

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

1 In the Matter of:

2 IE TMI INVESTIGATION INTERVIEW

3 of

4 Carl L. Guthrie
5 Shift Foreman

6
7
8
9 Trailer #203
10 NRC Investigation Site
11 TMI Nuclear Power Plant
12 Middletown, Pennsylvania

13 May 18, 1979
14 (Date of Interview)

15 July 9, 1979
16 (Date Transcript Typed)

17 217 and 218
18 (Tape Number(s))

19
20
21 NRC PERSONNEL:

22 Dorwin R. Hunter
23 Thomas T. Martin
24 Mark E. Resner

25 7908280813

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1 RESNER: The following is an interview of Mr. Carl L. Guthrie. Mr.
2 Guthrie is employed with the metropolitan Edison Company and he is a
3 Shift Foreman at the Three Mile Island nuclear facility. The present
4 time is 7:47 a.m. Eastern Daylight Time. Today's date is May 18, 1979.
5 This interview is being conducted in Trailer 203, which is located just
6 outside the south gate to the Three Mile Island facility. Present for
7 this interview representing the NRC are Dorwin R. Hunter. Mr. Hunter
8 is an Inspection Specialist. He is temporarily assigned to Region III
9 of the U.S. Nuclear Regulatory Commission. Also present is Mr. Thomas T.
10 Martin. Mr. Martin is an Inspection Specialist from Region I of the
11 U.S. Nuclear Regulatory Commission. Also present representing NRC is
12 myself, Mark E. Resner, and I am an Investigator with the Office of
13 Inspector and Auditor, Headquarters, U.S. Nuclear Regulatory Commission.
14 Present at the choice of Mr. Guthrie to act as his representative is
15 Mr. William H. Behrle. Mr. Behrle is a Project Engineer employed with
16 the Metropolitan Edison Company. Prior to taping this interview, Mr.
17 Guthrie was given a two-page advisement document which explained the
18 purpose, the scope, and the authority which the USNRC has been given to
19 conduct this investigation. In addition, this document advised him
20 that he was in no way compelled to talk to us and that he was entitled
21 to a representative of his choice. On the second page of this document
22 there are three questions which Mr. Guthrie has answered. I will state
23 these for the record. Question No. 1: Do you understand the above?
24 Mr. Guthrie has checked yes. Is that correct, Mr. Guthrie?
25

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1 GUTHRIE: Yes, it is.
2

3 RESNER: Question No. 2: Do we have your permission to tape the interview?
4 Mr. Guthrie has also checked yes. Is that correct, Mr. Guthrie?
5

6 GUTHRIE: Yes, that's true.
7

8 RESNER: Question No. 3: Do you want a copy of the tape? Mr. Guthrie
9 has checked no; however, he has indicated that he does desire a transcript
10 of the tape. Is that correct? Mr. Guthrie?
11

12 GUTHRIE: That is correct.
13

14 RESNER: OK, we will provide you with a transcript at a later date. At
15 this time, I would like Mr. Guthrie to give us a brief synopsis of his
16 experience, jobwise and education wise in the nuclear field. Mr. Guthrie.
17

18 GUTHRIE: Approximately 9 years experience in the U.S. Navy, commencing
19 in 1960. I entered the nuclear field 1965 as a control room operator
20 and spent the next 4 years serving on various fleet ballistic missiles.
21 I am presently working for Metropolitan Edison Company, commencing 1971
22 as Auxiliary Operator; assumed position of Shift Foreman in 1972.
23 Licensed Senior Reactor Operator License on Unit 1 approximately '74.
24 Currently Senior Reactor License, cross licensed on Units 1 and 2,
25 working TMI-Unit 2.

1 RESNER: All right, thank you very much, Mr. Guthrie. At this time I
2 will turn the questioning over to Mr. Hunter.

3
4 HUNTER: Carl, Hunter speaking, we're interested in two areas, and the
5 first area that we would like to discuss is your activities on the 28th
6 of March, the morning when you were called in early and the easiest way
7 to go through it is if you would give us a quick, general outline of
8 what you did starting from the time that you were called and arrived on
9 site and the general activities that you were involved in and then we
10 will key on some of the specific activities. As best as you recall,
11 okay, and don't worry about the specific times. We are more interested
12 in, as an example, if you were involved in pressurizer heaters that
13 type thing, just go through it and then we'll key on things.

14
15 GUTHRIE: I was called approximately 5:00 in the morning I arrived at
16 site approximately 5:45, assisted in control room functions, restoration
17 of ventilation, pressurizer heater switchgear area, restoring tripped
18 pressurizer breakers, problems with, control room functions. Approxi-
19 mately midmorning it was, I entered the aux building to close and reset
20 the breakers for DHV 102s. Upon leaving the aux building I became
21 contaminated and left for Unit 1 for decontamination. The rest of the
22 day essentially was tied up in Unit 1 and that's about it. I left in
23 the afternoon.

24
25

1 HUNTER: OK, Carl, going back now and then we'll try to work our way
2 down through and pick out some of the more details. Do you recall who
3 called you at 5:00 o'clock or was it just a phone call?
4

5 GUTHRIE: I don't remember the specific individual that called me.
6

7 HUNTER: It was a request just to come in and assist in Unit 2, was
8 that the type of call it was?
9

10 GUTHRIE: That's right. It was made by someone non-ops, non-operations
11 department. I don't know who was making the calls.
12

13 HUNTER: Did you get any plant status at that time or was it just to
14 come in?
15

16 GUTHRIE: It was just to come in and it was no specific plant status,
17 in fact, I never did get any specific plant status.
18

19 HUNTER: OK, you arrived onsite then, you indicated, at 5:45 approxi-
20 mately.
21

22 GUTHRIE: That's right.
23
24
25

1 HUNTER: OK and you proceeded then to Unit 2 control room?
2

3 GUTHRIE: That is right.
4

5 HUNTER: OK. Can you give me an idea of when you came into Unit 2
6 there were certain people there and you ended up talking with somebody,
7 I'm sure. And can you give me an idea of where you went when you first
8 came into the control room? Who you talked with?
9

10 GUTHRIE: Well, really didn't do too much conversing. I really didn't
11 get a good turnover. I knew that things pretty well stayed a crisis.
12 I was assigned various jobs by the shift supervisor, Unit 1's supervisor
13 of operations, or other jobs as they came along.
14

15 HUNTER: OK. What was the condition of the control room when you came
16 in. The number of people, noise level, that type of Was it fairly
17 calm, very few people at that time, about 5:45?
18

19 GUTHRIE: It was fairly busy. The number of people was, I would say 5
20 or 6. The shift supervisor, the Supervisor of Operations from Unit 1, 2
21 CROs, and there may have been one or two other individuals.
22
23
24
25

1 HUNTER: OK. Were you involved fairly quickly in going down and checking
2 the heat of the, the pressurizer heater breaker locally at the heater
3 control cabinet?
4

