UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of:

IE TMI INVESTIGATION INTERVIEW

of

Carl L. Guthrie
Shift Foreman

Trailer #203
NRC Investigation Site
TMI Nuclear Power Plant
Middletown, Pennsylvania

May 18, 1979
(Date of Interview)

July 9, 1979
(Date Transcript Typed)

217 and 218
(Tape Number(s))

NRC PERSONNEL:

Dorwin R. Hunter
Thomas T. Martin
Mark E. Resner

7908280813

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

GUTHRIE: Yes, it is.

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

GUTHRIE: Yes, that's true.

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

GUTHRIE: That is correct.

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

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

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

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

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

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

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

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

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

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

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

HUNTER: OK, you arrived onsite then, you indicated, at 5:45 approximately.

GUTHRIE: That's right.

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

GUTHRIE: That is right.

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

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

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

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

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

GUTHRIE: Yes, that occurred fairly early.

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

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

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

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

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

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

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

GUTHRIE: Yes.

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

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

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

GUTHRIE: That is correct.

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

GUTHRIE: That is correct.

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

GUTHRIE: That is true.

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

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

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

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

HUNTER: OK

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

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

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

HUNTER: OK. The area that we're speaking of, would you describe the area, specifically its location where the pressurizer panels are located, the heater panels.

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

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

GUTHRIE: That's correct.

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

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

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

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

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

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

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

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

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

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

GUTHRIE: That's correct.

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

RESNER: We'll give you a little time to think about that one and cut off the tape. The time now is 8:0f a.m., Eastern Daylight Time.

RESNER: Resner speaking. We have changed the tape. The time is now 08:08 a.m. Eastern Daylight Time, on May 18, 1979. We will pick up with Mr. Guthrie's answer to Mr. Hunter's question.

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

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

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

GUTHRIE: No I don't remember seeing them.

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

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

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

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

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

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

GUTHRIE: No I did not see that.

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

GUTHRIE: No, not considering the plant conditions. Most of the information there had happened since the time before. Most of it was irrelevant material.

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

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

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

GUTHRIE: I would say that it was almost continuous.

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

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

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

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

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

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

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

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

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

HUNTER: Who was with you on that tour?

GUTHRIE: I was by myself.

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

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

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

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

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

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

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

GUTHRIE: Yes I did.

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

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

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

GUTHRIE: That's correct.

HUNTER: Well are they break away locks?

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

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

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

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

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

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

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

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

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

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

HUNTER: Tim, any particular questions?

MARTIN: No.

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

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

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

GUTHRIE: That is correct.

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

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

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

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

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

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

GUTHRIE: That's correct.

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

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

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

GUTHRIE: That is correct.

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

GUTHRIE: That is correct.

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

GUTHRIE: That is correct.

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

GUTHRIE: That's right.

