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OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency:	Nucl ' r Regulatory Commission
Title:	In stigative Interview of Michael Nichols (CLOSED)

Docket No.

E.

LOCATION: Gore, Oklahoma

DATE Tuesday, March 5, 1991

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EXHIBIT 90 PAGE / OF 108 PAGE(S)

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1	BEFORE THE
2	U. S. NUCLEAR REGULATORY COMMISSION
3	In the Matter of:)
4	INVESTIGATIVE INTERVIEW OF:)
5	MICHAEL NICHOLS)
6	(CLOSED)
7	
8	Conference Room
9	Sequoyah Fuels
10	Gore, Oklahoma
11	
12	Tuesday, March 5, 1991
13	
14	The above-entitled matter convened for
15	INVESTIGATIVE INTERVIEW pursuant to notice at 2:30 p.m.
16	
17	APPEARANCES:
18	
19	On behalf of the U.S. Nuclear Regulatory Commission:
20	
21	LARRY CHAPMAN, Senior Investigator
22	Office of Investigations
23	U. S. Nuclear Regulatory Commission
24	Suite 1000, 611 Ryan Plaza
25	Arlington, Texas 76011

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2	On behalf of Sequoyah Fuels:
3	
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PROCEEDINGS

2 MR. CHAPMAN: For the record, this is an int 3 of Michael Nichols, who is employed by Sequoyah Fuels 4 Corporation, Gore, Oklahoma. The location of this int 5 is the Sequoyah Fuels Facility, Gore, Oklahoma. The d 6 March 5, 1991 and the time is 2:30 p.m. 7 Present at this interview in addition to Mr.	erview ate is
4 Corporation, Gore, Oklahoma. The location of this int 5 is the Sequoyah Fuels Facility, Gore, Oklahoma. The d 6 March 5, 1991 and the time is 2:30 p.m.	ate is
5 is the Sequoyah Fuels Facility, Gore, Oklahoma. The d 6 March 5, 1991 and the time is 2:30 p.m.	ate is
6 March 5, 1991 and the time is 2:30 p.m.	
7 Present at this interview in addition to Mr.	
/ · · · · · · · · · · · · · · · · · · ·	w firm
8 Nichols is Ira Shapiro, who is an attorney from the la	
9 of Winthrop, Stimson, Putnam & Roberts, Washington, D.	с.,
10 and is representing Sequoyah Fuels Corporation. Also	present
11 at this meeting representing the U.S. Nuclear Regulat	ory
12 Commission, Office of Investigations, is Larry Chapman	
13 Mr. Nichols, will you please stand and raise	your
14 right hand?	
15 Whereupon,	
16 MICHAEL NICHOLS	
17 appeared as a witness herein, and having been first du	ly
18 sworn, was examined and testified as follows:	
19 MR. CHAPMAN: Be seated.	
20 Mr. Nichols, I want to remind you, as we did	a
21 little earlier, we've got a court reporter here, be su	ire and
22 speak up and as much as you can, direct your answers t	o where
23 he can be sure and hear you.	
24 EXAMINATION	
25 BY MR. CHAPMAN:	

Q Mr. Nichols, I need to first start off with a 1 little formal education. Will you please give us your formal 2 education? 3 and the second second second second second 4 6.70 5 6 0 7 8 A State Street A 9 Can you give us some of 10 Q your work experience, starting currently with Sequoyah Fuels 11 now and work your way back for a period of ten years or so? 12 A I've been at Sequoyah Fuels since about February of 13 1988. I was Manager of Health Physics at the start and then 14 I was the Manager, Health and Safety and then I was the 15 Manager of Health, Safety and Environment and now I'm the 16 Manager of Health and Safety. 17 Prior to working here, sir? 0 18 I worked at Wolf Creek Generating Station, I was 19 A the Radiation Protection Manager there and the Superintendent 20

21 of Plant Support.

22 Q Superintendent of Plant Support?

23 A Superintendent of Plant Support, yes.

Q And I'm sorry, the time frames you worked at that location?

6,70 porlems

A When I was at Wolf Creek, it was from about '79 through the end of '87, first of '88.

Q Okay, sir. Mr. Nichols, as a matter of record, we've had a couple of discussions, two or three with you, and I'd like to go over some of that information that we discussed to make sure that we have it down on the record again correctly. And also as much as anything, afford you an opportunity to add or delete any information if you wish to do so.

First of all, during the period of time that we're 10 going to discuss, principally we're going to discuss January 11 1990 through August 22, 1990 and we'll concentrate to some 12 degree on the period of probably July 31, 1990 through August 13 22, the excavation of the area north and adjacent to the 14 solvent extraction building which is commonly referred to as 15 the SX pit or the excavation. The reason I've expanded it to 16 January, to some degree, is at one time Ms. Couch, Carolyn 17 Couch, worked for you I believe and then she -- I'm sorry, 18 she worked for Lee Lacey and then came to work for you and 19 then she went back to work for Lee Lacey during this time 20 frame. 21

22 A Not between January and August.

23 Q All right, would you correct the recurd and tell me
24 --

25 A She came to work for me, I want to say May or June

of 1990, and she went back to working for Lee, I'm not sure, 1 September-October, maybe November. 2 of 1990? 0 3 A 1990. 4 Q So basically your contact with her was May through 5 October of 1990, as a direct supervisor of Ms. Couch's? 6 A Yes. 7 One of the areas I'd like to explore with you, sir, 8 0 is were you involved in any of the contacts with the State of 9 Oklahoma through the Oklahoma Corporation Commission and/or 10 the Oklahoma Water Resources Board in relationship to this-11 excavation that was to be done? 12 To the best of my knowledge, no, sir. 13 A All right, sir. Was Ms. Couch ever, while she was 14 0 under your supervision, involved in any meetings that you 15 know of with these individuals or agencies? 16 I know she met with them on several occasions. She 17 A deals with Oklahoma Water Resources Board on a guite frequent 18 basis, but as to whether the SX pit or other matters -- we're 19 building a dam out here and do a lot of other things -- I'm 20 sure she did talk to them at some time during that time 21 period. 22 MR. SHAPIRO: Speak up. 23 THE WITNESS: I'm sorry. She did talk to them 24 sometime during that time period. 25

1 THE REPORTER: Excuse me. You said something about 2 building a dam?

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THE WITNESS: We're working on several projects around here, which would include the Oklahoma Water Resources Board, that's building a lake and a dam outside the facility, those kind of things. I'm sure she talked to them on those subjects quite frequently, her and Mr. Graves.

8 BY MR. CHAPMAN:

Mr. Nichols, during the time frame that Ms. Couch 9 0 worked for you from May of 1990 to a given date of sometime 10 around October-November -- we won't quibble on the date ----of 11 1990, I asked you if she reported to you, you had supervision 12 over her, and you answered yes. Of interest to me is during 13 this period of time did you interact with Ms. Couch often 14 about matters concerning her department? And I'll clarify 15 the record that she is the Manager of Environment. 16

17

A Of course -- yes, I was her supervisor.

Q So you feel like you had a fairly good indication of what her responsibilities were and that she was carrying out her responsibilities during the time she was under your jurisdiction?

22

A Yes, sir.

23 Q Well in light of that, do you feel that -- scratch 24 it. In light of that, do you -- did you have conversations 25 with Ms. Couch relative to the SX area prior to it being unearthed, to its pending excavation and her
 responsibilities, and did you follow up on those
 responsibilities? Let me make sure you understand my
 question. It's lengthy, I understand.

5 First of all I'll ask you this question, did you 6 discuss with her, prior to the unearthing of these tanks, her 7 responsibilities?

A As far as her responsibilities, Carol is the expert 8 in the area. It was more of her telling me what had to be 9 done, what needed to be done. It was not a matter of me 10 telling her what to do. Carol is manager of a department 11 that I was new to. We discussed the fact that the tanks had 12 to be unearthed, I know at one time we talked about -- and 13 this may have been before, I can't remember the exact time 14 frame, before she worked for me or after -- we discussed that 15 the tanks, they had two options with the tanks. One was to, 16 I think, leave them in place and put some kind of monitoring 17 system in. I think the other one was to do what they did, 18 dig them out and put a concrete bunker type thing in. 19 MR. CHAPMAN: Do you want to be over here? 20 THE REPORTER: No --21 THE WITNESS: I'll be honest with you, it's very 22 hard for me to go back and forth. 23 THE REPORTER: Could you just speak louder? 24 THE WITNESS: I'll try -- I'll try. 25

MR. CHAPMAN: Well if you need to move, let me know 1 and I'll move you over here where you can be in line with his 2 3 voice path. THE REPORTER: Okay. If I have trouble where I 4 can't handle it, I'll let you know. Just boom it out if you 5 would, that's all. 6 THE WITNESS: That's just not my mannerism. 7 THE REPORTER: Plus we've got all this background 8 noise around here. 9 BY MR. CHAPMAN: 10 Q Mr. Nichols, my question to you was about her 11 responsibilities, and basically if I got the gist of what 12 you've told me in the somewhat lengthy dissertation is she 13 knew her responsibilities and you left her to take care of 14 her duties. 15 A I tried to ensure that she had the support to do 16 her duties, yes. She was the subject matter expert, so to 17 speak. 18 Q Did you oversee her? I'm trying to establish your 19 relationship with Ms. Couch. 20 Did I have the expertise to --21 A No, sir, I didn't ask you if you had the expertise, 22 0 I asked you did you oversee her duties and ensure that she 23 was performing those duties. 24 A To the best of my ability, yes. 25

MR. SHAPIRO: Well if I could just interject. I 1 think Mr. Chapman is raising an important line of questions. 2 Whatever the organizational chart was, did you treat Ms. 3 Couch as someone you supervised or was she treated more as a 4 co-equal, in her area? 5 THE WITNESS: To be honest with you, it was 6 probably more as a co-equal, if we want to be honest about 7 it. 8 MR. CHAPMAN: We certainly want to be honest, Mike. 9 THE WITNESS: Yes, sir, I mean I'm just trying --10 that's just how it was. 11 MR. SHAPIRO: I've had jobs in the past where I was 12 the supervisor, when we divided things up in a certain way 13 and I don't think I did that much supervising. 14 THE WITNESS: That's typically --15 BY MR. CHAPMAN: 16 Well Mike, let me explain to you the reason I want 17 0 to know this, is because during some of our previous 18 conversations, on more than one occasion you've indicated to 19 me, through either testimony or discussions, that you really 20 weren't aware of what Carolyn Couch was doing out there. And 21 I'm trying to understand if you're the manager for her -- and 22 maybe Mr. Shapiro has raised a question here for me to some 23 degree -- as her supervisor, what were you doing to ensure 24 that she was doing her -- performing her duties? 25

A I was meeting with her and asking her if she was having any problems, how could I help, what could I support her as far as people, as far as equipment, whatever was necessary for her to do her job. That's pretty much all a man here can do if he's not familiar with the area they're working in.

7 Q In light of that meeting to make sure if she needed 8 support and so forth and so on, did she give you more or less 9 daily or weekly briefings of what she would be doing out 10 there?

11 A Probably closer to weekly.

Q Did you under -- in light of being the manager, what did you understand her responsibilities to be out there in the excavation area? And I'm talking to prior it being unearthed -- the tanks.

Carol was the Manager of Environmental, she was 16 A supposed to look at things like taking some soil samples for 17 hexane for Oklahoma Water Resources Board. She was the one 18 that had come up with the regulations and making sure we were 19 doing right as far as unearthing the tanks and making sure we 20 were following the regulations as to what had to be done. 21 She was, like I said, the subject matter expert on the 22 regulations as far as what we were doing. She was the one 23 that was working with Engineering and Mr. Graves on doing the 24 25 job.

You've brought up an interesting comment for me 1 0 here, Mr. Nichols. She's in the environmental area, which is 2 normally considered outside the restricted area. Why is she 3 inside the restricted area all of a sudden doing 4 environmental duties? 5 Where -- I guess your term "normally outside the A 6 restricted area" I question. 7 Well she herself has indicated to me that her 0 8 normal duties involve monitoring environmental and 9 specifically groundwater levels to ensure that there's been 10 no off-site removal --11 A But if you're going historically up to this point, 12 you're right. 13 Well sir, remember I prefaced the fact that the 14 0 time frame we're discussing here now -- you know, that we 15 were discussing January 1990 through about August 1990, and 16 everything we discuss is prefaced in that time frame. And at 17 that time frame, my understanding was that was her major 18 duties, that was her area of expertise, as you have so 19 indicated to me. And all of a sudden, she is brought 20 internally inside the facility to be responsible for 21 conducting certain duties involving a restricted area action. 22 A I did not make that decision to have her do that, 23 that was prior to her coming to work for me that she started 24 working underground storage tank regulations. 25

1 Q Did you condone them or approve them or agree with 2 them?

A I don't disagree with them, she had a project she was working on that makes sense.

Q All right, sir. Then my question kind of back to you is she was doing this with your full knowledge and she was advising you of what she was doing in this area, and you kind of indicated weekly to me.

A Yes, sir.

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10 Q I believe I asked you what she was doing and you 11 mentioned taking hexane samples and one thing and another... 12 A Yes, this was from our prior discussion we talked 13 about t his.

Q Right. Now knowing that you have been receiving some sort of perhaps weekly, and I realize probally not every week, maybe twice a week, I'm not trying to pin you down that everything was done on a weekly basis. But at least your indications are that some time on a weekly basis you were cognizant of her duties and cognizant of her actions that was going on in reference to this SX excavation area.

Did she indicate to you, prior to these tanks being unearthed, that she had had contact with the Oklahoma Water Resources Board and in particular the Oklahoma Water Resources Board had informed her that there was a delineation of jurisdiction between NRC and the Oklahoma Water Resources

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Board in relationship to these two tanks?

