

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

1 In the Matter of:

2 IE TMI INVESTIGATION INTERVIEW

3 of Theodore F. Illjes  
4 Control Room Operator, Nuclear

5  
6  
7  
8  
9 Trailer #203  
10 NRC Investigation Site  
11 TMI Nuclear Power Plant  
12 Middletown, Pennsylvania

13 May 23, 1979  
14 (Date of Interview)

15 July 4, 1979  
16 (Date Transcript Typed)

17 261  
18 (Tape Number(s))

19  
20  
21 NRC PERSONNEL:

22 Anthony Fasano  
23 Mark E. Resner

24  
25  
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1 RESNER: The following is an interview of Mr. Theodore F. Illjes. Mr.  
2 Illjes is employed with the Metropolitan Edison Company at the Three Mile  
3 Island facility. His job title is control room operator nuclear. The  
4 present time is 3:43 p.m. Eastern Daylight Time. Today's date is May 23,  
5 1979. This interview is being conducted in Trailer 203, which is located  
6 just outside of the south gate to the Three Mile Island facility. Indi-  
7 viduals present for this interview representing the U.S. Nuclear Regulatory  
8 Commission are Mr. Anthony Fasano. Mr. Fasano is an Inspection Specialist  
9 with Region I of the U.S. Nuclear Regulatory Commission. Moderating this  
10 interview is Mark E. Resner. I am an Investigator with the Office of  
11 Inspector and Auditor, Headquarters, Nuclear Regulatory Commission. Prior  
12 to taping this interview, Mr. Illjes was given a two-page document which  
13 advised him of the authority, purpose and scope of this investigation. In  
14 addition, it apprised Mr. Illjes that he was entitled to a representative  
15 of his choice to be present during this interview. Also it apprised him of  
16 the fact that he is in no way compelled to talk to us if he does not want  
17 to. Now, I have asked Mr. Illjes at this time if he will please give us a  
18 brief resume of his educational and job experience as related to the job he  
19 is currently performing. Mr. Illjes.

20  
21 ILLJES: Graduated from Northborne High School, Long Island, New York.  
22 Spent two years at Colorado State University and in the Navy for 7 years, 3  
23 months. In the nuclear program in the Navy, I was a mechanical operator  
24 and also an engineering lab technician. I received training as an auxiliary  
25 operator for Metropolitan Edison for approximately a year of training prior

1 to start up of Unit 1. Worked as an auxiliary operator for approximately 3½  
2 years and bid on control room operator and we had my cold license for Unit  
3 2 as a control room operator. Am presently a control room operator at Unit  
4 2.

5  
6 RESNER: All right, Mr. Illjes, with your permission we will refer to you  
7 as Ted during the tape. Prefer to be called that?

8  
9 ILLJES: Suits me.

10  
11 RESNER: Alright. At this time Mr. Fasano has some questions that I am  
12 sure he would like to ask.

13  
14 FASANO: Ted. When did you arrive at the site on the 28th March 1979?

15  
16 ILLJES: I arrived at the observation center approximately 2:00 in the  
17 afternoon and we were directed to come over approximately 3:30 now these  
18 are estimations of time. We got in the control room. We had to put breathing  
19 masks on and we were there approximately a quarter to four by the time we  
20 got up to the control room.

21  
22 FASANO: When you got to the control room, who did you report to?

23  
24 ILLJES: I reported to my shift supervisor, Joseph Chwastyk and he said  
25 that he was going to brief us and that we should start finding out infor-

1 mation, read over the log and get every information that you can before you  
2 take the shift, and then he gave us a briefing, along with the foreman, and  
3 two other CRO's on my shift.

4  
5 FASANO: What was your assignment?