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

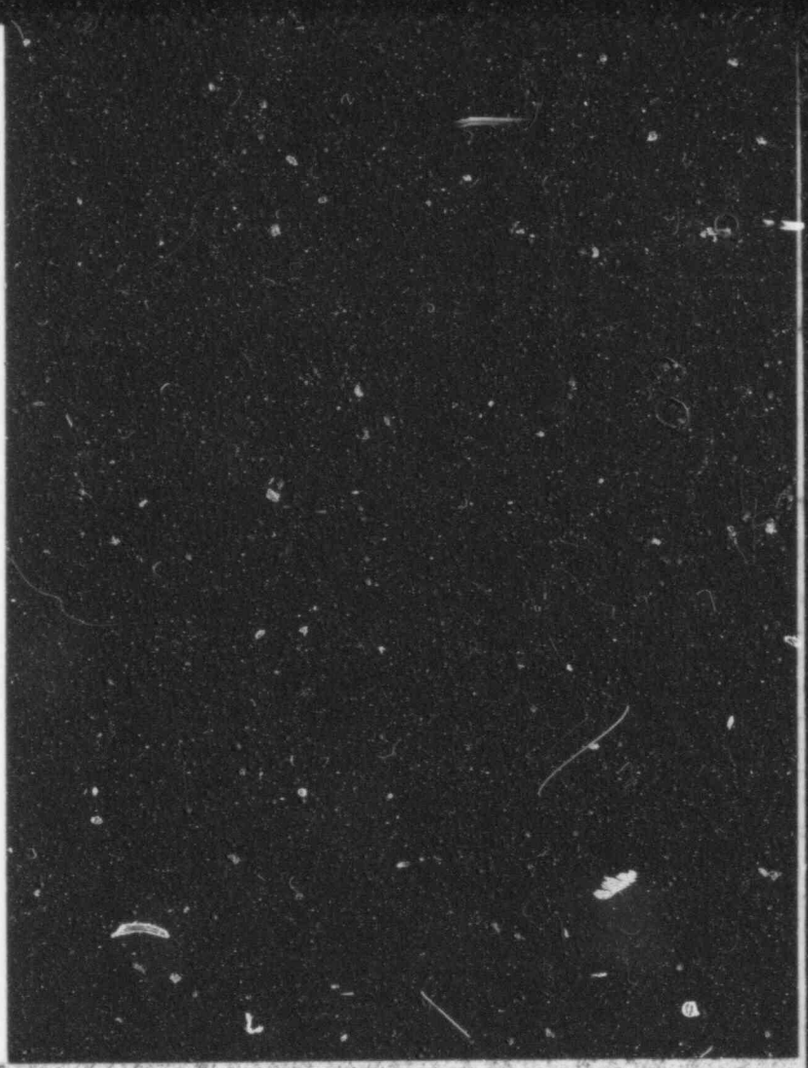
GUTHRIE: I review the data sheets, review the data that is on the data sheets, look at it based upon the acceptance criteria which is generally in the front of the procedure to insure that it meets the requirements. And all data is complete and that the data sheet is filled out properly....

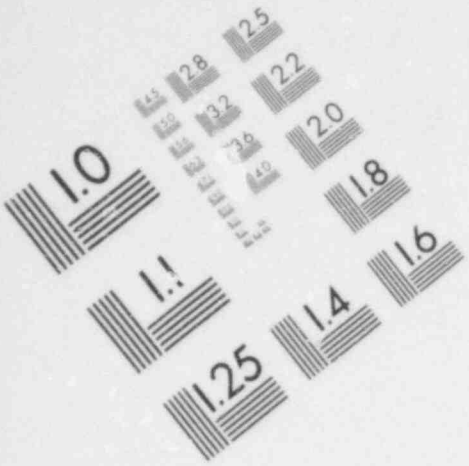
HUNTER: OK Carl, for instance looking at data sheet A in this particular procedure there is a data sheet A performed by .... Would that normally be signed by the operator?

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

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

GUTHRIE: Yes, I would sign that. There may be more than one operator sign that depending on exactly what the surveillance is. If the surveillance required positioning of control valves in the control room then probably the CRO would sign that portion of it. Generally, it is quite explicit, specific areas of it being signed by aux operator and others by the control room operator.