A I'm trying to think back, Larry. There were some 2 discussions back last summer about the OWRB and things they 3 wanted to see as far as the soil testing for hexane and 4 everything, to make sure it hadn't leaked. And all I can 5 tell you is that she had told me that we were going to have 6 to test the soil for hexane, the Oklahoma Water Resources 7 Board was concerned about that. And to me that was the 8 emphasis for us doing the tank work, et cetera, that and what 9 they call the underground storage tank regulations. 10 Q Okay, Mike, my question to you was did she tell-you 11 there was a difference of jurisdiction regarding the two 12 tanks; one being under the jurisdiction of the NRC --13 A NO. 14 Q -- and one being under the jurisdiction of Oklahoma 15 Water Resources Board. 16 A No, I don't remember that. 17 So as far as you understood from Carolyn Couch, the 18 0 entire excavation was under the jurisdiction of the OWRB. 19 I'm not even sure you can say that, Larry. I know A 20 the OWRB had certain requirements. 21 Mike, I'm talking about the NRC and the OWRB. 0 22 I understand, but you're asking me something that 23 A I'm not sure I can give you an answer to because to say that 24 I knew for a fact that the OWRB had the only jurisdiction; 25

no, because I don't consider that to ever be the fact, the NRC has inside the restricted area always jurisdiction over what we're doing.

Q Okay, I understand, Mike. I'm going to
characterize your answer as this then, you're telling me you
didn't know the NRC had any jurisdiction concerning these two
tanks prior to excavation. That's my specific question to
you by asking you your knowledge.

9 MR. SHAPIRO: Well other than the fact that the NRC 10 always has jurisdiction over everything in the restricted 11 area --

THE WITNESS: That's my feeling, they always do. 12 MR. SHAPIRO: -- I think is what he's saying --13 MR. CHAPMAN: I don't argue that with you and I 14 don't argue with Mr. Shapiro. I mean, that's a given that 15 this is a facility that's under the NRC's jurisdiction. But 16 during our previous discussions, not one time have you ever 17 said the NRC should be notified on this matter because it 18 never occurred to anyone. 19

20 BY MR. CHAPMAN:

21 Q And my question is now you're telling me you know 22 the NRC has some jurisdiction, I'm trying to establish, Mike, 23 what our specific knowledge and relationship to these tanks 24 were and if you were specifically told that the OWRB had 25 informed Carolyn Couch that one tank belonged under the NRC's

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A No, I did not know that.

3 Q And then my question to follow up on that was did 4 Carolyn not tell you this?

A No.

Q Okay, that was what I was trying to establish, what Carolyn had done as far as any of these weekly briefings or such.

Now as we all know, and it's well documented and 9 you alluded to it a few moments ago, the whole project on 10 unearthing the tanks was as a result of underground storage 11 regulations of the Environmental Protection Agency which in 12 turn were delegated down, as far as the hexane side of this 13 matter, to the OWRB for on-site enforcement, we'll say. In 14 other words, their people were the ones to be on site to 15 ensure that certain testing and certain visual inspections 16 17 were done.

Now did Ms. Couch ever indicate to you that she felt the NRC should come out and see this excavation as it's being done, at the time it's being done?

21 A Did she indicate to me --

22 Q She felt like there was a need to notify the NRC of 23 the unearthing.

A Did she tell me? No, I think it was discussed in the meeting or something, whether she -- did she specifically

come up and tell me this. No. It wasn't any big deal, the 1 NRC I would think would know about it. They come out for 2 inspections and -- we weren't trying to hide anything. 3 Q Well, sir, I don't disagree that the NRC shows up, 4 but in this particular instance, I want to know if Carolyn --5 and you've indicated there was some sort of a meeting. Now 6 I want you to nail that down for me, is that a staff meeting, 7 a departmental meeting? 8 You're asking me to think six-eight months back, I 9 A can't remember as far as -- I know we had a discussion or 10 something about it being unearthed, et cetera. 11 I'm sorry, sir? 12 0 A We had a discussion as far as the tanks being 13 unearthed or the project going on, et cetera. As far as 14 bringing it to an inspector, I cannot sit there and say I 15 told it to a certain inspector at a certain time. But I had 16 a general knowledge that they're aware of it. 17 Q ist's back up and go over this one more time, Mike. 18 Okay. 19 A My question basically was did Carolyn ever indicate 20 0 to you -- Carolyn Couch -- that -- did she express to you 21 personally -- and then we'll ask about the meeting -- the 22 fact that she felt the NRC should be notified of the 23 unearthing of these tanks? 24 A I can't remember. 25

Q All right, sir. Then you indicated that you may have heard it in some meeting. Now my question to you was do you recall if it was a departmental meeting within the Health, Safety and Environment, as it was known as that time, or did you hear that at some general meeting?

A I can't tell you, Larry, if there was two people or ten people there. I just remember we were talking about it and the things we were going to have to do, et cetera.

9 Q Can you even establish in your mind if it occurred 10 prior to the excavation or if it was while it was going on? 11 And let me preface one other thing for you, Mike --

A It had to be prior to, because the NRC was aware of it when we first started, they were here that first week.

Q How do you make a statement they were aware of it when you first started because they were here, because they didn't show up until the 6th and the unearthing started on the first.

18 A Well I say within the first week, it was shortly 19 afterwards that they were here.

Q That's undisputable, we all know the NRC showed up. But that doesn't indicate the NRC showed up simply because they knew that the tank -- in fact, I believe, Mike, you've indicated to me that there was some surprise to Mr. Blair Spitzberg and Mr. Mike Vazquez, the inspectors, when they first learned of this in an entrance meeting on the 6th. So

if you're going to make some statements that the NRC knew 1 ahead of time, you're going to put me in a position of having 2 to find out exactly why you make those statements. 3 I'm not sure they knew ahead of time. A 4 MR. SHAPIRO: I'm not sur be said they knew ahead 5 of time. 6 MR. CHAPMAN: Yeah, he did. That's what he said, 7 they knew ahead of time, they showed up for an inspection, 8 and that's not the case. 9 THE WITNESS: No, and that's not what I meant, 10 Larry. I think what I was trying to say -- I'm not sure if I 11 said it -- was I remember thinking about, talking about the 12 NRC is going to be looking at this and we're going to have to 13 do some other things -- now it may have been two people, it 14 may have been 15, it may have been me and one of my 15 supervisors, but you're asking me -- that's seven-eight 16 months ago, Larry, and I just can't come up with exact dates 17 and details and --18 MR. SHAPIRO: Let me interject one question, if I 19

20 may. We've talked in some of our other discussions about 21 pre-planning meetings and a group of people that met to 22 discuss this project. Were you in that group, do you 23 remember, Mike?

THE WITNESS: I don't remember. I remember -- and that may have been that it was brought up in something like

1 that sometime.

THE REPORTER: Excuse me, I didn't understand you -- that may have been --

4 THE WITNESS: It may have been mentioned or 5 something at some time or other.

6 BY MR. CHAPMAN:

7 Q Now if I understand Mr. Shapiro's question a few 8 minutes ago -- a few seconds ago -- he asked you about pre-9 planning meetings. I think he asked you did you attend any 10 of these meetings. Is that correct?

MR. SHAPIRO: Well my impression was that there-was a group of people which included people from Engineering and Carol -- you know, I'm just trying to ascertain --

14 MR. CHAPMAN: I agree with you.

THE WITNESS: It may have been one of those that I was at, I just don't remember, Larry. I mean this was back last summer, and that could very well have been what I'm talking about as far as pre-planning. It could have been that it was brought up at one of the meetings and that's what I'm trying to think of.

21 BY MR. CHAPMAN:

Q Your understanding of the NRC's jurisdiction might have been brought up at one of these meetings, that they had a jurisdictional matter with specific relationship to these tanks? I don't want you to lose sight of what the question

was.

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2	A I understand we're talking about jurisdiction
3	and it's completely out in left field to me. I mean, I never
4	understood that the NRC to me, what you're saying is very
5	foreign, the NRC, as far as I'm concerned, has jurisdiction
6	over anything in the restricted area. And I don't ever
7	remember discussing anything with anybody that this tank
8	belongs to OWRB and this tank belongs to NRC.
9	Q Okay, that was my question.
10	A Okay.
11	Q Now Mr. Nichols, we discussed this also previously
12	to the best of your recollection, once the excavation
13	began, and I understand that Engineering had the lead for
14	doing the physical work necessary to unearth them, do you
15	recall anyone from Engineering, specifically Bob Kiehn and/or
16	Sam Fryer, or anyone from Operations such as Jim Mestepey,
17	coming to you and discussing the possibility of finding any
18	type of contamination, either in soil and/or any other form
19	prior to the unearthing of these tanks?
20	THE WITNESS: Could I speak to you for a moment?
21	MR. SHAPIRO: Sure.
22	MR. CHAPMAN: We'd like to go off the record so
23	that Mr. Nichols can speak to his attorney.
24	(A short recess was taken.)
25	THE WITNESS: Your question was prior to you

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said after the excavation began but prior to the tanks being 1 2 unearthed. MR. CHAPMAN: I'll correct my question. 3 THE WITNESS: That's what threw me. 4 MR. CHAPMAN: Okay, sir. The question is going to 5 be a two-parter, and I'll break it for you if you need me to. 6 BY MR. CHAPMAN: 7 Q Prior to the excavation of these tanks, do you know 8 of any one of these three gentlemen I mentioned previously, 9 coming to you and expressing a knowledge or discussing with 10 you the possibility of discovery of contamination in this-11 area. And if you need me to give you specifics; soil, water, 12 that's an all-encompassing question. 13 It is pretty broad. As far as contamination, it 14 A was no secret that that's a restricted area and there was 15

16 contamination out there. As far as somebody coming to me and 17 saying we're going to find large amounts down there or we did 18 find -- no.

Q Okay, Mike, you qualified your statement by saying large amounts. I didn't ask you large amounts. I asked you if it was going to be a known that there could be the possibility of contamination.

A Of course, that's the restricted area, there's a
 possibility there's always contamination somewhere.

25 Q Did either of these three gentlemen come and

1 discuss it with you?

A I do not remember that, no. I'm not saying that -3 I just don't remember.

Q After the excavation began, did any one of these three gentlemen come and discuss with you the fact that they were finding contamination in that area, early in the excavation but prior to the NRC's visit of August 6?

A No, sir.

8

9

Q None of the three?

10 A I'm trying to think back, as far as contamination. 11 (Pause.) That would have to be between the 1st and the 6th, 12 is what you're saying.

Q Well Mike, I limited it to that because I wanted to find out how early on that you knew about the -- you said it's a known there's contamination. Now I'm trying to determine if you held discussions with any of the project people or the operations people.

MR. SHAPIRO: Well instead of -- possibly instead of asking it that way, maybe you could ask how he first found out about contamination. You know, whether it was from his staff, whether it was from Carol.

MR. CHAPMAN: Of course, it'd be much easier, Mike, if you know anything about the subject, if you'd just bring it up, rather than us having to do this.

25 THE WITNESS: The first I heard of any

contamination was -- and it's in my earlier report -- was 1 when we peeled back the rock. And we discussed that at 2 length in my earlier thing. Carol had said something to me 3 about finding some on top and we had gone out there and we 4 had picked that up and put it in a bucket. 5 BY MR. CHAPMAN: 6 Q When was that, Mike? 7 I'd have to refer to that, I don't have the exact A 8 date. 9 Q Do you recall if it was prior to NRC's visit? And 10 I'll go on record to say I'm not trying to in you down to a 11 specific date. 12 A Yes, it was, it was prior to the NRC visit. 13 The NRC visit by Mr. Spitzberg and Mr. Vazquez? 14 0 Yes. A 15 So sometime between the 1st and the 6th is when 0 16 this contaminated rock was discovered. 17 Yes. A 18 Now I think there's even been some misunderstanding 19 0 of what contaminated rock meant. You're speaking of a gravel 20 that had some sort of contamination adhered to it, rather 21 than chunks of solid uranium being discovered. 22 A No, I'm speaking of -- and I think it's in my other 23 report -- that Carol came to me and said that they had found 24 -- as they peeled the rock back, the gravel coating, they had 25

1 found some chunks of it.

2	Q Chunks of yellow cake?
3	A It was probably it was rock that had yellow cake
4	absorbed to it, those kind of things, or it was not the
5	gravel, contaminated gravel, it was actually larger pieces
6	lecause I went out there and inspected them myself. It was
7	not a solid piece of yellow cake, but it was a rock or
8	something that had a coating on it.
9	Q Okay.
10	A That's when I first Mr. Kiehn nor Mr. Fryer nor
11	Mr. Mestepey told me about that.
12	Q Ms. Couch told you about it?
13	A Ms. Couch told me about that.
14	Q What was your action upon discovering this
15	contaminated rock?
16	A I think it's in here
17	Q Well if you need to refer to this, you certainly
18	may, but I'm trying to understand also in light of all the
19	activities taking place, Mr. Nichols, a chance to get any of
20	the information as up to date as we can.
21	A Without referring to my notes, I think what we did
22	is we called Tommy Johns, got ahold of Tommy Johns and asked
23	him to clean it up.
24	Q Okay, I'm not so much concerned with who you asked
25	to clean it up, but the fact that you took action to see that

1	it was cleaned up.
2	A Yes, sir, picked up and put in a bucket.
3	Q In a bucket, so there may have been what size
4	bucket, small volume?
5	A Couple gallon bucket.
6	Q Couple gallon, a gallon, two gallons, somewhere in
7	that vicinity?
8	A Somewhere in that vicinity.
9	Q Now Mr. Nichols, did you at any time after you took
10	action on this discovery of contaminated rock, find any other
11	solid contaminants out there that you took some action on or
12	was brought to your attention and you required action?
13	A Solids? I think there was one other time I walked
14	out there and found a few more pieces and talked to the
15	workers out there and had them pick them up. I did another
16	inspection.
17	Q Were the tanks already in the process of being
18	unearthed at this time?
19	A Yes, sir.
20	Q Now Mr. Nichols, when was the first time that you
21	recall observing water in the bottom of the excavation or
22	water in the excavation?
23	A I think it's when we busted the sewer line.
24	Q Busted the sewer line. Do you know the date when
25	you busted the sewer line? When you say you, I assume

A I did not bust the sewer line, no, sir. The line 1 2 was broke. The line was broke by the contract personnel. 3 0 A Yeah, and there was water that went down into the 4 pit. 5 Do you remember the date of that? 6 0 No, but it's in here I'm sure. I'd say it was very 7 A early on. 8 Would you agree the 4th of August? 0 9 I'u say about the 4th. Was Saturday the 4th? 10 A MR. SHAPIRO: Can we agree to that? Because it was 11 12 the 4th. MR. CHAPMAN: Yeah, it was the 4th of August. 13 BY MR. CHAPMAN: 14 Q That's the first time you recall ever seeing any 15 water in the excavation itself? 16 Yes, sir. 17 A Did you make any inquiries upon observing that as 18 0 to it's -- you said it come from the sewer line -- did you . 19 make any inquiries as to if that was all the water or if the 20 water in the pit was all from the sewer line? 21 A It was -- to me it was obvious that it was because 22 you could see where it had run down on the north side, come 23 out of the line and run down there. 24 Q Since the excavation at the time the sewer line was 25

broke, I think it's pretty much also a given that they had 1 reached the lower limits of their excavation of some 17 feet 2 or so. 3 It had ran down there. A 4 Did you happen to notice that the walls of this 5 0 excavation had yellow streaks in the walls? 6 No, sir, I did not. I've heard that several times. A 7 How often were you out by this excavation area? 0 8 The first week not a whole lot, I had a brand new 9 A inspector in -- I had an inspector that it was his last trip 10 and I spent most of --11 An NRC inspector? 12 0 A NRC inspectors. I spent my whole week going over a 13 DUF-4 incident that happened on the 3rd and trying to bring 14 this inspector up to speed what's expected of him. 15 Q Trying to bring up to speed what's expected of the 16 inspector? 17 A Sir, 1 say what's expected of him, maybe that's the 18 wrong choice of words -- I was trying to bring him up to 19 speed, give him a tour of the DU-4 facility, teach him 20 calculations, he had never worked them before because it's a 21 different animal, he had no experience at this facility. We 22 spent days in my office and we did take a couple of trips out 23 to the SX pit, Mr. Vazquez and I both did. 24 Q That would be the week of the 6th through the 10th 25

1 you're referencing here?