5 GUTHRIE: Yes, that occurred fairly early.
6

7 HUNTER: And what was the status of those breakers when you arrived to
8 check them?
9

10 GUTHRIE: When I arrived in that area I observed that the ventilation
11 fans were off; extremely hot and humid conditions. I believe that
12 there were three or four breakers that were tripped which we reset.
13 Radiation levels was abnormally high, close to the record.
14

15 HUNTER: OK. The vent fans were off. Carl, is there any reason they
16 were off that you're aware of? Did they have a loss of a buss or power
17 supply ...?
18

19 GUTHRIE: No, I believe that you will find that those were off because
20 of the temperature and humidity in that area and the automatic fire
21 system which has a trip, on the fans.
22
23
24
25

1 HUNTER: Is there an alarm in the control room that would indicate that
2 those fans had automatically tripped due to high temperature or fire
3 alarm type trip or fire type trip?
4

5 GUTHRIE: There is an alarm in the control room on the fire system
6 panel which tells you of trouble in a specific area. I don't know, if
7 it specifically, tells you that to trip the fans or if its a trouble
8 alarm that comes on a temperature sensor.
9

10 HUNTER: And the trouble alarm would indicate that somebody should go
11 down and find out what the problem is in that area?
12

13 GUTHRIE: Yes.
14

15 HUNTER: You say that this has been plaguing you fellows for a while,
16 the high temperatures in that area?
17

18 GUTHRIE: That has been a problem, but you must realize that at the
19 time that was not the sole alarm. Of the many, many alarms that are in
20 the control room, that was probably the only one that was going.
21

22 HUNTER: I understand. OK. You've been having problems with pressurizer
23 heaters due to the higher temperatures in that room apparently, previously.
24
25

1 GUTHRIE: That is correct.
2

3 HUNTER: There are local breakers. Is my understanding correct that if
4 the local breakers trip, you do not in the control room know that they
5 have are tripped?
6

7 GUTHRIE: That is correct.
8

9 HUNTER: You have to go actually and look at the breakers.
10

11 GUTHRIE: That is true.
12

13 HUNTER: OK. All right, after you had checked the pressurizer heater
14 breakers did you go back to the control room and indicate to Bryan
15 Mehler or somebody that the pressurizer heater breakers were all normal
16 or back to normal?
17

18 GUTHRIE: Yes I did, but I did it after I had went over to the adjoining
19 area where the fire system panel for that area is located and reset the
20 same and returned to the pressurizer heater area and restarted the
21 local fans there. Then I proceeded to the control room and notified, I
22 believe it was the shift foreman that we had reset the breakers.
23
24
25

1 HUNTER: OK, and the actual fire system down below indicated that the
2 fans had been tripped and you reset the fans?
3

4 GUTHRIE: Right. What we did specifically was not reset the fans, we
5 defeated the fire signal enabling it to run the fans.
6

7 HUNTER: OK
8

9 GUTHRIE: On the basis that there was no visual evidence of a fire in
10 the area.
11

12 HUNTER: At that particular point, you reestablished the fans; would
13 the alarms, the fire alarms, the high temperature alarms clear or would
14 they continue?
15

16 GUTHRIE: No, that alarm would be then locked in and you would not have
17 a status of any fire in the area.
18

19 HUNTER: OK. The area that we're speaking of, would you describe the
20 area, specifically its location where the pressurizer panels are located,
21 the heater panels.
22
23
24
25

1 GUTHRIE: That area is adjoining the reactor building and at the base
2 of the control building. It's below ground and contains electrical
3 switchgear for pressurizer heaters and ventilation fans and also it has
4 turbine-driven emergency feed pump in that area. Going through that
5 area is the four steam lines exiting the reactor building going to the
6 turbine building to the turbine.

7
8 HUNTER: OK Carl, thank you. Is the high-at a previous event that had
9 occurred in that area, apparently a diaphragm on a piece of equipment
10 had ruptured and they had steam leak into that room. Are you aware of
11 that particular event?

12
13 GUTHRIE: That's correct.

14
15 HUNTER: And have you had trouble with the pressurizer heater breaker
16 since that time or are the problems with the thermal trips on the
17 breakers and the high temperature in that room related to just the fact
18 that the steam lines are there and emergency heat pump is there?

19
20 GUTHRIE: I think the problem on the pressurizer heaters has existed
21 previously to the atmospheric relief expansion joint failure. It's due
22 I would say to the temperature and humidity.

23
24
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1 HUNTER: OK. With a looking at the normal operator's tours would the
2 operators make tours through that room routinely?
3

4 GUTHRIE: That is correct probably once an eight-hour shift.
5

6 HUNTER: OK. After you had reset the fans and checked the heater
7 breakers, then you went back to the control room. Do you recall your
8 after indicating to the Control Room Shift Supervisor foreman that the
9 heaters went on, do you recall your next activity?
10

11 GUTHRIE: Not specifically. I assisted in monitoring the computer
12 alarm printout and various functions in the control room.
13

14 HUNTER: OK Carl, maybe the best thing to do is talk about the things
15 that you did, that way things, should come back. I realize that it is
16 quite late after the event, but looking at the computer alarm functions
17 or demand what were you looking at?
18

19 GUTHRIE: I was looking at the alarm printout, acknowledging any alarms
20 that came up on the computer, checking the alarms as they printed out
21 to make sure that there was not a condition that might of happened and
22 that we were aware of any unknown condition that came up on that needed
23 our attention. However, that is not too fruitful because generally when
24
25

1 you have a lot of alarms on the computer it backs up the memory for as
2 much as an hour or two at a time and what's is being printed out it is
3 as much as one hour previous.
4

5 HUNTER: OK, and would you say that would describe what was being
6 printed out while you were there. That the data was about an hour or
7 so old?
8

9 GUTHRIE: That's correct.
10

11 HUNTER: OK Carl, and another thing, we have, when we go back to look
12 at the computer printouts there is a time, there is some information
13 that is missing, and realizing that after you have a trip that it's
14 backlogged very heavily. We would like to ask you if you in fact know
15 that when you were reading, we'll call it reading information the time
16 frame which you were seeing the alarms and then we'll talk about when
17 this information was missing and whether or not you have any feeling
18 for what happened.
19

20 RESNER: We'll give you a little time to think about that one and cut
21 off the tape. The time now is 8:06 a.m., Eastern Daylight Time.
22
23
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1 RESNER: Resner speaking. We have changed the tape. The time is now
2 08:08 a.m. Eastern Daylight Time, on May 18, 1979. We will pick up
3 with Mr. Guthrie's answer to Mr. Hunter's question.
4

5 HUNTER: Hunter speaking. Carl, we were talking of about you asking
6 for, reviewing alarm printouts on the alarm typer, the computer typer,
7 did you ask for information to be printed out? Did you request any
8 information or were you just reviewing the alarm typer?
9

10 GUTHRIE: No, I didn't ask for any.
11

12 HUNTER: Did you look at the power operated relief valve tailpipe
13 temperatures? Was that part of, do you recall seeing those alarms.
14

15 GUTHRIE: No I don't remember seeing them.
16

17 HUNTER: We have a, if you were reading the computer at like 6:30 or
18 so, is that the timeframe that you were actually looking at the alarm
19 computer?
20

