person that worked on
21 it and when he done it. I kept a daily log, but I
22 turned that over to the new foreman. When they
23 busted me back, I give him that so he would have a
24 record of all the hangers put up. In that log is
25 all the feedwater hangers that were reworked and why

1 and who the person that worked on them, because if
2 anything ever fell back I went to each of them men
3 and said, why was it done this way. Because when
4 you got two or three guys here and two or three guys
5 here and two or three guys here and so forth and so
6 on, you can't be at every place at one time.

7 But if you could get ahold of that log
8 that was in my print shack, I can narrow them
9 hangers down real close for you.

10 Q How many would there be?

11 A Every hanger between 860 and 905 that I
12 put up. Every CT line, every main steam line,
13 feedwater line. It should still be in my print
14 shack.

15 MR. HERR: Who did you give the log
16 to?

17 THE WITNESS: Here we go again. I'm
18 not very good on names as you found out. I can
19 give you his name, too, because I got it in my
20 time book. He was my lead man for me for about
21 six months. He was an ex-foreman down there;
22 his foreman lasted about a month before they
23 busted him back.

24 MR. HERR: When did you give it to
25 him?

1 THE WITNESS: When I got fired -- no,
2 no, in June of '82 when they busted me back is
3 when I gave him everything in that print shack
4 except that document you got there, which was
5 none of his business that I took with me.

6 MR. HERR: And you weren't fired
7 until when?

8 THE WITNESS: December 7th.

9 MR. HERR: Of '82?

10 THE WITNESS: '82.

11 MR. HERR: He had it six months?

12 THE WITNESS: He had it six months,
13 and everybody liked the way I kept that log
14 because they could go right to that book and
15 open it up and it would tell what percentage of
16 that hanger was done, who worked on it and the
17 rework and CMC's and so forth on it.

18 MR. HERR: Was it a black or green
19 book?

20 THE WITNESS: No, it was a notebook
21 with paper in it, a regular black notebook.

22 MR. HERR: Three ring?

23 THE WITNESS: Yeah. And in there is
24 everything I have done in four years out there.

25 MR. HERR: Was there any printing on

1 it?

2 THE WITNESS: No. Yeah, it would
3 just have -- let's see, I forget what I had on
4 the front of it. I had this whiteout that you
5 use on typing paper. I had something printed
6 on that, main steam or containment one hangers
7 or something like that. I don't remember what
8 it was. You can't miss my shack.

9 MR. HERR: Where was your shack
10 located?

11 THE WITNESS: It was located on 860
12 but now it's outside of the entrance to
13 containment one. It's a bright red shack out
14 there. I painted it bright red because I got
15 in trouble for putting a Christmas tree on it
16 one year. And it's got my name all over it,
17 Bob Messerly, 8895.

18 MR. GRIFFIN: Do you have any more
19 questions?

20 MR. HERR: Is there anything else
21 outside of your affidavit that you wish to go
22 into or describe to us at this time?

23 THE WITNESS: No. Well, I don't
24 really know. If you are going to get into
25 something besides what I have discussed

1 already, I know it's been brought up before,
2 but if you can get ahold of a guy named Red --
3 I gave you his name the other day. I ain't got
4 it with me. I wish I had his address. He was
5 a weld tech out there and he can tell you about
6 a lot of that welding. That's another name
7 I'll have to get for you. I have got it on one
8 of my affidavits or something. And there's a
9 Joe Gray that was a welding foreman out there
0 that done a lot of welding illegally without
1 documentation, such as lugs on pipes without
2 purge, and --

3 MR. HERR: Did he tell you this?

4 THE WITNESS: I seen him do it.

5 MR. HERR: Can you give me the
6 location?

7 THE WITNESS: It was down on the 832
8 elevation. Roy Estes was foreman at the time,
9 and you might get ahold of a guy named Gary
0 Hill who was foreman down on 808 elevation
1 which had some bad lugs welded on by Joe Gray
2 illegally. Ed Dean was general foreman and
3 they done it on the sly, Raymond Hebert knew
4 about it.

5 MR. HERR: Who gave the order?

1 THE WITNESS: Raymond Hebert.

2 MR. BERR: He gave it to Dean, and
3 Dean passed it --

4 THE WITNESS: Dean then passed it to
5 Joe Gray because he was the foreman. He would
6 go down there and do it and didn't want any of
7 the welders to know about it.

8 MS. ELLIS: Was there anybody else
9 maybe on the crew that you know of --

10 THE WITNESS: Joe Gray's crew or my
11 crew?

12 MS. ELLIS: -- that would have known
13 about this particular thing that you are
14 talking about?

15 THE WITNESS: Other than Joe Gray and
16 there's another name I need to find out. I can
17 give you a bunch of names on stuff that was
18 done wrong down there that was seen by them or
19 stuff like that. The only thing you can do is
20 if they are still working down there -- I heard
21 Joe Gray got fired, too.

22 Q Okay. Why don't we wrap this thing up?

23 We discussed three issues outside of just
24 those notices posted, and we have asked you or you
25 have mentioned names or knowledge of names of

1 people, although you cannot recall the names right
2 at the moment regarding the use of this rebar eater,
3 the polar crane, that incident and the use of these
4 torches to cut hangers. And do you agree that you
5 will call me and let me know --

6 A I do.

7 Q -- fill in these names with these
8 situations as you have described them --

9 A Yes.

10 Q -- so we can put a complete package
11 together?

12 A I can give you every name that was in the
13 rebar crew from the time I had it. I have my time
14 books at home. I kept my own time books.

15 Q We are looking for people that know about
16 these instances of illegal or improper or work done
17 out of procedure.

18 A These are all the people that were doing
19 it. My entire crew was.

20 MR. HERR: They were doing that at
21 your direction --

22 THE WITNESS: At my direction, but
23 several of them were there when Mike Sanders
24 came down and ordered me to do so. And when
25 your superiors tell you to do something and

1 your job is on the line, that's what you did.

2 MR. HERR: These improper weldings by
3 Gray and some of these, did they tell you that
4 they had actually done it improperly?

5 THE WITNESS: I have seen them do it.
6 Any time you weld a stainless steel lug on, you
7 have to purge a line after a certain size. If
8 you don't purge it, it causes a sugar coating
9 on the inside and sucks that pipe into the
10 piece of steel that you are welding. So what
11 you have is you have a void area inside of a
12 slick steel piece of pipe, just a sunk-in area.
13 The stainless -- on stainless it just sucks it
14 right into that lug you're welding. We're
15 talking about a little lug like half an inch
16 long and maybe three-eighths of an inch high.
17 What it is, it's a lug that keeps the pipe from
18 doing this motion. You weld like four lugs on
19 this side, four lugs on this side around a
20 pipe, and you put a clamp in between it and
21 struts back to a fixed object on the wall and
22 it stops that pipe from going in this motion or
23 up and down, whichever way the pipe is located.

24 MS. ELLIS: And the purpose of it is
25 to keep the pipe from moving?

1 THE WITNESS: Right.

2 Q Wouldn't that show up on a radiograph?

3 A It should.

4 Q And aren't such things radiographed
5 before they are finally accepted by QC?

6 A No. On a stainless you get a -- hell,
7 they run that dye test on it.

8 MR. HERR: Penetrant test?

9 THE WITNESS: Yeah, penetrant.

10 That's the only thing, as long as the weld is
11 pretty and all that, it will pass penetrant.
12 But that's all on the inside.

13 MR. HERR: Do you know one way or the
14 other whether these are involving
15 safety-related or nonsafety-related, or do you
16 know offhand --

17 THE WITNESS: No, I'm not a nuclear
18 power plant -- it's all put in there for
19 something. Now, what particular thing this
20 did, I don't know -- I couldn't be honest with
21 you and tell what you it did without
22 remembering the line.

23 MR. HERR: The exact location.

24 THE WITNESS: The exact location and
25 line number. If you had the line number I'd

1 tell you what it did.

2 MS. ELLIS: Was it like in the
3 containment?

4 THE WITNESS: Everything I done was
5 in the containment. Everything I have
6 mentioned here, except for the rebar eater,
7 concerns the containment building in Reactor
8 One, which the reactor is inside containment
9 one. But everything I have mentioned in here
10 has happened in here that I have personally
11 seen done.

12 MR. HERR: Do you have anything else
13 you wish to add? —

14 THE WITNESS: No. I'll give you a
15 list of names.

16 MR. HERR: Thank you very much, Mr.
17 Messerly.

18 (End of statement).
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STATE OF TEXAS
COUNTY OF DALLAS

This is to certify that I, David Cogburn, reported in shorthand the proceedings had at the time and place set forth in the caption hereof, and that the above and foregoing 62 pages contain a full, true and correct transcript of said proceedings.

Given under my hand and seal of office on this the ____ day of _____, 1983.

David Cogburn, Notary Public
in and for the State of Texas
County of Dallas

My Commission Expires on December 30, 1985.

WK ENDING
9/18-78
74 HOLES REBAR
81" NINTY GUN

WK ENDING
9-23-78
6 HOLES REBAR
4" NINTY GUN

WK ENDING
9-30-78
NEXT PAGE

FRINT NO	LOCATION	REBAR CUT DEPTH	DAY + DATE	CAGE POSITION
2323-51-044	TURBIN/ELV 803	3" RUNNING E+W	9-15-78	FLOOR
2323-51-044	TURBIN/ELV 803	3" ↓ ↓	9-15-78	00992
4/2 2323 S-0748	AUX 810.6"	4" RUNNING N+S	9-15-78	OVER HEAD
MK-CV-1-05V-005-T55	CONTRAL 807' 830	3 1/2" VERT. 3/2" RUNNING	9-16-78	01076
MK-CV-1-05V-005-T54	TURBIN 830	DEPTH 4" FULL CORE ELV. 830	9-16-78	WALL
MK-DD-X-006-003 T35	TURBIN	DEPTH 4" FULL CORE ELV. 830	9-16-78	WALL CMC 1077
MK-DD-A-006-003 T35	TURBIN	DEPTH 2 1/2" FULL CORE RUNNING HOR. SW TX ELV. 779	9-16-79	WALL CMC 1077
MK-DD-A-006-003 T35	TURBIN	DEPTH 2 1/2" FULL CORE RUNNING HOR. SW TX ELV. 779	9-16-79	WALL { CMC
1150 + 1151	807' CONTRALL	DEPTH 4" VERT	9-18-78	WALL { 1071
1150 + 1151	807' CONTRALL	DEPTH 4" VERT	9-18-78	WALL { +
1150 + 1151	807' CONTRALL	DEPTH 4" VERT	9-18-78	WALL { 0050 Ref
2323-5-0748	807' CONTRALL	DEPTH 2" VERT FULL CORE	9-20-78	WALL - 01106
1173	807' CONTRALL	NO CORE	9-20-78	WALL - 01106
1173	807' CONTRALL	HIT REBAR 4" 2"	9-20-78	WALL - 01106
642	SAFE GUARD 801' 7 1/2"	HIT REBAR 3" 1 1/2" CUT VERT	9-20-78	WALL - 01106
374	AUX -	COMPLETE HOLES	9-20-78	WALL - 01106
375	AUX	COMPLETE HOLES	9-20-78	WALL - 1110
598	SAFE GUARD 806' 8 1/2"	DEPTH 1 1/2" FULL CORE VERT	9-21-78	REAR - NINTY GUN W/O CUT FIT
722	SAFE GUARD 792' 1 1/2"	DEPTH 4" VERT	9-25-78	WALL - 01144
722	SAFE GUARD 791' 3 1/2"	10% CUT	9-25-78	WALL - 1149
MK CO-1-028-001-T55	TURBIN 830'	DEPTH 4" VERT 10% CUT	9-25-78	WALL - 1149
		NO 2 RUNNING N+S 90% REBAR CUT 5" DV.	9-25-78	CMC FLOOR
		(2) RUNNING E+W 7" DIA 10% C		1856 FLOOR
		(3) RUNNING E+W 7" DIA		
		20% REBAR CUT		
		(4) RUNNING N+S 3 1/2" DIA 50% CUT		
		(5) 3 1/2" DIA. RUNNING N+S 50% CUT		
		(6) RUNNING E+W 7" DIA 10%		
		(7) 3 1/2" DIA 20%		
2323-5-715	807' CONTRALL	ACROSS RUNNING E+W 5" DEPTH FULL CORE		967 FLOOR
2323-5-715	807' CONTRALL	AUX RUNNING E+W 5" DEPTH FULL CORE		967 FLOOR
784	799' 3 1/4"	ACROSS VERT		WALL
785	SAFE GUARD 800' 7 1/2"	DEPTH 10% REBAR VERT FULL CORE ALSO DRAW PIPE		WALL