6  
7 ILLJES: I and my partner, John Kidwell, we signed in the log and I took  
8 the panel on the primary side and he took the panel on the secondary side  
9 of the steam generator. I relieved, Ed Frederick was the last one to sign  
10 in the book, and I relieved him at, I think it was about 6:00, or 1800 that  
11 evening when I finally got turned over and I noticed that there weren't all  
12 that many entries from the time in the morning. There was a person taking  
13 data and I think we gave the log book to him to try and catch up with it  
14 what data he had. Then my specific duties. We looked over the panel. My  
15 shift supervisor, we discussed where we were and what we wanted to do if we  
16 were trying to collapse the bubbles in the loops in the top of the vessel.  
17 We were doing this by raising pressure approximately 2200-2300 pounds.

18  
19 FASANO: This was at what time?

20  
21 ILLJES: This was approximately between, somewhere around 1800. We also,  
22 at that time, we started, we pumped the reactor coolant pump and then we  
23 started, I believe it was the ZA reactor coolant pump, and we kept it on  
24 the line. We had flow indication. We saw temperatures equalizing out and  
25 we also saw thermocouple temperatures coming down, which is all an indica-

1 tion of flow being restored. We still had our high pressure injection  
2 going on, I believe it was throttled at the time. The exact temperatures  
3 of some of the things I don't remember, but they were in the neighborhood  
4 of about 500 and some degrees. I am not sure of the specific temperature  
5 then as far as the reactor coolant system is concerned.

6  
7 FASANO: So you came in about 3:45 into the control room.

8  
9 ILLJES: Approximately

10  
11 FASANO: That is when you then were briefed on the situation. Any partic-  
12 ular, was there anything that you were told specifically as to what was, in  
13 other words, the condition at best? Who was telling you the various condi-  
14 tions?

15  
16 ILLJES: My shift supervisor, Joe Chwastyk, he briefed us of the condi-  
17 tions and the control room operator I talked to, along with Ed Frederick.  
18 It was hard to talk to him at the time. We were in air breathing masks for  
19 a while. I know when we got out of them, I can't remember what time, but I  
20 talked to Mark Coleman and I'm not sure, I believe they pumped a pump once  
21 before while we were there, but we were not watching, I'm not sure. Pressure  
22 conditions when we started the pump? We dropped pressure down to 1200  
23 pounds or something like that, and then we restored pressure back again  
24 after the temperature is equalized.

25  
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1 FASANO: What time did you actually take over the console?

2  
3 ILLJES: I think the log says around 1820, or somewhere in 1800.

4  
5 FASANO: O.K. So it was close to 6:30?

6  
7 ILLJES: Right. 6:30 p.m.

8  
9 FASANO: You actually started to manipulate approximately 12.5 minutes and  
10 when you go back again, when you just got to the control room, how did it  
11 appear to you? How were things being conducted?

12  
13 ILLJES: Well, the shift supervisor was running it. He was at the console  
14 and he was directing each and every move of the control room operator, and  
15 that's the way we operated more or less the same way. Anything that we  
16 did, any recommendations that we did, went through the shift supervisor.

17  
18 FASANO: This was Mr. Zewe at the time, when you came in?

19  
20 ILLJES: When we came in, I believe Joe Chwastyk had relieved Bill Zewe.  
21 He was directing our operations at the time.

22  
23 FASANO: Let's see. The primary, you were on the primary?

24 809 228

25

1 ILLJES: The primary side. We were taking care of the reactor coolant  
2 pumps, pressurizer, make up system. That's the left hand side of the  
3 console.

4  
5 FASANO: That would be close to the reactor building, wide range-narrow  
6 range indication?

7  
8 ILLJES: Correct, correct.

9  
10 FASANO: Do you recall being briefed on the wide range-narrow range reactor  
11 building indications?

12  
13 ILLJES: I was told that they had a spike on both indications of the reactor  
14 building pressure recorder. There was some discussions as to what it was.  
15 A hydrogen explosion was discussed. This was later on in the evening.

16  
17 FASANO: How late in the evening?

18  
19 ILLJES: Oh my.

20  
21 FASANO: You took the controls at 6?

22  
23 ILLJES: At 6. Well....