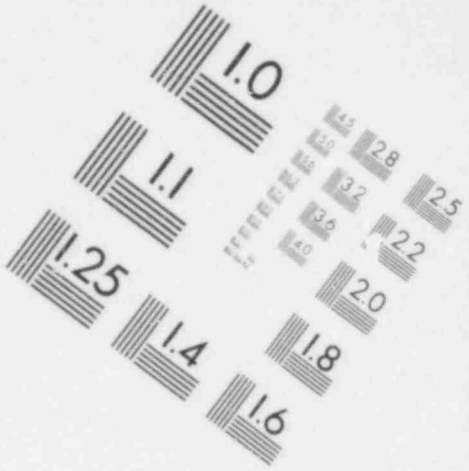
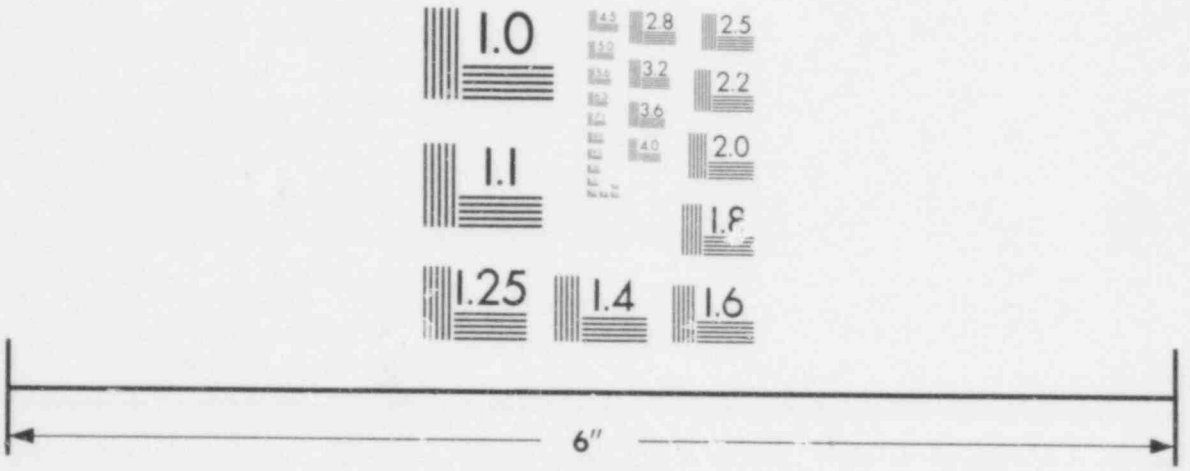
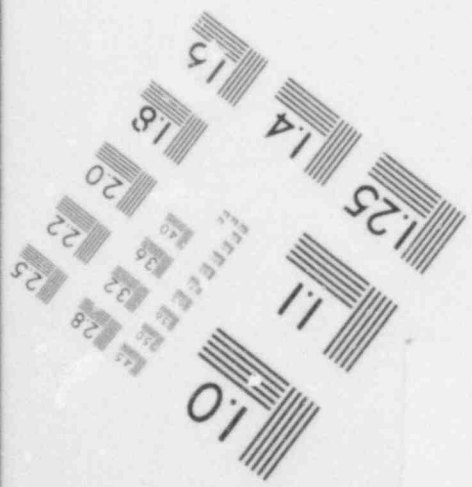
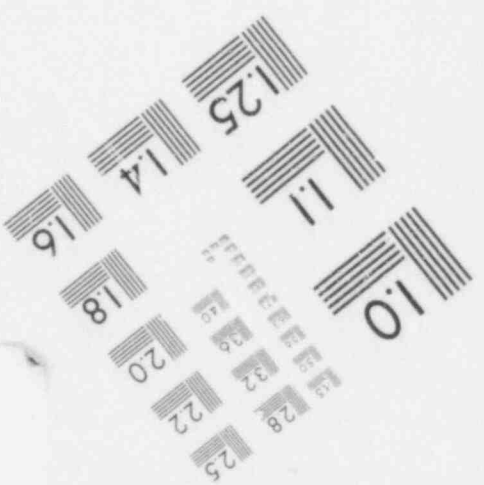
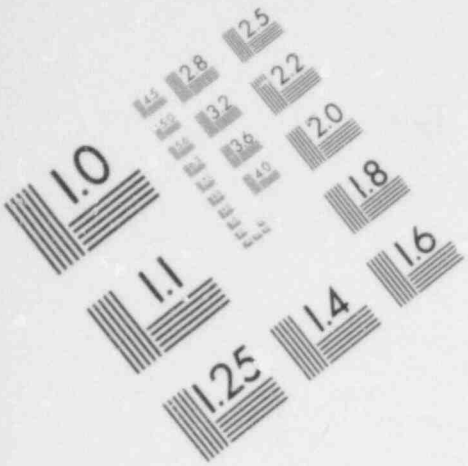


IMAGE EVALUATION TEST TARGET (MT-3)