21 GUTHRIE: Well, that may be just a bit early. It's probably more like
22 a quarter of seven or seven o'clock when I first started looking at it.
23
24
25

1 HUNTER: And when you were looking at the alarm typer, there was nothing
2 unusual about the alarm typer. The paper was there and it was folding
3 back and there was nothing missing on the alarm typer at that time.
4

5 HUNTER: There were no missing times that you were aware of?
6

7 GUTHRIE: I saw no problem with it. I did not specifically look for
8 missing times, but I didn't notice any.
9

10 HUNTER: Did you notice any paper jam or see anybody unjam it and put
11 the paper back in, that type of thing?
12

13 GUTHRIE: No I did not see that.
14

15 HUNTER: OK. And you reviewed the alarm typer. Did you see anything
16 unusual or did something strike your attention that was unusual while
17 you were reading those alarms?
18

19 GUTHRIE: No, not considering the plant conditions. Most of the infor-
20 mation there had happened since the time before. Most of it was irrelevant
21 material.
22
23
24
25

1 HUNTER: Do you have a feel for how long before that, that you were
2 actually seeing data? What the time frame was? Was it like an hour
3 from an hour - let's say 6:45 would it be an hour before that two hours
4 before that?

5
6 GUTHRIE: I don't remember the time on the typewriter.

7
8 HUNTER: Do you recall the, when the typer was in fact not typing out
9 heavily and it was actually - or was it continuously typing out all the
10 time you were there?

11
12 GUTHRIE: I would say that it was almost continuous.

13
14 HUNTER: OK. Do you recall any, another activity that you were involved
15 in early in the morning.

16
17 GUTHRIE: Well the other activity that I was involved in was the prepara-
18 tions being made to possibly put the reactor coolant system on decay
19 removal. One of the things that was required to do that is to fire up
20 the breaker for the suction valves, the decay heat removal. Normally,
21 that system takes its suction from the borated water storage tank and
22 its suction valve from that tank is kept in an ES condition of open and
23 its breaker open. Its two breakers are located in the auxiliary building
24 305' elevation one of the engineering safety features switchgear. I
25

1 previously stated that plans were to eventually, possibly put the decay
2 heat removal system in operation which would require powering up tripping
3 up breakers to get an alternate suction from the RCS and I went in and
4 closed the breakers, removed the locks from these breakers and left the
5 area. While I was in the area I found that I was contaminated to such
6 an extent that I had to proceed to Unit 1 to be decontaminated.

7
8 HUNTER: Carl, do you have the time frame on when you went into the
9 auxiliary building to close those breakers, generally. Was it early
10 morning, mid-morning?

11
12 GUTHRIE: Very rough, I would say mid-morning and I was probably out of
13 the building around 10:30 or 11:00 o'clock, something like that.

14
15 HUNTER: OK. Would the procedure that day then would be to undress and
16 then go to Unit 1 to be decontaminated? Was that the normal path?

17
18 GUTHRIE: Only if you was contaminated. Which you, you know, you could
19 tell by checking yourself with a portable radiation meter.

20
21 HUNTER: Did you have pencil self reader, self reading dosimetry with
22 you on that entry and that you monitored that you checked your exposure
23 while you were in there?

1 GUTHRIE: No, the time I spent in there was very short. I would say a
2 maximum of maybe five minutes.

3
4 HUNTER: Who was with you on that tour?

5
6 GUTHRIE: I was by myself.

7
8 HUNTER: And you indicated that you were decontaminated and then went
9 to Unit 1. Was there any problem in getting decontaminated?

10
11 GUTHRIE: That is not exactly correct. I was contaminated and I had to
12 put on overcovers or over clothing in order to proceed to Unit 1 to be
13 decontaminated in their shower.

14
15 HUNTER: And did you have any problems then getting decontaminated in
16 the shower?

17
18 GUTHRIE: Well, I heard then that it is a very time consuming process
19 and after about four or five showers your levels are down to probably
20 what the background was in that area which was not very low.

1 HUNTER: OK. When you were in the Auxiliary Building, did you step in
2 any water or anything or was it gaseous and particulate activity that
3 you apparently were contaminated with?
4

5 GUTHRIE: Well it was apparently gaseous and particulate. There was no
6 water that I observed that was strictly on the 305 level. Based upon a
7 relative short half life and the rapid decay of activity in the body
8 afterwards, I would say most of it was, in fact, gaseous activity.
9

10 HUNTER: Did you have a, carry a hand radiation detector with you when
11 you went in to close the valves?
12

13 GUTHRIE: Yes I did.
14

15 HUNTER: Do you recall reading that detector while you were in there?
16

17 GUTHRIE: I believe it was in the area of one to two "R".
18

19 HUNTER: OK you indicated that those valves had locks on them because
20 they are ES valves, they are normally, the breakers, are normally
21 opened and locked in the open position?
22

23 GUTHRIE: That's correct.
24
25

1 HUNTER: Well are they break away locks?
2

3 GUTHRIE: No they are a lock that requires a key for it.
4

5 HUNTER: So, do you have a key, each shift foreman have a key to those
6 ES type locks? The safeguard locks?
7

8 GUTHRIE: There is a key vittle, you know, in the control room for
9 locked valve locks.
10

11 HUNTER: When you went in there, Carl, was there a discussion about a
12 buddy system or any concern about going into that area as one person,
13 as an individual?
14

15 GUTHRIE: At the time, of the available manpower and the state of
16 confusion, it was not very well organized.
17

18 HUNTER: OK Carl, and then you, after you were, become, to be contaminated
19 and you Did you remain in Unit 1 until you went home that day?
20

21 GUTHRIE: That is correct. While I was being decontaminated they
22 evacuated the Unit 1 HP area to Unit 1 control room. I stayed in the
23 Unit 1 control room for I would say for two or three hours. Following
24 that, I left the site and was over at the temporary area for people
25

1 leaving the site. It, was at 500 KV sub and radiation levels on my
2 body then was too high to leave so I stayed for another couple of
3 hours.

4
5 HUNTER: OK, then did you get a whole body count fairly quickly after
6 that, after the 28th? I mean, did you get a ...?

7
8 GUTHRIE: I guess that it was a couple of days later.

9
10 HUNTER: Tim, any particular questions?

11
12 MARTIN: No.

13
14 RESNER: Mr. Martin has indicated that he doesn't have any questions.

