

ORIGINAL
OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission

Title: Investigative Interview of
Michael Nichols (CLOSED)

Docket No.

LOCATION: Gore, Oklahoma

DATE: Wednesday, March 6, 1991

PAGES: 109 - 199

ANN RILEY & ASSOCIATES, LTD.

1612 K St. N.W., Suite 300
Washington, D.C. 20006
(202) 293-3950

4-90-012

EXHIBIT 91

PAGE 109 OF 199 PAGE(S)

9402140054 930518
PDR FDIA
VIERA93-105 PDR

7288 G. Gore

C/37

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

On behalf of Sequoyah Fuels:

IRA S. SHAPIRO, Attorney

Winthrop, Stimson, Putnam & Roberts

1133 Connecticut Avenue, N.W.

Washington, D.C. 20036

P R O C E E D I N G S

1
2 MR. CHAPMAN: For the record, this is an interview
3 of Michael Nichols, who is employed by Sequoyah Fuels
4 Corporation, Gore, Oklahoma. The location of this interview
5 is the Sequoyah Fuels Facility, Gore, Oklahoma. The date is
6 March 6, 1991 and the time is 1:50 p.m.

7 Present at this interview, in addition to Mr.
8 Nichols, is Ira Shapiro, who is an attorney from the law
9 firm of Winthrop, Stimson, Putnam & Roberts, Washington, D.
10 C., and is representing Sequoyah Fuels Corporation. Also
11 present at this meeting, representing the U.S. Nuclear
12 Regulatory Commission Office of Investigations is Larry
13 Chapman and Donald D. Driskill.

14 Mr. Nichols, will you please stand and raise your
15 right hand?

16 Whereupon,

17 MICHAEL NICHOLS

18 appeared as a witness herein, and having been first duly
19 sworn, was examined and testified as follows:

20 MR. CHAPMAN: Please be seated.

21 For the record, this is in actuality a
22 continuation of an interview that was started yesterday,
23 March 5, 1991.

24 EXAMINATION

25 BY MR. CHAPMAN:

1 Q Mr. Nichols, before I get started, in light of
2 that is there any information you want to provide before we
3 continue with the questions or if there's any information
4 you provided yesterday that you feel needs clarification,
5 edification?

6 A I can't think of any at this time.

7 Q All right, sir. I'm not completely certain where
8 we stopped off yesterday, I think we stopped with some
9 discussions of surveys of material, particularly contractor
10 materials, that either left the site or were stopped at the
11 gates and surveyed.

12 Now without getting into a lot of details that we
13 don't need, let me ask you one question here, sir. Do you
14 know of any contractor materials -- and I include personal
15 gear such as hammers, boots, brooms, clothing, whatever,
16 that the contractors had in their possession that was
17 allowed to leave the site that was above release limits of
18 Sequoyah Fuels?

19 A We know of the survey that was done on Jim Smith's
20 trucks on the 16th in which we found a boot and some gloves
21 and some shoe covers.

22 Q That were above the release limits?

23 A Yes, sir.

24 Q Sequoyah Fuels' release limits.

25 A Yes, sir.

1 Q Can you give me a brief description of how these
2 items were surveyed and to what degree they were above the
3 release limits, by individual items, please, sir?

4 A I really need the NRC report to go item-by-item.
5 Briefly I can tell you we had a boot, I think a couple pairs
6 of gloves, a pair of shoe covers, a piece of paper. I can't
7 think of -- not all those items were above our release
8 limits.

9 Q Well I'm only interested, Mr. Nichols, for
10 purposes of this, in items that are above the release
11 limits.

12 A Okay.

13 Q After our discussion, I think it's a given that
14 there were a lot of other items surveyed that were off-site
15 that didn't rise above Sequoyah Fuels' release limits.

16 A Right.

17 Q Do you know, in the case of, for example, the
18 rubber boot that was at Jimmy Smith's property -- do you
19 know how much above release limits it was? And you need to
20 also preface the type of survey that was done, so that I'll
21 know what you're comparing release limits to.

22 A Okay.

23 MR. SHAPIRO: Do you want to see the --

24 THE WITNESS: I need to see that because I need to
25 look at --

1 MR. CHAPMAN: I think it should be on the record
2 that Mr. Nichols is looking at the NRC report.

3 THE WITNESS: Right.

4 MR. CHAPMAN: The reason I say that is because I
5 certainly wouldn't want you to have different values that
6 you later --

7 THE WITNESS: I understand that.

8 MR. CHAPMAN: Okay.

9 THE WITNESS: They talked here about --

10 BY MR. CHAPMAN:

11 Q Mr. Nichols, let me interrupt you -- what is the
12 release limit you're fixing to discuss? Is it an alpha
13 meter reading?