24  
25 809 229

1 FASANO: 6:20 or so?

2  
3 ILLJES: No, I would say it was more... It was later cause we were... It  
4 was after we drew a bubble. O.K. If I want to relate it, I would say it  
5 was after we drew the bubble in the pressurizer which we did after that.  
6 As far as what time that was mentioned, as far as we discussed it, I know  
7 it was discussed when we turned over, when we came in, but we didn't make  
8 any bones about it because we were interested in getting flow through the  
9 reactor and the bubble in the pressurizer and so. They had recovered from  
10 the building isolation high pressure injection. They had recovered from  
11 that situation, and our concern was cooling the reactor and insuring it had  
12 flow. Later on when we had things stablized, we had a bubble in the pressur-  
13 izer and had a reactor coolant pump running and that term area, we were  
14 discussing with, I can't remember if it was one of our engineers. But we  
15 did have a pressure spike. We pulled it out and I don't know who wanted a  
16 copy but we made a couple copies of the chart.

17  
18 FASANO: O.K. This was sometime after 6?

19  
20 ILLJES: Somewhere.... Hell, I would say it was after 8:00.

21  
22 FASANO: After 8:00 that night?

23  
24 ILLJES: Yea, I'd say it was if I had to put a time on it.



1 FASANO: Let's go back a bit. When you first came in, where there xerox  
2 copies of that at that time?

3  
4 ILLJES: I don't know.

5  
6 FASANO: You didn't see any?

7  
8 ILLJES: I didn't see any.

9  
10 FASANO: Discussion was not really centered on that? Or was it centered on  
11 that to any degree that you remember?

12  
13 ILLJES: No, it wasn't centered on that.

14  
15 FASANO: As far as the ...?

16  
17 ILLJES: It was over.

18  
19 FASANO: Were you there when they were talking about it?

20  
21 ILLJES: Not when I came in. I was there and I wasn't involved in any  
22 discussion until it was brought up.... Except when it was turned over it  
23 was mentioned that we did have a pressure spike, when we turned over. That  
24 was the only thing that was mentioned, and that they had recovered from  
25 reactor building isolation.

009 231

1 FASANO: So a pressure spike was discussed at the turn over, when you first  
2 came in, about 3:45. And then somewhere about 8:00 further discussion and  
3 also xerox copies?

4  
5 ILLJES: Right.

6  
7 FASANO: And apparently...

8  
9 ILLJES: I think we remembered the xerox machine wasn't working too good

10  
11 FASANO: At this time you discussed what and with whom, if you can remember?

12  
13 ILLJES: We talked, I talked about it with the trainee on our shift, who  
14 was Chuck Mell. And the person that asked for the information, and I don't  
15 remember who that was, whether it was an NRC inspector or a B&W representa-  
16 tive.

17  
18 FASANO: Was any discussion related to this? Was the hydrogen burn or was  
19 a real spike or was this discussed as an electrical spurious signal possibly?

20  
21 ILLJES: This was discussed that evening but we also talked about it several  
22 times after that and I cannot separate the two different discussions but as  
23 far as I remember we related it to a cycling of the electromatic relief  
24 isolation, which is a DC operated valve I believe and that has a contact in  
25 there which will cause arcing which possibly could ignite the hydrogen.

1 That was discussed, but I can't say we discussed it that night. We didn't  
2 really have that much time to do a lot of discussion, but we talked about  
3 it and when I walked away from the panel, the guy that wanted the copy, you  
4 know, he wanted it now, and I had to walk away from the panel to make sure  
5 that the other guy, my shift supervisor, was there while I walked away  
6 so...

7  
8 FASANO: On the first evening, can you recall if on that first evening you  
9 were discussing after 8:00 that it was possibly a hydrogen burn?

10  
11 ILLJES: As far as I know that possibility was discussed that evening.

12  
13 FASANO: With this engineer, you don't know whether he was GPU or NRC or  
14 what? Can you recall?