15
16 HUNTER: OK. There is another area that I want to talk, that we want
17 to discuss, Carl and I want to - OK Carl there is another area that I
18 would like to touch base with you on and get a feel for - this particular
19 activity. During the trip on the 28th, the motor-driven, steamdriven
20 auxiliary feed pumps started, come up to discharge pressure but the 12
21 A&B valves were closed. And we've been looking at that area specifically
22 and it appears that they were left closed after doing a surveillance on
23
24
25

1 the 26th, OK? And the records show that you, as a shift foreman, that
2 that surveillance was done on your shift and that you signed the surveil-
3 lance data sheet. The surveillance data sheet, do you recall that?
4

5 GUTHRIE: That is correct.
6

7 HUNTER: OK and can you give us a brief synopsis of the way you handle
8 this type of surveillance - this specific surveillance so that we then
9 can discuss this particular area in more detail? The scheduling, what
10 you, how you handled it and what you did?
11

12 GUTHRIE: Well I take it, - I'd like clarification of the question. I
13 take it what you want to know is, in general, how do we handle surveil-
14 lances. Is that correct?
15

16 HUNTER: Yes, just start off in general how you handle the surveillances,
17 and knowing realizing that we're talking about this particular one -
18 now you handled it and then we'll proceed with that.
19

20 GUTHRIE: OK. We work from a surveillance schedule which is a computer
21 printout based upon Tech Spec requirements. This computer printout is
22 periodically sent to the control room. Each surveillance has what we
23 call a green sheet for performing that surveillance - showing date it's
24 due, early date, late date. The surveillance procedure also contains
25

1 an area for signoff by the person performing the surveillance and his
2 immediate supervisor. The general method of handling surveillances is
3 working from the green sheets. A shift foreman reviews the green
4 sheets for a specific day, selects his surveillances, runs a copy of
5 the surveillance procedure log and attaches it to the green sheet, and
6 gives it to a control room operator who is assigned surveillance functions
7 for that day. That control room operator working in conjunction with
8 an auxiliary operator - or more - will perform the surveillance. The
9 auxiliary operator does the functions on the equipment in the plant.
10 The control room operator handles the remote controls indication in the
11 control room. Upon completion, the aux operator returns the entire
12 xeroxed procedure to the control room. The control room operator
13 reviews it. The aux operator has signed it, signed all of the applicable
14 steps in the procedure and the data sheet and fills in the appropriate
15 data. The CRO has reviewed it and returns it to the shift foreman for
16 final approval and review and station staff.

17
18 HUNTER: OK Carl, let me clarify a couple of points and make sure that
19 I understand. You indicated that the - and I have in my hand a copy of
20 2303 M 27A and B which is in fact the motor-driven emergency feed pump
21 functional test and valve operability test - and this a control copy
22 that we had obtained out of the file that's is maintained in the control
23 room where you also would get a, the control copy and make a copy for
24 the operators to use.
25

1 GUTHRIE: That's correct.
2

3 HUNTER: OK. In this particular instance - when you make a copy - and
4 indicate you make a copy of the procedure - do you ... would you make a
5 copy of the complete procedure? Meaning, page 1, for instance, all the
6 way through and including the data sheets.
7

8 GUTHRIE: Yes we copy it in its entirety, including the cover sheet and
9 page 0 through page whatever.
10

11 HUNTER: OK. Now that would include then, for instance, in this particular
12 Section, Section 6 say is procedure and 6.1 is for a particular activity
13 but it says emergency feed pump A or B valve tests. And valve tests,
14 and then it says initial the procedure as you go through and do the
15 steps.
16

17 GUTHRIE: That is correct.
18

19 HUNTER: The control room operator or the auxiliary operator would, in
20 fact, normally perform these steps and initial the steps.
21

22 GUTHRIE: That is correct.
23
24
25

1 HUNTER: And the green sheet that's a computer printout which really is
2 the routing sheet for this particular type surveillance is also signed
3 by the Control - the Auxiliary Operator or the operator and then you
4 countersign that green sheet, in fact. Is that correct?
5

6 GUTHRIE: That is correct.
7

8 HUNTER: When you countersign the green sheet, that would indicate that
9 the surveillance had been complete?
10

11 GUTHRIE: That's right.
12

13 HUNTER: Do you do any specific activity associated with signing the
14 green sheets? For instance, would you in fact verify, personally
15 verify, or is there a requirement to verify, any of the activities - or
16 do you review that the sheets and the data sheet and the procedure is
17 complete?
18