1.		

A Yes, sir.

Q I'm sorry, I missed what the calculations were
 4 y'all were doing.

5 A These are -- on the incident that happened on the 6 3rd in DU-4 facility, you have to calculate the airborne 7 releases and everything and calculate the amounts that have 8 gone out. Mr. Vazquez was an inexperienced inspector when it 9 came to this type facility, and I was showing him our 10 procedures, what we did, et cetera, et cetera, et cetera.

11 Q As the Manager of Health, Safety and Environment, 12 how did you satisfy yourself or ensure yourself that proper 13 health and safety measures were being conducted out there at 14 the excavation area in relationship to a prior admission that 15 you knew there were contaminants out there, that there were 16 radiological protections being taken?

17 A Well we had -- I had put my only supervisor out 18 there to watch it quite a bit. I had put my HP supervisor 19 out there to watch it.

20

Q Who is?

A Mr. Ken Simeroth. And we had placed a technician out there, not full time, but a large part of the time to be there, just to survey things coming in and out of the hole and to watch.

25 Q Did you give Mr. Simeroth any instructions as to in

light of the known contaminants, to be acutely aware of the possibility of --

A We had talked about taking air samples and surveying things in and out, normal health physics precautions.

Q Air samples and surveying things -- surveying
things encompasses what, Mr. Nichols?

A People that are coming out, forms, checking to make sure that you're following not just health physics rules but industrial safety rules. As you remember, we had a hell of a hexane problem at the time out there. That was a situation that was very touch and go, and we were checking the dirt as it was coming out. And I'll have to admit, seeing this dirt coming out, I saw no yellow streaks as you point out.

Q No yellow streaks in the dirt as it come out? No, my question to you was yellow streaks in the walls that were remaining after the excavation, while you were out there.

A No. In fact, we still had two sides uncovered when your NRC people came in and there were no yellow streaks. We found one spot under the SX building about two-three feet long, up underneath, that Mr. Vazguez pointed out.

22

25

Q Found what?

A Looked like yellow cake. Besides that, as far as I
 know, that's all we found in the two remaining walls.

Q That you and Mr. Vazquez found that day.

Yes. And if there had been any, that would be the A 1 place I would think it would be if it were leaking from the 2 building, because this was the wall that was directly 3 underneath the building and the wall to the west of it, and 4 there were no yellow streaks in it. We found the one 5 underneath it and I was surprised to see rocks and, Larry, it 6 could have been there three or four days, it may not have 7 It was at a place where the dirt was caving in at the 8 been. time. But we had Mr. Vazquez in and we had several other 9 people in there. There were no yellow streaks at that time 10 on either one of those walls. I've heard this several times 11 and when you did your inspection, whenever we brought in 12 several other inspectors, there were none there. 13

Q Some of these pictures that Mr. Mestepey provided me when I came in showing these yellow streaks, they don't exist?

17 A What pictures are we talking about, Larry?
18 Q The ones that were in the conference room.
19 A Are you sure those are yellow cake or clay, or
20 what?

Q They were represented to me by Mr. Mestepey as pictures of the excavation area, which I took them to be face value, I didn't go out and rephotograph anything. And I guess my question to you, Mr. Nichols, is you're telling me you never saw the streaks and yet now the Senior Vice

1 President hands me photographs.

2	A Larry, I looked at those photographs myself and it
3	may be yellow cake, but I didn't see it as that.
4	Q I didn't ask you if it was yellow cake, Mike, I
5	asked you if you saw yellow streaks out there.
6	A Yellow streaks could be clay.
7	Q Mike, I didn't ask you what it could be. My
8	question to you is did you see yellow streaks.
9	A No.
10	Q No. Good. Now stick with my guestion, Mike, don't
11	go off to me on the left side there and try to give me what
12	your analysis of what dirt can be. Listen to my questions
13	and answer them.
14	A Our surveys didn't show that either.
15	Q Your surveys didn't show there were yellow streaks?
16	A We found one spot in the corner that read about 6
17	MR. Besides that, no.
18	Q What did your survey show, what are you referencing
19	here?
20	A We took a survey meter down there at the insistence
21	of Mr. Vazquez, and surveyed the two walls that were left.
22	Q What type of survey meter?
23	A An alpha survey meter, which will pick up uranium.
24	Q An Alpha survey meter. Did you take the alpha
25	meter at Mr. Vazquez' request or did you take the alpha meter

1	at your own request?
2	A We took it at his request.
3	Q He specifically requested you take an alpha meter?
4	A He requested that we take a meter. We took an
5	alpha meter and we took an ion chamber, both.
6	Q Okay. Now let me back up and make sure I
7	understand you. We've gone from the fact you never saw
8	yellow streaks to now you're down in the pit with Mr. Vazquez
9	and you're taking sampling or radiation sampling or surveys
10	of yellow streaks?
11	A No, sir, that's not what I said.
12	Q Okay, get the record clear for me.
13	MR. SHAPIRO: Well it hasn't been that unclear. I
14	nean, you said you were going to at Mr. Vazquez'
15	suggestion or request, you were going to do a survey of the
16	walls of the pit.
17	THE WITNESS: Yes, sir.
18	BY MR. CHAPMAN:
19	Q I guess the question I have for you is why are you
20	going down there to survey the walls? There must be some
21	reason for Mr. Vazquez to make this request? What prompted
22	his curiosity?
23	A I suggest you ask him that. I cannot you're
24	asking me to ask him we went down and did another survey,
25	we found one spot in the corner that read about 6 MR contact.

MR. SHAPIRO: Well that's a possible answer. His 1 interest in the walls came after you had seen the spot with 2 him? 3 THE WITNESS: Uh-huh. 4 MR. SHAPIRO: So he might have been responding to 5 that? 6 THE WITNESS: Uh-huh. He requested that we take 7 one, so we did. 8 BY MR. CHAPMAN: 9 Well we've lost sync here somewhere, Mike. 0 10 I don't mean to. Let's back up --A 11 Let's back up here -- you know, my lead question 12 0 was did you ever see yellow streaks in the walls and your 13 answer is no. 14 A No, sir, I did not. 15 Never did. And then you said sometime, if I 16 0 understand, you and Mr. Vazquez were down in the pit, I 17 assume, itself, and you looked up underneath the wall that's 18 the SX building and you saw solid yellow cake. 19 Yes, sir. A 20 How far up the wall? I mean is the pit dug by now? 21 0 This was directly underneath the building. A 22 Can you touch it -- I'm trying to get an idea how 0 23 deep you are in the pit? 24 It would be very hard to reach up and touch it, so A 25

to speak, it was a little higher than that. To get to it, it 1 would take a ladder, for example, to get up there to do that. 2 We saw that when he was down there with us inspecting it. 3 Q Okay. As a result of that, are you saying that you 4 and Mr. Vazquez took a meter to survey that area? I'm a 5 little lost here as to when you and Mr. Vazguez showed up, 6 what you were surveying and what prompted you to be there. 7 We were surveying it --A -8 Surveying what, Mike? 9 0 The pit, surveying the it and the walls, to see if 10 A there were any yellow cake, et cetera, in the soil. Okay?-11 Do you feel as a result of your observation of this 12 0 up here, that this is why you were both in the excavation 13 making surveys? Knowing that you don't want to let Mr. 14 Vazquez lead you by the nose out there to take surveys, he 15 would probably have explained and you would have inquired, 16 Mike, they had the survey -- Mike Vazquez -- whatever you 17 wish to survey. 18 That's exactly what happened. 19 A What do you want to survey and what do you need out 20 Q of it. 21 And that's what he told us, told us to survey the 22 A walls, and we did that. 23 And he was looking for what? 24 0 Looking to see if there was any contamination on 25 A

the walls that you could read with the meter. If there was yellow cake, streaks, et cetera, you would have been able to find that with the meter.

4 Q And you're telling me that you reached a maximum of 5 6 ---

6 A There was one spot in the corner that Rick found 7 that read about 6 MR per hour.

Q Who found?

9 A Rick Callahan.

8

Q Rick Callahan, so now we have Rick Callahan. How many people was down in the pit, Mr. Nichols, making surveys with Mr. Vazquez, and were you present during the surveys?

13 A No, I was not.

Q So you weren't present during the surveys. Okay. Now let's get things settled down here. You're giving the data and information that you supposedly knew and yet now you're telling me you're not present.

18 A That's true.

19 Q Who was present in the pit, who did the surveys, 20 how do you know the results?

A Mike and I went down there and looked around, Mike came in and asked us to survey the pit.

23 Q Mike Vazquez?

A Mike Vazquez. So then I had technicians go and do a survey of the walls, to see what was there.

Yes, sir, and you were not present at that survey? 1 0 No, sir. 2 A And now you gave me a value. How do you know 0 3 that's the value and how do you know where it was surveyed? 4 I saw the survey form. A 5 Saw the survey form. 6 0 And Mr. Vazquez saw the same survey form. We did 7 A it just to show that there was not a problem down there. 8 So now did that survey form identify the specific 0 9 area of the survey? 10 Yes, sir. In fact I even questioned Rick about the 11 A 12 survey. All right, and not belaboring an issue here, 13 0 believe me, are you -- do you feel that they surveyed only 14 one area at Mr. Vazquez' request or -- I guess I'm trying to 15 understand now, Mike, the broad answers you're giving me 16 about I didn't see this, we didn't have any indication of 17 this. I'm not sure that you're qualified to answer this 18 question because you can't really tell me what was surveyed 19 and where it was surveyed. I want you to answer me what you 20 know personally. 21 Okay, what I know -- what I know personally is that 22 A Mike and I went down there and we were down there with -- I 23 think Mr. Knowinski was with us at the same time, four or 24 five people went down there. We were down there and Mike

25

- noticed a spot under the building.
- 2 Q Mike Vazquez.
- 3 A Vazquez.

4 Q Yes, sir, I think we've established that.

A Okay, and then Mike asked that we get a survey of it, so that's what we did, we went down and surveyed the two walls that were left.

8 Q Two walls being left being where?

9 A Open. The wall that was under the north wall of 10 the SX building, the pit wall is what I'm talking about.

11 Q Well in relationship to north, south, east and west 12 of the excavation, see if you can identify the walls.

13 A It would have been the north wall of the SX 14 building. Okay? It would have been the south wall of the 15 excavation pit.

16 Q All right, sir.

A We surveyed the wall, the west all of the
 excavation pit.

19 Q Right. Now do you know when that occurred, since 20 you saw a survey?

21 A I don't have an exact date, no, I can't remember 22 that.

23 Q Obviously it had to be during the week of the 6th 24 to the 10th, that's when Mr. Vazquez was present?

25 A Right.

Q Now in your dealings down in the pit with Mr. 1 Vazquez, did you observe any water in the bottom of the 2 excavation? 3

When Mr. Vazquez was down in the water with me, no. A 4 Wait a minute, Mike. I asked you did you observe 5 0 water and you can't say when he was down in the water with 6 me, you didn't see any. 7

The day that Mr. Knowinski, Mr. Vazquez and A 8 everybody else was down there, there was not any water in the 9 pit that day because we walked around down in there guite 10 extensively. 11

0 12

Was it dry?

If there wasn't any water; yes, sir, it was dry. 13 Α Q It could be muddy. 14

We were walking on rock at the time. 15 A

Walking on rock down in the bottom of the it? Q 16

Uh-huh. They had put in some of this gravel, et 17 A cetera, for the french drain, that's what we were walking on 18 at the time. 19

Mike, I think you're becoming confused a tad here 20 0 on the dates and time, sir, and I want you to stop and think 21 about this a minute. 22

23 A Okay.

The french drain was not even being established 0 24 until after the stem walls were poured on the excavation. 25

The stem walls were poured sometime around the 17th. 1 2 A I thought that's what we were talking about. No, Mike. We have been discussing for some length 0 3 here your visit -- you brought up the subject of some surveys 4 being taken in the SX excavation pit. And the best I can 5 glean out of what is a somewhat lengthy drawing of 6 information has been, is that Mr. Vazquez and now Mr. 7 Knowinski and now Rick Callahan, were down in the pit at the 8 result of you and Mr. Vazquez having looked up during his 9 visit the 6th to the 10th --10 No, no, no, wrong time frame. 11 A MR. SHAPIRO: Well I to some extent share Mr. 12 Chapman's confusion, but Mike, there's a couple of time 13 periods here. The question is, is this not in the week of 14 the 6th to the 10th? 15 THE WITNESS: No, this was in the week --16 MR. CHAPMAN: Don't be crossing weeks with me, 17 Mike. I specifically left you in this time frame, the 6th to 18 the 10th in discussing that. 19 THE WITNESS: I'm sorry, the 6th to the 10th, he 20 and I went out there, we never went in the pit. 21 BY MR. CHAPMAN: 22 Q Now I'm going to ask you a couple of questions 23 again and I'm going to preface them with the fact that Mr. 24 Vazquez and Mr. Spitzberg came to the facility, for your 25

information, and Mr. Shapiro I think will agree with me, they 1 made their visit unannounced -- you need to know this -- on 2 the morning of the 6th of August. And they were here for a 3 week and I believe they left on the 10th, I'm not exactly 4 certain of that. 5 A They left on Friday. 6 Q On Friday the 10th. Now one of the questions I 7 asked you was, that started this whole view down this road, 8 was about what your observations in the pit were. 9 A During that week? 10 Yes. And you started, somewhere down the road, --11 0 flowing across this time line. 12 A I'm sorry. 13 Let's see if I can remember all the information I 0 14 sought to elicit from you. I believe we're on record as 15 saying here, Mr. Nichols, that -- and we'll limit it right 16 now to this period of time, between the 6th and the 10th, you 17 never observed any yellow streaks in the walls of the 18 excavation area. 19 No, sir. A 20 During -- we'll keep it in this week now. 21 0 A During this week. 22 All right, sir. And then I believe that I also 23 0

25 this week, did you observe any water in the excavation,

24

inquired of you to some degree, during this period of time,

excluding your reference to the sewer pit on the 4th.