14 A The --

15 Q And then tell me what the release limit is, so
16 when make these numbers, I'll have --

17 A The normal release limits is listed in the
18 license, which I really need to read that to be sure I get
19 it right, but I'll give you the best I can. It's like 1000
20 smearable, this is removable alpha; 5000 average removable
21 alpha, smearable -- I'm sorry, 5000 fixed and 15,000 for
22 the maximum. And then there's a whole page of
23 clarifications, it goes through and tells you specifics on
24 how you should use this, et cetera. There's also like a .2
25 MR per hour average and a one millirem max at one

1 centimeter.

2 Q Okay, so that we don't get bogged down in a lot of
3 numbers and facts, now that we know there are limits, if you
4 surveyed the boot, can you tell me if it was like, for my
5 example, one and a half times the release limit, two times,
6 a third or whatever?

7 A According to the report that was done by DOE, they
8 found that to be 11, plus or minus three millirem per hour.
9 Okay? Where our limit is one. So it means it's between --
10 as close as they could give it's between eight and 14.

11 Q Times the release limit?

12 A Right. That's the best they could quantify it,
13 you're into an area that's very difficult to do to get exact
14 measurements.

15 Q I understand. So the lowest was eight and the
16 highest was 14, we'll accept that.

17 A Right.

18 Q How about the other items, did they survey the
19 shoe covers or the rubber gloves -- or the gloves you
20 mentioned?

21 A It says here "a cotton glove about 4000 counts per
22 minute and 8000 counts -- average, and 8000 counts per
23 minute maximum".

24 Q How does that equate into above the release limits
25 of Sequoyah Fuels?

1 A I can only guess as to the efficiency of this
2 instrument, it was your instrument. Typically it would be
3 about 40 percent, 50 percent. What that should equate to is
4 an average of about 8000 dpm fixed versus 16,000 dpm
5 maximum. Okay, so the 16,000 dpm would be just over.

6 Q Just over.

7 A The 8000 would be under.

8 Q And I guess we need to stop since you're
9 questioning the preciseness of the NRC's instrument. Did
10 y'all not do some of your own surveys too?

11 A We did it with an alpha meter, but we used your
12 meter for beta/gamma.

13 Q Okay, Mike, and not to get trapped up again with
14 numbers, but what I'm trying to understand is from Sequoyah
15 Fuels' perspective, I don't care if you did an alpha or if
16 you did a beta survey, were these items above Sequoyah
17 Fuels' release limits? If you consider them alpha release
18 limits, let's talk what is -- I want to know what Sequoyah
19 Fuels' understanding of these items is that went off-site,
20 not particularly the NRC's, it's documented. Do you
21 understand what I'm trying to ask you?

22 A I understand.

23 THE WITNESS: Can we go off the record for a
24 second?

25 MR. CHAPMAN: Yes, sir, we may go off the record.

1 (Discussion off the record.)

2 MR. CHAPMAN: Okay, Mr. Nichols, we're back on the
3 record here at five minutes after two.

4 BY MR. CHAPMAN:

5 Q Now back to my original question. You mentioned
6 to me a few moment ago that some items were surveyed of
7 Jimmy Smith, and you mentioned boots, shoe covers and some
8 gloves. Now sir, based on the information and surveys that
9 you did while out there at the facilities, were any of these
10 items above Sequoyah Fuels' release limits?

11 A Yes, the boot was.

12 Q The boot was?

13 A Yes, sir.

14 Q And I believe you kind of indicated to me that it
15 was somewhere between eight to 14 times over the limit, is
16 that correct?

17 A Yes, sir.

18 Q Now out of the other items that were surveyed,
19 were any of these above release limits of Sequoyah Fuels, in
20 your opinion?

21 A No, sir.

22 Q And you base that, sir, on the fact that these
23 were alpha surveys that you were doing?

24 A Yes, sir.

25 Q And I'm going to get it on the record, I

1 understand with you that NRC has some difference of opinion
2 on beta surveys, but we're not going to discuss that --

3 A Right.

4 Q -- because we're asking for your opinion.

5 A Okay.

6 Q Okay, sir, in respect to any other contractors,
7 have you had the opportunity to survey any other
8 contractors' equipment or materials?

9 A Yes, we went out to the -- I believe Jim Smith's
10 uncle, or somebody who had worked with him.

11 Q Do you know his name, sir? I'm not familiar with
12 this.

13 A No, I do not.

14 Q Okay.

15 A It was just pointed out to us. We asked is there
16 any other equipment, we went out and surveyed it.

17 Q Do you recall what it was you surveyed and
18 approximately the city you surveyed it in?

19 A Yes, it was surveyed over here by Vian, it was
20 probably, I want to say, four or five miles from Jim Smith's
21 house.

22 Q Okay, sir, what did you survey over there?

23 A We surveyed, the best I remember, a truck, a
24 grader, maybe a backhoe. I wasn't there for everything. We
25 had four or five pieces of equipment that we asked to be

1 done. We had a copy of the survey which we gave your
2 inspectors.

