UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of:

IE TMI INVESTIGATION INTERVIEW

of Mr. Victor Cooper
Control Room Operator, Nuclear

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

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NRC PERSONNEL:

Mr. Robert D. Martin
Mr. Dorwin Hunter
Mr. Mark E. Resner

RESNER: This is an interview of Martin V. as in Victor Cooper, C-O-O-P-E-R. Mr. Cooper is employed with Metropolitian Edison Company at the Three Mile Island Facility. His job title is Control Room Operator, Nuclear. The present time is 7:20 a.m., eastern daylight time. Today's date is May 23, 1979. Individuals present representing the NRC at this interview are Mr. Martin, Robert D. as in David, Martin, M-A-R-T-I-N. Mr. Martin is the Chief, the Nuclear Support Section No. 1, Region II of The U. S. Nuclear Regulatory Commission. Also present is Mr. Dorwin, i.e., D-O-R-W-I-N, Hunter. Mr. Hunter is an Inspection Specialist, temporarily assigned to Region III, U. S. Nuclear Regulatory Commission. Moderating this interview is Mark, M-A-R-K, E. as in error, Resner, R-E-S-N-E-R. I am an investigator with The Office of Inspector and Auditor, Headquarters, The U. S. Nuclear Regulatory Commission. The location of this interview is Trailer 203. It's located just outside of the south gate of the Three Mile Island Facility. Prior to taping this interview Mr. Cooper was given a two-page document. This document explains the purpose, scope and the authority with which the U. S. Nuclear Regulatory Commission has to conduct this investigation. In addition, we apprised Mr. Cooper that he is entitled to a representative of his choice to be present through the interview if he chooses to have one. Also it apprised Mr. Cooper that in no way is he compelled to talk with us if he does not want to. On the second page of this document, Mr. Cooper has answered three questions. I will state these questions for the record. No. 1, Do you understand the above? Mr. Cooper has checked "Yes". Is that correct Mr. Cooper?

COOPER: That's correct.

RESNER: Question 2, Do we have your permission to tape the interview? Mr. Cooper has checked "Yes". Is that correct Mr. Cooper?

COOPER: That's correct.

RESNER: Question 3, Do you want a copy of this tape? Mr. Cooper has checked "Yes". Is that correct?

COOPER: That's correct.

RESNER: We will provide you with a copy of the tape at the conclusion of this interview. At this time I would like to ask Mr. Cooper if he would briefly state his educational and job experiences related to this job that he currently performs. Mr. Cooper.

COOPER: Okay. I graduated from high school in 1967. Went to St. Frances College in Brooklyn, New York for a year and a half. After leaving school I went and entered the United States Navy in June of 1969. After I entered boot camp, I signed up for the nuclear power program. I spent the next two and a half years in Navy nuclear training and I qualified as a reactor operator on S3G prototype. After leaving prototype, I reported aboard the USS Ethan Allen USS BM 608, fleet ballistic missile submarine. When upon I finished out my time in the

service then I spent the next three and a half years ... qualified all the watch stations ... most senior watch stations for my rate, reactor operator shutdown manuvering area watch. I was also the maintenance supervisor for reactor controls division on the ship. When I was discharged from the Navy I went to work at the Stone and Webster Engineering Corporation in New York City in October of '75. I worked there until October of '76 where upon I went to work here at Metropolitian Edison as an auxiliary operator A trainee. After completing my training program of one year, successfully passing the test, I was auxiliary operator A. About one month after that I ... the CRO job opened up and I bid on it. And I got the job and I started my nine-month training program as a CRO Nuclear. I took my test seven months later. And successfully got my operator's license from the NRC.

RESNER: Alright. Thank you very much Mr. Cooper. At this time Mr. Hunter has some questions he would like to ask.

HUNTER: Okay. You would prefer to be called Martin? Is that

COOPER: Martin is fine.

HUNTER: Martin is fine? You indicated that you were in CRO training and this would have meant that you had obtained your CRO license in the fall of '78 or the summer of '78?