A No. In fact, the times I went out there was usually with Mike and your Mr. Driscoll told me in the last interview that Bob Kiehn was coming at 4:00 in the morning and pumping the water out before the workers came to work. I was unaware of that. There's no way in the world I would have seen it.

8 Q Well now if you want to get into that avenue, which 9 I haven't got to yet, we'll talk about barrels. But I'm 10 trying to establish your personal knowledge first of all.

MR. SHAPIRO: The first answer though is you didm't see any water that week except on the 4th when that sewer line broke, as far as you can recollect?

14 THE WITNESS: There was a problem of the safety 15 shower leaking on one side.

16 BY MR. CHAPMAN:

1

If you want me to make this an all-encompassing 17 0 question, Mike -- for whatever reasons, showers breaking, 18 sewers breaking, floods occurring or whatever -- during the 19 period of time, the 6th through the 10th, I'm trying to take 20 you through this on a weekly basis, to make it somewhat of a 21 compressed scheduled for you so you'll have something to 22 reference -- do you recall seeing water in the excavation 23 pit? 24

25 A Yes.

1	Q Yes? So we've gone from no to yes?
2	A What do you mean no to yes?
3	Q Well you told me earlier no, I've never seen any
4	water. Now we're down to yes, I've seen water, Mike.
5	A Well I thought you prefaced that was the sewer
6	water and everything that was in there.
7	MR. SHAPIRO: Well he always said that he saw water
8	on the 4th.
9	MR. CHAPMAN: Granted. I granted you that.
10	MR. SHAPIRO: The next question was did you see
11	water besides that.
12	MR. CHAPMAN: I even specified for you, Mike, a
13	Monday through a Friday.
14	THE WITNESS: Let me give you a statement, maybe I
15	can solve the problem. Okay.
16	MR. CHAPMAN: I'd be most delighted.
17	THE WITNESS: With the exception of the sewer
18	water, okay, and we had a shower leaking on the north it
19	would have been the southwest corner, okay I do not
20	remember seeing any water during that week that I didn't
21	attribute to one of those two items. You're asking me to
22	think back six or seven months now but I saw nothing to
23	alarm me of anything unusual or that would be a problem.
24	BY MR. CHAPMAN:
25	Q In connection with that then, the water you

observed, by your statement now -- you never observed any water that would give you any concern, that you observed during this week -- you just said that to me. You're looking reflective and pensive here. Are you trying to say -- do you want to change that or do you want me to keep on with my guestions?

A Well I'm trying to think back. Okay?
Q This is not exactly a new subject, Mike. We've
been over this to some degree for several days. I'm not here

to take this testimony and twist it, I'm trying to get it
 down into an exact format because it has been somewhat - disjointed. So my purpose is to try to flow it together.

13 A But you're asking me to come up with specific dates 14 that I saw things from seven-eight months ago, and I can't do 15 that. I can't think back in generalities.

Q Okay -- all right, Mike, I'll ask you this simple question. During the time that this pit was open between the first of August and the 22nd reporting to NRC, did you ever observe yellow water in the excavation?

20

7

8

9

A The 22nd -- no, sir.

Q Never saw yellow water between the first of August and the 22nd of August, and you were down in that pit -- and just so we have information here for the record, you told me in previous testimony that you were by that pit frequently.

25

A Yes, sir.

And looked over in the pit. 0 1 Yes, sir. 2 A And now for the record, so that I understand your 3 0 answer, between the first of August, 1990 to the 22nd of 4 August reporting to the NRC, if that'll help, you never 5 observed yellow water in that pit? 6 The -- according to my testimony before --A 7 I didn't ask you that, Mike, I asked you this 0 8 question right now. 9 I know what you asked me. A 10 Okay, well then give me an answer. 11 0 The first time I saw it was after the walls were A 12 poured, now if the walls were poured on the 21st, I could be 13 -- if they were poured on the 23rd, yes, your answer is 14 right, the first time I saw yellow water. To the best of my 15 16 knowledge --Q Okay, I'll put it for you in a much simpler 17 fashion. When is the first time you saw yellow water, Mike? 18 A It was after the walls were poured, it was in the 19 north or southwest corner, there was a spot probably three or 20 four feet across of some yellow water that I remember seeing 21 then. 22 Q For the record, the walls we're speaking about are 23 the walls that go up, that actually make a --24 Concrete wall. A 25

1 Q Those walls were poured on the 17th of August.

A Okay.

2

Q Now if that helps you get a date reference, I'll be
qlad to give you that.

5 A It does.

Q I don't think that's without question that the 6 walls were poured on the 17th. And that gives you a --7 that's a Friday. That gives you Saturday, the 18th, Sunday, 8 the 19th, Monday, the 20th, Tuesday, the 21st and of course 9 Wednesday is the date it was reported to the NRC. And you 10 feel very confident now that your first observation of any-11 yellow water in that excavation was around the 17th of 12 August? 13

A I said it was after the walls were poured sir.
Q Within that five day time frame then, Mike.
A No, I don't know that. It was after the walls were
poured.

18 Q Okay, was it before the hole was finished and 19 covered up?

20 A Yes, sir.

Q Okay, so we can now establish the date that the hole was covered up, and we know it was in between that time frame.

24 A Yes, sir.

25 Q The NRC made an AIT visit out here -- I mean, Mike,

if I have to pull these dates out of you and start giving you 1 calendar dates, I will. You know as well as I do, you've 2 been here as long as I've been around here practically --3 I've almost become a fixture here -- you know the dates that 4 the AIT showed up, you know the date Mike Vazquez showed up, 5 you know the date the hydrologist, Gary Knowinski, was here 6 and you know Knowinski didn't show up until sometime around 7 the latter part of August. 8

9

A Uh-huh.

MR. SHAPIRO: Well I would be inclined to agree with you that he spends as much time around here as you dor but I'm not sure he spends as much time with these specific dates and this investigation. One of the -- I mean I think he should answer as well as he can, but one of the reasons that he goes back to this transcript was that, you know, that was taken a month or so after all this happened. It had some

MR. CHAPMAN: I don't argue that with you, Ira. MR. SHAPIRO: I know, Larry, but the point it he doesn't know the dates the way you know the dates, nor should he be expected to.

22 MR. CHAPMAN: Well I disagree with you, I 100 23 percent disagree with both of you here on the record. 24 THE WITNESS: How am I supposed to know the dates, 25 sir? 1 BY MR. CHAPMAN:

25

Q Mike, sir, this thing has been brought to light for 2 six months, it has been thoroughly discussed with you and the 3 NRC. These dates should well be firm and solidified in your 4 mind insofar as dates of being poured, AIT inspections, the 5 date the excavation has been covered up, the date the 6 excavation began. Mike, there should be no question in your 7 mind on these dates, it has been discussed numerous times. 8 And to tell me now, Mike, that all these dates are suddenly 9 out here floating in the outer planetary spectrum and nebulous -- you've had plenty of time and chance to read this 11 testimony and get your dates down, I afforded you that 12 13 opportunity. A Sir, I had this testimony about 10:00, 10:30 this 14 morning. I was able to go through it one time. 15 Mike, you've had this knowledge for seven months. 16 0 Many of the dates -- yes, I also have another job. 17 A Many of the dates I know but the 4th through -- the 6th 18 through the 10th, they were here, et cetera, I know that. 19 The date of the 23rd or 22nd, whatever it was, I'll never 20 forget that date because that's the date we realized that we 21 really had a problem there. Those kind of dates, yes, sir, I 22 can quote you. But to ask me specific dates, no, sir, I 23 24 cannot.

They may be very familiar to you, okay? But I have

not had the benefit of this testimony. I have not been over
 -- I've read the AIT report, like you said, one time gone
 through it. That was, what, six months ago, seven months
 ago? And to expect me to --

When you went over the AIT report, I don't know. 5 0 That's when they gave it to us, six months or 6 A something. We put that behind us and started on another 7 report. To expect me to remember dates from that, I think is 8 unreasonable. If you want to show me the dates, I'll be glad 9 to go over them for you, but I cannot remember every date and 10 11 every time.

Q Okay, Mike, it's twenty minutes to four and this is March 5. If you so desire, I will terminate this interview, we'll give you ample opportunity to review the chronology of actions out there. I'll give you another opportunity to read this transcript, if you feel that will solidify your information, fine.

18 I do not intend to get on record and argue dates 19 with you.

20

A I don't either.

Q I'm trying to understand when you observed events. And Mr. Nichols, you can tell me that you're having problems understanding dates all you want, but this is not a new subject to you. You have had since September 12 to know that I have had an interest in this and I have been here on

numerous occasions and visited you in the field at certain
times, been over asking you for data and for information
relative to this time frame. To tell me this is new to you no, sir, you're going to have a difficult time convincing
me of that.

But I want to go on record right now, Mike, if you desire additional time before I conduct this interview or continue on with it, you may now have that opportunity to take that intermission and do so. I will not discuss this with you until tomorrow afternoon if you so desire. That is your choice.

12 THE WITNESS: Can I talk to you for a moment? 13 (The witness and Mr. Shapiro confer.)

MR. CHAPMAN: Okay, Mr. Nichols, it's your decision after consultation with Mr. Shapiro that you wish to continue on with the interview.

17 THE WITNESS: Yes, sir, I don't have anything to 18 hide, I'm trying to do the best I can.

MR. CHAPMAN: I didn't indicate you had anything to hide, Mr. Nichols, I just wanted to make sure that you understand.

I want to go back on the record here, which we are, that I'm not here to quibble dates with you, I'm here to ask some questions and try to solicit some information, and I would appreciate the most forthright, straight-forward answers you can give me. If you're lost, if you're unsure of any dates that I've given you or any time frames, please stop me, and I know Mr. Shapiro will, and you're free to stop me at any time and make sure you understand the questions.

MR. SHAPIRO: Just for the record, I think I should 5 note that our discussion revolved around the fact that I 6 7 suggested to Mike that I don't think he's held to know every specific date, but I do think, you know, it's reasonable to 8 expect some specific recollection -- you know, specific 9 10 recollection of actions he took or what he knew at given times, and we'd like to try to proceed and see if we can de-11 12 that.

13 If we run into a situation where that kind of 14 information isn't coming through clearly enough, then 15 probably we would have to discontinue.

 16
 MR. CHAPMAN: Granted. No problem.

 17
 THE WITNESS: Okay.

 18
 MR. CHAPMAN: And Mike, the dates are well

 19
 established.

20 THE WITNESS: It might be better if you told me the 21 date.

22 MR. CHAPMAN: I'll be happy to tell you the date, 23 if everyone agrees the dates are correct. I'll not give you 24 an incorrect date, believe me.

25 THE WITNESS: I don't think you would either.

MR. CHAPMAN: And if a time frame that's more 1 conducive to your recollection is that the excavation was in 2 this stage of completion or period of time, I can even live 3 with those periods of time. 4 THE WITNESS: That's how I can remember, but I 5 can't come up with exactly this happened on this date --6 that's the best I can do. 7 MR. CHAPMAN: I can easily live with that and go 8 along with that, if you will let me know where you are in the 9 time frame. 10 THE WITNESS: Yes, sir, I don't mean to confuse --11 12 you. MR. CHAPMAN: Okay. 13 BY MR. CHAPMAN: 14 Q I'm going to back up a little bit, Mike, and start 15 over here on a couple or three questions, to make sure we've 16 got them. And of specific concern to me and the NRC, 17 obviously, is the yellow water which has now been shown to 18 have some contamination of uranium in it. Do you agree that 19 since all this, it has now been shown that it did have 20 contamination in it? 21 Yes, sir. A 22 And that most people agree that the water down 23 0 there that contained contaminants had some sort of an off-24 color, commonly referred to as yellow in color. 25

A Okay.

1

Q Are you in agreement with those broad generalities?
A Yes, I've heard this before.

Q Okay, sir. Now when I ask you a question such as I asked you a few moments ago, of when did you first observe yellow water, if you would please tell me to the best of your recollection when you first observed yellow water in that SX area that's in question.

9 A When I first observed yellow water was I would say 10 somewhere around the 22nd, 23rd, somewhere in that time 11 frame, because I remember it had hit the fan, so to speak,--12 We were wanting to -- Lee had told me that the water was so 13 many grams per liter, et cetera, and we had gone down in 14 there, actually taking a close look at it, so to speak --15 closer.

16 Q We, being?

17 A I was down there with Operations. There was
 18 myself, Simeroth, half dozen operators, et cetera.

19 Q Was the NRC present with you at that time?

20 A No, sir.

Q Okay, Mike, so that -- to the best of your recollection, knowing the date is not in absolute concrete, you believe some time around the 26th, as you say, after it hit the fan, you went down in the pit and first observed the yellow water.