THESE WILL
BE
DONE OVER

OVER

WK - ENDING
9-30-78
24 HOLES
4 HOLES F.S

THUR -
INVENTORY
TUE. DAY
FRI - ONE

WK
ENDING
10-7-78
60 HOLES

PRINT NO#	LOCATION ELEV	REPAIR CUT DEPTH	DAY + DATE	CMCT + POSIT
658	810' 6" SAFEGUARD	10% REBAR WITH 5" DEPTH	9-26-78 TUE	009 OVERHEAD
763	S.G. 790'	10% REBAR CUT VERT	9-27-78 WED	01105 OVERHEAD
818	SG 790	FULL CONC. L. DEPTH RUNNING HOLES	9-27-78 WED	01108 OVERHEAD
REDACTED SECTION				
757	790 S.G.	10% Rebar F+V Horiz. 6" Deep	9-26-78 TUE	01109 OVERHEAD
757	790 S.G.	" "	9-26-78 TUE	01109 OVERHEAD
756	790 S.G.	" "	9-26-78 TUE	01109 OVERHEAD
756	790 S.G.	10% REBAR RUNNING W/S	9-26-78 TUE	01109 OVERHEAD
1925	831 AUX	NO REBAR AT 3 1/2"	9-27-78 WED	FLEX SHAFT HILTY WALL
1925	831 AUX	HIT REBAR	9-27-78 WED	" "
2465	831' S.G. 830' TURBIN	10% CT 4" RUNNING VERT	10-2-78 MON	WALL 1819
EX-1-013-005-755	830 TURBIN	N. HOLD 1" W/S 25% CUT	10-2-78 MON	FLOOR 1819
EX-1-013-005-755	830 TURBIN SAFEGUARD	" "	10-2-78 MON	FLOOR 1819
SW-1-129-021-543R	810'	FLEX SHAFT		WALL FLEX SHAFT
SW-1-129-013-A43R	810 AUX.	FLEX SHAFT	10-3-78 TUE	FLEX SHAFT 4 HOLES
784 + 785	800 S.G.	VERT FULL CONC WALL	10-3-78 TUE	1118 2 HOLES
SB-1-069-016-A46R	810 AUX	FLEX SHAFT WALL	10-3-78 TUE	FLEX 4 H
SD-1-069-014-A45R	810 AUX	FLEX SHAFT WALL	10-3-78 TUE	FLEX 4 H
SB-1-132-024-543R	810 S.G.	FLEX SHAFT WALL	10-3-78 TUE	FLEX 2"
SB-1-069-011-A35R	790 AUX	OVERHEAD FLEX	10-4-78 WED	FLEX 4 H
CO-1-042-034-536R	790 S.G.	OVERHEAD WALL FLEX	10-4-78 WED	FLEX 6 H
AF-1-048-056-535R	790 S.G.	FLEX SIDE OF BEAM	10-5-78 THU	FLEX 4 H
2416	831 S.G.	50% CUT 8" VERT. SINK OF BEAM	10-5-78 THU	00188 BEAM
1664	807 CONTROL	50% CUT 2" VERT. OVERHEAD	10-6-78 FR	01947 BEAM OVER HEAD
SB-1-012-001-A55R	831 AUX	FLEX	10-6-78 FR	FLEX

60
HOURS
WK ENDING 10-7-78

48 HOURS
WK ENDING 10-14-78

PRINT NO. OR HANGER NO.	LOCATION + ELEV.	REINFCUT DEPTH - which way Run	DAY + DATE	C.M.C. + POSITION DRILED
SB-1-012-001-ASS	831' AUX	RELIEVE SHORT DAMS + FURNISH TUBES NONE	10-6-78 2 FRI	OVERHEAD FLEY
SB-1-069-011-ASSR	790 AUX	NONE	10-5-78-6	FLEY
1554 SB-1-012-04 ASSR	810 SG	100% CUT 18" HOAZ HORZ	10-5-78 1	WALL 1934
1084	831' AUX	NONE	10-7-78 2	FLEY WALL
1084	810 SG	3 1/2" VERT VERT 100%	10-7-78 1 SAT	1836 WALL
1060	810 SG	2 1/2" HOAZ 100% CUT	10-8-78 1 SUN	1855 WALL
1061	810 SG	4" HOAZ	10-8-78 1 SUN	1855 WALL
778	790 SG	2" CUT 2" N+S 100% CUT	10-8-78 2 SUN	1933
718	790 SG	2" N+S 100% CUT	10-8-78 1 SUN	1835
CT-1-004-004-ASSR	778	NONE	10-9-78 4 MON	FLEY WALL
SB-1-069-017-ASSR	810' AUX	NONE	10-9-78 6	FLEY WALL
CREW	WORKED ON	HANGERS CREW	10-10-78	I WAS IN
CREW	WORKED ON	HANGE CREW	10-11-78	COURT
491	803'	2 1/2" 100% E+W	10-12-78 1 THUR	NO C.M.C. 2052 TOP OF FOOT
492	803'	3 1/2" 125% N+S	10-12-78 1 THUR	2052 "
492	803'	3 1/2" 75% N+S	10-12-78 1 THUR	2052 "
SB-1-069-046-ASSR	810 AUX	NONE	10-12-78 4 THUR	FLEY
SB-1-069-046-ASSR	810 AUX	NONE	10-12-78 4 THUR	FLEY
DD-1-017-002-ASSR	AUX 810	NONE	10-13-78 4 FRI	FLEY
SB-1-069-016-ASSR	AUX 810	NONE	10-13-78 4 FRI	FLEY
CA-1-005-003-ASSR	ELECT CONTROL	NONE	10-13-78 2 FRI	FLEY
1176	807 SG	3 1/2" VERT 25% CUT	10-13-78 1 FRI	2099 WALL
1176	807 SG	3 1/4" VERT 25% CUT	10-13-78 1 FRI	2099 WALL
2487	831' S.G.	2 1/2" HOAZ 25% CUT	10-13-78 1 FRI	2087 WALL
SB-1-069-014-ASSR	810 AUX	NONE	10-14-78 2 SAT	FLEY
1933	831' AUX	1" HOAZ 100% CUT	10-14-78 1 SAT	2012 WALL
1933	831' AUX	2 1/2" VERT 10% CUT	10-14-78 1 SAT	2012 WALL
1613	831' AUX	2" E+W 25% CUT	10-14-78 1 SAT	2085 OVERHEAD
1618	831' AUX	3" HOAZ 75%	10-14-78 1 SAT	2084 WALL
CC-1-009-006-ASSR	778' AUX 1/2" AT	6" E+W 10% CUT	10-14-78 1 SAT	2014 FLOOR
CC-1-009-006-ASSR	778' AUX 3/4" AT	1" VERT 100%	10-14-78 1 SAT	2014 WALL
CC-1-009-006-ASSR	778' AUX 3/4" AT	1" VERT 100%	10-14-78 1 SAT	2014 WALL
CA-1-005-003-ASSR	778' FULL CONTROL	1 1/2" DAMS USING TUB.	10-16-78 2 MON	

WK ENDING 10-21-78 114 HOLES

PRIN. NO. OR HANGER NO.	LOCATION ELEV.	RIBBON CUT DEPTH WHICH POSITION	DAY + DATE	CMC DCODA POSITION
SB-1-069-017-445	810' AUX	REDRILL USING TUBERAGE	10-16-78 4	FLEX - WALL
SB-1-069-016-45A	810' AUX	REDRILL USING TUBERAGE	10-16-78 3	FLEX WALL
SB-1-069-013-45B	810' AUX	REDRILL USING TUBER	10-17-78 1	OVERHEAD FLEX
SB-1-069-001-455A	775' AUX	REDRILL USING TUBER	10-17-78 3	OVERHEAD FLEX
SB-1-069-012-45B	778' CONT.	REDRILL USING TUBER	10-17-78 4	WALL FLEX
SB-1-069-001-455R	831' AUX	REDRILL USING TUBER	10-17-78 3	WALL FLEX
SN-1-129-024-433R	796' 6"	NONE	10-18-78 4	FLOOR - FLEX
SN-1-129-025-433R	796' 6"	NONE	10-18-78 4	FLOOR - FLEX
SN-1-129-026-433R	796' 6"	NONE	10-18-78 4	FLOOR - FLEX
SN-1-129-027-433R	796' 6"	NONE	10-18-78 13	FLOOR - FLEX
SN-1-129-028-433R	796' 6"	NONE	10-18-78 6	FLOOR - FLEX
SN-1-129-029-433R	796' 6"	NONE	10-18-78 4	FLOOR - FLEX
OO-1-16-030-433R	796' 6"	NONE	10-19-78 2	FLOOR - FLEX
SN-1-129-030-433R	796' 6"		10-19-78 2	FLOOR - FLEX
SN-1-132-028-433R	796' 6"		10-20-78 4	FLOOR - FLEX
SN-1-129-032-433R	796' 6"		10-20-78 8	FLOOR - FLEX
CT-1-057-005-535R	794'		10-20-78 8	WALL - FLEX
105-4790-020-021	794'	CARPENTER	10-19-78 7	FLOOR - FLEX
105-4790-020-021	798'	CHIMNEY	10-19-78 1	FLOOR - FLEX
AF-1-048-011-535R	790'	CHIMNEY	10-20-78 8	FLOOR - FLEX
AF-1-048-066-535R	790'		10-20-78 11	WALL FLEX
AF-1-048-064-535R	790'		10-21-78 4	OVERHEAD FLEX
EX-1-029-003-445	TURBINE	1 3/4" 50% R-W	10-21-78 1	2154
1459	810' SG	3" 40% VERT	10-21-78 1	2185
1346	810' SG	3" 20% VERT	10-21-78 1	2186
1347	810' AUX	2 3/4" 30% VERT	10-21-78 1	2186
1347	810' AUX	2 3/4" 20% VERT	10-21-78 1	2186
EX-1-029-003-445	TURBINE	1 3/4" 50% R-W	10-21-78 1	2154
SN-1-010-001-433R	790' ELV	NONE	10-23-78 14	FLOOR - FLEX
SN-1-132-024-443	810'	NONE	10-24-78 1	WALL FLEX
SB-1-069-012-435G	790'	NONE	10-24-78 2	WALL FLEX
CT-1-066-001-532R	790'	NONE	10-24-78 4	WALL FLEX
CG-1-003-005-443R	810'	NONE	10-24-78 3	WALL FLEX
1-129-017-443R	810'	NONE	10-24-78 2	WALL FLEX

WK ENDING 10-28-78 (1980)