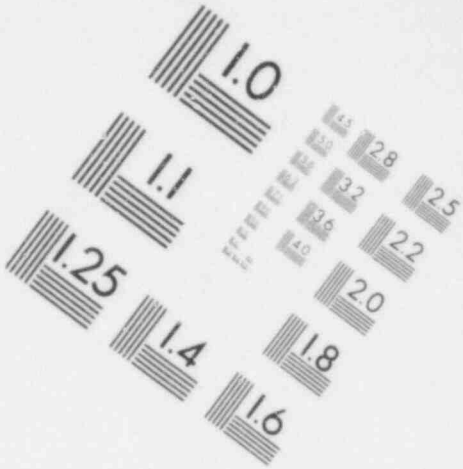
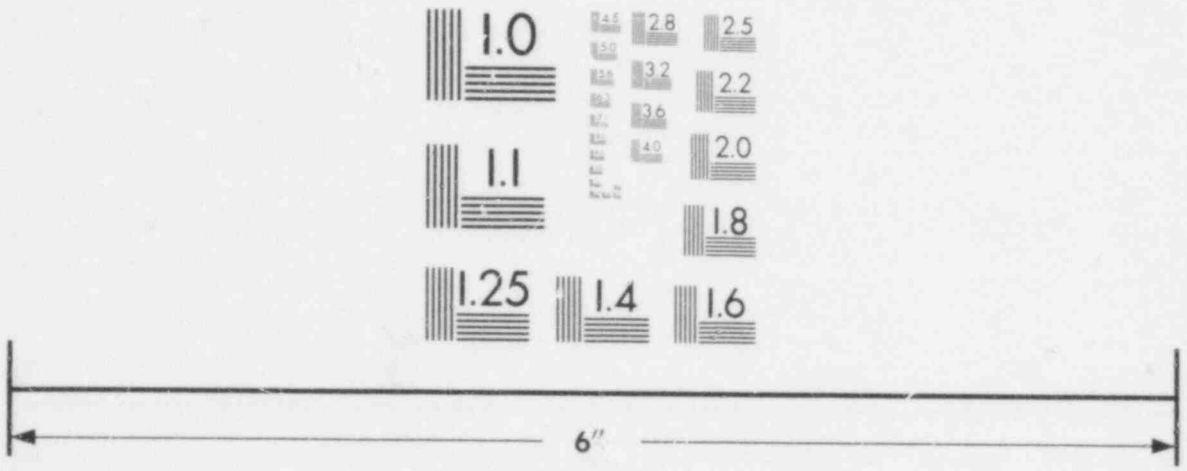
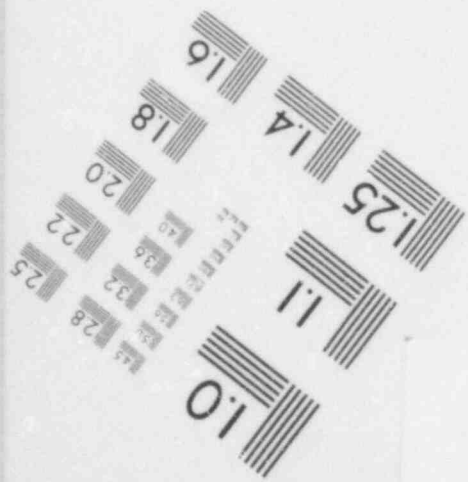
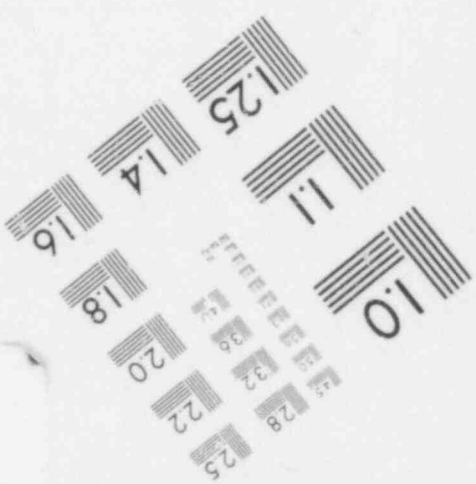
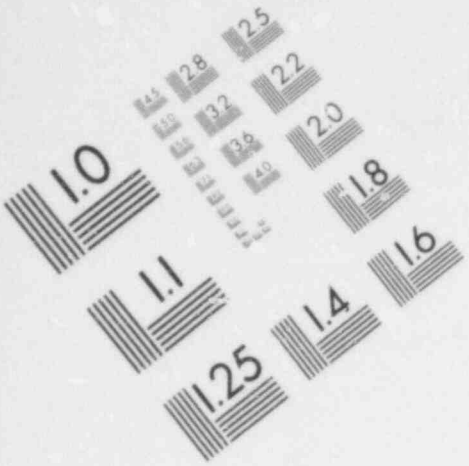