1	A Now we found out, the 22nd, 23rd is when we told
2	you guys?
3	Q Yes, sir, that's correct.
4	A It was after Lee got back.
5	Q Lee got back from where?
6	A He was gone the 20th and came back the 21st or
7	22nd, and then t. when we started.
8	Q Okay, sir. Now so that I'm understanding
9	correctly, you do not recall any visual observation on your
10	part prior to that date in 3X excavation area?
11	A Of the yellow water:
12	Q of the yellow water, sir.
13	A No, sir, I do not.
14	Q Okay, sir. Now T think I asked you sometime prior
15	to our conversation in this area if you were by that pit
16	frequently, and you indicated you were. Do you recall when
17	you first were around the area being excavated? And if you
18	need to reference the project's completion or is ongoing, use
19	that as a time frame.
20	A I could probably start around the first of August,
21	somewhere in there, 31st of July is when they started
22	bringing people in. I'm not sure when they stuck the actual
23	first shovel in the ground, somewhere around t here.
24	Q Yes, but my question to you is when do you first
25	recall being out there?

1	A I think I was there probably Thursday or Friday,
2	which would have been the second or third, somewhere in
3	there.
4	Q Do you recall when your first visit was, what
5	stages the project was in?
6	A The first time I was out t here, they were busting
7	the concrete up, I remember watching.
8	Q Busting the concrete from around
9	A On top of it. There was a concrete pad.
10	Q Okay. So, Mr. Nichols, so that we're somewhat
11	clear, for your information and my understanding, on
12	Wednesday, the first, the actual backhoe began scooping out
13	dirt.
14	A Okay.
15	Q So since it had not done that, your first visit out
16	there would have been sometime prior to the first of August
17	because they were merely getting the site ready for the
18	backhoe, they were busting up the layers on top.
19	A Right.
20	Q Okay, so between that time frame of your first
21	visit of the busting of the concrete and your last known or
22	first visible signs of yellow water somewhat established a
23	definitive parameter of the 31st of July 30th and 31st of
24	July, first of August down to the 22nd or so of August.
25	A Yes, sir.

1	Q Were you by this facilicy, this open pit any time
2	in between these two extreme dates?
3	A Yes, sir, I was there when they were digging up the
4	shovels of dirt.
5	Q Shovels of dirt as opposed to the track hoe or the
6	track hoe itself?
7	A They were using the track hoe is that what you
8	call it, the big one?
9	Q Yes, sir, that's what it's referred to, track hoe.
10	A That's what they were using. We were concerned
11	about hexane, that was a very major problem
12	Q Were you there in other stages other than the
13	initial digging of the track hoe?
14	A I was there the first couple of days, I was out
15	there a full day on the fourth, I was out there the first
16	couple of days when they first started sticking the shovel
17	in, making sure we had a technician out there and Ken was
18	there, and I'd talked to Gary Barrett about being there, we
19	were concerned about industrial safety. I was out there on
20	the morning of the fourth that was the day of the picnic.
21	Q Okay, sir, because you've used a couple of terms
22	interspersedly here, I want to make sure I understand.
23	You've mentioned shoveling, you referenced the backhoe and
24	then you said shoveled again.
25	A As far as I'm concerned, they would be the same.

Q Okay, because I want to make sure the shoveling, 1 you're not talking about the contractors down in the pit 2 using hand shovels. I want to make sure you have a 3 distinction between those two. 4 A No, this was the big one. 5 So since the time the track hoe was being used, 6 0 were you present at the pit at any other time? In fact, why 7 don't you just tell me all the times you can recall being at 8 the edge of the excavation? And I use the edge, because if 9 you walked past it and didn't look at it, I'm not 10 interested, I want to know when you actually physically were 11 present around it and perhaps --12 I was there -- again, I can't give you exact dates, 13 A Larry. Okay? 14 I understand that. 15 0 Okay. I was there the morning of the fourth. The 16 A fifth was a Sunday, I wasn't out there. Monday, I --17 That's when the NRC --0 18 The NRC didn't show up until the afternoon. A 19 O Correct, sir. 20 I had to take off that afternoon and come back, 21 A because they had showed up. I wasn't there when they went 22 out there for their tour. I came back. I doubt I was there 23 on that Monday and I doubt I was there much more that week 24 except when I was walking Mr. Vazquez around showing him the 25

facility. I spent a little time with Mr. Spitzberg but I 1 doubt that I was very seriously -- I may have gone out there 2 a couple of times with him. 3 Mr. Spitzberg? 4 0 Mr. Vazquez. A 5 Mr. Vazquez. 6 0 I don't think Mr. Spitzberg ever left the office. 7 A Other than that one visit that we've well 8 0 established on --9 A On Monday. I spent the rest of the time with Mike 10 that whole week. 11 Q All right, sir, and now that you've covered the 12 period through the 10th, were you by the pit any time after 13 the NRC inspectors left? And for reference information for 14 you, I'll give you another date that will give you some sort 15 of reference time line, the 11th and the 12th it rained. 16 Yeah, the 11th and 12th it rained. Okay, I 17 A remember seeing the water after it rained, in the pit. 18 Q Okay, sir, now let's back up and ask you a guestion 19 here. What color was the water at the tie you remember 20 seeing it after the rain? 21 A I do not remember seeing any yellow water, sir, if 22 that's your question. 23 Q That was going to be my question, yes. Okay, then 24 Mike, I guess my next question is what water did you observe, 25

if you were there after the rain, what was its color? 1 Clear and muddy, so to speak. A 2 Clear and muddy. 0 3 Depends on where it was standing. A 4 Clear and muddy, depending on where it was 5 0 standing. 6 A Yes, sir. 7 Did you have any observations on this or did anyone 8 0 solicit your observations while you were looking at it, the 9 rain water? 10 A I remember asking what we were doing about it and 11 somebody telling me that it was being sampled and/or pumped -12 - being taken care of. They were getting it out of there 13 because you couldn't work in there. It was a slip hazard --14 you just don't like to work in water, it's just bad news 15 anyway. 16 Sampled --17 0 MR. SHAPIRO: Sampled and pumped? 18 THE REPORTER: Mr. Nichols, you're going to have to 19 speak up because it's very important I hear you. 20 THE WITNESS: Okay. It was being sampled and/or 21 pumped. 22 MR. CHAPMAN: Is there such a thing as an amplifier 23 that would amplify his voice? I'm serious. 24 MR. SHAPIRO: I don't have one. Maybe you can pick 25

1	one up for us on your way back to the airport.
2	THE WITNESS: (Moving the microphone.) Will that
3	help?
4	THE REPORTER: Just speak up, for your own good
5	it's very important.
6	THE WITNESS: I'll try to speak up.
7	THE REPORTER: I'm ready. Sorry about this
8	interruption.
9,	MR. CHAPMAN: That's fine. Keep in mind, Mike, you
10	do need to keep your voice up like he says, it's very much in
11	your favor that we get all the information down.
12	BY MR. CHAPMAN:
13	Q Okay Mike, after the rainwater you mentioned it
14	was being sampled and I want to get back to the sampling here
15	in a few moments, but I want to continue on with this frame
16	of the questioning and that is, that's now the 13th, that's a
17	Monday after it rained. Were you by the pit any time after
18	the 13th up until the 22nd?
19	A I'm sure I was, I can't give the exact dates. We
20	were still in the middle of a what we call turn-around, an
21	outage, and I was spending predominantly most of my time
22	covering those jobs.
23	Q Even though the SX project was one of the largest
24	projects on site?
25	A It may have ween the largest, but as far as a

health physics standpoint it was not more intensive. Once we got past the hexane problem, I then had to worry about -- we were taking equipment apart, pulling beams, major beams out of the facility. We still had the DUF-4 facility where we were working on. It was a minor -- became a very minor part of my activities, to be exact.

Q Okay, once the hexane problem was somewhat under control, this was -- what you're telling me is this excavation became a minor -- I think that's the term you used -- minor area of concern?

A A minor part of my activities, let's put it that
way.

Q Not to belabor the issue but would it be a fair observation then that since that's the 13th and we're up to the 22nd, you were not -- you didn't observe any yellow water during that period of time?

17 A No, sir, I did not.

18 Q Okay, even though you were by the pit probably on 19 - were you by the pit on occasions between the 14th and the
20 22nd?

21

A I'm sure I was by the pit, yes, sir.

Q Just so that I have the record clear and for information, when you were by the pit, you know that I'm talking about observing inside the pit and not merely strolling by the pit without any type of observation. You do

1 understand that's the context that I've been asking you these 2 guestions?

A My typical activities would be to go out there and 3 talk to Mr. Barrett or Mr. Simeroth, or the technician in 4 charge, ask how things were going. The contractors at that 5 time, during some of this period of time, were putting forms 6 up. I inspected, on at least one occasion when they were 7 putting the top level to make sure they were wearing the 8 right equipment, trying to make sure that they weren't going 9 to be hurt because they were working some 15-20 feet off the 10 ground. 11 Are you aware that sometime during the week that 12 0 Mr. Vazquez and Mr. Spitzberg were here, that water was being 13 barreled out of this excavation? 14 A I remember the sewer water was being picked up to 15 an extent, and what I assumed to be water from the safety 16 shower leaking in the condensate line was being picked up. 17 All right, sir. 0 18 MR. SHAPIRO: By picked up, do you mean barreled? 19 THE WITNESS: I'm sure it was, that's pretty 20 common. We don't like to leave water laying around. It's 21 just a bad habit, you just don't do it. 22 BY MR. CHAPMAN: 23 Do you have an indication or did you inquire as to 24 0

25 the volume of water the sewer and/or the shower placed into

1 the bottom of the pit?

2	A No, sir.
3	Q How many barrels did you let me back up, Mike.
4	You say you observed some water barrels ard it's your I
5	guess your impression or your understanding that they were
6	picking the water up out of the pit as a result of this sewer
7	line breaking?
8	A The sewer line and the other line, yes, sir.
9	Q Was there how many barrels do you recall being
10	out there?
11	A I remember seeing 10, 15, maybe 20 barrels over by
12	the heat exchanger over there. As to how many were full or
13	not, I don't know, because when they do that, they usually
14	take a truckload over there, so if they were filling one
15	barrel or two barrels or five barrels, they would take a
16	bunch of barrels over there and use them for that.
17	Q Okay. So to your knowledge, they were not drumming
18	any other water out of that pit other than the shower stall
19	or during any of your visits by there after the 10th, did you
20	notice any more barrels or maybe I should ask you, did you
21	have any information about water being pumped out of the
22	excavation into barrels?
23	A I did not know that Mr. Kiehn or anybody was
24	pumping water that was coming up out of the ground into those

25 barrels, and that's why he was doing it. No, sir, I did not

1 know that.

2	Q Mike, I haven't mentioned Mr. Kiehn's name in
3	connection with the barrels. Why would you bring up Mr.
4	Kiehn?
5	A Because in the last that came from reading my
6	earlier testimony.
7	MR. SHAPIRO: I think he subsequently got
8	information that Bob Kiehn had been doing some barreling, but
9	you're saying you didn't know it at the time?
10	THE WITNESS: No, sir.
11	BY MR. CHAPMAN:
12	Q Okay, Mr. Nichols, would I be correct in my
13	assessment that you did not know the contents of those
14	barrels out there at the edge of the pit?
15	A I assumed that it was the water from the sewer line
16	and from the other line.
17	Q You assumed that it was the water. Did you know
18	specifically what was in those barrels?
19	A No, sir.
20	Q Did you inquire of anyone what was in those barrels
21	and their function there?
22	A I asked if they were getting the water up from the
23	shower or whatever it was or from the sewer, I saw the
24	barrels and I made an assumptions that's what they were
25	coming from.

Q So to be correct in my view of what you're telling 1 me, you made some assumptions but you actually do not know 2 for a fact what was contained in those barrels? 3 A If you put it that way, no, sir. I just assumed 4 5 that that's what was going into them because that was the water I had seen in the pit. 6 In connection with these barrels, Mr. Nichols, were 7 0 you aware of the subsequent number of barrels that were 8 9 collected as a result of pumping the water from this excavation prior to the notification tot he NRC on the 22nd? 10 No, sir. 11 A No one ever advised you of the volume of barrels 12 0 being collected out at the edge of the pit? 13 14 A No, sir. Did you happen to observe the volume of barrels 0 15 16 being --Like I said, I saw some barrels over there that 17 A were -- 10, 15 barrels, maybe 20. 18 As of the time you came on the 22nd and you were 19 0 down there making an inspection with some of the other 20 Sequoyah Fuels personnel, after it hit the fan, as you speak, 21 did you happen to observe the volume of barrels, in the 22 number of guantities -- the number of barrels sitting out 23 24 there is what I'm trying to say. I don't think the barrels were sitting next to the A 25

pit, so to speak, Larry, I think they were quite a distance away, over by the -- out of sight. Not out of sight, but quite a ways off. After the 22nd, we started asking all kinds of questions trying to find things out, what's really going on here. And as far as the number of barrels, we started talking to Mestepey and --

Q So you want to say that up to the 22nd, you did not know the number of barrels or the volume of water coming out of that pit?

10 A No, sir.

11

Q No, sir, you did not know?

A I did not know. I mean, I thought I knew until the 22nd, and then I found out different, that I was wrong.

Q Okay, Mr. Nichols, so what you're telling me is that up till the 22nd, prior to that date, to your knowledge, there was no contaminated water being collected from the bottom of that pit, yellow water, as we've somewhat identified it, being placed in to barrels?

A There had been some numbers that somebody -- I had asked about the levels of the water, as far as amount of uranium in the water, because it had been sampled. That's in my other --

23 Q Well I understand that.

24 A Okay, and it was always --

25 Q We're going to get to the values, but my question

is you're indicating to me you didn't have a connection
 between any contamination of the water in the excavation and
 being placed in the barrels. The only water you thought was
 going in the barrels was shower something water and sewer
 pipe water.

A Right.

Q So I'm not ready to make a correlation between why
you'd be sampling shower water and sewer line water.

A That's the kind of water I thought was being pumped
 in there, yes, sir.

11 Q And back to my question, Mike, to the best of your 12 knowledge then, based on what you've told me, you were not 14 aware that they were pumping any yellow contaminated water 14 from the SX excavation to barrels?

15 A No, sir.

Q Okay. Now you've kind of launched into another area that I was interested in. In our previous discussions, you indicated to me that you had heard that there was samples being taken on water at the SX excavated area.

20 A Yes, sir.

Q And not to put words in your mouth, please make sure you stop me at any time. In our previous discussions, you indicated that to your knowledge, they were low volumes or low values in this water.

25 A Yes, sir.

Q And you heard these early on, as I understood you telling me, because one of my questions back then was -- I heard there was water there, I inquired of Bob Kiehn and I heard of low values, and you and I specifically discussed an August 1 lab report of .02.