COOPER: It was the summer.

HUNTER: Okay. The specific questions in the specific area that we would like to talk with you this morning, Mr. Cooper is concerns the surveillance activities that were performed on the emergency feedwater system during 3/20-26/1978

COOPER: '79?

HUNTER: Yes 1979 and our record review of your records and then discussing it with some of the fellows who were involved including Earl Hemmila indicated that we should chat with you about it because you were with Mr. Hemmila at that time. Can you, for us, place your position that morning that this particular surveillance was being performed and your specific involvement in that particular activity?

COOPER: Alright. I was control room operator on duty. I had the desk and log book, you know. I had the responsibility that morning. Earl Hemmila was doing the surveillance being the relief shift, ... my shift was on duty. Okay. And while the surveillance was being performed I also had ah the auxiliary operator who was out in the plant, doing the surveillance lineup of things worked through me a few times and called me on the page to manipulate valves for him, while performing a line up to do the emergency feedwater surveillance. Okay, I was keeping an eye on what was going on because I did have the desk, I

wanted to know what they were doing. While they were doing the surveillance, you know I knew what was going on, and when it was all done we were returning a lineup back to normal. I reopened the valves in question, EFV 12A and B. I can remember actually opening them myself. Earl Hemmila was there and we were verifying the lineup, you know, he had the lineup sheet in his hand and I was opening and I opened them up and then he verified them signing off on the sheet.

HUNTER: Okay, ah Mr. Lionarons was running the auxiliary operator portion of test?

COOPR: That's correct.

HUNTER: And Earl was on the relief shift and

COOPER: He was running surveillance.

HUNTER: And if my understanding is right is that they do surveillance?

COOPER: Right. We have the control room operator on the surveillance shift, ... the relief shift runs the surveillances rather than have the shift on duty being distracted. You know what I mean ... getting really involved in those things during normal operations.

HUNTER: Okay. Let's go through and look at the procedures specifically and make sure that I understand so that I can get the right perspective and the right the correct wording. The procedure that I have in front of me is a copy of the emergency feedwater ... is a copy of the emergency feedwater surveillance 2303 27A and B. This particular procedure is performed monthly and it's the motor driven emergency feed pump functional test and valve operability test. And it includes Section 1 which is the purpose, Section 2 which is the applicable surveillance mode and Section 3 which is limitations and precautions, Section 4 which is the ... identifies the locations of the systems, Section 5 which identifies the equipment that's required to perform this particular surveillance including a vibration analyzer to do the Section 11 testing. Section 6 is the procedure and during the morning when you were performed this test and you as a control room operator can you explain ..., elaborate on the method you used to set the test up and to get the test performed in order to obtain the data necessary in the test?

COOPER: Okay. We start from the top cause like you know we don't memorize these procedures because it only gets you in trouble, right, we just go back and make a copy out of the file and get the working copy of the procedure which is the latest revision and make a copy of it to use and mark up while running a surveillance. Okay and then we ..., the CRO we usually read through this procedure to see where the pitfalls are and the things that we have to look for where something

you know if the AO did't understand what was going on or the auxiliary operator would have to explain it to them or else say stop at this point and give me a call just you know say I've got to do something in the control room. I usually mark in on there and tell them you do these sections and after you've done this give me a call and then I'll do my section then you go back to doing yours. That's the way we normally do surveillance procedures. Okay now on this we would give the auxiliary operator the initial valve lineup to do, which is in the back of the procedures.

HUNTER: Alright, Mr. Cooper is referring to Appendix A and Appendix B which is the valve lineup to be performed to set the system up to do the surveillance.

COOPER: That's correct.

HUNTER: And would the would the auxiliary operators sign this particular document off?

COOPER: He'd put his initials next to on every blank space next to each valve that he put those valves in that position required by the procedure.

HUNTER: Do you recall that being done that morning?

COOPER: Yes.