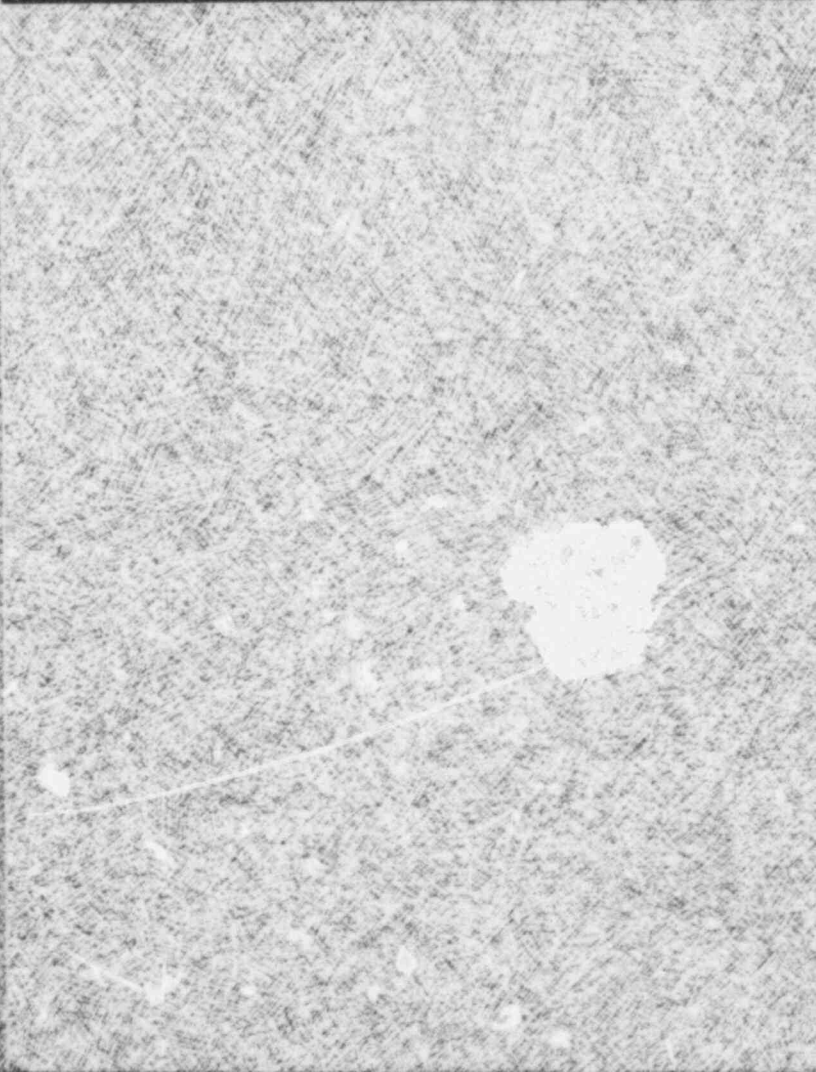
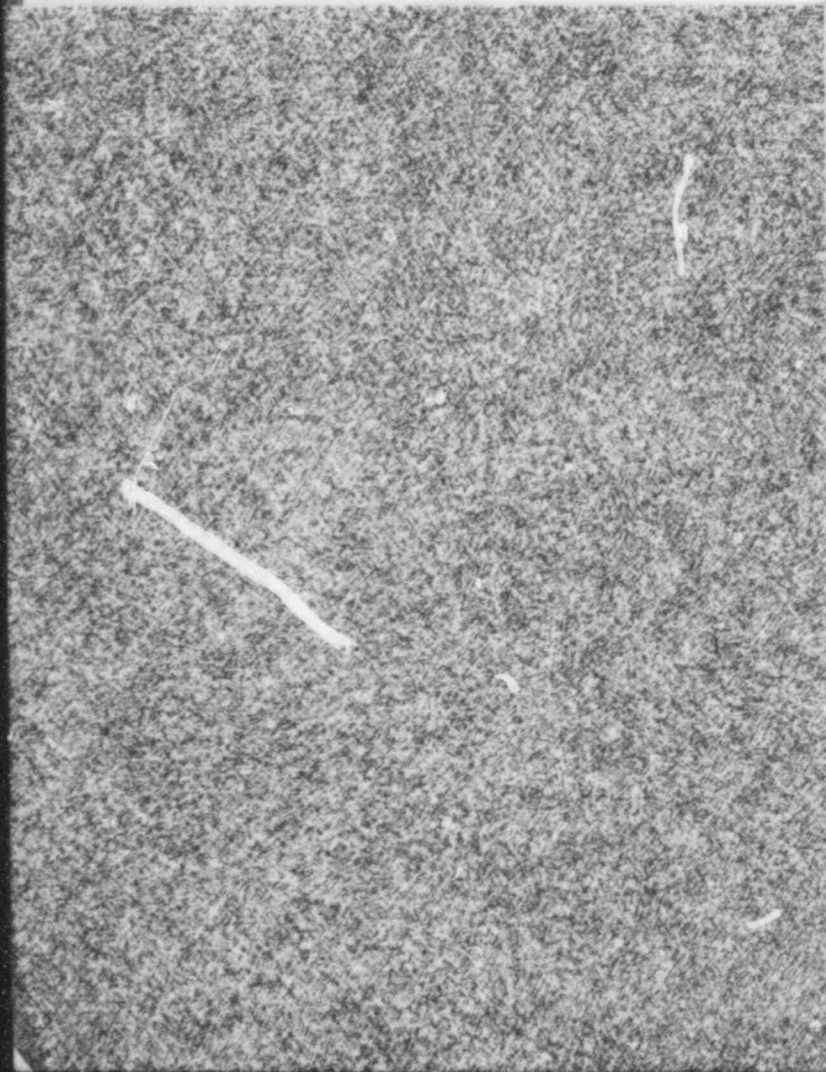
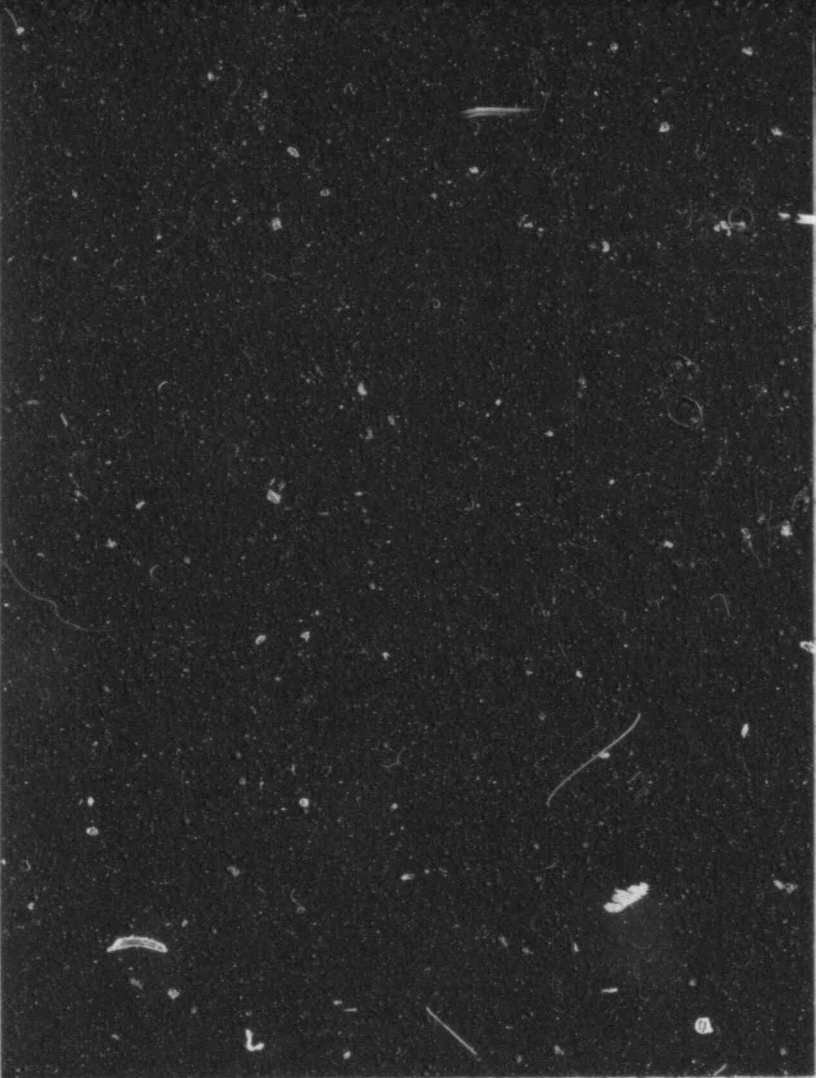
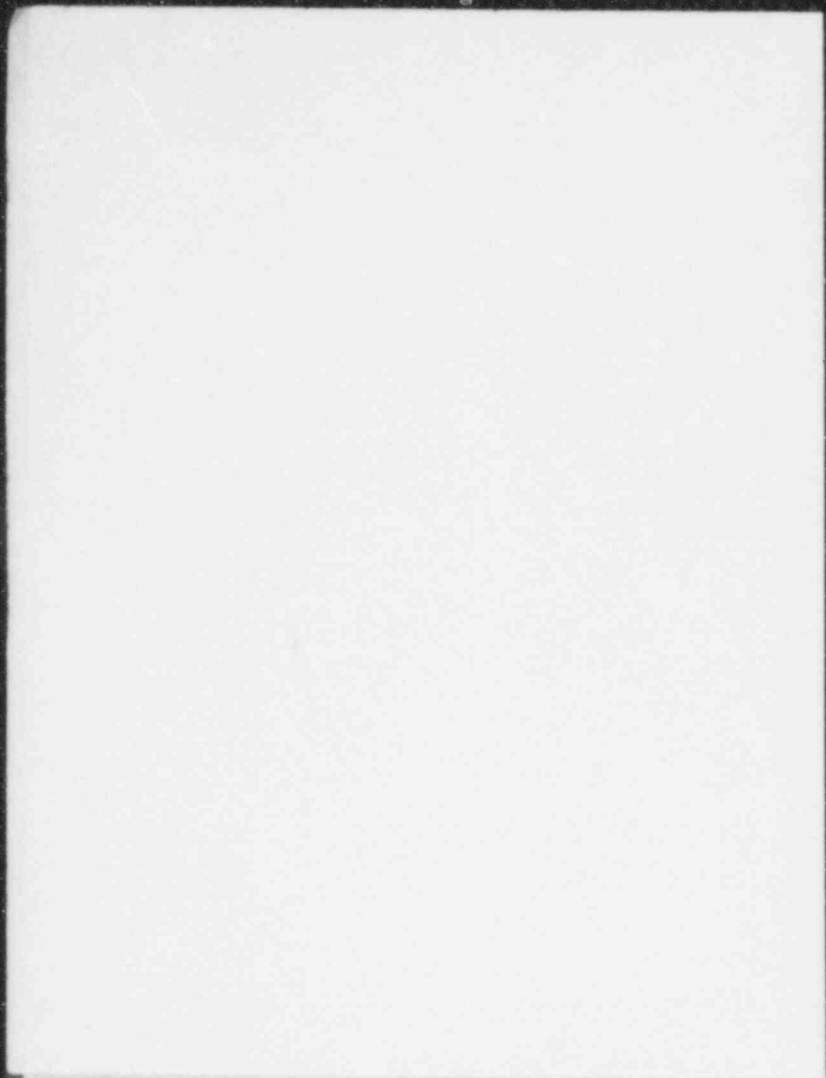
19 GUTHRIE: I review the data sheets, review the data that is on the data
20 sheets, look at it based upon the acceptance criteria which is generally
21 in the front of the procedure to insure that it meets the requirements.
22 And all data is complete and that the data sheet is filled out properly....
23
24
25