15  
16 ILLJES: No, I won't say. I don't remember. No. We... It was also that  
17 night, you know, that we determined that we had a hard bubble and what that  
18 bubble was, you know, we had talked about that too, you know... What is the  
19 gas and is it hydrogen or other and all that water that went through the  
20 reactor and out into the RC drain tank and out into the reactor building.

21  
22 FASANO: So at that time it appeared to be still inconclusive within your  
23 own ...?

24  
25  
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1 ILLJES: I wasn't sure that's what it was, personally, yes. I'll say that.

2  
3 FASANO: On your training... Let's get off the subject here. You took  
4 over controls in this situation and, how did your training, did it relate  
5 to what you had to do, or was this a completely new situation to you or  
6 just how did your training background assist you in performing your assign-  
7 ments?

8  
9 ILLJES: As far as having a bubble in more than one location, we never ...  
10 let's see. I don't remember discussing it in training. I know it's, we  
11 had dropped the loops into the pressurizer before during the testing program.  
12 This was done, I think there was a time we had resin in our cooling system  
13 and we secured reactor coolant pumps and we were in the process of dropping  
14 pressure and in order to cool the pressurizer and a little more quicker  
15 than what we were experiencing. It would have taken several days to cool  
16 down right and so they wanted to speed it up, we dropped the hot legs down  
17 and filled the pressurizer by ... I'm trying to think how that went, that's  
18 two years ago.

19  
20 FASANO: So you were on shift when you lost a level on the pressurizer. Is  
21 that what you're saying?

22  
23 ILLJES: We didn't lose level. We went solid, we didn't go solid, but we  
24 go in solid in the pressurizer and it was above 400 inches and we were in  
25 the process of getting on decay heat system and we were depressurized or in  
the process of getting depressurized.

1 FASANO: In general, how do you rate your training? B&W simulators, ... etc.

2  
3 ILLJES: That's good experience down there. That's top notch. The more I  
4 can go down there, the more I can work the controls down there and I feel  
5 that's real good. I cold licensed and the training that I received during  
6 cold license, I also say that was good. I found no problem as far as  
7 questions that were asked and some of the examinations I took, with the NRC  
8 examination, and with the oral from the NRC, I didn't feel I had any problem.  
9 Sometimes in between the yearly exams I would like to see a little more...  
10 you know. I think that a lot of that's left up to you, and maybe the  
11 license bonus is saying "Well, that's your responsibility and you have to  
12 pick your information up". Well they specify what you have to know for the  
13 whole range of subjects which you need to know to pass examination and to  
14 be cognizant of the operations in the control room. You get an annual oral  
15 examination and a 8-hour written exam.

16  
17 FASANO: These written exams, these are within your own training group,  
18 right?

19  
20 ILLJES: Yea. They are written by one of the training, licensed training  
21 personnel, who is, holds a license on Unit 1, I believe.

22  
23 FASANO: O.K. You do perform surveillance procedures?  
24  
25

1 ILLJES: Yes, I do.

2  
3 FASANO: Are you familiar with the surveillance procedure on the emergency  
4 feedwater system?

5  
6 ILLJES: We have performed that surveillance, I think a few times. I  
7 remember performing it more than once.

8  
9 FASANO: Do you recall ever seeing the 12 valves in the closed position  
10 simultaneously and then left that way while you were in a mode of operation  
11 requiring it to be opened?

12  
13 ILLJES: I think they were left closed during that surveillance. Both of  
14 them. Yea.

15  
16 FASANO: Then after the surveillance they were ...?

17  
18 ILLJES: They were reopened.

19  
20 FASANO: Do you have a turnover sheet or check sheet when you come in to  
21 the control room to really look over the control board and see just the  
22 status of various valves or pumps?

23  
24 ILLJES: Major valves out of position are normally left on a turnover  
25 sheet. The turnover sheet is not a company directive. It's done by the

1 operators and we list all the major abnormalities that occur between shift  
2 to shift. And you're also required to review the log from the previous  
3 time that you have been on shift to get what has occurred since the last  
4 time you were at the control panel.