HUNTER: Okay. Was this what's Mr. Lionarons' was that what's his first name?

COOPER: Kevin

HUNTER: Kevin.

COOPER: He used to be on our shift and from working with him he always signed every step of the procedure off, just you know from experience of working with him he always was one of the guys you know some people get a little sloppy, and other people are real particular and he's one that's real particular about signing off every step as he does it.

HUNTER: Okay. Continue at that particular point then?

COOPER: Okay. Now he'd do the valve lineup and he'd call the control room to tell us the valve lineup was done, and he'd have his test equipment with him, the IRD meter for measuring pump vibration and everything and we'd go to the point in the procedure ..., okay says to perform Appendix A.

HUNTER: Okay, and you were performing some of those valve manipulations from the control room?

COOPER: That's correct.

HUNTER: Alright. Were you performing....

COOPER: But he verifies them. Okay, when he does Appendix A, what he did this particular morning was he verified them himself. That's the way he does it.

HUNTER: Would he have come back to the control room or would he do it locally?

COOPER: No. He did it in the control room. Before he left the control room we gave him the valve lineup to do. He lined up the valves in the control room that he could do before he left then he went out and did the local valves.

HUNTER: Alright, fine.

COOPER: Okay. After doing Appendix A he'd call me and then we'd fill out this data status sheet and record pump inlet pressure from this gauge.

HUNTER: Okay.

COOPER: Okay and just go down and verify lube oil and those things. And then he'd have to come up to the control station and open this valve EFV27A.

HUNTER: Is there a local control on the EF flow valves also?

COOPER: I believe there is. I'm not sure of the exact location.

HUNTER: Okay. Did he ..., the pump was running and then he would set up to set the pump up to get this specific engineering data that you need, right?

COOPER: Right.

HUNTER: The valves were lined up, run for five minutes, let the temperatures come up to normal, take three successive readings or obtain three successive readings, he uses the ..., then he records this data?

COOPER: Right. And then he gives them to us to do the calculations and make sure the data is ..., meets specifications.

HUNTER: Okay, Martin what would Mr. Lionarons have with him? You have computer green sheets which are the scheduling and the signoff sheet, would he have these with him at that time?

COOPER: Normally he would't have the green sheet with him because they sometimes get messed up while doing valve lineups. We'd keep the green sheet in the control room. We'd use that just as a mark to tell us to get the procedure out. He would have ...

HUNTER: Would he have the data sheet?

COOPER: He would have the entire copy of the procedure now.

HUNTER: Okay, the entire procedure which would include the data sheet....

COOPER: Data sheets and the valve lineup. Yeah.

HUNTER: That...

COOPER: He'd have a copy and I'd have a copy.

HUNTER: Okay. You were actually, if I understand it, was using the copy out of the master file so you don't write on it .. , in your case?

COOPER: No. When using the work copy we don't write on that.

HUNTER: Okay. Completed now 6122 step indicates that EFV12A, B is open, do you recall that particular step?

COOPER: This is a bad question. I'll tell you what happened here.

HUNTER: Okay.

COOPER: We had to run the surveillance on both pumps. You can see in the procedure they write the valve number EFV12A and then its parenthesis B. Now B is if you happen to be doing B pump, you know they write the valve numbers okay. We were going on to do the next pump so we left them shut because we have to have them shut to do the other pump too. Okay so we didn't exactly follow that part of the procedure right there because we needed it for the next lineup so we didn't reopen the EFV12A and B at that time. Okay. Once we completed running the test on the other feedwater ... emergency feedwater pump, is when we reopened it.

HUNTER: Okay. Would you cover again the end of the procedure ..., the data that's taken he come probably come back up stairs after he had done all of his equipment or he may wait and come up later.