1 HUNTER: OK Carl, for instance looking at data sheet A in this particular
2 procedure there is a data sheet A performed by Would that normally
3 be signed by the operator?
4

5 RESNER: Resner speaking. The tape cut us short at 08:27 a.m. and the
6 time now is 08:30 a.m. We put a new tape in and we'll continue where
7 we got cut off.
8

9 HUNTER: Hunter speaking, we were discussing the data sheet A on the
10 procedure 2303 M 27"a" and "b" concerning the emergency feedwater
11 pumps. We had just, Mr. Guthrie, Carl, has just indicated that the
12 signatures on the bottom of the data sheet as indicated "Performed By"
13 would be signed a operator who performed the particular surveillance.
14 And then Carl who would have assigned the approved signature on this
15 particular data sheet?
16

17 GUTHRIE: Yes, I would sign that. There may be more than one operator
18 sign that depending on exactly what the surveillance is. If the surveil-
19 lance required positioning of control valves in the control room then
20 probably the CRO would sign that portion of it. Generally, it is quite
21 explicit, specific areas of it being signed by aux operator and others
22 by the control room operator.
23
24
25



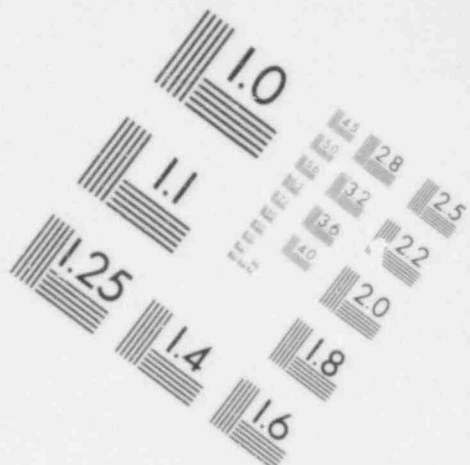
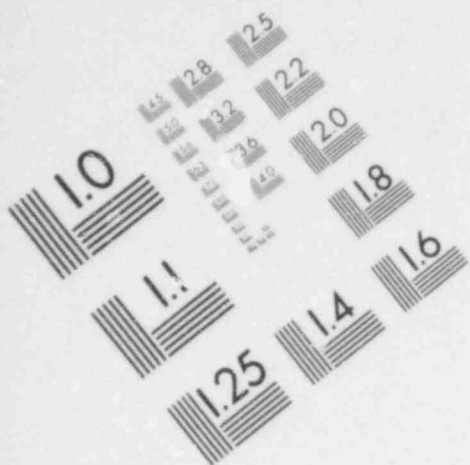
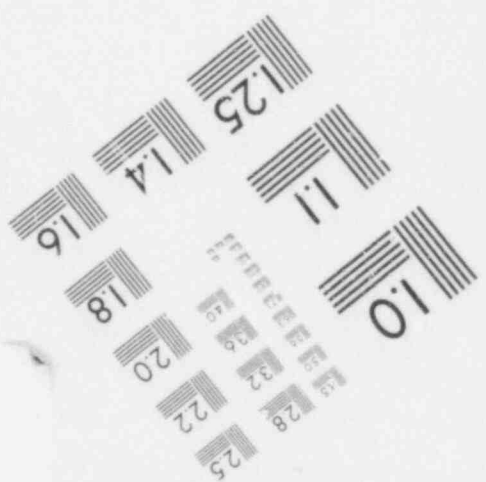
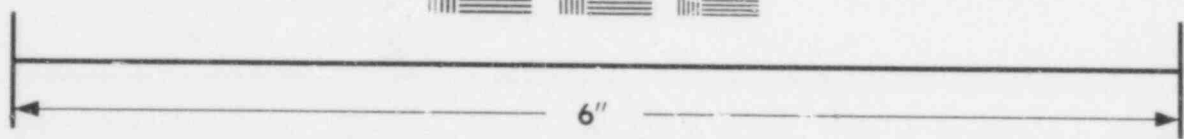


IMAGE EVALUATION
TEST TARGET (MT-3)