IMAGE EVALUATION TEST TARGET (MT-3)









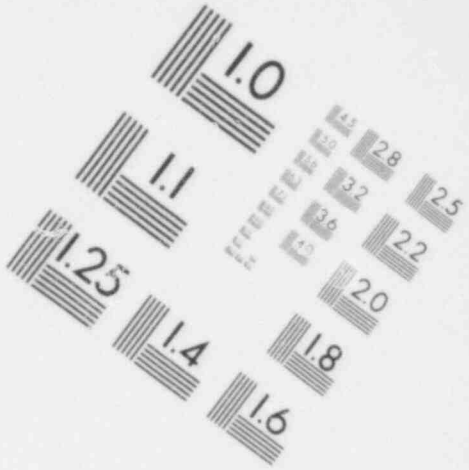
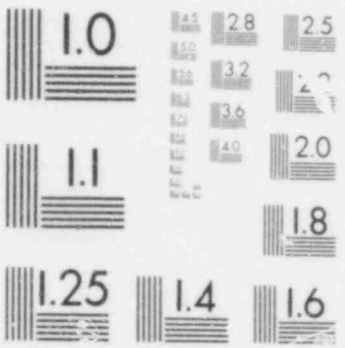
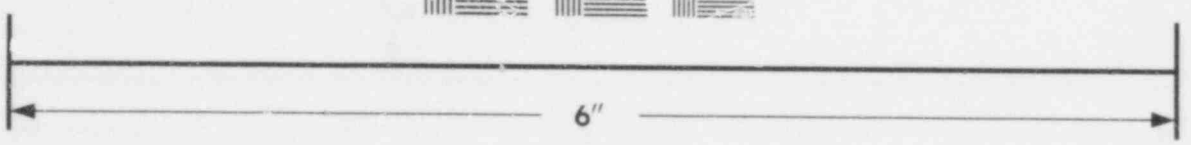
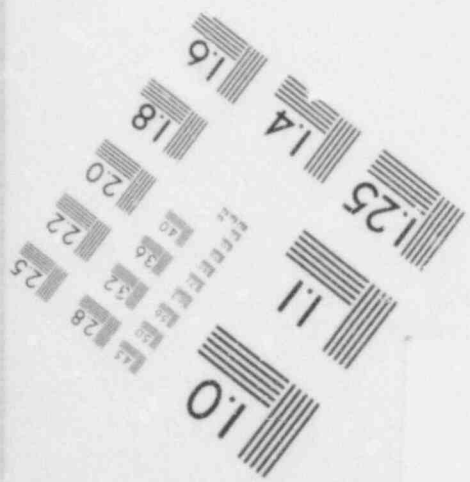
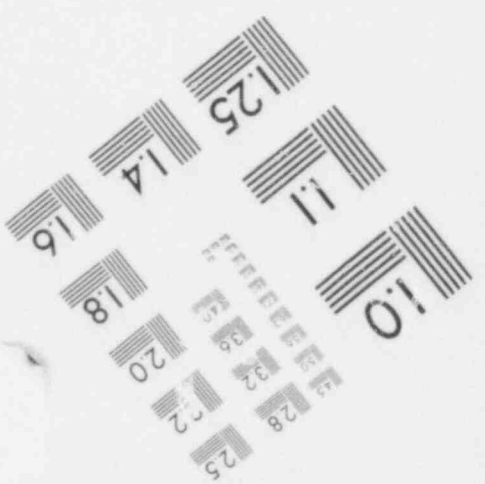


IMAGE EVALUATION TEST TARGET (MT-3)









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

GUTHRIE: Yes.

HUNTER: That is required?

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

GUTHRIE: That is correct.

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

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

HUNTER: I'm just reading off the form.

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

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

GUTHRIE: That is correct.

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

GUTHRIE: That's correct.

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

GUTHRIE: That's correct.

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

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

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

GUTHRIE: That is correct.

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

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

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

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

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

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

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

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

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

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

GUTHRIE: That is correct.

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

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

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

GUTHRIE: That's correct.

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

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

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

GUTHRIE: I believe the individual was Earl Hemmila, control room operator.

HUNTER: Could you spell his name, please?

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

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

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

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