5  
6 FASANO: So, I gather you don't have a formal check sheet.

7  
8 ILLJES: No, it's not formal.

9  
10 FASANO: In connection with your training. Have you ever been provided  
11 transcripts or recordings of previous NRC walkthrough oral exams?

12  
13 ILLJES: Previous exams. In other words written exams,

14  
15 FASANO: Previous exams? By whom?

16  
17 ILLJES: There are xerox copy.

18  
19 FASANO: O.K.

20  
21 RESNER: Who gave you those copies?

22  
23 ILLJES: I don't remember who specifically provided the copies.

24 999 237

25

1 RESNER: Do you have an idea who generally provides those things?  
2

3 ILLJES: I have an idea, but I take it they come from the training depart-  
4 ment. I'm not sure that's where they come from. They are used as a, you  
5 can only make so many decent questions, and used as a help to study for an  
6 exam. I haven't seen an exam. You know, there are some questions that you  
7 see from one exam that are on another exam, but those are always pertinent  
8 questions to the operation of the power plant. They were something good to  
9 study from.

10  
11 RESNER: At this point we are going to turn the tape over. The time now is  
12 4:10 p.m., Eastern Daylight Time.

13  
14 RESNER: This is a continuation of the interview with Mr. Theodore Illjes.  
15 The time now is 4:12 p.m., Eastern Daylight Time.

16  
17 FASANO: Going back to surveillance procedure, and in particular the emergency  
18 feedwater, does a minimum flow exist to the once through steam generator  
19 upon actuation of the emergency feed pumps prior to movement of the 11A and  
20 11B valve, say when it actually actuates?

21  
22 ILLJES: The 11A valve is a, in other words, when it actually actuates, you  
23 have to wait till level gets down to the low level limit and then it will  
24 control on the low level limit which is approximately 30 inches in the  
25 start up range. The recirc ... there is a recirc, and that recircs either  
to the condenser or to the condensate storage tanks. 909 238



1 FASANO: So, until the limit, 30 inches or so, is reached, the 11A and 11B  
2 are seated and then at 30 inches or so, they start to move?

3  
4 ILLJES: Then they start to control open, but you can't see that.

5  
6 FASANO: So there is no minimum flow, even at the initiation of a pump? Is  
7 there any leakage flow?

8  
9 ILLJES: There might be some leakage.

10  
11 FASANO: I mean purpose... purposely?

12  
13 ILLJES: Not that I know of. Just for pump cooling there is a recirc path  
14 to the condenser or to the storage tank. Not to the steam generators.  
15 There might be some leakage as far as I know.

16  
17 FASANO: Back to training a little. Do you get your ... I mean your training  
18 here onsite, do you go over any of the trips, any of the transients as you  
19 see them?

20  
21 ILLJES: Yea, we discuss those. In fact, we take some of the incidents  
22 that we get from the NRC, I guess they call it the Clearinghouse Reports,  
23 and we go over them and I think when we were in Lynchburg we went over a  
24 couple of trips down there that they set up for us at our request.

1 FASANO: Of your own, Three Mile Island 2?

2  
3 ILLJES: Of 1. I think it was Unit 1, because the last time I was down we  
4 were just starting up and we didn't have any major trips.

5  
6 FASANO: Since up here at Three Mile Island 2, do you go over the transients  
7 formally? I mean, it sounded like you go over them.

8  
9 ILLJES: Yea. We have a training week, every six weeks. And during that  
10 training week usually one of the topics for licensed operators is to go  
11 over the trips of other power plants and the incidents of other power  
12 plants.

13  
14 FASANO: How about your own?

15  
16 ILLJES: \_\_\_\_\_.

17  
18 FASANO: O.K. On training again, back to a previous question. Are you  
19 aware of the existence of transcripts or tapes of actual orals that were  
20 given by the NRC?