PRIM. C. HANXER NO. P	LOCATION + ELEV	REBAR CUT D: FT + D. DIRECTION	DAY + DATE	C.M.C. OR DCODA + POSITION
CG-1-042-004-545A	810'	NONE	WED 10-25-78 1	WALL FLEX
CC-1-158-003-A435	810'	NONE	WED 10-25-78 1	WALL FLEX
SD-1-059-001-ASSR	832'	NONE	WED 10-25-78 2	WALL FLEX
CC-1-079-002-408	810	NONE	WED 10-25-78 8	WALL FLEX
AH-1-025-001-522	780'	NONE	THUR 10-26-78 17	FLOOR FLEX
3034	790' AUX	5" VERT 10% 70	THUR 10-26-78 1	2628 FLEX
CC-1-044-001-A435	810'	NONE	THUR 10-26-78 10	FLOOR FLEX
3112	790' AUX	5" VERT 50% 70	THUR 10-26-78 1	2628 FLEX
3112	780' AUX	2" HORIZ 100% 70	THUR 10-26-78 1	2628 FLEX
CC-1-109-003-A43R	810' AUX	NONE	MON 10-30-78 4	OVERHEAD FLEX
NO C.M.C. OR FLEX WORK				
BEAM 807 CONTRAL KR. N+S	907 CONT.	4" N+S 10% 70 ALL 4 HOLES 100% N. BAR CUT	TUE 10-31-78 0	I CHASIS DOWN PAINTS + C.M.C.
DD-1-029-014-ASSR	790'	BOTH HOLES N+S EAST MIDDLE HOLES	WED 11-1-78 4	2651
EX-1-011-005-T55	832'	20% 4 3/4" E+W SOUTHEAST HOLES	WED 11-1-78 2	2647
EX-1-011-005-T55	832'	5" 50% E+W SOUTH MIDDLE HOLES	WED 11-1-78 1	2657
EX-1-011-005-T55	832'	4 1/2" 50% E+W SOUTH WEST HOLES	WED 11-1-78 1	2657
EX-1-011-005-T55	832'	5" 20% E+W WEST MIDDLE HOLES	WED 11-1-78 1	2657
EX-1-011-005-T55	832'	5" 50% E+W	WED 11-1-78 1	2657
HD-1-325-001-T35 CORE DRILL FOR MILLGATS	778'	NONE	THUR 11-2-78 12	FLEX SHAFT FLOOR
	832'	NONE	THUR 11-2-78 5	FLOOR FOR MILLGATS
HD-1-325-001-735 WA-X-485569 SS-27	778	NONE	THUR 11-2-78 4	FLEX SHAFT
	790' TUNNIN	NONE	FRI 11-3-78 2	WALL-FLEX SHAFT
CT-1-005-003-522	760'	NONE	FRI 11-3-78 29	FLOOR FLEX
CT-1-017-010-Y35R	796.6"	NONE	FRI 11-3-78 5	FLEX
HANXER 2602	790. SG	20%	SAT 11-4-78 1	WALL 2670
HD-1-009-011-735	778 TUNNIN	NO CORE	SAT 11-4-78 1	OVERHEAD 2665
HD-1-009-011-735	778 "	"	SAT 11-4-78 1	" 2665
HD-1-009-011-735	778 "	"	SAT 11-4-78 1	" 2665
HD-1-009-011-735	778 "	"	SAT 11-4-78 1	" 2665
CT-1-004-003-532	790"	NONE	MON 11-6-78 4	FLOOR FLEX
AF-1-001-010-Y35R	790"	NONE	MON 11-6-78 7	WALL FLEX
NO C.M.C. OR FLEX WORK				
11-1-8-78	11	111	TUE 11-7-78	111 11

WK ENDING
10-28-78

65 HOLES

77 HOLES

WK ENDING
11-4-78

3 000' DAVIS
DART HANGING
DRILLING AT 810'

WH ENDING
11-11-78
18 HOLES

WH ENDING 11-18-78
50 HOLES

27 holes
WH ENDING
11-22-78

PRIN. NO. CI HANGING NO#	LOCATION + ELV.	REBAR CUT DEPTH + DIRECTION	DAY + DATE	C.F. - D.C. O.D.F. + O.C. POSITION
C. CREW LOANED OUT TO HANGERS				
3326	810' AUX	1 1/2" EAST W - 808	11-9-78	
CS-1-158-010-542	810' SG	NE HOLE 3 1/2" 50% N+S	11-10-78	1 2679
CS-1-158-010-542	810' SG	SE HOLE 3" 50% N+S	11-10-78	1 2859
HO-1-309-001-T55D	830 TURBIN	NW HOLE 2 1/2" 10% E+W	11-10-78	1 285P
HO-1-309-001-T55D	830 TURBIN	NE HOLE 2 1/2" 10% E+W	11-10-78	1 2681
SW-1-129-025-432R	796' 6" TUNNEL	SE HOLE 100% 2 1/2" N+S	11-10-78	1 2681
SW-1-129-025-435R	796' 6" TUNNEL	NE HOLE 50% 2 1/2" N+S	11-10-78	1 2845
3325	810'	EE HOLE 100% 1 1/2" E+W	11-13-78	1 2889 OVERN
3325	810'	ENE 2 HOLE 100% 1 1/2" E+W	11-13-78	1 2889 "
3325	810'	W NO 2 HOLE 100% 1 1/2" E+W	11-13-78	1 2889 "
3325	810'	W HOLE 100% 1 1/2" E+W	11-13-78	1 2889 "
AF-1-049-071-532R	790	NONE	11-13-78	3 FLEX- 976 FLO
CT-1-012-001-522S	778'	NONE	11-13-78	4 FLEX 1818 FLOOR
CT-1-014-001-522S	776'	NONE	11-14-78	4 FLEX 1820 FLOOR
CT-1-090-024-535R	790'	NONE	11-14-78	3 FLEX WALL
LC-2-020-017-432R	790'	NONE	11-14-78	6 FLEX WALL
HAND CABLE TRAY HANGING	832'	NONE	11-15-78	6 FLEX WALL
SB-1-053-004-435R	832' AUX	NONE	11-15-78	2 FLEX WALL
SB-1-016-002-435R	832' AUX	NONE	11-15-78	3 FLEX WALL
SB-1-069-018-435R	832' AUX	NONE	11-15-78	4 FLEX WALL
SB-1-005-003-463R	832' AUX	NONE	11-16-78	5 OVERN FLEX
SB-1-045-002-435R	832' AUX	NONE	11-16-78	2 WALL FLEX
CI-1-090-040-535R	790' SG	NONE	11-16-78	4 WALL FLEX
CREW HANGING CLIPS			11-17-78	
1370	810' AUX	10% VERT 3 1/2"	11-19-78	1 2910
1370	810' AUX	50% VERT 3 1/2"	11-19-78	1 2910
CREW HANGING CLIPS			11-19-78	
REF-677-2874	807' CONTAIN	8 HAS SUN 50% 40% CUT IN BEAM.	11-20-78	8 3022
CREW REWORKING CLIPS			11-20-78	
CREW REWORKING CLIPS + CHANGING RICHMONDS			11-21-78	
SI-0601	810' SG	10% VERT 7 1/2"	11-22-78	1 3026
PIA: HANGER SS-38	810' TURBIN	50% E+W 1 1/2"	11-22-78	2 3008

W/4 ENDING 9
ENDING 9
11-22-78

12-02-78
67 HOLES
W/4 ENDING 9

PRINT OR HANGER NO	LOCATION AND OR ELV	REBAR C-1 DEPTH & DAILLED WHAT TO	DATE	CMC OR QDOA & POSITION
SB-1-053-004 ASSR	831'	NONE	11-22-78 11	WALL FLEX
SB-1-006-004 ASSR	848'6"	NONE	11-22-78 3	OVERHEAD FLEX
CC-1-050-002-A41R	810'	NONE	11-27-78 14	WALL FLEX
CI-1-090-046-53SR	790'	NONE	11-27-78 4	WALL FLEX
SB-1-005-004 ASSR	820'	NONE	11-27-78 2	FULL OVERHEAD
CI-1-090-040-53SR	790'	NONE	11-28-78 4	WALL FLEX
SB-X-016-007 ASSR	831'	NONE	11-28-78 4	OVERHEAD FLEX
SB-X-017-006 ASSR	831'	NONE	11-28-78 4	OVERHEAD FLEX
SB-X-017-004 ASSR	831'	NONE	11-28-78 10	OVERHEAD FLEX
SB-1-005-004 ASSR FLOOR PLATE CONTROL ROOM	831'	NONE	11-29-78 3	OVERHEAD FLEX
SB-1-005-004 ASSR BEARING PLATE CONTROL ROOM	807'	4" 50% E+W	11-30-78 1	3108
SB-1-005-004 ASSR PIPE HANGER	807'	4" 75% E+W DAILLED 4 HILTS OUT OF 4 HANGERS	11-30-78 1	3108
SB-1-005-004 ASSR PIPE HANGER	831'	NONE	11-30-78 4	WALL FLEX
SW-1-049-016-52SR	795'6"	NONE	11-30-78 9	FLOOR FLEX
SW-1-132-034 Y3SR	796'6"	NONE	11-30-78 2	FLOOR FLEX
SW-1-132-033 Y3SR	796'6"	NONE	12-1-78 5	FLOOR FLEX
8 HOLE HANGING CLIPS 2 MEN.			12-1-78	1 HOLE ON QUANTITY

89 HILTY
12-9-78
68 REBAR CUT

SB-X-016-006 ASSR	832' AUX	NONE	12-4-78 3	FLEX WALL
3306	810' AUX	NONE	12-4-78 5	FLEX WALL
3346	810' AUX	NONE	12-4-78 6	FLEX WALL
SW-1-011-022-F33R	785'6"	2 BAR 1" DEPTH - N+S 5 HOLES 25% N+S E BAR RUNNING N+S	12-5-78 1	3307 FLOOR
SW-1-011-022-F33R	785'6"	2 BAR 1" DEPTH - N+S E BAR RUNNING N+S	12-5-78 1	3307 "
SW-1-011-022-F33R	785'6"	NO 2 HOLE 10% E BAR RUNNING N+S	12-5-78 1	3307 "
SW-1-011-022-F33R	785'6"	NO 1 HOLE 10% 6 HOLE FROM S-BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	100% 1" DEPTH - N+S 3 HOLE FROM S-W BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	100% 1" DEPTH - N+S 4 HOLE FROM S-W BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	75% 1" DEPTH - N+S 5 HOLE FROM S-W BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	100% 1" DEPTH - N+S 6 HOLE FROM S-W BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	100% 1" DEPTH - N+S 7 HOLE FROM S-W BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	100% 1" DEPTH - N+S 7 HOLE FROM S-W BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	75% 1" DEPTH - N+S 10 HOLE FROM S-W BAR	12-5-78 1	3307 "
SW-1-011-021-F33R	785'6"	75% 1" DEPTH - N+S	12-5-78 1	3307 "
3157	831'6"	100% 2" DEPTH - N+S	12-6-78 1	3307 OVER HEAD

89 HOLES MILTY
 68 REBAR CUT
 WK ENDING 12-9-78

FAIR CR HANGER NO#	LOCAL ELV	REBAR CUT NO. DEPTH & DIRECTION	DAY DATE	CMC OR DLBDA & POSITION
SPECIAL	785' 6"	CUT 1" TAB OUT OF RICHMOND	WED 12-6-78	3307
SW-1-011-020-F31R	785' 6"	W-BAR 5TH HOLE FROM S 10% 1" DEPTH N+S W-BAR 4TH HOLE FROM S 50% 1" DEPTH N+S W-BAR 5TH HOLE FROM S 100% 1" DEPTH N+S W-BAR 6TH HOLE FROM S 10% 1" DEPTH N+S W-BAR 7TH HOLE FROM S 100% 1" DEPTH N+S W-BAR 9TH HOLE FROM S 25% 1" DEPTH N+S W-BAR 8TH HOLE FROM S 10% 1" DEPTH N+S E-BAR 6TH HOLE FROM S 50% 1" DEPTH N+S W-BAR 6TH HOLE FROM S 25% 1" DEPTH E+W W-BAR 4TH HOLE FROM S 10% 1" DEPTH N+S E-BAR 6TH HOLE FROM S 90% 1" DEPTH E+W W-BAR 4TH HOLE FROM S 25% 3/4" E+W E-BAR 4TH HOLE FROM S 25% 3/4" DEPTH E+W E-BAR 9TH HOLE FROM S 10% 3/4" E+W E-BAR 10TH HOLE FROM S 10% 3/4" E+W 2ND HOLE N SIDE	WED 12-6-78	3307
SW-1-011-019-F31R				FLEX
SW-1-011-018-F31R				FLEX
SW-1-011-017-F31R	HOLES 90% E+W			
SW-1-011-016-F31R		50% 1" DEPTH E+W 3RD HOLE N SIDE 100% 1" DEPTH E+W 4TH HOLE N SIDE 10% 1" DEPTH E+W 5TH HOLE N SIDE 10% 1" DEPTH E+W 6TH HOLE N SIDE 25% 1" DEPTH E+W 7TH HOLE N SIDE 25% 1" DEPTH E+W 6TH HOLE N SIDE 50% 1" DEPTH E+W 9TH HOLE N SIDE 25% 1" DEPTH E+W 2ND HOLE S SIDE 25% 2 1/2" DEPTH N+S 6TH HOLE S SIDE 10% 2 1/2" DEPTH N+S 2ND HOLE N SIDE 50% 1" DEPTH E+W 3RD HOLE N SIDE 25% 1" DEPTH E+W 4TH HOLE N SIDE 50% 1" DEPTH E+W 5TH HOLE N SIDE 75% 1" DEPTH E+W 6TH HOLE N SIDE 100% 1" DEPTH E+W 7TH HOLE N SIDE 90% 1" DEPTH E+W 6TH HOLE N SIDE 25% 1" DEPTH E+W	12-7-78 THUR 12-7-78 THUR	3307 3307 3307
			OVER	