A Okay.

Q It's documented here for us.

A Okay.

6

7

8

9 Q Now in that connection, Mike, why would you tell me 10 you had no knowledge there was any contaminated water coming 11 out of that pit going into barrels when you were discussing 12 low values of contaminated water affecting that excavated 13 area?

A The .02 is water that is dischargeable, it's below regulatory limits, so to speak. Okay? It could come from surface, if it's very low amounts of water, it's something that is -- it's just not a concern. Of course any contamination is a concern, but it's of amounts that I think you could discharge to the environment without any permits or anything.

Q So this early water that you understood had low limits, as far as you were concerned they were discharging it onto the ground or anywhere they wished?

A Well I had understood that Jim I think had discharged the first ones and then --

Q Jim?

1

4

5

2 A Mestepey. And then had started collecting it 3 afterwards.

- Q Collecting it where?
 - A Into barrels.

6 Q Why would Jim Mestepey be collecting water into 7 barrels if it's sewer water and shower water?

8 A They typically do that, we do that quite a bit 9 around here. To be conservative, taking the conservative 10 approach to something.

Q So now are you trying to make a correlation, so understand, between what Jim Mestepey's barreling and the shower water and the sewer water you knew out here -- that you saw being put in the barrels, or assumed I should say, I'm sorry, being put in barrels?

16 A No, I'm just saying that Jim had the first couple 17 of batches of water, it had shown to be very little, and he 18 had just sent it to the combination stream, so to speak.

19 Q Say that again for me, Mike, I'm sorry.

20 A He had sent them -- he had discharged the water
21 because it was so low, there was no problem with it.

22 Q You know for a fact he discharged this water on the 23 first to the combination stream?

A I asked him or he told me or something, that the first couple he didn't find anything in, it was like .01, .02, some very low level, below MPC levels, that could be
 discharged, and he had done that.

3

Q Who is telling you this?

A Either Jim Mestepey or one of the operators, that the water -- he gave me a feeling yeah, there's not a problem with the water, it is below standards, it can be discharged, it's not a contamination problem.

Q Okay. So now you're telling me, Mr. Nichols, that early on you had a conversation with Jim Mestepey regarding the water coming out of this excavation and it had very low levels of contamination in it. And furthermore, you're telling me that in this conversation it was discussed the fact that it could now be discharged out onto the ground or the combination stream?

A I think it may have been after he did it that I found out about it, I just know that he did it, because I remember I asked the numbers and was told that it was very low, and then I either found out immediate after he did it --I'm not sure, I cannot tell you if it was before or after, but I know he did discharge the first amount of water we found out, to the combination stream.

22 Q Which is before the shower stall broke -- the sewer 23 line broke?

A The sewer line, I think this would have been after. The sewer line broke on like the fourth -- is that when we

1	determined?
2	Q Yes, sir.
3	A I think it would have been after.
4	Q That he discharged these levels, or you had your
5	discussion?
6	A I think both.
7	Q Both?
8	(Brief pause.)
9	MR. CHAPMAN: Let's take a break. We'll go off the
10	record at eight minutes after four.
11	(A short recess was taken.)
12	MR. CHAPMAN: For the record, after a short break,
13	it's now 4:24 p.m. and we're now back on the record
14	continuing our interview with Mr. Michael Nichols.
15	BY MR. CHAPMAN:
16	Q Mike, we were in the process of discussing to some
17	degree the values associated with your first knowledge that
18	the water from the SX excavation area contained any
19	contamination was early sample results taken by someone in
20	your Operations or Engineering, which had a value of
21	something in the neighborhood of .02 grams per liter. Am I
22	correct or incorrect?
23	A That's about .02, .01 there somewhere02, .01,
24	somewhere in there. It was real low.
25	Q I'm not sure I've lost my train of thought to

some degree. Did you understand that those values were being associated with water at the SX excavation, even though they are low?

A Yes, I understood that that was the water that was 4 coming from the drain line or the sewer line or wherever. 5 Q So, you're now -- let me make sure that I 6 understand you. Your impression and your understanding was 7 that this water was the result of the drain line or the 8 shower line breaking? 9 A And possibly the rain. I'm not sure when that fits 10 in there. 11 Q Possibly the rain that occurred on the 11th and 12 13 12th? A Yeah -- I'm not sure. I just remember that the 14 conversations I had with the people after -- the several 15 times that I asked about it, I was always told that it was 16 .01 and .02. .04, I think, was the highest that I ever 17 heard. 18 Q .04 was the highest you ever heard? 19 Yes, and that was -- and the order of those, I 20 A really can't give you at this point. 21 Q Okay. 22 A I just remember every time I asked that I was told 23 24 Q Every time you asked, you were told what? 25

A That the numbers were low -- in that range. I didn't ever remember hearing anything that would get me concerned about it.

4 Q Who all did you ask? And if you can, when did you 5 ask?

A That's going to be a tough one. I remember Jim bringing it up a couple of times -- Mestepey. The numbers that he had. I think I remember discussing it with Ken Simeroth one time. Besides that, I think -- Bob Kiehn keeps coming up in my mind, but I'm not sure if I asked him, or if the numbers came from him -- at this point.

Q So you're not real certain -- since you've mixed in the date of the sewer line breaking on the 4th and the rains on the 12th, you're just not absolutely certain when you first heard of the low values of .02 or .01 range?

16 A No. All I can really remember is checking on the 17 water that was in there and getting numbers that sounded very 18 reasonable and very low.

19 Q Okay.

A You've got to remember, Larry, that -- I'm not saying the job was not important to me, and I didn't mean to say that earlier, but with all the other things we had going on, I had staff, I thought, handling it so to speak. I had at least one technician and my only supervisor keeping track of it. I concerned myself with the in-plant items. The

handling of sulfuric acid and the hydrochloric acid and the 1 amounts of uranium in there. 2 Q You had a health tech and a supervisor, I believe 3 you said, taking care of it and taking care of "it" being? 4 A Providing supervision for it. 5 Q Before you forget, Mike, I need to know what "it" 6 is. 7 A For the health and safety activities out there at 8 the excavation pit. 9 Q Am I now to assume that in your taking care of it, 10 that there are also concerns of radiological aspects? 11 A Yes, sir. 12 Q And to you." knowledge, prior to the 22nd, do you 13 recall any of these individuals coming in and expressing any 14 concern to you? 15 A No, sir, I do not. 16 Q None of your health tachs or -- the supervisor, can 17 we identify him a little more? 18 A Ken Simeroth. 19 Q Ken Simeroth? 20 A Ken Simeroth did not say anything to me at any time 21 about yellow water. 22 Q About yellow water -- did he express any values to 23 you? Now keep --24 A No, sir. 25

1	Q in mind, I'm addressing before the 22nd of
2	August.
3	A No, sir, he did not.
4	Q Okay. Now, Mike, I'm going to make an
5	understanding that you know some information on the 17th
6	though Mr. Chilton and Mr. Lacey, and I'm not going to try to
7	use this time frame you put you in a trap on that issue. I'm
8	strictly talking about the pit and your knowledge of the pit.
9	A Okay.
10	Q Because I believe, if I m correct, that although
11	we've now somewhat established through your testimony that
12	you may not have been aware of any according to your
13	information, any for lack of a better word, elevated
14	levels of uranium, and you've used yourself some values that
15	are allowed be discharged to the combination streams.
16	There's a cutoff point in your mind and this cutoff point
17	would be a value of what?
18	A It would be .045.
19	Q .045?
20	A Grams per liter.
21	Q Grams per liter. That cutoff value means?
22	A That means you could discharge it to the
23	environment. It's considered to be an MPC level.
24	Q Less than .045?
25	A (Nodding head affirmatively.)

Q And anything higher than .045 must be controlled to some degree?

3 A Right.

Q I'm going to take off just a small area in this and then try to come back to what I was originally moving toward. Why would you be cognizant of the value of .045? Is that something in your area of concern or a regulation that directly affects your department?

A 10 CFR 20 defines MPC, national permissible concentration, value for uranium of so many microcuries per cc and when you transport -- when you go from -- that's radioactivity per cc of water. And when you convert that to grams per liter, it comes out.045.

14 Q .045?

15 A (Nodding head affirmatively.)

16 Q Okay, I'll take your word for that. I'm sure 17 that's absolutely correct.

18 Are you aware of a --

MS. SHAPIRO: It's a number that we've been using. We've been using it in micrograms but it's 45,000.

21 MR. CHAPMAN: Yes, it's either 45,000 micrograms 22 per liter or .045 grams per liter.

23 MR. SHAPIRO: Right.

24 BY MR. CHAPMAN:

25 Q Do we agree those are both identical?

1 A Yes, sir.

1	A Yes, SIT.
2	Q As you are looking at the board with some notations
3	up there, you see a notation of 225 micrograms, which is, as
4	I understand, if my mathematics are somewhat correct, would
5	be .0025 grams per liter, three zeroes in front of the 25.
6	Does that sound reasonable to you, sir?
7	A Yes.
8	Q Sir? Speak up.
9	A Yes.
10	Q Now what do you know that 225 micrograms per
11	liter, does that number have any significance to you? 🛁
12	A It does now. It means that's the environmental
13	action level for soil.
14	Q Did it have a meaning to you back in the period of
15	time of August?
16	A No, sir, it did not.
17	Q You didn't know about 225 micrograms per liter as
18	an action level at Sequoyah Fuels?
19	A No, sir. That's is that grams per liter or
20	micrograms per gram?
21	Q No, sir, that 225 is micrograms per liter.
22	A Okay.
23	Q Which in a grams per liter equation is .0025.
24	A Is that out of a license?
25	Q Sir?

I assume that's out of a license? 1 A Yes, sir, it is out of the license. 2 0 It's an action level. A 3 An action level. 0 4 It means you should look at it. A 5 0 Yes, sir. 6 That's kind of self imposed, as I understand it A 7 now. 8 Q You're giving me a lot of information here and I 9 quess I'm going to get around to asking you, did you know all 10 of this information at the time --11 No, sir. 12 A -- this matter was going on? 13 0 MR. SHAPIRO: He's answered that already. 14 MR. CHAPMAN: I know, but he keeps adding data to 15 16 it. THE WITNESS: I've done a lot of research since 17 then, sir. I've read up on it and tried to learn everything 18 I could about it. 19 BY MR. CHAPMAN: 20 Q As the Manager of Health, Safety and Environment, 21 is this not an area of your concern since you have the 22 responsibility for environmental releases or values effecting 23 environmental? 24 Yes, sir. 25 A

Q Are you responsible for reviewing the license 1 condition at that time frame regarding these action levels so 2 that your department would be prepared to take the 3 appropriate --4 5 A Well, I think -- I mean -- I'm sorry to interrupt you. Go ahead. 6 7 I asked my guestion. I think I -- as the manager 0 8 in charge at that time of this incident or action here, 9 environment was directly your responsibility? A Yes, sir. 10 11 And as such, these values are directly the 0 environmental values established by Sequoyah Fuels and --12 It's an action level. 13 A 14 As an action level. I'm not arguing. I just 0 merely ask, as a manager of this department did you know 15 about it and I guess my next question is why didn't you, if 16 17 you're in charge of the department? This was a thing that had been put in the license 18 A and there weren't very many people who did know about it. 19 20 0 Well, as Manager of Health, Safety --I was --A 21 -- Environment, this is an area of your direct 22 0 23 concern. No, sir, I was not aware of it. 24 A 25 0 Okay.

A And I'll be honest with you, to this date there 1 still is a debate going on s to whether it applies to 2 restricted area or not. I'm not saying that it shouldn't, 3 but a restricted area, as defined in 10 CFR 20, is for the 4 purposes of containing radiation --5 I'm sorry. Say that again. 0 6 I said if you looked at the definition of a 7 A restricted area, it's for the purposes of containing 8 radiation and radioactive material, okay. There is quite a 9 debate going on now as to that number, the 225. It's a big 10 matter for the health physicists. This is --11 Q I won't argue that with you, Mike. I won't argue 12 what's going on now. I'm just trying to establish what 13 occurred then. There's all kinds of discussions and 14 15 unhappiness over --Yeah. A 16 -- and difference of views between the NRC and 17 Ö Sequoyah Fuels and other parties. But what I'm trying to 18 understand is, when you had values of .002 brought to your 19 attention, or .001, I believe you said, from samples out here 20 at this -- what I'm getting from you is, you had -- this 225 21 micrograms was not a value that you associated with that and 22 would not have had a concern because --23 A Could we stop for a second? 24

25 MR. CHAPMAN: Certainly.

1	Let's go off the record for a moment.
2	(Brief pause.)
3	MR. CHAPMAN: Back on the record.
4	BY MR. CHAPMAN:
5	Q Okay, Mr. Nichols, you went and reviewed something
6	in the license.
7	A Table I reviewed Table
8	THE REPORTER: I'm sorry?
9	THE WITNESS: I reviewed Table 51.
10	BY MR. CHAPMAN:
11	Q What was your concern in reviewing Table 51 that-
12	you've now satisfied yourself about?
13	A Well, I like I said, I work with a lot of
14	numbers every day and I knew the 225 was right. I just
15	couldn't remember whether it was micrograms per liter or
16	micrograms per gram.
17	Q It is now micrograms per liter you're satisfied?
18	A Right.
19	Q Okay, sir. This is a recap, you're the amount
20	of contamination that triggers it in your mind was the 45,000
21	micrograms per liter, which is out of the 10 CFR
22	A 20.
23	Q 10 CRF, Part 20.
24	A Right.
25	Q I might as well get it on the record because you'll

	the base of the second s
1	probably bring it up later for me. We have a difference in
2	the amount of MPC, which stands for
3	A Maximum permissible
4	THE REPORTER: I'm sorry?
5	THE WITNESS: Maximum permissible concentration.
6	BY MR. CHAPMAN:
7	Q There's a different value for unrestricted area
8	versus restricted area?
9	A Yes, sír.
10	Q I'll let you take this opportunity to tell me your
11	knowledge of the values that apply to restricted areas
12	release versus non-restrictive.
13	A 1.5 grams per liter.
14	Q And that comes from?
15	A 10 CFR 20.
16	Q 10 CFR part 20?
17	A Yeah.
18	Q Okay. We want to get that on the record, so that
19	when you talk values to me and you make reference to these
20	restricted versus unrestricted, we'll have something to apply
21	them to.
22	Now, Mr. Nichols, in light of the fact that we have
23	some discussions of contaminated water out there, your first
24	observation being the 22nd, I understand that prior to the
25	22nd, you had some indication that there could possibly be

elevated levels of uranium contained in water that was in the excavation area, specifically around the 17th of August, is that correct?