COOPER: Okay. These procedures they can't be followed specifically. Okay. It says we got to measure and record the pump vibrations and then you write down and you indicate the higher of the two vibrations and has to stop the pump, the next step says remove the Eagleye meter, we don't do that, right? because the instrument department has to do that part and they are not the Eagleye meter doesn't have to be removed right away. It can sit there. So you know there are steps that don't get done right away because we have to wait until the instrument department does it. The particular Eagleye meters are left permanently installed now-a-days. At least they have been for the past few months.

HUNTER: Okay. I understand. So the pumps off, then he would come back up?

COOPER: Right.

HUNTER: Then you would, you would ..., as the control room operator, would pick up the EF12 valves?

COOPER: Right.

HUNTER: What about the 8 valves?

COOPER: Them to. We had trouble that particular morning realigning the 8 valves.

HUNTER: What was the problem that morning?

COOPER: They wouldn't reopen. We couldn't get proper indication in the control room. And they weren't opening all the way so had to send Kevin Lionarons out to play with the valves again. I can't remember exactly what we had to do to get them back into the right position. But I remember we had a problem reopening those valves.

HUNTER: Okay, and then the 12 valves you opened okay?

COOPER: Right.

HUNTER: After the feed test or the problem test whichever one you did first?

COOPER: Right.

HUNTER: And then the 7 valves were closed?

COOPER: Right.

HUNTER: Is that at the control board or

COOPER: That's in the control room.

HUNTER: Okay. And what about 39 and 40 valves?

COOPER: That's a local control.

HUNTER: So Mr. Lionarons would have performed that particular valve...

COOPER: Right.

HUNTER: Okay. Did you have any trouble with the 12 valves that morning?

COOPER: No we didn't.

HUNTER: Okay. The test is complete and then the number of hours it took to perform the test is filled out on the green sheet, I guess?

COOPER: Uh huh.

HUNTER: I noticed in this package it included the green sheet, included the cover sheet and this apparently came off of ...,

COOPER: the copy

HUNTER: the the procedures that Mr. _____ had

COOPER: Right

HUNTER: The copy of the procedures and then the data sheets?

COOPER: Uh huh.

HUNTER: Did you tear the procedure a part and put these particular pieces in here?

COOPER: No. As I said I was the operator on duty Earl Hemmila and Kevin Lionarons are actually responsible for getting the surveillance done. Okay? Normally, okay we used to do it where when we did a surveillance where we would put the whole procedure in with the green sheet and we would have to send it to the file. Well the files are getting too big and somebody decided all we needed was the data sheets because that was the specifications that we had to meet. We didn't keep the valve line ups, the signed off steps of the procedure anymore, we just started. Once the surveillance was done and the requirements were met all we kept was the data sheets to prove that we'd met the surveillance requirements we threw away the rest of the stuff. The cover sheet doesn't even have to be there the way we were, you know, operating. Just that the signed off data sheet with the correct data and the green sheet.

HUNTER: Okay. So as I understand it then all of the sections six one and six two which were to perform that test that morning, did you indicate that they had been signed off and the Appendix to valve line-ups had been signed off that morning?

COOPER: I didn't indicate it. Kevin Lionarons indicated it. He signed off the procedure.

HUNTER: Okay. Did you see the Appendix A and B?

COOPER: I did see them before he handed them in, yes I did.

HUNTER: Were they signed off?

COOPER: As far as I can remember. You know I couldn't guarantee that point, but I remember seeing them. Like I said, my past working with Kevin he is very meticulous about that kind of thing and making sure that he is following procedures.

HUNTER: Alright, what about Sections six one and six two, did you look at that? Do you recall seeing that?

COOPER: No, I don't remember recalling, I don't recall that.

HUNTER: But you do specifically recall opening the 12 valves for instance?

COOPER: Yes I do.

HUNTER: Okay. Now would Earl or the surveillance CRO then put the package together and give it to the shift foreman? You've been....

COOPER: Right. It would be

HUNTER: relief as a relief control monitor?