DATE	LOCATION	REBAR C.T. TO DEPT DIRECTION	DAY DATE	CMC CLADA & POSITION
189 HILT WK ENDING 12-9-78 68 REBAR CUT	SWT-011-06-471R	785' 6"	THUR 12-7-78	1 3307
	3351	810' SG	FRI 12-8-78	1 3421
	3352	810' SG	FRI 12-8-78	1 3421
	3353	810' SG	FRI 12-8-78	1 3421
	3623	810' SG	FRI 12-8-78	1 3420
	3623	810' SG	FRI 12-8-78	1 3420
	3527	790' SG	MON 12-11-78	5 FLEX WALL
	CC-1-1-016-040-535R	790' SG	MON 12-11-78	8 FLEX WALL
	SN-1-132-030-731R	796' 6"	MON 12-11-78	13 FLEX FLOOR
	SB-X-016-001-ASSR	850' 4"	TUE 12-12-78	3 FLEX OVERHEAD
12-16-78 WK ENDING 56 HOLES	SB-X-016-006-ASSR	850' 4"	TUE 12-12-78	3 FLEX OVERHEAD
	CC-1-115-001-443R	826' 6"	TUE 12-12-78	8 FLEX OVERHEAD
	SN-1-172-032-711R	796' 6"	TUE 12-12-78	2 FLEX OVERHEAD
	SB-1-009-011-ASSR	809' 6"	WED 12-13-78	1 OVERHEAD
	CC-2-057-002-ASSR	806' 4"	WED 12-13-78	19 OVERHEAD
	MEN WORKING HANGING CLIPS		THUR 12-14-78	
	MEN WORKING HANGING CLIPS		FRI 12-15-78	
	MEN WORKING HANGERS		SAT 12-16-78	
	MEN WORKING HANGERS		MON 12-18-78	
	2602	805' 9"	TUE 12-19-78	1 36-21
WK ENDING 12-23-78 17 HOLES	2801	775'	TUE 12-19-78	2 FLEX WALL
	C-5-1-315-040-ASSR	831-AUX	TUE 12-19-78	6 OVERHEAD
	SB-X-016-004-ASSR	831-AUX	TUE 12-19-78	4 OVERHEAD
	SB-X-016-001-ASSR	831-AUX	TUE 12-19-78	4 OVERHEAD
	2-MEN	DIPPING BOLTS FOR 807-2LV	WED 12-20-78	
	2-MEN	DIPPING BOLTS FOR 807-2LV	THUR 12-21-78	
	2 MEN DIPPING BOLTS FOR 807' - 3 HAS		TUE 12-26-78	3 HAS
	ALLS - CHAMBERS ST. 501-235-401	803' 7-HAIN	TUE 12-26-78	12 3630 FLEX
	ARK-041-01118 REV1	803' " "	TUE 12-26-78	12 3630 FLEX
	2 MEN DIPPING BOLTS FOR 807' FLV		WED 12-27-78	
2 MEN DIPPING BOLTS & PACKING MILTY BOLTS		THUR 12-28-78		

PRINT OF
 CH
 HANDEX NO#

LOCATION
 ELV

REBAR CUT
 % DEPTH
 DIRECTION

DAY
 +
 DATE

C.M.C
 OR
 DC DDA
 +
 POSITION

WK ENDING
 12-30-78
 49 HOLES

CS-2-019-001-A33R	831 AUY	NONE	FRI 12-29-78	4	FLEX OVERHEAD
CS-1-315-021-A31R	831 A-X	NONE	FRI 12-29-78	8	FLEX OVERHEAD
CS-1-315-022-A31R	831 AUY	NONE	FRI 12-29-78	6	FLEX OVERHEAD
SE-X-049-027-A6SR	831 AUY	NONE	FRI 12-29-78	7	FLEX OVERHEAD

WK ENDING
 1-6-79
 32 HOLES

SW-1-129-016-S43R	810 SG	NONE	WED 1-3-79	2	FLEX WALL
2 MEN STAMPING MILTY BOLTS WAREHOUSE (A)			WED 1-3-79	5	ALLSO
2 MEN STAMPING MILTY BOLTS WAREHOUSE A)			THUR 1-4-79		ALLSO
BRINGING BOLTS FROM WAREHOUSE A TO MY OFFICE				1-4-79	
7163-57171-026	803 TURBIN	NONE	FRI 1-5-79	2	FLEX WALL
54-301-235-401	803 TURBIN	R. DRILL	FRI 1-5-79	1	FLEX FLOOR
SW-1-124-018-S43X	810 SG	NONE	FRI 1-5-79	21	FLEX FLOOR
4893	50 SG CENTRAL	NONE	FRI 1-5-79	6	FLEX OVERHEAD
2 MEN HANGING CLIPS			SAT 1-6-79		

WK ENDING
 1-13-79
 119 HOLES

2 MEN GETTING MILTY FROM ALPH. WAREHOUSE			MON 1-9-79	170	3 HRS
SW-1-129-018-S43R	810 SG	NONE	MON 1-9-79	24	FLEX WALL
SW-1-129-019-S43R	810 SG	NONE	MON 1-9-79	8	FLEX WALL
SW-1-129-020-S43R	810 SG	NONE	MON 1-9-79	15	FLEX WALL
CL-1-029-020-331R	790 SG	NONE	TUE 1-9-79	2	FLEX OVERHEAD
30T 1" X 9" SUPER MILTY FROM PLURAL WAREHOUSE			TUE 1-9-79		
30T GANG BOX FOR AIR			TUE 1-9-79		
GENERAL CLEAN UP FROM 12:00 TO 5:30 (MAN KILLED)			TUE 1-9-79		
SW-1-011-016-F33R	785-6"	NE HOLE 30%	WED 1-10-79	1	3664
SW-1-011-016-F33R		2" DEPTH E+W	WED 1-10-79	1	3664
SW-1-011-016-F33R		NE HOLE HOLE 100%	WED 1-10-79	1	3664
SW-1-011-016-F33R		2" DEPTH E+W	WED 1-10-79	1	3664
SW-1-011-016-F33R		N+W 1ST HOLE 100%	WED 1-10-79	1	3664
SW-1-011-016-F33R		2" DEPTH E+W	WED 1-10-79	1	3664
SW-1-011-016-F33R		N+W 2ND HOLE 100%	WED 1-10-79	1	3664
SW-1-011-016-F33R		2" DEPTH E+W	WED 1-10-79	1	3664
SW-1-011-016-F33R		N+W 3RD HOLE 100%	WED 1-10-79	1	3664
SW-1-011-017-F33R		2" DEPTH E+W	WED 1-10-79	1	3665
SW-1-011-017-F33R		NE 1ST HOLE 20%	WED 1-10-79	1	3665
SW-1-011-017-F33R		1" DEPTH E+W	WED 1-10-79	1	3665
SW-1-011-017-F33R		NE 2ND HOLE 20%	WED 1-10-79	1	3665
SW-1-011-017-F33R		1" DEPTH E+W	WED 1-10-79	1	3665
SW-1-011-017-F33R		NE 3RD HOLE 20%	WED 1-10-79	1	3665
SW-1-011-017-F33R		1" DEPTH E+W	WED 1-10-79	1	3665
SW-1-011-017-F33R		N+W 1ST HOLE 20%	WED 1-10-79	1	3665
SW-1-011-017-F33R		1" DEPTH E+W	WED 1-10-79	1	3665
SW-1-011-017-F33R		N+W 2ND HOLE 20%	WED 1-10-79	1	3665
SW-1-011-017-F33R		1" DEPTH E+W	WED 1-10-79	1	3665
SW-1-011-017-F33R		N+W 3RD HOLE 100%	WED 1-10-79	1	3665
SW-1-011-017-F33R		1" DEPTH E+W	WED 1-10-79	1	3665



HOLES RUNNING FROM E+W

PRINT NO - OR HANGER NOT	LOCATION T ELV.	REBAR CUT % DEPT + DIRECTION	DAY + DATE	CMC OR DCDDA + POSITION
SW-1-011-018-F33R	785' 6"	UNKNOWN OBSERVATION AT 3 1/2" DEPTH	1-10-79	1 - 3666
SW-1-011-019-F33R	785' 6"	NR HOLE 100% 3" DEPTH E+W	1-10-79	1 - 3667
SW-1-011-019-F33R	785' 6"	NW HOLE 100% 3" DEPTH 100%	1-10-79	1 - 3667
SW-1-011-020-F33R	785' 6"	NE HOLE N PLATE 50% 1" DEPTH	1-10-79	1 - 3668
SW-1-011-020-F33R	785' 6"	NE HOLE N PLATE 100% 1" DEPTH N+S	1-10-79	1 - 3668
SW-1-011-021-F33R	785' 6"	PLATE MIDDLE HOLE 100% 1" DEPTH	1-10-79	1 - 3669
SW-1-011-021-F33R	785' 6"	N PLATE NW HOLE 50% 1" DEPTH N+S E+W	1-10-79	1 - 3669
SW-1-011-021-F33R	785' 6"	N PLATE NE HOLE 75% 2 1/2" DEPTH E+W	1-10-79	1 - 3669
CC-1-028-020-S33R	790'	NONE	1-11-79	16 FLEX OVER HEAD
CC-1-028-020-S33R	790'	NONE	1-11-79	15 FLEX WALL
CC-1-028-020-S33R	790'	NONE	1-12-79	2 FLEX WALL
CS-1-063-033-S44R	810-SG	NONE	1-12-79	7 WALL
CS-1-063-026-S32R	790'	NONE	1-12-79	7 WALL
OD-1-003-084-S35R	790'	NONE	1-12-79	3 OVERHEAD
OD-1-003-084-S35R	790'	NONE	1-15-79	3 WALL FLEX
CC-1-013-006-A43R	810'	NONE	1-15-79	7 WALL FLEX
2602	790'	HILTY BOLT DRILLED OUT	1-15-79	1 STAND WALL
2602	790'	HILTY BOLT DRILLED OUT	1-16-79	1 STAND WALL
AE-1-048-056-S45R	790'	NONE	1-16-79	10 WALL FLEX
5227	810'	NONE	1-16-79	1 FLEX WALL
RA-1-025-001-S22R	785' 6"	NONE	1-16-79	4 FLEX FLOOR
RA-1-025-001-S22R	785' 6"	NONE	1-17-79	3 FLEX FLOOR
SB-X-016-002-A35R	831'	NONE	1-17-79	4 FLEX WALL OVERHEAD
SF-X-049-026-A55R	831'	NONE	1-17-79	2 FLEX OVERHEAD
SBX-016-006-A35R	831'	NONE	1-17-79	2 FLEX OVERHEAD
DDY-146-013-A35R	790'	NONE	1-17-79	11 FLEX WALL
SB1-084-003-A35R	831'	NONE	1-17-79	4 FLEX WALL
SAX-049-025-A55R	831'	NONE	1-17-79	2 FLEX OVERHEAD
PICKED UP WASHERS + NUTS		WASHERS A. FOR HILTY	1-17-79	1-17-79
PUTTING NUTS + WASHERS ON HILTY BOLTS			1-18-79	1-18-79
INVENTORY OF DRUMCO BITS + CLEAN UP OF TOOLS. WORKED				5HR FOR KKK
TW OFF RICHARD NUTTING + CLEANING OUT CABIN			1-18-79	
TW + RICHARD WORKING BEHIND CABW FOR KKK			1-22-79	