A Mr. Lacey came to see me on the 17th and said that he had heard -- it's in my transcript -- he had heard that there was some elevated levels. And I asked him, "what are you talking about? He said he "had heard", so we called up the Environmental Lab --

Q Yes, sir.

9

A -- and we asked them and they didn't have anything. 10 Carol was gone, so I took the liberty of going to -- looking 11 in Carol's in-basket, looking -- she keeps a notebook. I 12 looked through her notebook and looked through her desk and 13 checked the mail trying to see if there's anything -- any 14 validity to what he said because Lee could not tell me at the 15 time where he heard that. So, we searched and couldn't find 16 anything. 17

18 Q So either you searched in Carol's desk or you
19 contacted the Environmental Lab -- Sonny Eidson?

A Yeah, Sonny confirmed the only numbers he had were
the lower numbers below the .045.

Q Did you receive any information that would give you values associated with these elevated readings on the 17th? A No, sir.

25 Q When was your first understanding of any values

1 placed on the discussion you had with Mr. Lacey?

- 2
- A (No response.)

Q Mike, what I'm saying is, when was your first knowledge of the values expressed to me of numbers of one to eight grams per liter? When did you first learn of these values associated with this excavation area?

7 A I want to say the 21st or the 22nd, after Lee got8 back.

9 Q Did you happen to look at the lab reports yourself 10 at that time that showed these values? Do you recall?

A I remember talking -- I had a conversation with bee 11 that morning and asked him if he was sure about what he was 12 saying and he said yes. And at that time, I started -- I got 13 hold of Mr. Simeroth and I got hold of the technicians and we 14 15 started -- as you guys said in the last interview, I had to cover my ass. We started looking at things trying -- you 16 17 know, what did we miss, where did we miss it, how did we miss 18 it, what do we need to do to make sure things are right.

19 What have we got to do here?

20 MR. SHAPIRO: Are we still on the 17th? 21 THE WITNESS: No, we're on the 22cd.

22 BY MR. CHAPMAN:

Q Let me ask you a couple of questions that might help identify some things. Mr. Mestepey was also out of the facility during a period sometime around the 16th through the

1	early part of the 20th. He called a meeting together on the
2	20th upon his return. Were you present at that meeting?
3	A Yes, sir.
4	Q Were there any specific discussions of value at
5	that time in that meeting?
6	A The meeting as I recall, we were discussing the
7	French drain.
8	Q I'm sorry?
9	A He wanted to discuss the French drain.
10	Q Did he express Mr. Mestepey that is did he
11	express any concerns over the level of uranium out there in
12	the excavation during that meeting?
13	A He we talked about the French drain going in and
14	the contaminated rock going into it. The fact that the
15	contaminated rock would be washed into a sump into a tank
16	and sampled before it was discharged. That was mine and
17	Carol's concern and
18	THE REPORTER: I'm sorry, but I can't hear you.
19	THE WITNESS: That was mine and Carol's concern.
20	We did not want to see just rock put in that could go any
21	where. So we talked about cleaning up the rock. We felt
22	that we could get rid kill two birds with one stone. We
23	could get rid of the contaminated rock and put it rather
24	than ship it off as waste. At the same time, we could wash
25	it out and collect the contamination and it could be shipped

1	off. That's what the meeting was about.
2	BY MR. CHAPMAN:
3	Q On the 20th? Now you understand that I'm talking
4	about August 20th?
5	A I don't have the exact date. It's close to there.
6	Q Upon Mr. Mestepey's return?
7	A Right.
8	Q Okay. The reason I asked that question is because
9	you indicated to me that you didn't learn the values,
10	particular values, associated with the contaminated water in
11	the excavation until sometime around the 21st or 22nd
12	A Yes, sir.
13	Q And I want to understand that you were not made
14	aware of these values in any meetings that Mr. Mestepey
15	conducted on the 20th; consequently, you didn't try to locate
16	this date until the 21st or 22nd?
17	A Right.
18	Q Do you underscand what I'm trying to say?
19	A Yes, sir It was I think Lee came back on the
20	21st and that's whin I the next morning is when I heard
21	about it.
22	Q I'm trying to understand why you delayed looking up
23	this data. It's simply that you were not made aware of it
24	until Lee returned on the 21st?
25	A Yes, sir.

Q Now, Mike, just so that I understand, between the first low values that you heard, .02 to .01, as we've discussed, between that time frame and up until you discussed it with Mr. Lacey on the 21st, you had absolutely no indication nor no values associated of elevated levels of uranium concerning the SX excavation area?

A No, sir, the -- I had a hint of it on the 17th,
which we did a search, couldn't find anything. Lee was
supposed to go back and try and figure out where he found out
about it and he didn't get back to me.

Q Lee did not get back to you?

11

A No, sir. This happened about three or four in the afternoon. If I remember right, it was late in the afternoon when he came to me. It may have been -- it could have been just after lunch but it seems to me that it was in the afternoon when this was going on.

17 0 Also, in connection with that then; you have told me in past conversations that you had no indication through 18 19 your routine sampling process of any elevated levels of 20 contamination, uranium contamination, regarding this 21 excavation. And I will even go so far as tell you that you made it very clear to me that that included air samples, that 22 included, I guess, soil samples or any type of sampling 23 procedure that you routinely conduct. None of these gave you 24 25 any indication there was concern for elevated levels of

1 uranium, correct or incorrect?

2 A Correct. We -- the restricted area is a 3 contaminated area, okay.

Q Granted.

4

5 A I'm not trying to say or bullshit somebody there's 6 no contamination out there because there is. We didn't see 7 anything that would give us any indication -- or I didn't 8 know of anything that would give us any indication of this 9 one to grams we're talking about in the water.

Q Okay. In light of that, would you give me the routine precautions you were taking which gave -- that youreviewed yourself, or that your staff reviewed with you, which gave you complete confidence that there was nothing of an elevated nature out there?

15 A We pulled air samples.

16 Q Do you recall the dates that you pulled those air 17 samples, sir?

18 A I want to say the 3rd and the 4th. I believe 19 that's right.

20 Q I believe you're correct.

A We pulled about 20, which was at the time they were moving the actual dirt, stirring it up. If they were going to have any, that would be the time that you would get it, when it was stirred up. We didn't see any indication. The highest we had there was like a .2 MPC, which is very, very

low.

2	We had been surveying the equipment and people
3	coming out. In fact, Mr. Vazquez had was that before when
4	he did that? Anyway, we had surveyed people coming out. We
5	had frisked people. We had a stepoff pad added, but the
6	stepoff pad was not for contamination concerns. I had made
7	that decision to keep the guys from killing themselves
8	because shoe covers are very, very dangerous on a slippery
9	tank.
10	Q You made a decision to put the stepoff pad out
11	there because shoe covers are very, very dangerous. What to
12	the correlation between a stepoff pad and shop covers?
13	A A stepoff pad is where you change shoe covers at.
14	If you come up to the stepoff pad in the plant, that means
15	you change shoe covers.
16	Q I guess, Mike, I'm a little confused as to what a
17	stepoff pad would have to do with shoe covers being very
18	dangerous on a tank.
19	A Okay. What we
20	Q You say, "I made the decision for safety", why?
21	A What we did was, we allowed the people to work on
22	the tanks, just people on the tank, not down in the pit,
23	without shoe covers because they were slick. You're walking
24	on stainless steel.
25	Q In their street shoes or whatever they had on?

Yeah. I was afraid somebody would get hurt. 1 A And the stepoff pad would allow them to come off 0 2 the tank onto an area to put back on or take off shoe covers? 3 To keep somebody from getting hurt, yes, sir. A 4 How does the stepoff pad have a direct bearing on 0 5 insuring that there's not elevated levels of uranium? I 6 missed that. 7 A What I'm saying is, we felt there wasn't enough 8 contamination -- we felt that we could do that. If we had 9 felt that there was a lot of contamination, I would never 10 have done that. 11 Now, how do you -- "we felt", how does "we felt" 12 0 equate to my assurances that we didn't have contamination? 13 A Okay, that's from the surveys we were getting from 14 people coming out of the hole, surveying with meters, et 15 cetera, as they came out. And then, bringing shovels out and 16 equipment, we weren't finding any contamination of enough 17 significance to warrant --18 Q Okay, people coming out of the hole, where were you 19 surveying them? 20 Usually at the hole, but not all the time. A 21 Usually at the hole? 22 0 Yes, sir, we had an HP technician there. We were A 23 surveying shovels -- a lot of surveying of equipment was done 24 25 out there.

Do you keep records of these surveys? 1 Ö Probably not. It's like you frisking out -- when 2 E. you frisk out, or you're coming out, we don't -- we're not 3 required to and we don't record everybody that's frisked out. 4 Q Okay, Mi e T guess in light of this line that 5 you've brought up you did some surveys and frisks, 6 7 frisking them? Are , . . . retty sure that all of your surveys 8 included when they did finally get into some sort of water? 9 10 A Pardon? I guess what I'm trying to understand here is ----11 0 maybe I missed something here. You said you surveyed their 12 shoe covers as they came out of the pit? 13 A I say shoe covers, whatever they were wearing. It 14 may have been boots. 15 Footwear? 0 16 It could be footwear, it could be clothes, it could 17 A be shovels, it could have been forms that were coming out, 18 trucks -- we did trucks quite a bit. 19 Q I guess my specific question to you is, since you 20 weren't by there and you didn't talk to everybody, and you 21 didn't keep a record, how do you know that this information, 22 this footwear and all of this equipment is not at elevated 23 levels or is not of concern? There's no record of that. 24 A I asked Mr. Simeroth. I asked a couple of the 25

technicians, are you finding anything? Are we showing any contamination? That's typically how we did it. We asked them -- when we have our meetings like once a week, are we having a problem out there. Is there a contamination problem out there?

Q Was it standard practice that Mr. Simeroth have a meter with him capable of surveying this footwear and equipment, shovels, et cetera, et cetera, coming out of the pit?

10 A (No response.)

11 Q You're making some absolute statements here, Mike, 12 and I want to make sure I understand them.

I understand. The conversations I was having with A 13 him and the technicians were, are we finding any 14 contamination on any of the people or equipment that's coming 15 out. And it's typically common to have a meter out there. I 16 know I was there specifically when we surveyed some 17 equipment, one of the pickups. It just basic health physics. 18 I mean, if you go out there now, you'll find meters on all 19 the jobs, et cetera. We survey them. Now, as to everybody 20 being surveyed, no, sir, I won't say that happened. What I 21 will say is that the indications I had from my supervisor and 22 talking to a couple of technicians was that we were not 23 picking up any elevated levels of contamination. 24

25 Q Well knowing what we know now -- and I'm going

forward a little bit, knowing that we have specific lab 1 values that you were made aware of after the fact; of 2 interest to the NRC, of course, is the high elevated level, 3 in their opinion, of 8.2 grams per liter which occurred on 4 the 7th of August 1990. I'm not saying that you knew that 5 value at that time. So that I will understand how your 6 instrumentation works, is this a level high enough than an 7 instrument should be able to detect elevated levels of 8 uranium if a person was surveyed? 9 If it had dried on there, probably so, yes. 10 A Just for informational purposes, what difference 11 0 would it make if it was dry or not? 12 Well, when it's wet, it shields it. 13 A Wet shields it? 0 14 Yes, sir. A 15 Now you're -- so I understand, Mike, what you've 16 0 telling me is if they surveyed somebody with wet shoe covers 17 the meter is not going to pick them up? 18 A I understand that, but our technicians are trained. 19 For example, when we were doing the forms and things, they 20 were trained not to survey the items that are wet, because 21 they do it shields it. That's part of our basic training. 22 Q When do you survey these shoe covers? Now, I'm not 23 trying -- I'm just trying to understand the procedure as much 24 as anything. The reason I'm asking is, you're giving me some 25

assurances that you have no reason to suspect there's any 2 2 contamination out there and one of your assurances is that 3 your people are doing surveys. So that I understand how I 4 can have complete confidence that your complete confidence is 5 vested -- for me to be vested in, I want to understand 6 exactly what took -- transpired at the pit. And the reason I'm asking you this is because this is what you're saying 7 8 your knowledge of what transpired out there was. I'm not 9 asking you to attest to how they did it. You're indicating 10 to me that the shoe covers must be dry for the meters that they would have out there to indicate a value. And the 11 12 reason I ask this question, Mike, is because my information 13 is these individuals walked out of the pit in their muddy shoe covers and went to the change room and deposited their 14 15 shoe covers.

A Sometimes -- was it wet shoe covers or wet boots? Q Well, either one. It makes no difference. We describe them as footwear -- wet boots or wet shoe covers.

19 A Okay.

Q Whether you put a wet boot in here in the frisk room or you put a wet shoe cover, how do we know between the time they left the pit and they came here --

A Larry, obviously we cannot -- let me see how to put this. Obviously, I can't sit here and say that we surveyed the stuff that was wet because that would give an erroneous

signal.

1

2

Q

Okay.

A But my supervisors and my technicians know enough to look at a person's coveralls, shovels that they're working with, equipment that they're working with and get a feeling as to whether we're seeing elevated levels or not. And that's what I discussed with Mr. Simeroth.

As far as contamination, typically when we work in 8 a restricted area, the place for frisking is in the change 9 room. That's just how it's designed, for people to come up -10 - and some of them are contaminated. They are supposed to-11 come up and shower and change clothes or whatever, frisk and 12 go out. That is the area. I know we were doing some at the 13 hole. I know we were doing some pickups out there. In fact, 14 some of the trucks were surveyed there and then surveyed 15 again at the gate. We discussed that in our departmental 16 several times. I was out there a couple of times and I said 17 have you checked this truck. Just for my own information, I 18 can remember asking. And that's the information I had. 19

Q I agree with you, Mike, and I'll grant you that you're telling me that everything that your indications were before you made an absolute statement about survey values, I need to know how you derived that information. I want to make sure that I understand correctly what's transpiring out there and what information you're receiving. As I've

indicated to you, some of the information has come to me, via
 contractors and otherwise, that they weren't surveyed coming
 out of those pits. Now, you're indicating to me that
 basically your folks out there were surveying.