COOPER: Sure it would either ..., normally the CRO would do it or the auxiliary operator who had done the surveillance. You know, once we got ..., he signed off the data sheet. If he signed off he doesn't really need Earl Hemmila to hand the green sheet to .., the surveillance sheets to the shift foreman. He could just fill them in ..., told, he already told Earl, I don't know if that's what he did, he already told Earl the data was satisfactory. Earl looked at the data, I'm sure Earl looked at the data but he doesn't I don't know which one would hand it to the foreman.

HUNTER: Okay the foreman would end up getting it and then it would be...

COOPER: Yeah.

HUNTER: Now how about the steps in six one and six two when you were this particular morning you said that procedure requirements for that particular part of the procedure was taken care of by Earl and Kevin?

COOPER: Yeah. They were taken care of but I was there too. I got involved when they were returning to normal I wanted to see what they were doing. I was standing there at the panel. I happen to have nothing else to do at the time. And when we were going down the list you gotta open this and you gotta shut that. I remember opening EFV12s.

HUNTER: Okay. The ah after the package was assembled and this particular morning did you see the assembled package or was that done behind you

COOPER: Yeah. That was done behind me.

HUNTER: During the times when you have been the surveillance CRO and coming in it and probably done in this procedure in fact

COOPER: Right.

HUNTER: directed into it. What did you normally do with this Section 6 of the procedures?

COOPER: Throw them away.

HUNTER: That would mean that ...

COOPER: That's the valve line up section

HUNTER: the valve line ups are discarded

COOPER: the valve line ups, all the steps in telling you exactly what to do and how to follow procedure once the surveillance is completed. All we save is Appendix B.

HUNTER: Is this the complete package?

COOPER: ... data sheets. So all we save is the data sheets and we attach them with the green sheets. And the shift foreman signs them.

HUNTER: Okay.

HUNTER: You had the ..., you were on the day shift on the 26th?

COOPER: Right. The last day of the day shift.

HUNTER: Alright. And then you went on days off the 27th? Do you recall any maintenance or any activities around the emergency feedwater system or the pumps during that day shift?

COOPER: No, I don't.

HUNTER: That you were on? Okay. Ah during your previous experience as a control room operator in training or on the panel in training or after you obtained your license, have you ever seen the EF12 valves closed?

COOPER: You mean except for surveillance and ah - No.

HUNTER: Maintenance have you ever seen them tagged closed for maintenance activities?

COOPER: I probably have but I wouldn't recall it.

HUNTER: Have you ever seen them closed for any other reason at all? Have you found them closed?

COOPER: No. Like I've been on the panel and notice them closed when they shouldn't be? No.

HUNTER: Looking, not just at the 12 valves, but also the same thing would apply for the EF5 valves which are header cross connect valves, have you ever found those closed? Or the pumps in an abnormal condition and had to put them back to normal?

COOPER: Ah the 5s no, but the 7s and 8s I know we found out of positions, the EFV 7s and 8 valves.

HUNTER: Would you elaborate on if you can on the 7s and 8s? What would the 7s do if they are out of position? And what would the 8s do if they are out of position?

COOPER: Okay. I always get the numbers backward cause the valves are labelled there but basically the ones I don't know if they would be 8s or 7s lines the emergency feed pump up for recirc to the condenser and other valves would line it up for recirc to the condensate storage tanks.

HUNTER: So that's the that is the recirc pass would that be detrimental to the pump performance as the emergency feedwater pump?

COOPER: No.

HUNTER: Martin, is there any possibility that these valves the 7s and the 12s would be would be mixed up, in other words, that by a mistake

someone could have in fact opened the 7s and closed the 12s? Are they in a close enough proximity that that might occur?

COOPER: You know ..., like 7s and 8s are located around here and the 12s are located .... Okay, say the 7s and 8s are arm's length from the right and the left and if you drop back to your elbow length then the metal you got like the 12 valves.

HUNTER: The 12B is on top is above the 12A they are vertical like this?

COOPER: They are vertical right.

HUNTER: What's the position of the 7s and 8s? Are they horizontal or vertical?