WK ENDING 1-19 HOLES
 1-13-79

WK ENDING 1-20-79
 53 HOURS

WK ENDING 1-20-79

Wk FINDING 1-27-79
27 HOLES

PRINT NO # OR HANGER NO #	LOCATION + ELV.	RIGID CUT 70' DEPTH + DIRECTION	DATE	CMC DECODE + POSITION
27334 + 2735	843' 6" SG	100% 1" DEPTH HORIZ	TUR 1-23-79 1	3748
27334 + 2735	843' 6" SG	100% 5" DEPTH HORIZ + CHAIR	TUR 1-23-79 1	3748
35344 + 3535	822' 0" ^	100% 2" DEPTH VERT	TUR 1-23-79 1	4129
35344 + 3535	820' 11" ^	50% 2 1/2" DEPTH VERT	TUR 1-23-79 1	4129
NEW STAMPING MILTYS IN WAREHOUSE 4				
SW-1-132-029-Y33R	790' TUNNEL	NONE	TUR 1-24-79 3	FLOOR FLEX
EX-1-010-015-756	831 TUNNEL	75% 4" DEPTH E+W	TUR 1-24-79 1	4190
CO-1-051-005-743D	803' TUNNEL	100% 3" DEPTH N+S	TUR 1-24-79 1	4189
DD-1-003-093-531R	790'	NONE	TUR 1-24-79 0	PIPE TO CHASE NEED SAMPLER
CC-2-019-009-443R	810'	NONE	TUR 1-24-79 3	FLEX WALL
DD-1-003-057-435A	790'	NONE	TUR 1-25-79 4	FLEX WALL
2602	794"	100% 3" DEPTH VERT	TUR 1-25-79 2	WALL 4152
2602	777' 5"	75% 3" DEPTH VERT	TUR 1-25-79 1	WALL 4142
CC-2-019-009-443R	812'	NONE	TUR 1-25-79 4	FLEX WALL

Wk FINDING
2-3-79
73 HOLES

CT-1-017-011-Y33R	800'	100% 2" DEPTH VERT	TUR 1-29-79 1	4237 W
3630	831' 6"	50% 3" DEPTH E+W	TUR 1-29-79 1	4226 F
3630	831' 6"	50% 3" DEPTH E+W	TUR 1-29-79 1	4226 F
CC-2-021-010-A33R	790'	NONE	TUR 1-29-79 32	WALL FLEX
CC-1-116-016-A43R	810'	NONE	TUR 1-29-79 5	FLEX WALL
CC-1-156-003-A63R	852'	NONE	TUR 1-30-79 7	FLEX WALL
7 HAS WORKING WITH INTERFERENCE CREW				
JW OFF FOR DR Richard WORKED INTERFERENCE				
CC-1-126-007-F43S	810' FLEX	NONE	TUR 2-1-79 2	FLEX OVERHEAD
CC-1-158-003-043S	810 - AUX	NONE	TUR 2-1-79 3	FLEX WALL
CC-1-116-016-F43R	810 - FLEX	NONE	TUR 2-1-79 3	FLEX WALL
CC-1-156-012-A53A	831 - AUX	NONE	TUR 2-1-79 10	FLEX WALL
CC-1-126-008-A43S	810 AUX	NONE	TUR 2-1-79 3	FLEX OVERHEAD

LI-1-090-040-531R	795' 6"	100% 3" DEPTH VERT	TUR 2-5-79 1	4372
SW-1-011-020-F33R	778 TUNNEL	100% 1" DEPTH N+S	TUR 2-5-79 1	3668
SW-1-011-020-F33R	778 "	100% 1" DEPTH N+S	TUR 2-5-79 1	3668
SW-1-011-020-F33R	778 "	100% 1" DEPTH N+S	TUR 2-5-79 1	3668
SW-1-011-020-F33R	778 "	100% 1" DEPTH N+S	TUR 2-5-79 1	3668
SW-1-011-021-F33R	778 "	100% 1" DEPTH N+S	TUR 2-5-79 1	4377

PRINT NO# OR HANDBOOK NO# LOCATION + ELV - CUT DEPTH + DIRECTION DAY + DATE CMC RECORD + POSITION

171 HOLES

WENDING 2-10-79

CT-1-057-003-531R	790'	NONE	2-5-79 (5)	FLEY OVER
CC-2-021-01-031R	790	NONE	2-5-79 (7)	FLEY WALL
CC-1-109-003-043R	810'	NONE	2-6-79 (5)	FLEY OVERHEAD
CC-2-021-011-031R	790'	NONE	2-6-79 (66)	FLEY FLOOR WALL
C-5-1-066-001-043R	810'	EAST HOLE 100% 5" DEPTH E+W	2-7-79 (1)	4431
CS-1-066-001-041R	810'	WEST HOLE 50% 5" DEPTH E+W	2-7-79 (1)	4431
CS-1-075-003-042R	810'	EAST HOLE 100% 3 1/2" DEPTH E+W	2-7-79 (1)	4430
CS-1-075-003-044R	810	WEST HOLE 100% 3 1/2" DEPTH E+W	2-7-79 (1)	4430
CC-1-107-004-043R	810	NONE	2-7-79 (4)	FLEY OVERHEAD
CC-1-126-004-043S	810'	NONE	2-7-79 (2)	FLEY OVERHEAD
CC-1-156-001-043R	831	NONE	2-7-79 (11)	FLEY WALL
DD-1-054-019-043R	812	NONE	2-8-79 (2)	FLEY WALL
CC-1-157-003-043R	831	NONE	2-8-79 (4)	FLEY WALL
CC-1-156-003-043R	831	NONE	2-8-79 (2)	FLEY WALL
CC-1-051-003-043R	810'	NONE	2-8-79 (7)	FLEY FLOOR
DD-1-006-055-531R	790	NONE	2-8-79 (2)	FLEY OVERHEAD
4313	807	NONE	2-9-79 (2)	BEAM
4314	807	NONE	2-9-79 (9)	"
53-58	807	NONE	2-9-79 (3)	"
DD-1-006-114-031R	790'	NONE	2-10-79 (2)	OVERHEAD
SW-1-129-072-031R	790'	NONE	2-10-79 (4)	FLEY FLOOR
3762	807'	NONE	2-10-79 (8)	FLEY BEAM
3801	807'	NONE	2-10-79 (8)	"
3822	807'	NONE	2-10-79 (8)	"
4314	807'	NONE	2-10-79 (3)	"

52 HOLES

W K ENDING 2-17-79

C1-1-015-073-031R	790	NONE	2-12-79 (6)	FLEY WALL
3136	790 aux	NONE	2-12-79 (5)	FLEY WALL
DD-1-029-067-043R	810 aux	NONE	2-12-79 (16)	FLEY WALL
DD-1-029-066-043R	810	NONE	2-12-79 (2)	FLEY WALL
DD-1-006-014-031R	790 TUNNEL	NONE	2-13-79 (5)	FLEY WALL
DD-1-029-008-043R	810	NONE	2-13-79 (2)	FLEY WALL
DD-1-029-066-043R	810	NONE	2-13-79 (2)	FLEY WALL
DD-1-029-067-043R	810	NONE	2-13-79 (1)	FLEY WALL

PRINT NO# OR HANGER NO#	LOCATION + ELV.	REBAR CUT TO DEPTH & DIRECTION	DAY + DATE	C.M.C OR DCDDA + POSITION
SW-1-173-018-YIK	790 INHOLE	HILTY BOLT CUT OUT	2-14-79	6" G RIBS OVERHEAD
REMAINDER OF DAY LAYOUT + DESIGN FOR INTER-CONNECTIVE				
TWO RICHARD ON LAYOUT FOR INT.				
IN CIV LAYOUT RICHARD ASSENT.				
CS-1-019-004-ASR 2687	832	HILTY BOLT CUT OUT	2-19-79	OVERHEAD
CS-1-019-004-ASR	832	HILTY BOLT CUT OUT	2-19-79	WALL
SW-1-013-001-ASR	790	W HOLE 25" DIA. 6 1/2" DEPT RUMBY DIA.	2-20-79	WALL
SW-1-013-001-ASR	790	5 HOLE 25" 6 1/2" DIA. RUMBY DIA. N. HOLE 10" DIA.	2-20-79	WALL
CC-1-015-001-A438	810	3' DEPTH NTS	2-20-79	OVERHEAD 44.37
CC-1-015-001-A43	810	3' DEPTH NTS	2-20-79	OVERHEAD 44.77
?	778	5" HOLE 10" DIA	2-21-79	44.90
?	778	4" DEPTH E+W	2-21-79	44.90
BR-1-071-015-032R	778	5" HOLE 10" DIA	2-21-79	44.90
SET UP ON BROKE WATERLINE				
LOST ABOUT 4 HOURS MEN SOAKED				
BR-1-071-015-032R	778	E-BOLT HOLE 75% NO DEPTH MARK	2-22-79	WALL 44.91
BR-1-071-015-032R	778	W BOLT HOLE 50% 1" DEPTH MARK	2-22-79	WALL 44.91
SW-1-173-014-733	790	HILTY BOLT CUT OUT	2-22-79	OVERHEAD
SW-1-173-014-733	790	HILTY BOLT CUT OUT	2-22-79	OVERHEAD
2689	832	HILTY BOLT CUT OUT	2-23-79	WALL
NO WATER 3 HRS HAD MEN CLEAN EQUIPMENT				
WP-1-061-007-545R	810' 6"	100% N HOLE 2 1/2" DEPTH	2-24-79	44.97
WP-1-061-007-545R	810' 6"	100% S HOLE 2 1/2" DEPTH	2-24-79	44.97
2689	832' 5G	1 1/4" HILTY BOLT	2-24-79	
DO-1-003-093-535R	790' 5G	NONE	2-26-79	FLEX WALL
SW-1-010-002-535R	790' 5G	NONE	2-26-79	FLEX WALL
SF-X-049-019-ASR	845' 5"	5" HILTY BOLT	2-27-79	STAND OVERHEAD
2689	832'	1 1/4" HILTY BOLT RAN	2-27-79	WALL STAND
LAID OUT 2 PIPE HANGERS FOR INST.				
SAR-019-019-ASR	790'	NONE	2-28-79	FLEX OVERHEAD
SAR-019-017-ASR	790'	NONE	2-28-79	FLEX OVERHEAD
DOX-13072-ASR	790'	NONE	2-28-79	FLEX WALL
CL-1-090-049-ASR	790'	NONE	2-28-79	FLEX WALL
CS-1-328-001-ASR	858'	CUT HILTY BOLT 5" FOR HANGER	2-28-79	FLEX WALL