5

A I --

6 Q I'm trying also to establish a parameter of what 7 your measurable pick-ups -- because I know this is critical 8 to --

9 A I -- I understand. I don't mean to indicate that 10 we surveyed everyone that came out. That's not my point. My 11 point is that whenever they had a truck or something wanting 12 to go out, or a tool or something, or if somebody did want to 13 be frisked or something, we were not finding elevated levels.

14 Q Mike, whenever someone wanted to be frisked --15 that's not what you really mean. When someone comes to you 16 and asks you to be frisked -- y'all have some procedures to 17 frisk those people, don't you?

A Everybody who goes out is frisked. I'm talking about -- let's say it came out of the hole or something, a technician for his own information may want to check something.

Q Okay. Now the reason I'm somewhat pursuing this information is, one of the indications you gave me when I talked to you last time was airborne samples don't show everything. This dirt is being moved -- you said we were out

there taking airborne samples and if there were contaminants 1 out there, it would be showing up. 2 At the time we were moving the dirt, yes, sir. 3 A And you've already indicated to me that at the time 4 0 the dirt was being moved you didn't see any water. So we 5 can't be sampling water out of dirt. Would that be a fairly 6 accurate statement? 7 Yes, sir. 8 A So you took air samples on the 3rd and the 4th? I 9 0 believe that's the dates that are correct. Which 10 interestingly enough, the 4th is a Saturday. I don't know-11 who took it. Maybe that's just a routine --12 He was actually taking it the day we moved the 13 A dirt. 14 Okay. So it would probably be the 2nd or 3rd? 15 0 Yeah, somewhere in there. 16 A Okay. And that's the last airborne samples I have 0 17 a record of of your staff ever taking until later in the 18 month of August after the NRC became involved. 19 The 22nd. A 20 The 22nd. So I'm trying to understand what 21 0 assurances Sequoyah Fuels has made, once the dirt stopped 22 being pushed around, with the knowledge, as you have 23 discussed with me, that this is a restricted area known to 24 contain contaminants out there in the ground -- I mean, 25

that's a known. What assurances are Sequoyah Fuels making 1 that the water itself and that the people down in the pit 2 were not being unduly exposed to any contaminations, being as 3 you're not doing any more air samplings? That's why we're 4 into the line of questioning about what are you doing to 5 satisfy the people down there. Then you brought up the fact 6 of wet shoe covers. Of course, for that period of time, the 7 first question that came to my mind is, now you know about 8 wet shoe covers. Are you now having some indications that 9 there's some liquid down in that pit during this period of 10 11 time?

A Sir, I was going by what you had told me was there, okay. I didn't know about it at the time.

Q No, Mike, I don't mean to correct you here, but I believe that my indications were that there were liquids down there and you said "not to my knowledge" and then I said "well how do your meters work" and you said "now keep in mind, Mr. Chapman, my meters won't measure wet boots." Well I didn't even -- you're indicating to me during that period of time that you've got some wet boots.

A Well we had the sewer water and we had the other water and you convinced me that there evidently was water down there I wasn't aware of. That's something that --

Q Okay, so I'm going to take it to mean that the only time you were aware of wet boots now was during the sewer

water problem. I'm taking your information and trying to 1 assimilate to me. You weren't aware of any wet boots or wet 2 shoe covers, other than as a result of the sewer line. 3 The sewer and the shower and the rain and A 4 5 everything. Right. 6 0 I specifically asked Bob Kiehn about when he went 7 A to boots instead of shoe covers and his comment to me was "at 8 the first sign of water" when they busted the sewer line, he 9 instructed people to put rubber boots on. 10 He instructed people to wear rubber boots? 11 0 That was his words to me, sir. 12 A And it wouldn " come as a surprise to you that the 13 0 contractors I've interviewed said that Sequoyah Fuels didn't 14 tell them to wear rubber boots, they had to take it upon 15 themselves to get those? 16 A I can't comment on that. 17 Okay. Okay, Mike, we were discussing the fact that 18 0 you had assurances, so the summation would be that your air 19 samples you took sometime around the early part of August, 20 second or third, with the results known the third or fourth, 21 the fact that any indications you had of any values out there 22 prior to the 22nd were below release limits, MPC limit, of 23 .45 grams per liter. Your technicians have been assuring you 24 out there that they were making surveys as required, and 25

nothing was showing up of an elevated level, to be of concern 1 2 to you. Yes, sir. 3 A And therefore, your first knowledge of any elevated 4 0 values which had numerical applications was the 21st or the 5 22nd of August, even though on the 17th, you'd had some hint 6 that --7 You're talking about water? 8 A Yes, sir. 9 0 10 A Yeah. And I believe it's well documented when I talked-0 11 with you earlier, you didn't pursue the 17th, you left that 12 to Lee Lacey to take care of, pursue about what information 13 he had brought to you, as far as establishing those values. 14 A I did call the lab, I did go through Carol's notes 15 and try to find out what I could about it. 16 Well I agree with you --0 17 Lee couldn't even tell me that he had heard about 18 A it for sure. Lee said it was just a rumor, he wasn't even 19 sure that it was a fact. If he had come to me and said yes, 20 I know for sure, sir, I might have taken a little difference 21 stance. But he came to me and he says I think I heard -- I'm 22 not sure where I heard it. And I said all right. And we 23 searched and did not find anything. 24 Q We had a small discussion last time, while we're on 25

the rubber boots issue -- you indicated to me in an earlier discussion that you had assurances that rubber boots had been tested and no levels had shown up, high levels had shown up. And then later, Mike, in a subsequent interview, you weren't sure whether you had had rubber boots tested or not.

6 Now the specific question I have to you is of a 7 certain contractor's rubber boots, by the name of Calvin 8 Taylor. And you are now aware of the fact that Mr. Taylor's 9 rubber boots exited this facility and went off-site and came 10 back, on and off on a daily basis. Do you now understand 11 that occurrence?

A I have heard that. I have questioned my technicians about that and the only technician that knows anything about it said that he saw a pair of boots in the back of the trailer one day --

o Back of trailer or pickup?

17 A I don't remember. And he took one away from and 18 Mr. Taylor got very irate because he took it.

Q All right. You're not aware of the fact that
 Sequoyah Fuels has since surveyed those boots themselves, Mr.
 Taylor's boots, or the back of his truck or anything?

22 A We have been unable to do that, sir.

23 Q Unable to do that.

16

A We have contacted him. Ira can speak to that. I know the NRC has surveyed it and found it to be below SFC

1 release limits.

SFC release limits for what? 0 2 For release of radioactive material. 3 A Q In what, alpha or beta? Mike, I know you're going 4 to play some numbers with me on alpha-beta here and I want to 5 -- I want you to get on record of telling me what your survey 6 indicated. 7 A I would have to read Mr. Vazquez' report again. I 8 believe he did it for beta. 9 Q Now you've made a comment to me that the NRC 10 surveyed and found it below release limits -- is it below 11 beta release limits too? 12 A I need to read his report one more time before I 13 say, but the report he got I believe says that he determined 14 using certain -- I'd just better read his. 15 Q So you're not real sure about your statement? I 16 want to make sure before you throw data at me that -- I'm not 17 an expert in this, Mike, and I don't know beta or gamma, and 18 I don't want to argue with you on that. 19 Do you have a copy of that 30-page report that he A 20 sent us? 21 I'll give you a chance to look at it. 22 0 MR. SHAPIRO: I'm sorry, which report? 23 THE WITNESS: The last one that just came in. 24 MR. SHAPIRO: The inspector's report? 25

THE WITNESS: The inspector's report. 1 MR. CHAPMAN: August 6? 2 THE WITNESS: Well we just got it. 3 (A document was proffered to the witness.) 4 BY MR. CHAPMAN: 5 Q Does it basically say it's below release limits for 6 beta or alpha --7 A Yes, sir, page 11 says that "In late October 1990, 8 an NRC inspector discovered contaminated equipment and 9 materials in the possession of a contractor who had worked in 10 the SX excavation pit. Contamination was measured with a____ 11 calibrated, open-window GM survey meter." -- that's beta --12 "The inspector measured values of 3200 counts per minute on a 13 localized spot on a truck bed, 1400 counts per minute on a 14 broom which the contractor stated was used to sweep some of 15 the liquids that seeped into the pit, and six to eight 16 hundred counts per minute distributed along a conveyor belt 17 that was used in the SX excavation activities. The inspector 18 then made some reasonably conservative assumptions regarding 19 the instrument's response was due solely to beta/gamma 20 activity, detector efficiency and beta-to-alpha ratios to 21 correlate the readings to SFC's license release limits. At 22 the time, the licensee's program for surveying the equipment 23 and materials for release at the restricted area boundary was 24 based solely on on alpha activity." 25

One more paragraph. 1 Okay. My question to you was it says below release 0 2 limits. 3 "Converting from the assumed beta/gamma activity to A 4 an estimated alpha activity, the inspector concluded that the 5 contamination levels were considered below the SFC license 6 release limits." 7 As of what date, October 11? 0 8 Yes, sir, -- October 1990. 9 A Were these specific items surveyed by Sequoyah 10 0 Fuels prior to leaving this site in August of 1990? 11 We surveyed -- all I can say is we survey A 12 everything that goes out the gate. 13 You're absolutely positive on that statement? 14 0 A Sir, it is our practice to survey everything that 15 goes out the gate, and keep a log of it -- trucks, trailers, 16 everything. 17 Q Can you show me where you surveyed those items and 18 what their values were in August when those items left this 19 site? And I ask you this question as a person in charge of 20 health physics. Would the values assessed in October be 21 lower than the values assessed in August? 22 A No. 23 They don't change? 24 0 The half-life for uranium is in millions of years. A 25

So you would hav absolute confidence in saying 1 0 that these values on October 11 would be the values that left 2 here in August. 3 If it is natural uranium, yes, sir. A 4 If it's natural uranium. 0 5 That's what we deal with. A 6 When you read this into the record, Mike, I want to 7 0 understand that that's October and I want to know what value 8 it has on the bearing of August. 9 Now my question to you is did you do beta surveys 10 and are you absolutely sure that that's the values on those 11 items that you surveyed? 12 We did alpha surveys. A 13 Why didn't you do a beta survey? 14 0 We've been cited for that, for not doing that. A 15 It's always been the philosophy and practice in this facility 16 for the last 17 years that if you do the alpha then the beta 17 is controlled because you know the ratio of alpha to beta. 18 Our release limits are set up, in the license, for example, 19 were alpha, and we should have been doing a GM 2, and we were 20 not doing it. We've been cited for that. You've given us a 2.1 violation for not doing it. 22 I haven't given you a violation, NRC has. 23 O A NRC has. 24 Well my question is why -- you lost me just a tad. 25 Q

1	I understand what you're saying to me, but I guess my
2	question to you, Mike, is why haven't you been doing the beta
	집에 걸려 가슴 감독 가슴 가슴 것을 가는 것 같아. 이가 물러 있는 것 같아. 것 같아. 것 같아.
3	surveys if you're required to do them?
4	A We felt
5	Q We, please explain we.
6	A SFC felt that by controlling the alpha activity,
7	measuring for it, that knowing normal beta to alpha ratio,
8	you would not exceed the beta if you controlled the alpha
9	ratio.
10	Q Is that a given fact?
11	A It has been for the last 17 years.
12	Q No, I mean is that a given fact in the world of
13	physics, I don't know that.
14	A Yes, sir. It will vary some.
15	Q It will vary some?
16	A Yeah, the ratio will vary from 8 to 20, it depends
17	old yellow cake, new yellow cake it stays pretty
18	fairly constant.
19	Q Is that a value that would affect the release
20	limits, 8 to 20?
21	A Not as far as uranium. I mean that was our
22	philosophy. Now Larry, I'm trying to answer you in layman's
23	terms and it's getting difficult.
24	Q Please do because I
25	A I understand.

JQOne of the concerns that the NRC has had.2THE WITNESS: Can we stop for a second?3MR. CHAPMAN: Sure, let's go off the record.4(Discussion off the record.)

5 MR. CHAPMAN: For the record, we've had a very extensive off-the-record discussion and I'm not sure the time 6 we went off, but it is now ten minutes to six and we're back 7 8 on the record. And because there has been some other values 9 and information discussed off the record that we feel may or may not have an important part of the interview with Mike 10 Nichols, it has been agreed to by all parties here that we* 11 will terminate this interview for this afternoon and tomorrow 12 13 afternoon, we will pick up the interview again with Mike 14 Nichols, after having an opportunity to visit with Ira Shapiro or anyone else at Seguoyah Fuels relative to the new 15 16 information.

17 Before we go off the record, Mike, we're going to 18 officially end this one and pick up tomorrow, I want to ask 19 you if there's anything either of you feel we should discuss 20 prior to closing out this one.

21

(No response.)

22 MR. CHAPMAN: Mr. Nichols, just for simplicity of 23 keeping things kind of orderly and neat as far as the court 24 reporting records, let's end this one by asking Mr. Nichols, 25 have I or any other NRC representative here threatened you in

1	any manner or offered you any rewards in return for this
2	statement?
3	THE WITNESS: No, sir.
4	MR. CHAPMAN: Have you given this statement freely
5	and voluntarily?
6	THE WITNESS: Yes, sir.
7	MR. CHAPMAN: Is there anything further you care to
8	acd to the record at this time, realizing that you will have
9	an opportunity tomorrow to continue on with this?
10	THE WITNESS: No.
11	MR. CHAPMAN: The time is now five minutes to six,
12	and this interview will be closed.
13	(Whereupon, the interview was adjourned at 5:55
14	p.m., to continue at 1:30 p.m. on Wednesday, March 6, 1991,
15	in the same place.)
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CERTIFICATE

This is to certify that the attached proceedings before the U. S. Nuclear Regulatory Commission in the matter of: Name: Investigative interview of Michael Nichols

Docket Number:

Place: Gore, Oklahoma

Date: March 5, 1991

were held as herein appears, and that this is the original transcript thereof for the file of the Unite C*ates Nuclear Regulatory Commission taken stenographically by moland, thereafter reduced to typewriting by me or under my direction, and that the transcript is a true and accurate record of the foregoing proceedings.

Welliam L. Warren

William L. Warren Official Reporter

Ann Riley & Associates