21  
22 ILLJES: Actual orals? No, I've never seen a transcript of an oral of an  
23 NRC

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24  
25

1 FASANO: Or a tape?

2  
3 ILLJES: A tape? No. Never had a tape, just the written exam, or what  
4 looked like to be a written exam.

5  
6 FASANO: At this point we would like to let you, if you would like to  
7 express something that you have learned or what you learned from this  
8 experience that could be useful in the future for others so that both the  
9 NRC and the utilities can do a better job? Or have you any suggestions for  
10 the design of a plant, what would make your job easier and so that we can  
11 have safer use of nuclear power?

12  
13 ILLJES: Yea, there is quite a few things that I have thought about and if  
14 you want to get down to the, what I think the major cause of the accident  
15 is, is the electromatic relief valve. Indication on that is awful shaky,  
16 or is not what it should be.

17  
18 FASANO: Not what it should be? In particular?

19  
20 ILLJES: Well, it gives you... It has a solenoid operated affair which  
21 accepts a pilot stem, or allows the pilot stem to move up and the indica-  
22 tion you have is when that solenoid is actuated and that gives you a red  
23 light. That doesn't indicate that the valve is open. So you can deener-  
24 gize the solenoid and the valve can stay open and you have no indication.  
25 Some p ople may say, well, you have a temperature detector. Well, if it

1 popped once, that pipe is going to stay hot for a good while, so what would  
2 be nice is a positive position indicator of the electromatic relief, or  
3 either that or get rid of it. But it's nice to have sometimes. Maybe some  
4 better flow indication, downstream of the relief valve, on other relief  
5 valves. The major part of the instrumentation in the reactor building,  
6 something ought to be done with that, as far as raising it up off the floor  
7 if something like this happens again. Getting back to the pressurizer, I  
8 think where the relief valves go into a quench tank, most people call it a  
9 quench tank. Here we call it the RC drain tank. It's not really a quench  
10 tank in my mind, cause it's kind of small. If it was a lot larger and had  
11 a little more capacity for cooling, I think we'd have made out somewhat  
12 better. As far as getting into some of the other aspects on the steam  
13 generators and the steam system, I would like to see some flow indication  
14 for emergency feedwater, a valve position indicator for the 11's, in fact,  
15 every major valve in the control room I know it's possible, but it would  
16 cost a lot of money, and probably that where in power plants, that's the  
17 root of all evil, the money involved.

18  
19 RESNER: Could you elaborate on that?

20  
21 ILLJES: Well, it costs money to put some of this instrumentation and  
22 controls and you probably have three to four grades of equipment and you  
23 buy what will do the job for you.

24  
25  
009 242

1 RESNER: What's your perception of the equipment provided at this particular  
2 unit?

3  
4 ILLJES: Well, it did its job. We could operate without too much problem.  
5 Yes, we know we did have an accident, and at the time of the accident we  
6 still had a means of indication there of possibly of determining the accident,  
7 but I think you had to have quite a bit of experience in order to see that,  
8 and relating to the temperature of the pressurizer versus the pressure in  
9 the system and to relate saturation temperature in that manner, you know,  
10 determining that you have a large leak in the pressurizer with the electro-  
11 matic being open. That, like I say, that would take somewhat more experience  
12 and, you're looking at everything else and to pick that right out, that's  
13 probably a little tougher than the average operator could pick out. Getting  
14 back to other equipment. The primary side, I think most of that equipment,  
15 you know, is accepted by the industry. They use a pretty well ..., you  
16 know it's QC'd and a lot of it is all equal, mostly proven stuff. But the  
17 secondary side, I think we could have seen some improvement in the equipment  
18 that we did use. Well, that was shown in such things as the steam generator  
19 relief valve, main steam relief valves. I guess, our polishing system. I  
20 guess I could go on there, but ... as far as other things that I would like  
21 to see changed? Getting back to the valves, I would like to see the position  
22 of all the major valves placed on the computer. You can call out, maybe as  
23 a surveillance, the position of all major valves in the plant. We do that  
24 with a lot of other things, like we can punch out all the alarms that are  
25 current and that would not be too much trouble to punch out all the valves