52 HOLES
W/ RIBS
2-17-79

10 HOLES
W/ RIBS
2-24-79
8 HILTY BOLTS DRILLED OUT

54 HOLES
W/ RIBS
3-2-79

PRINT NO# OR HANGER NO#	LOCATION PIPE ELV.	REBAR CUT % DEPTH DIRECTION	DAY + DATE	C.M.C. OR O.C.D.O.A.
LAID OUT 2 HANGERS		FOR RAISON	3-1-79	
SD-1-053-44-ASSR	832	100% CUT UP AT AT 3 1/2" DEPTH	3-5-79 ①	WALL 4495
SD-1-053-00V-ASSR	832	100% CUT UP AT AT 3 1/2" DEPTH	3-5-79 ①	WALL 4495
DD-1-21-002 Y34D	790	NONE	3-5-79 ②	OVERHEAD
SN-1-010-002-ASSR	790	NONE	3-5-79 ②	FLOOR
SN-1-010-002-A7XR	790	NONE	3-5-79 ②	FLOOR
CA-1-005-003-ELSR	778	NONE	3-6-79 ④	
CC-1-42-032-A4R	832	TOOK DOWN TREHUNG NONE ON OTHER WALL	3-6-79 ④	
STAMPING HILTY BOLTS 54AS		FOR CABLE TRAY SUPPORTS	3-7-79	
LAID OUT 2 PIPE HANGERS			3-7-79	
	810	NONE	3-7-79	OVERHEAD
	778 TUNNEL	100% REIN 4" DEPTH	3-8-79 ②	FLOOR 437 STAND
CW-1-032-001-KOS	C.W.1	NONE	3-8-79 ②	FLEX IN BLOCK OUT
SA-1-019-017-ASSR	790 AUX	NONE	3-9-79 ①	FLEX OVERHEAD
DD-1-003-080-33R	790 SG	NONE	3-9-79 ③	FLEX OVERHEAD
DD-1-029-030-ASSR	790 AUX	NONE	3-9-79 ②	FLEX WALL
CL-1-116-007-F3R	778 FUEL	NONE	3-9-79 ②	FLEX WALL
CL-1-116-005-F3R	778 FUEL	NONE	3-9-79 ②	FLEX WALL
5339 1190	DRILL OUT HILTY BOLTS 54AS	807' FOR CABLE TRAY SUPPORTS	3-9-79	(2 HILTY)
DD-1-16-026-Y3R	790 PRO TUNNEL	DRILL OUT 2 1/2" HILTY BOLTS	3-12-79 ②	2 HILTY
491 + 492.	790 AUX	100% RUNNING E+W AT 2 1/2" DEPTH	3-12-79 ①	2052 WALL
491 + 492	790 AUX	25% RUNNING N+S AT 3 1/2" DEPTH	3-12-79 ①	2052 WALL
491 + 492	790 AUX	25% RUNNING N+S AT 3 1/2" DEPTH	3-12-79 ①	2052 WALL
DD-1-003-006 Y3SR	YARD TUNNEL	NONE	3-12-79 ①	WALL FLEX
3822-3762-4382	807 CONTROLL RM	DRAWING FLEX ON NONE CABLE TRAY SUPPORTS	3-13-79 ⑩	OVERHEAD & BEAM FLEX
Richard	LEFT AT 12:00	JW REMOVED PIPE HANGERS 54AS	3-13-79	
3822-3762-4382	807 CONTROLL RM	NONE	3-14-79 ⑥	WALL + OVER FLEX
51-1-318-004-55SR	832 SG	NONE	3-14-79 ②	WALL FLEX
CO-1-042-034-33R	SG 790	NONE	3-14-79 ③	FLEX OVERHEAD
REBAR CREW HANGING		HANGERS	3-15-79	
			3-16-79	
			3-17-79	

WR ENDING 98 HOLES
3-10-79

WK KNOWING 3 DAYS
3-17-79 37 HOLES

PRINT NO #
OR
HANGER NO #

LOCATION
+
FLV -

REBAR CUT
DEPTH
DIRECTION

DAY
+
DATE

C/C
OR
DCOQA

WK ENDING 3-24-79
126 HOLES

2 DAYS HANGING HANGERS
REWORKING

PRINT NO # OR HANGER NO #	LOCATION + FLV -	REBAR CUT DEPTH DIRECTION	DAY + DATE	C/C OR DCOQA
REBAR 11	CREW HANGING HANGERS		MON 3-19-79	
SF-X-049-027-ASSR	AUX JUST 532' SHRS	WORKED NONE (4)	TUE 3-20-79	
SF-X-049-029-ASSR	AUX 832'	NONE (3)	WED 3-21-79	OVERHEAD FLEX
CA-X-064-003-A7SA	AUX 892'	NONE (18)	WED 3-21-79	OVERHEAD FLEX
SF-X-010-016-F4SR	FUEL	NONE (1)	THUR 3-22-79	OVERHEAD FLEX
CH-X-064-003-A7SA	AUX	NONE (19)	THUR 3-22-79	OVERHEAD FLEX
SF-X-064-003-A7SA	AUX 874' 9"	NONE (19)	FRI 3-23-79	FLOOR FLEX
SF-049-020-ASSR	AUX 848' 5"	NONE (6)	FRI 3-23-79	OVERHEAD FLEX
CG-1-051-005-A4SR	AUX	NONE	FRI 3-23-79	WALL FLEX
SB-1-057-003-A5SR	AUX	NONE	SAT 3-24-79	MULTI HANGERS FLEX
SB-1-057-002-ASSR	AUX	NONE	SAT 3-24-79	FLOOR FLEX
SF-X-061-013-A5SR	AUX	MULTI HOLES DRILLED 10 BITS	SAT 3-24-79	FLOOR FLEX

WK ENDING 3-31-79
29 HOLES

3 DAYS HANGING FUEL HANGERS
REWORKING

SF-X-079-007-F4SR	FUEL MULTI HANGERS	NONE	MON 3-26-79	FLEX OVERHEAD
XXXXXXXXXX	TURBINE 815'S	100% E+W AT 2" DEPTH	MON 3-26-79	6110 STAND
XXXXXXXXXX	TURBINE 815'S	100% E+W AT 2" DEPTH	MON 3-26-79	6110
XXXXXXXXXX	TURBINE 815'S	100% E+W AT 2" DEPTH	MON 3-26-79	6110
XXXXXXXXXX	TURBINE 815'S	100% E+W AT 2" DEPTH	MON 3-26-79	6110
CO-1-029-001-T5S				
WA-X-185569-GAS	TURBINE 803	NONE	MON 3-26-79	FLEX
CT-1-017-010-Y5R	YARD TUNNEL	NONE	FRI 3-26-79	FLEX FLOOR
CT-1-083-012-S2SR	SG	NONE	TUE 3-27-79	FLEX WALL
CI-X-134001-F4SR	FUEL	NONE	TUE 3-27-79	MULTI HANGERS LAYED OUT
	HANGING HANGERS 5 SHRS		TUE 3-27-79	
	HANGING HANGERS 5 SHRS		WED 3-28-79	
6118 TUNNEL	TUNNEL 789' 1"	100% HWZ. 4" DEPTH	WED 3-28-79	6118
	REWORK HANGERS 10 SHRS		THUR 3-29-79	

START OF REWORK?
WK ENDING 4-7-79
41 HOLES

REWORKING HANGERS 10 SHRS		NO JOINTS	MON 4-2-79	
REWORKING HANGERS 10 SHRS		ALL JOINTS W/	TUE 4-3-79	
11	11	TEMP CIV VACATION	WED 4-4-79	
		PIKE AND WQTC FREQ - MARILYN	WED 4-4-79	
2-CW-2-074-003-105			THUR 4-5-79	FLEX FLOOR

WK ENDING
4-7-79
41 HOLES

WK ENDING
4-14-79

35 HOLES

PRINT NO. # OR HANGER NO. #	LOCATION + ELV	REBAR CUT DEPTH + DIRECTION	DAY + DATE	CMC OR OCADA,
CW-1-030-001-K05	C.W.-I	NONE	THURS 4-5-79	FLEX FLOOR
CW-1-029-001-K05	C.W.-I	NONE	THURS 4-5-79	FLEX FLOOR
WA-269-002-K05	C.W.-I	NONE	THURS 4-5-79	FLEX FLOOR
C-1-015-050-A45R	A-X	WRONG LOCATION NONE	FRI 4-6-79	FLEX WALL
AF-1-044-059-535R	SG	NONE	4-6-79	FLEX OVERHEAD
GS-1-034-037A35R	AUX	NONE	4-6-79	FLEX WALL
DD-1-029-050-A45R	AUX	NONE	4-6-79	FLEX WALL
DD-1-029-050-A45R	AUX	NONE	4-6-79	STAND WALL
CW-1-032-001-K05	C.W.-I.	NONE	4-7-79	STAND WALL
CW-1-002-001-K05	C.W.-I	NONE	4-7-79	FLEX FLOOR
CW-2-034-001-K05	C.W.-I	NONE	4-7-79	FLEX FLOOR
CT-1-083-018-535R	802' 6"	NONE	4-9-79	FLEX WALL
CC-1-042-010-535R	802' 9"	NONE	4-9-79	FLEX WALL
EA-1-016-023-535R	794' 3" SG	NONE	4-9-79	FLEX WALL
CT-1-017-038-535R	800' 0 SG	NONE	4-9-79	FLEX WALL
CC-1-042-012-535R	801.4 1/2 SG	NONE	4-10-79	FLEX WALL
CH-1-001-026-535R	832' SG	NONE	4-10-79	FLEX OVERHEAD
GG-1-004-017-A35R	790 AUX	NONE	4-10-79	FLEX WALL
CT-1-083-009-535R	778 SG	NONE	4-10-79	FLEX WALL
AC-1-048-068-535R	790 SG	NONE	4-11-79	FLEX OVERHEAD
SF-X-010-024-F45R	829' 8"	NONE	4-11-79	FLEX OVERHEAD
DD-1-055-022-A45R	824-AUX	NONE	4-11-79	FLEX WALL
CFA-131-010-F45R	813' 6" FULL	NONE	4-11-79	FLEX OVERHEAD
SFX-010-04-F45R	813' 6" FULL	NONE	4-11-79	FLEX OVERHEAD
CC-1-043-005-A45R	810 AUX	NONE	4-12-79	FLEX WALL
CC-X-073-003-A75R	852 AUX	NONE	4-12-79	FLEX WALL
DD-1-029-040-A35R	790 AUX	NONE	4-12-79	FLEX WALL
C2-1-015-040-A35R	790 AUX	NONE	4-13-79	FLEX WALL
DD-1-029-047-A45R	810 AUX	NONE	4-13-79	FLEX WALL
DD-1-029-040-A35R	790 AUX	NONE	4-13-79	FLEX WALL
CA-X-061-073-A35R	790 AUX	NONE	4-13-79	FLEX WALL
SA-X-019-026-A05	790 AUX	NONE	4-13-79	DRILL OUT MILTY'S FLEX
SS-1-010-005T350	77A TURBOW	NONE	4-14-79	OVERHEAD FLEX OVERHEAD

NONE
NUNG BOTTOM HALF
OF HANGER + DRILLED
FINISHED HANGER
100% COMP.

110 HOLES
 WK 4-14-79

110 HOLES
 WK 4-21-79

110 HOLES
 WK 4-28-79

PRINT NO# OR HANGER NO#	LOCATION ↓ ELV	REBAR CUT DEPTH + DIRECTION	DATE	CMC OR DCDDA
TO-1-005 012-T310	778 TURON	NONE	4-14-79 (3)	FLEX OVERHEAD
TO-1-034-000 T310	778 TURON	NONE	4-14-79 (1)	FLEX OVERHEAD
TO-1-034-001-T340	778 TURON	NONE	4-16-79 (3)	FLEX OVERHEAD
TO-1-010-014-T340	778 TURON	NONE	4-16-79 (4)	FLEX OVERHEAD
TO-1-001-005 T340	778 TURON	NONE	4-16-79 (4)	FLEX OVERHEAD
REBAR CREW WORKING ON REWORK OF HANGERS				
1597	832 REASON	NONE	4-18-79 15	FLEX WALL
1594	832 REASON	NONE	4-18-79 14	FLEX WALL
5900	832 REASON	NONE	4-18-79 1	FLEX OVERHEAD
SW-1-132-051-A43X	810	NONE	4-19-79-2	FLEX WALL
SW-1-129-039-A43X	810	NONE	4-19-79-2	FLEX OVERHEAD
SW-1-129-050-A43X	810	NONE	4-19-79 2	FLEX WALL
SW-1-102-057-A3X	790	NONE	4-19-79 13	FLEX OVERHEAD
AF-1-009-064-53X	790	NONE	4-20-79 4	FLEX OVERHEAD
AF-1-009-059-533X	790	NONE	4-20-79 20	FLEX OVERHEAD
CC-1-158-004-A43S	810	NONE	4-20-79 3	FLEX WALL
SW-1-132-041-A43X	810	NONE	4-21-79 19	FLEX WALL
CC-1-066-001-A33	790	NONE	4-21-79 2	FLEX OVERHEAD
SS-X-010-024-A43X	810	NONE	4-21-79 2	FLEX OVERHEAD
WB-1-226-017-505X	778	NONE	4-23-79 (29)	FLEX OVERHEAD
WO-1-226-019-525X	778	NONE	4-23-79 (9)	FLEX OVERHEAD
1 5 HRS	HANGING HANGERS BACK		4-22-79	
SI-1-041-001-525X	778	NONE	4-24-79 (2)	FLEX FLOOR
SIU-1-129-015-545X	810	NONE	4-24-79 (16)	FLEX WALL
DD-1-029-019-545X	810	NONE	4-24-79 9	FLEX WALL
DD-1-12-021-Y33X	8026 YARD TOWER	NONE	4-25-79 -2	FLEX OVERHEAD
CL-1-066-001-A33	790	NONE	4-25-79 2	FLEX OVERHEAD
CC-1-158-003-A43X	810	NONE	4-25-79 2	FLEX WALL
DD-1-003-055-A33X	790	NONE	4-25-79 15	FLEX WALL
CC-1-012-031-535X	790	NONE	4-26-79 11	OVERHEAD
DD-1-016-005-535X	790	NONE	4-26-79 3	OVERHEAD
SO-1-015-004-A33X	832	NONE	4-26-79 (4)	FLOOR
SO-1-014-001-A33X	832	NONE	4-26-79 14	FLOOR