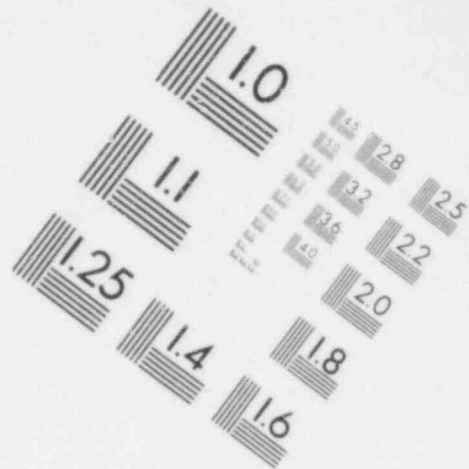
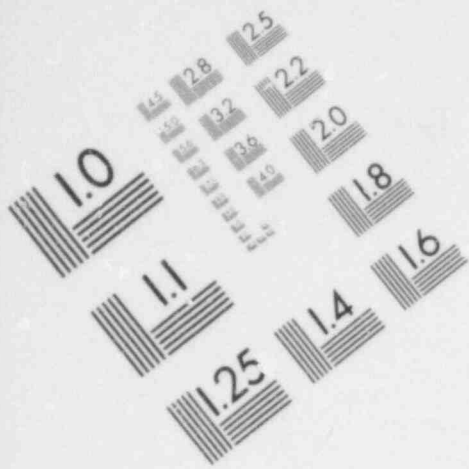
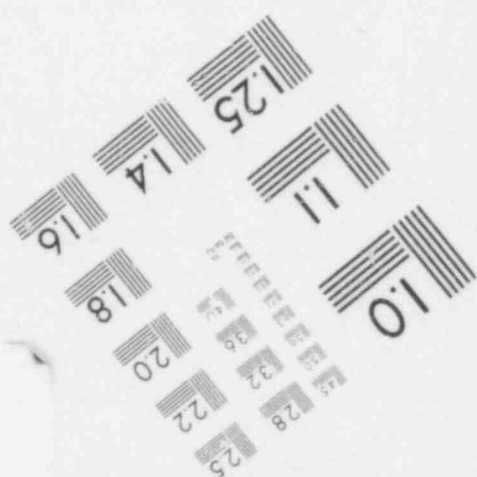
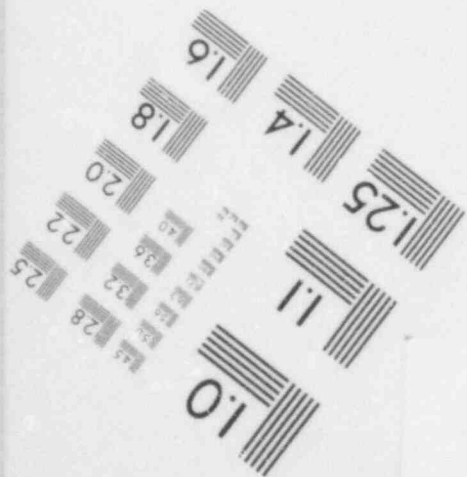
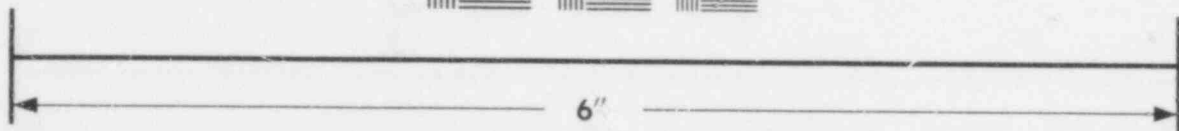
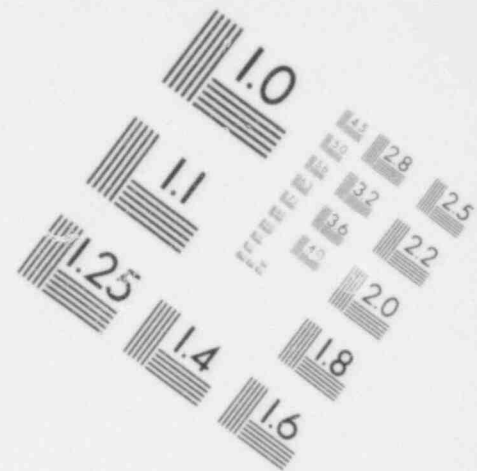
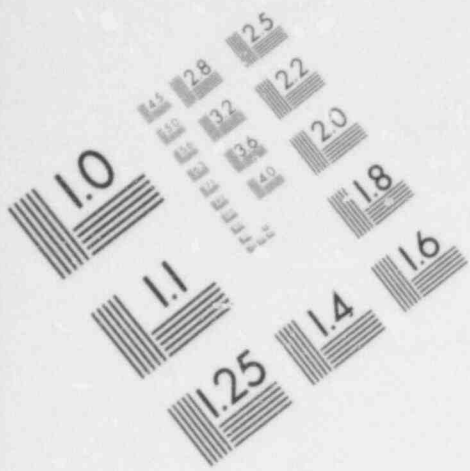
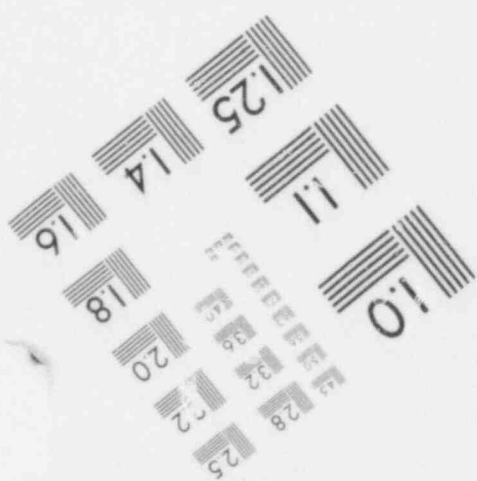
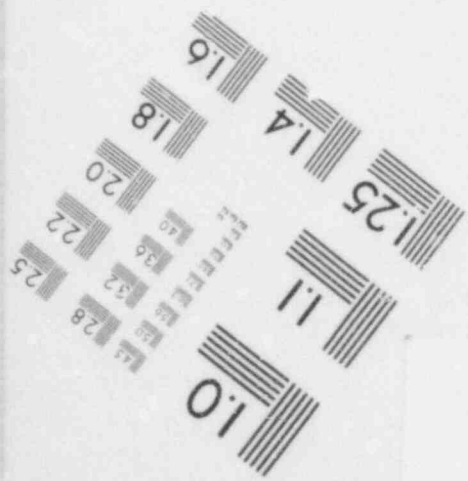
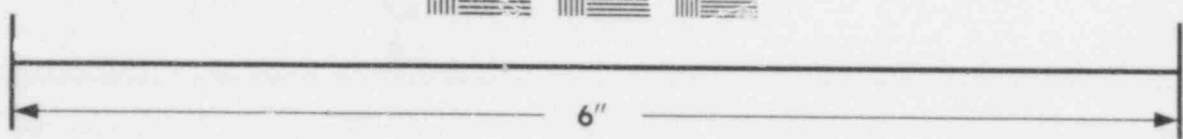
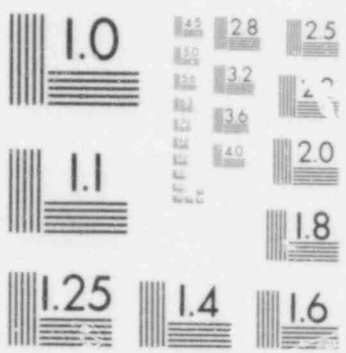


IMAGE EVALUATION
TEST TARGET (MT-3)





**IMAGE EVALUATION
TEST TARGET (MT-3)**



1 HUNTER: OK. Thank you. The shift foreman are normally the shift
2 personnel who handle the surveillance? Is that specifically one of
3 your activities that you handle on a daily basis?
4

5 GUTHRIE: Yes.
6

7 HUNTER: That is required?
8

9 GUTHRIE: That is true. Looking at the way you have the plant set up
10 you have on a routine shift, you have a foreman for Unit 1 and a foreman
11 for Unit 2 and then a shift supervisor who is over both units?
12

13 GUTHRIE: That is correct.
14

15 HUNTER: OK and then I did notice, Carl, that in the procedure, getting
16 back to Section 6 which is the procedure, there are steps in the specific
17 procedure that indicate performance of certain activities and it would
18 include as an example, a step which indicates to perform Appendix A or
19 B valve lineup and also there is a place to initial these particular
20 steps. I notice that this particular section of the procedure was not
21 available in this case. Can you comment on that? What would I normally
22 expect to find during this activity and if it's not there, how do the
23 operators use this particular section?
24
25

1 GUTHRIE: Well, basically our procedure is in two parts. The first
2 part is a body of the procedure explaining the steps necessary to the
3 perform procedure and detailed directions. The latter part is generally
4 a data sheet which is filled out recording the results of the surveillance,
5 valve times, pump discharge pressures, etc. etc.