COOPER: I don't recall.

HUNTER: Have you ever had that problem? Where maybe you have closed the wrong valve or opened the wrong valve because the 8 valves 5s and the 8s being in that location?

COOPER: Not with those valves, no.

HUNTER: Okay. Any, go ahead Bob.

MARTIN: Describe the actions of those valves, are they small acting valves, the 12s for example what I'm thinking of, do you have to hold?

COOPER: You don't have to hold the switch. Once you put your switch to open the valves open.

MARTIN: Okay, does the indicator on the valves when they show open do they come on right away?

COOPER: The red light will come on right away. And you will have red and green indications until the valves are fully open.

MARTIN: You have any idea of what the stroke time is on those valves?

COOPER: No. I believe that's in that procedure.

MARTIN: There in the ..., are they in the order of 2 2-1/2 inch size valves?

COOPER: I'm not sure. You would have to look at a print.

MARTIN: By this same token did you swing the valve this position control was closed will the valve stroke totally closed or does it have to be held?

COOPER: No, it will stroke all the way closed.

MARTIN: So it's a momentary switch in both cases, at all times?

COOPER: Right. It's not a jog valve at all.

HUNTER: Martin, on your routine shift, do you specifically have any technique for surveying your panel or asserting that all valves are in their appropriate positions? Realizing it's not documented possibly but it's something that you use to check your panel?

COOPER: I don't really have anything specific you know I look it over and you just from being an operator for so long you get used to looking at the panel and you look for something that's out of place. And quite often you do pick up something that's out of place and you just kind of scan the panel. But some of the panels it's real easy, like the ES position indication panel, that's panel 13, I forget the panel number but they have white lights for valves when are in the ES position, and then they have different colored lights for when they are not in the ES position, so if the valves are in the ES position it's real easy to tell, you have a white board there. That's one of the things I thought afterwards which would have been nice if normal position of the valve was the same color light and you could look at your board and you would see a light board. You know it would strike you right away if the color was out of place.

HUNTER: Okay. Looking at the same surveillance, part of the procedure indicates that when they do the Appendix A and the B valve line ups that they notify the shift foreman or the shift supervisor immediately during the performance of the A and the B Appendixes, you know, which one they need to do? If anything is out of normal that they would that the operators in the field or in the control room would immediately notify the shift supervision, if something was wrong? Have you ever had that occur?

COOPER: Yes.

HUNTER: Can you elaborate on it?

COOPER: I couldn't tell you specifically, but I know in doing different valve line ups and surveillances I always give the auxiliary operator instructions and the verify the line up just as it is become any valves that are out of position call me in the control room. If he calls me in the control room, you know, figure out what the valve is and how it affects the operation and if we're gonna move its position, we'll tell the shift foreman.

HUNTER: Martin, when you run into something like that, what's your management mechanism or formal mechanism for handling that or is it strictly a verbal?

COOPER: Strictly verbal.

HUNTER: Is there any way that I can go back and find in a control room log or in a shift supervisor's log, that you are aware of, the documentation of a valve out of position during a normal surveillance?

COOPER: Nope.

HUNTER: Would the operator have logged it on his valve line up sheet as being out of position?

COOPER: Possibly, but I doubt it.

HUNTER: Depends on the operator who was doing the job?

COOPER: Right.

HUNTER: If that particular valve, for instance, he's doing the valve lineup and if say, takes suction valve on the emergency feedwater pumps, that would put you in violation of tech specs maybe because you don't you have no suction for your feed pumps. That is an example okay, I'm not but that particular valve would put you in violation of tech specs because you then have an inoperable system?

COOPER: Yes it would.

HUNTER: Okay. Take that as an example, would that be handled any different differently than what you said before?

COOPER: Sad to say no.

HUNTER: No it wouldn't be?