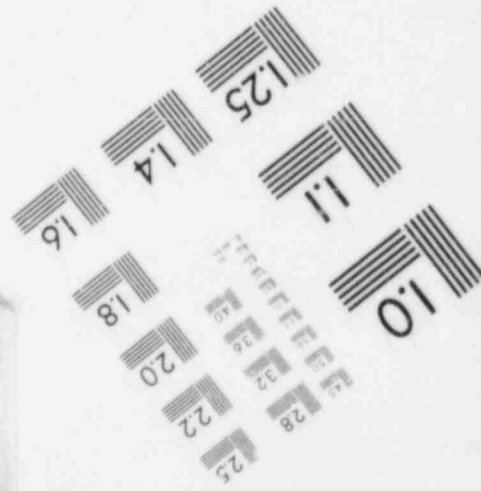
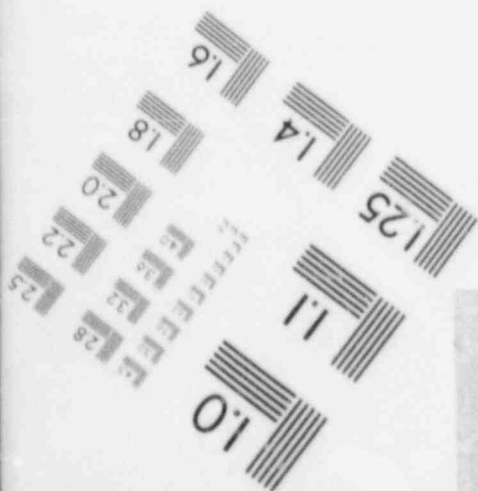
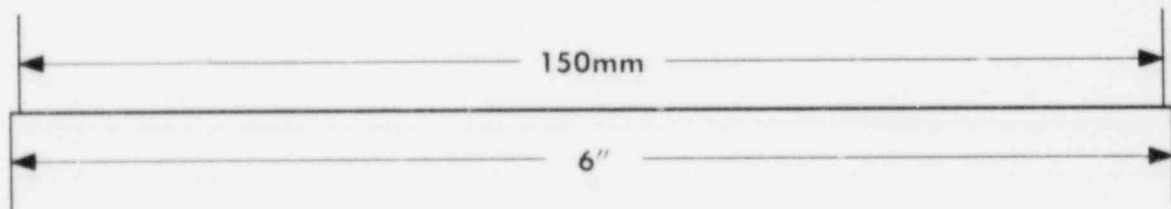
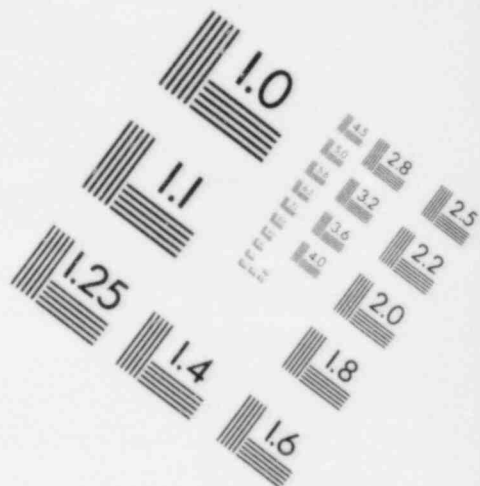
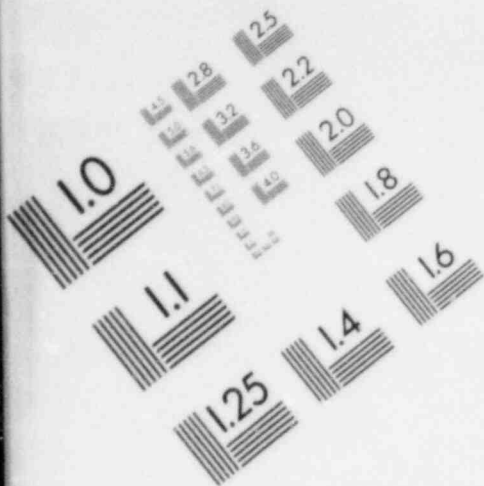
W.A. ENDONG
5-5-79

W.A. ENDONG
5-12-79

PRINT OFF CR HANDLING NO #	LINE # + FLV-	NEAR CUT DEPTH + DIRECTION	DATE	CM C OR DC DDA
SW-1-011-021 F33R	790	MULTY HOLE NONE	4-30-79	STAND FLOOR
LI-1-016-011-ASCR	790	MULTY HOLE	4-30-79	FLEX OVERHEAD
LS-2-044-007-ASB	832	NONE	5-1-79	FLEX OVERHEAD
AR-1-014-004-SSSR	796	NONE	5-1-79	FLEX OVERHEAD
AF-1-048-059-SSSR	790	NONE	5-1-79	FLEX OVERHEAD
HD-1-017-013-T133	796	NONE	5-1-79	FLEX OVERHEAD
HP-1-330-008-T55S	832 TUNING	100% NPS 3"	5-2-79	FLOOR 6189
HP-1-330-008-T55S	632 TUNING	100% NPS DEPTH	5-2-79	FLEX 6189
SW-1-016-007-T03A		NONE	5-2-79-	FLEX WALL
SI-035-053-51615	790	NONE	5-2-79-	FLEX WALL
3 1/2 HAS	EVERY BODY LEFT DUE TO STORM		5-3-79-	
SF-X-010-018-F4SR	FUEL	NONE	5-4-79	FLEX OVERHEAD
CP-X-001-053-R3SR	805'	NONE	5-4-79	FLEX WALL
CI-1-044-042-CH6R	819'	NONE	5-4-79	FLEX OVERHEAD
SF-X-063-009-F5SR	858' 0"	NONE	5-4-79	FLEX WALL
AF-1-048-064-SSSR	804'	NONE	5-5-79	FLEX OVERHEAD
DD-1-12-021-Y3SR	802' 6"	NONE	5-7-79	FLEX OVERHEAD
SF-1-013-013-ASSR	839' 10"	NONE	5-7-79	FLEX OVERHEAD
CC-1-017-005-A43R	810	100% REMAINS 3" DEPTH	5-8-79	WALL 6198
CC-1-017-005-A43R	810	100% REMAINS 3" DEPTH	5-8-79	WALL 6198
REASTOP DAY HUNG HANGERS 5 HAS			5-8-79	
SFX-062-003-A4SR	810	2" DEPTH	5-9-79	FLEX 6197
CT-1-083-009-S2SR	800' 6"	NONE	5-9-79	FLEX
SW-2-001-012-F33A	796' 7"	100% HOLE 5" DEPTH	5-10-79	WALL 6405
SW-2-001-012-F33A	796' 7"	100% HOLE 5" DEPTH	5-10-79-	WALL 6405
SW-2-012-012-F13A	786' 2 1/2"	100% HOLE 2 1/2" DEPTH	5-10-79-	WALL 6606
SW-1-012-016-F33A	791-6"	100% HOLE 7 1/2" DEPTH	5-10-79-	WALL 6605
(BAHNSON) S.W.I. EXHAUST PLenums	833-7 1/2"	100% HOLE	5-11-79	WALL 6903
" " " " " "	833-7 1/2"	100% HOLE	5-11-79	WALL 6903
AF-1-048-059-SSSR	790'	NONE	5-15-79 - 1	FLEX OVERHEAD
AF-1-039-001-SSSR	790	NONE	5-15-79 - 9	FLEX WALL
AF-1-039-001-ST				
VO-1-049-012-SSSR	290	NONE	5-15-79 - 6	FLEX WALL

PRINT NO HANDS	LOCATION FLV.	PIBA CUT DEPTH + DIRECTION	NO DATE	CMC OR DCDOR
5-19 SA-X-019-026-A35 SF-Y-002-003-F35	790	BROKEN MILTS 2	5-16-79 - ①	OVERHEAD RAIL STANG
	790	NONE	5-16-79 - ②	FLEX WALL
NO REBAR WORK		5-17-79	HANGING HANGERS	
5-26-79 A/C SW-2-132-004-A43R CJ-1-144-026-C46R CT-1-083-011-S35R CC-2-070-002-A33R RH-1-063-004-S22R AF-1-028-001-S53R SW-1-013-005-A33R CH-1-235-002-S43R SW-1-102-065-A41R	REBAR WORK	5-29-79	Hanging Hangers	
	REBAR WORK	5-30-79		
	REBAR WORK	5-31-79		
	810'	NONE	5-31-79 (2)	FLEX WALL
	NO REBAR - FLEX	NONE	6-1-79	FLEX WALL
	REACTOR -	NONE	6-4-79	FLEX WALL
	790	NONE	6-4-79	FLEX WALL
	790	NONE	6-4-79 - 25	FLEX WALL
	778	NONE	6-5-79 4	FLEX FLOOR
	742	NONE	6-5-79 4	FLEX FLOOR
	790	NONE	6-7-79 3	FLEX WALL
	810'	NONE	6-7-79 2	FLEX WALL
810	NONE	6-7-79 0	NOT ENOUGH DATA FOR FLEX	
6-16-79 CW-1-034-010-1105 CW-1-273-001-1105 CW-2-037-011-1105 CW-2-032-100-1105 CW-1-085-001-1105 WP-1-043-006-C46R CS-2-031-002-A53R AF-1-078-001-S33R AF-1-078-001-S33R CC-1-051-001-A43R CC-1-051-001-A43R 3822 CABLE TRAY	C.W.I.	NONE	6-11-79 ①	FLEX FLOOR
	"	NONE	6-11-79 ②	" "
	"	NONE	6-11-79 ④	" "
	"	NONE	6-11-79 ⑥	" "
	"	NONE	6-11-79 ⑧	" "
	"	NONE	6-11-79 ⑩	" "
	"	NONE	6-12-79 ⑤	OVERHEAD FLEX
	"	DRILLED HOLE NONE AT	6-12-79 ⑪	
	DRILLED FOR 589-790	Q HANGERS 100% N & S 6 1/2" DEPTH 100% N & S 6 1/2" DEPTH 100% E & W 2 3/4" DEPTH 100% E & W 2 3/4" DEPTH.	6-13-79	
			6-14-79	CMC 6952
		6-14-79	" 6952	
		6-14-77	" 6953	
		6-14-77	" 6953	
	807 ELET.	NONE	6-14-77	FLEX WALL
WH Kadwig 27-79 SF-X-03-001-F45R CS-2-031-002-A53R CH-1-235-002-S43R	810 FUEL	NONE	6-18-79	FLEX WALL
	WORKING DRILLING HANGERS		6-19-79	FLEX WALL
	83A A-X	MILTY MET DRXCD	6-20-79	FLEX WALL
810 SE	NONE	6-20-79 ⑨	WALL FLEX	

IMAGE EVALUATION
TEST TARGET (MT-3)