1 that are, say, out of position. Possibly some more indication in the  
2 reactor building of what's going on, maybe a TV camera. Some vents could  
3 be strategically located which we can recover, say, if we did experience  
4 gas into the primary system hot legs in the top of the reactor vessel and  
5 could be vented into either the reactor building or it could be contained  
6 or into a tank. Probably could use some equipment in the reactor building,  
7 such as a detect what's going on, such as a hydrogen detectors or explosive  
8 gas detectors, TV cameras, all those things would be nice.

9  
10 FASANO: You mentioned the tail pipe, the pressurizer piping where you have  
11 your exhaust from the electromatic relief and also the safety valves. You  
12 say once that pipe gets hot, can you tell what valve is leaking of the  
13 three valves?

14  
15 ILLJES: Yea. There's three separate temperature detectors, I think they're  
16 strapped on to the pipe. So you can tell which relief valve is lifting,  
17 but it is all in the, its common, so whether it can backfeed into that, I  
18 don't think it ... you'd see the biggest change. Right now, say, if you  
19 have leakage on our electromatic, which we did have a small amount of  
20 leakage, you could ... that was the hottest and it didn't affect...

21  
22 FASANO: You did look at these temperatures and it appeared to you that it  
23 was the electromatic? The electromatic was the one as far as your review  
24 of the information available, was the leaking valve?

25  
809 244

1 ILLJES: As far as I... Yes. That was the week ... as far ... At what  
2 period?

3  
4 FASANO: Well, how long has this been leaking? How long has the pres-  
5 surizer been leaking?

6  
7 ILLJES: I believe it started on a trip, I can't remember exactly.

8  
9 FASANO: One month? Two months? Three months?

10  
11 ILLJES: Three, four months, I'd say.

12  
13 FASANO: To the best of your knowledge, it was always the electromatic that  
14 was the one with some suspicion, possibly of others?

15  
16 ILLJES: Uh, some suspicion of the others. It is a possibility the others  
17 could have been leaking also. You noticed some temperature change.

18  
19 FASANO: That's why I asked you if indeed you can distinguish from one  
20 valve to the other.

21  
22 ILLJES: Oh yes, I'd say you can, but once you have lifted all three and  
23 you ... O.K.

24 909 245

25

1 FASANO: Prior to lifting?

2  
3 ILLJES: Prior to lifting, yes. You can distinguish which one is leaking.

4  
5 FASANO: You mentioned the reactor coolant drain tank. This unit, as far  
6 as the control room, where is the indications for this particular system  
7 located?

8  
9 ILLJES: I wish you wouldn't ask that question. It's around the back of  
10 the, if you're facing the front of the console, it's back behind the indica-  
11 tion for the substation, our 500 KV substation, facing the west wall of the  
12 control room. Yea. There is an alarm on it, and when you push the front  
13 panel alarm to clear it doesn't clear that alarm. You have to go back  
14 around to silence that alarm, but if you have another alarm at the same  
15 time there is a possibility that you could miss that alarm.

16  
17 FASANO: O.K. I don't have any further questions at this time, Mark. Do  
18 you?

19  
20 RESNER: No further questions. A few clerical things for the benefit of  
21 the typist. Digress back to the early part of the interview, you referred  
22 to a trainee that you spoke with, Chuck Mell. Could you spell that for the  
23 record, please.

24 809 246  
25



1 ILLJES: Yes. Charles Mell.

2  
3 RESNER: Thank you. Also, the name Chwastyk. Is that spelled Chwastyk?

4  
5 ILLJES: Right. Correct.

6  
7 RESNER: At this time we will conclude the interview. It is now 4:29 p.m.  
8 Eastern Daylight Time. We thank you very much for sharing your time with  
9 us and if you think of anything, please feel free to contact us.

10  
11 ILLJES: O.K.

12 009 247  
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