6
7 HUNTER: I'm just reading off the form.

8
9 GUTHRIE: Normally all this that is turned or is returned to me is just
10 the cover sheet and data sheets.

11
12 HUNTER: OK Carl, the cover sheet being the computer schedule the green
13 sheet?

14
15 GUTHRIE: That is correct.

16
17 HUNTER: And, on which you would have signed and also the data sheet
18 which would be attached below to the green sheet which would then also
19 be signed by the person or persons performing the test and approved by
20 you. This then as I understand it, you said, this then would be forwarded
21 to the plant staff for analysis or review.

22
23 GUTHRIE: That's correct.

1 HUNTER: ...In accordance with your surveillance procedures. Carl,
2 this particular procedure was performed on the 26th by one of the AB on
3 your shift.

4
5 GUTHRIE: That's correct.

6
7 HUNTER: And for this particular procedure, 27A and B, is that routine
8 that the Auxiliary Operator perform this particular surveillance? Is
9 that normal? Is that one of his normal jobs?

10
11 GUTHRIE: Yes in conjunction with the control room operator who is
12 giving him directions and assistance on it.

13
14 HUNTER: OK, the control room operator, for instance, coordinating the
15 effort, the control room operator has on the control board the start/stop
16 switches on the emergency feedwater pumps, for instance.

17
18 GUTHRIE: That is correct.

19
20 HUNTER: He then also has like the certain motor-operated valves,
21 including the 12 valves, the five on valves the control board, so if
22 those particular switches need manipulated, would it normally be the
23 control room operator who manipulates the switch or might it be the
24 auxiliary operator who comes up and actually manipulates the switches
25 under the control room operator's direction?

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GUTHRIE: No, I think you'll find it's a pretty hard and fast rule that the auxiliary operators never operate any switches on the control console. It's always the control room operator. The control room operator has the license, the reactor operator's license and the auxiliary operator is not licensed. Henceforth, it's a requirement that CRO's do that.

HUNTER: Carl at this particular time, I don't have any more questions on this particular item. If you have any questions or comments, feel free to ask or comment. I would request of you that after we take the first cut on this area and your particular activities, we may in fact need to reschedule you for another interview, but at the present time I don't have anymore questions.

GUTHRIE: Well, I have a couple of comments in general. OK. We view the the handling of the surveillance by the control room operator in a manner such that we present them with the complete procedure. He is responsible to direct auxiliary operators in performing that procedure and to insure that it is done correctly and is complete. Unfortunately, due to the workload, paperwork, etc., on a shift foreman, each individual procedure cannot be reviewed in depth, step by step as would be the ideal situation. On the date in question you will find approximately

1 six surveillances we had accomplished. This is in addition to our
2 responsibilities for handling people, probably a triple shift, and all
3 the other collateral duties.
4

5 HUNTER: OK Carl, if you mind, I'll retract and ask a couple of questions.
6 This is a very interesting area. The comment was that you made was
7 that there were six procedures run approximately that day. Obviously,
8 I'm not dealing in numbers, was that on the day shift that you were
9 asked to perform these surveillances?
10

11 GUTHRIE: That is correct, and I am looking here at a copy from the
12 Shift Foreman's log.
13

14 HUNTER: OK, and was that was the surveillance routinely done on days
15 or do they actually do surveillance on other shifts also?
16

17 GUTHRIE: No, it's routinely done on days unless such a situation
18 arises that requires that you do it otherwise. There are basics for
19 that, I don't know if you would like for me to go into that or not.
20

21 HUNTER: Fine, I think it's appropriate that you indicate the reason
22 the schedule is the way it is. 'Cause I think it is important.
23
24
25

1 GUTHRIE: Well, basically, surveillances generally are done on days,
2 weekdays specifically, because certain Tech Spec requirements spell out
3 ACTION STATEMENTS with time limits anywhere from two hours to 30 minutes.
4 It is very difficult to enter into ACTION STATEMENT because of piece of
5 equipment being found out of service on a surveillance at 1:00 in the
6 morning and attempting to provide the necessary manpower and maintenance
7 to return that piece of equipment to operative status at that time of
8 the day.

9
10 HUNTER: That makes it very difficult to get the maintenance people in
11 or get help if you need to work, to get it returned to service.

12
13 GUTHRIE: That is correct.

14
15 HUNTER: Do you have extra people on day shift operations people to
16 help in surveillance?

17
18 GUTHRIE: Yes, generally the way it has been going there is a relief
19 shift who works surveillances four days out of five-work days. Being
20 the second day is not done surveillance because the relief shift actually
21 is on shift and there is no other people on.

22
23 HUNTER: I see, the normal day shift crew is on its day off at that
24 time and that's they're filling in that particular day.

1 GUTHRIE: That's correct.

2
3 HUNTER: OK, you commented that due to the workload you were having
4 difficulty reviewing all the procedures? Is that just that the number
5 of procedures and also the day to day activities of the plant, switching
6 and tagging, operating other equipment, handling problems, that type of
7 activity?

8
9 GUTHRIE: Well, that's true in general difficult in the sense that you
10 can't do a step by step review of the procedure. Don't forget that some
11 of these procedures may be as much as 100 pages in the body of the
12 procedure when you get into an ESAF system surveillance.

13
14 HUNTER: OK Carl, you indicated that you were on day shift. Who were
15 your control room operators that were involved in this particular
16 surveillance? I know the control room operators split up, one is on
17 the, you know, one is like a switch and tagging operator and one is the
18 board. Do you recall who was on the board? The one who would have been
19 involved in the emergency feedpump valves?

20
21 GUTHRIE: I believe the individual was Earl Hemmi'a, control room
22 operator.

23
24
25
685 007

1 HUNTER: Could you spell his name, please?
2

3 GUTHRIE: Earl-E A R L-H E M M I L A
4

5 HUNTER: OK, and the auxiliary operator who performed the surveillance
6 we have his name because he signed off the actual data sheets and the
7 green sheets and we have him scheduled for an interview, so that's
8 fine. Any other comments, Carl? These are appreciated by the way
9 because the apparent lack of review of a completed surveillance procedure
10 by a responsible supervisor appears to be a very critical item...and
11 I'm not, and it's duly noted and that's all I'll say.
12

13 GUTHRIE: No, I don't believe that I have any further comment at this
14 time.
15

16 RESNER: OK, this is Resner speaking. Thank you very much for your time
17 Mr. Guthrie in coming over here. We will conclude the interview. The
18 time is 08:44 a.m. Eastern Daylight Time.
19
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