PRINT NO# OR HANGER NO#	LOCATION LEV	RIBBAR CUT DEPTH + DIRECTION	DAY ↓ DATE	CALL OR DCDDO
SW-1-013 005-A33A	AUX 790	NONE	6-20-79 (5)	FLEX WALL
HO-1-350-001-T45	TURBIN	NONE	6-20-79 (6)	FLEX FLOOR
SI-1-027-001-S22R	SG 778	NONE	6-20-79 (7)	FLEX FLOOR
SB-X-016-001-A55R	AUX 832'	NONE	6-21-79 (1)	FLEX OVERHEAD
WORKING HANGERS -			6-25-79	
CI-1-053-85	TURBIN 2' lower	NONE	6-26-79	WALL FLEX
CI-1-053-86	" "	NONE	6-26-79	WALL FLEX
CF-104	" "	NONE	6-26-79	FLOOR FLEX
CF-103	" "	NONE	6-26-79	FLOOR FLEX
CC-1-077-010-S33R	790	NONE	6-27-79-45	FLEX FLEX
AH-1-003-004-S3A5	790	NONE	6-27-79 2	FLEX WALL
CC-2-021-009-A33A	790	NONE	6-27-79 4	FLEX WALL
CW-2-047-003-K05	CWI	NONE	6-28-79 2	FLEX FLOOR
SB-1-060-021-S55R	SG	NONE	6-28-79 1	FLEX OVER HEAD
54-202-244-858	TURBIN	NONE	6-28-79 2	FLEX WALL
CV-1-053-152-978	TURBIN		7-3-79 2	WALL FLEX
79			7-3-79 2	FLEX WALL
80				
81				
82				
83				
DD-1-029-030-A35R		NONE	7-5-79 1	FLEX WALL
GS-1-034-040-A45R		NONE	7-5-79 13	FLEX WALL
Hanging Hangers			7-6-79	
SW-1-010-01-A33R	AUX	NONE	7-9-79 (41)	FLEX FLOOR
CS-1-063-006-S22R	SG	NONE	7-10-79 (6)	FLEX FLOOR
CS-1-063-008-S22R	SG	NONE	7-10-79 (8)	FLEX FLOOR
HANGING TEMP HANGERS FOR PIPES DEPT 32" FROM STEAM			7-11-79	
"	"	"	7-12-79	
"	"	"	7-13-79	BABY DAY
"	"	"	7-16-79	
"	"	"	7-17-79	
"	"	"	7-18-79	

W/H ending 6-23-79

W/H ending 6-30-79

W/H ending 7-7-79

W/H ending 7-14-79

W/H ending 7-21-79

7-21-79
W/F

PRINT NO# OR
HANGER NO#

LOCATION
+
ELEV

RIBBAR CUT
DEPTH + REGION

DAY
+
DATE

CMC
OR
R.O.D.A

PRINT NO# OR HANGER NO#	LOCATION + ELEV	RIBBAR CUT DEPTH + REGION	DAY + DATE	CMC OR R.O.D.A
XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
CABLE TRAY 6465	790	NONE	7-19-79 (1)	WALL FLEX
CABLE TRAY 5338	807 CONTROL	NONE	7-19-79 (5)	WALL FLEX
SW-2-035-004 - J03R	CABLE TO RAIL S.W.J.	BY MIKE SANDERS - NONE	FLOOR 7-23-79 (8)	FLOOR
SB-X-017-001 - ASSR	850' 4"	NONE	7-25-79 (2)	FLEX OVERHEAD
CF 100 GRUNNELL	830' 0"	NONE	7-26-79 (2)	FLEX FLOOR
SB-X-017-005 - ASSR	842'	NONE	7-26-79 (2)	FLEX OVERHEAD
SB-X-017-004 - ASSR	842	NONE	7-27-79 4	FLEX OVERHEAD
SW-1-026-001 - J03A	806' 3"	NONE	7-27-79 - 4	WALL FLEX
CC-1-007-039 - A63R	869' 4"	NONE	7-27-79 (2)	WALL FLEX
CC-1-007-036 - A63R	868' 10"	NONE	7-30-79 (2)	FLEX WALL
SB X-017-002 - ASSR	848' 0"	NONE	7-30-79 (4)	FLEX OVERHEAD
38.22 CABLE TRAY	807'	NONE	7-30-79 (1)	FLEX WALL
NO DRILLING	CLEAN + REPAIR E2V.		8-1-79	
SI 1-035-054 535R	807'	NONE	8-2-79 (9)	FLEX WALL
3284	807 ELC CONTROL	NONE	8-2-79 (1)	FLEX WALL
5358	807 "	NONE	8-6-79 (9)	FLEX WALL
H CL -1 - SB0-17-23	778 AUX	NONE	8-6-79 (2)	FLEX WALL
CONDUIT HANGER SUPPORT	832 AUX	100% NONE 3" DEPTH	8-8-79 (1)	WALL 530/ FLEX PCA
" " "	" " "	100% WALL 3" DEPTH	8-8-79 (1)	WALL PCA 530
" " "	" " "	100% WALL 3" DEPTH	8-8-79 (1)	WALL PCA 530
" " "	" " "	100% WALL	8-8-79 (1)	WALL PCA 530
CCX-044-003 - F43R				
CCX-038-002 - F43R				
CCY-038-003 F43R				
5658				
H-64-X-20-024 #7	832 BUY	NONE	8-15-79 (1)	FLEX WALL
SW-1-732-072-543R	811' 3"	NONE	8-16-79 (9)	FLEX WALL
CH-1-235-011-543R	824' 6"	NONE	8-16-79 (7)	FLEX WALL
CG-1-028-019-533R	806' 56	NONE	8-21-79 (9)	FLEX OVERHEAD
AF-1-001-011-Y33R	500' 6" JACO	NONE	8-21-79 (8)	FLEX WALL
AF-1-001-010-Y33R	800' 6"	NONE	8-23-79 (2)	FLEX-WALL
CABLE TRAY ELC CONTROL 807.		NONE	8-23-79 (2)	FLEX OVER HEAD

PLANT NO. OR

HANDLER NO. #

LOCATION
ELEV.

REBAR CUT
DEPTH + DIRECTION

DAY
DATE

C-C
OR
DCDDA

PLANT NO. OR HANDLER NO. #	LOCATION ELEV.	REBAR CUT DEPTH + DIRECTION	DAY DATE	C-C OR DCDDA
CC-1-193-004-C525	REACTOR #1	NONE	8-24-79 (2)	FLEX WALL
DD-1-017-008-A33R	AUX 790	NONE	8-24-79 (1)	OCA-5373
DD-1-017-008-A33R	AUX 790	100% HOZ 3" DEPTH N+S-1070	8-24-79 1	OCA-5373
SW-X-007-001-J03R	810-SWZ	NONE	8-27-79 (6)	FLEX WALL
SF X-068-002-F43R.	790 FULL	NONE	8-27-79-1	FLEX OVERHEAD
8857	835' 4"	100% HOZ 5" DEPTH	8-28-79 (1)	OCA
1957	835' 4"	100% HOZ 5" DEPTH	8-28-79 (1)	5410
1957	835' 4"	75% HOZ 5" DEPTH	8-28-79 (1)	5410
SW-X-012-008-J03R	SWZ	NONE	8-29-79 (1)	FLEX DRILLED OUT MILTY
2650 CABLE TRAY	852 SWZ	NONE	8-30-79 (6)	FLEX
6041 CABLE TRAY	REACTOR 2#	NONE	9-13-79	SIDE OF BEAM FLEX BEAM
6042 " TRAY	"	"	" 1	" "
6043 " "	"	"	" 1	" "
6043 " "	"	"	" 1	" "
2412 " "	"	"	9-17-79 1	FLEX BEAM
DD-1-013-045-55K	SG 790	NONE	9-18-79 1	COLUM 12"
CC-1-037-10-AUX	AUX 790	NONE	9-20-79 4	FLEX DRILLED MILTY
CC-1-039-15-A33R	AUX 790	NONE	9-20-79 2	FLEX WALL
CC-1-044-001-A33R	AUX 790	NONE	9-20-79-1	FLEX WALL
CC-1-044-002-A33R	AUX 832	NONE	9-21-79 11	FLEX WALL
CH-X-047-003-A75R	AUX 873	NONE	10-2-79-2	FLEX WALL
CH-X-001-016-A75R	AUX 873	NONE	10-2-79-2	FLEX WALL
CH-X-0093-001-A75R	AUX 873	NONE	10-2-79-2	WALL FLEX
CC-1-007-031-A33R	AUX 831'6"	NONE	10-3-79-11	FLEX WALL
CC-1-156-004-A63R	AUX 852'6"	NONE	10-3-79 4	FLEX WALL
CABLE TRAY 3940	SG 790	NONE	10-3-79-4	FLEX WALL
GH H-00-1-09-033 #3	D-GEN.	NONE	10-4-79-1	FLEX WALL
SW-1-026-007-J03R	SWZ	NONE	10-4-79-1	FLEX WALL
3974 CABLE TRAY	854 AUX	NONE	10-5-79	FLEX WALL
CC-X-039-006-F43R	810	NONE	10-9-79	FLEX WALL
CC-1-116-013-F43R	810	NONE	10-9-79	FLEX OVERHEAD
ELECT TRAY -	807 ELECT CONDUIT TR.	100% HOZ 3 1/2" DEPTH N+S	10-9-79	FLAT OCA-5854
CA-1-028-016-CUER	808-R#1	DRILLED 13/16" MILTY OUT	10-17-79	WALL STAND

INTERVIEWEES

<u>NAME</u>	<u>PRESENT POSITION</u>	<u>PREVIOUS POSITION</u>	<u>DATE INTERVIEWED</u>	<u>SIGNED SWORN STATEMENT</u>
Gary D. Alford	Electrical termination	Pipe hanger fitter	5/04/83	yes
Heriberto Bermea	Pipe hanger fitter	Pipe hanger helper	5/10/83	yes
Hollis D. Bogart	Pipe hanger foreman		5/04/83	yes
Rex A. Brown	Pipe fitter	Pipe rigger	5/05/83	yes
Daniel K. Brown	TUGCO mechanical helper	Pipe hanger fitter	5/06/83	yes
Thomas M. Commons	Piping Design Services, Inc. engineer		5/06/83	Results of Interview
Edwin S. Dean	Pipe hanger general foreman		5/05/83 & 5/10/83	yes
Roy O. Estes	Pipe hanger fitter	Pipe hanger foreman	5/04/83	yes
Dean A. Fellingner	Dravo Constructors, Inc., construction project manager	Gibbs & Hill engr.	5/09/83	yes
Danny K. Grisso	Cable tray supports fitter	Hanger drill crew foreman	5/03/83	yes
Nathan D. Hammett	Pipe hanger foreman		5/03/83	yes
James D. Hullum	Start-up support	Pipe hanger general foreman	5/03/83	yes
Raymond H. Hebert	Pipe hanger superintendent		5/05/83	yes
Eli Holmes	Pipe hanger welder		5/10/83	yes
Billy R. Jones	Pipe hanger fitter		5/03/83	yes
Ronald D. McBee	Pipe foreman		5/05/83	yes
Donald W. Mason	Pipe hanger general foreman		5/03/83	yes
Charles E. Neagle	Pipe hanger fitter	Pipe hanger foreman	5/04/83	yes
Michael E. Sanders	Lead welder	Pipe hanger lead general foreman	5/03/83	yes
Jimmy R. Starkey	Pipe hanger fitter	Pipe hanger general foreman	5/04/83	yes
Tommy J. Thompson	Pipe welder	Pipe hanger welder	5/03/83	yes

The signed, sworn statements are maintained in the OIFO:RIV, and the testimony of individual witnesses is available to NRC personnel.

ATTACHMENT (2)

TERMINATED FEEDERS & ROOT EMPLOYEES

<u>NAME</u>	<u>DATE TERMINATED</u>	<u>PRIOR POSITION</u>
Richard Asevado	8/15/82	Pipe Hangers
Kenneth H. Evans	1/21/82	Welding Technician
Hal Goodson	11/01/82	Pipe Hangers
Joe Gray	1/27/83	Pipe Welder
Louis Hale	8/10/79	Pipe Hangers
Rusty Hamilton	6/07/82	Structural Iron Worker
Larry Haney	8/02/79	Pipe Hangers
Gary Hill	7/09/82	Structural Iron Worker
Barry Kerfoot	3/22/79	Pipe Hangers
Paul Latham	10/14/82	Pipe Hangers
Richard Montjar	6/02/82	Pipe Hangers
Jackie Moore	8/30/79	Pipe Hangers
Charles R. Phillips	5/21/82	Structural Iron Worker
Mike Robinson	8/27/79	Pipe Welder
Glen Southard	7/09/80	Pipe Hangers
J. W. Strickland	8/22/79	Structural Iron Worker
Joe Williams	4/21/80	Pipe Hangers
Tim DeSpain	termination date unknown	Pipe Hangers