COOPER: It would be reopened and the feeling would be that the system's now returned to normal so

HUNTER: What about the what about notifying management so that they can go back and find out why it was closed and correct it? This would strictly have been verbal and

COOPER: Right. We'd tell the shift foreman that we found the valve that's out of position and we're gonna open it or shut it, as the case may be and he'd say "okay". And it wouldn't as far as I know there wouldn't be any documentation. Now something if the valve you know, the only valves I could think of where there would be a note made of it was a suction valve on a makeup pump because of the history of makeup pumps here at the island. Primary system makeup pump.

HUNTER: Understanding that if the suction valve were left closed, the pump would destroy itself, is that the truth?

COOPER: Right.

HUNTER: That kind of a level of a problem because of the previous experience might be reported?

COOPER: Right.

MARTIN: Let me approach that tag problem, on the day that this surveillance was done, do you recall if that controller above the 12 valves was tagged at that point?

COOPER: I don't recall if it was tagged. I know the tag has a date on it from before then. I don't recall if it was tagged or not.

MARTIN: As a general rule, do you have a number of tags usually mounted on the control panels?

COOPER: Yeah. Too many. I hate those damn tags. Those caution tags get in the way. Like people claim that they have covered the indication up there and they are always doing that. Those caution tags people somebody decides to put one on and they get slapped on, a piece of equipment they just sit there and dangle and they say something

ridiculous like get the shift foreman's permission before operating. Which, you know, if you're gonna do something you're gonna have the foreman's permission anyway. Nobody's gonna if you don't want them to know you are not gonna ask them. They say really stupid things and they only get in the way. As you can see right now up there after the accident somebody decided that what we needed was a caution tag on our reed containment isolation valve and they just papered the wall with em. We got caution tags everywhere.

MARTIN: Then ah based on what you've just said, you've been irritated or had problems of one sort or another with caution tags before either obscuring the view or getting in the way when you wanted to manipulate something?

COOPER: Right.

HUNTER: Martin, who specifically again was with you when you opened the EF12 valves and performed the final steps of this procedure?

COOPER: Earl Hammila.

HUNTER: Earl was there. Was he with you at that moment?

COOPER: Yes, he was.

HUNTER: Anyone else in the area that

COOPER: There were other people in the area but I don't think they realized what we were doing.

HUNTER: Okay. So it should be between you and Earl as far as any remembering of the valves actually getting manipulated, okay. Was Kevin Lionarons there at that time or was he off?

COOPER: I think he was still out in the plant and he came up later and verified that they were open. Cause he was signing off his copy of the procedure.

HUNTER: Then after you had opened the valves you are indicating that he also later came up and verified them over?

COOPER: Yeah. He came up and verified the light indication. But he wouldn't come up and operate a switch on the control panel.

HUNTER: I understand that.

COOPER: Yeah.

HUNTER: But that's a good point because that gives some substantiation and credibility to an independent verification, not that you didn't

open them but independent verification that they weren't backed open, that for some unusual reason when you let go of the switch it flipped, and shut it again. Have you ever seen that happen?

COOPER: No.

HUNTER: When you take a switch went to open and let go of it. That it in fact had taken another position?

COOPER: I did see it last week. But that was because the electricians had just finished ah no we were trying to operate the ah VHV6 valves, which are the reactor building containment sump isolation valves and the local control switch for that valve was in the closed position so when we went to open it in the control room as soon as we let go the valve started going shut again.

HUNTER: If in fact these local switches on the BF on the 12 valves were in the local position and closed, would they go back closed also?

COOPER: I don't think so, cause they are push button type.

HUNTER: Okay. Can you give us any insight on how a valve would have gotten closed and it may be subjecting, that may be anything how the valves got closed after you opened them?

COOPER: No I don't.

HUNTER: Two days there and they were closed?

COOPER: I don't have rec, you know, I don't have any idea.

HUNTER: Okay. Martin I have no further questions. Appreciate your time. I have no further questions.

RESNER: This concludes the inverview of Mr. Cooper. The time now is 8:56 a.m.

RESNER: Correction on the time it is 7:56 a.m.