3 MR. SHAPIRO: The NRC's inspectors.

4 THE WITNESS: Yeah.

5 BY MR. CHAPMAN:

6 Q Did you find any of those items that you surveyed
7 above Sequoyah Fuels -- and since we seem to be dealing with
8 alpha limits -- above Sequoyah Fuels' alpha limits?

9 A No, sir.

10 Q All well within the release limits?

11 A Yes, sir.

12 Q Okay, sir. Did you have an opportunity to survey
13 anyone else's equipment that you know of? And in
14 particular, how about Calvin Taylor, the concrete
15 individual.

16 A No, sir, we have not.

17 Q Have you attempted to do so?

18 A Yes, sir.

19 Q Have you met with resistance from Mr. Taylor or --
20

21 A Yes, sir, I talked to him on two or three
22 different occasions.

23 Q And he does not want you to survey it?

24 A He refuses to speak to me.

25 Q Okay, sir. Has he referred you to anyone to talk

1 with?

2 A His attorney.

3 Q Did you make a request to his attorney?

4 A Yes, I did. I talked to his attorney and his
5 attorney said that he would get with Mr. Taylor and would
6 get back to me.

7 Q Do you recall when that occurred roughly?

8 A I'd say around the first of December, somewhere in
9 there. It was after these surveys were done. The date on
10 these were 11/16 and 11/19.

11 Q And to date, you've received no response back from
12 the attorney?

13 A We turned it over to our attorneys to talk to his
14 attorneys to try and -- I've never received anything back
15 from him myself. I made three or four phone calls.

16 Q Okay. Now in respect to these boots that were
17 discovered at Mr. Smith's property that we now agree were
18 above the release limits of Sequoyah Fuels --

19 A Yes, sir.

20 Q -- does Sequoyah Fuels have procedures for
21 surveying equipment prior to its leaving the facility?

22 A Yes, sir, we actually have limits that are
23 outlined in our license, and then we have procedures.

24 Q Can you give me a rough idea of how the procedures
25 are to work? Of particular interest to me is if a

1 contractor pulls up to the gate to leave, what are sort of
2 the actions that one takes --

3 A You want me to walk you through it?

4 Q I would appreciate it -- according to procedures.

5 A Okay. Actually, according to procedures, it just
6 says that he pulls up to the gate and has to be released
7 before he can go out. I can give you our normal standard
8 method that we go through.

9 Q Fine.

10 A Okay. The person comes up to the gate and gets
11 out. We do not allow people to come out the same gate as
12 the piece of equipment. The person has to go through and
13 frisk himself through the change room, has to take off his
14 anti-C clothing that he's had inside. He then -- as he goes
15 back and goes through the change room, et cetera, the
16 technician then is surveying the truck. He surveys the
17 tires, the wheels, the cabs, the -- depending upon what it
18 is, for example if it's a contractor we did quite a bit of
19 surveying before it ever got to the gate because we had to
20 wash it out. It just depends on how much work he's done,
21 where he's been, but that's typically what happens.

22 After the guy goes through the change room and
23 clears himself, he comes around to the front of the gate.
24 The truck has been checked out by the technician. He's
25 allowed to get in the truck and drive it off.

1 Q I guess one of the questions I have, Mr. Nichols,
2 if that's the case, how would equipment such as shoe covers
3 an' such as this boot be found at someone's home off-site?
4 Do you have any idea or information on that?

5 A By procedure and by our normal survey method, this
6 should not have happened.

7 Q If a contractor is working inside the facility --
8 and in specific, I'd like to limit it to this excavation --
9 I think you and I will agree that there doesn't seem to be
10 any question that there was water in the pit. I'm not
11 saying that you saw it on a certain date --

12 A I don't disagree.

13 Q But you agree there was contaminated water now we
14 know, in the pit down there. If the contractor is using
15 some of his own personal equipment, are there procedures in
16 place to ensure that his personal equipment that leaves the
17 facility is surveyed?

18 A The technicians are trained and taught to ask
19 questions, to look and see -- look in the back of the truck
20 to see if there's anything to question him, to survey it
21 before it goes out the gate, to try to get a good handle on
22 what's been going on, what's been done.

23 Q So there is to some degree -- you feel each
24 technician questions the individual and you place some
25 reliance on that individual to tell you items that have been

1 used out there -- am I understanding what you're telling me?

2 A To some degree. We train the technicians to check
3 everything possibly reasonable. If you see shovels in the
4 back, ask questions, to open toolboxes up to survey them,
5 look inside, survey inside the cab, taking a reasonable
6 effort to ensure that no contamination goes outside.

7 THE WITNESS: Can we go off the record for a
8 moment?

9 MR. CHAPMAN: Sure.

10 (Discussion off the record.)

11 BY MR. CHAPMAN:

12 Q I believe yesterday, Mr. Nichols, that we got into
13 some sort of a small discussion relative to the fact that it
14 was somewhat widely known out here that there would be
15 possibly some contamination, particularly in the soil
16 surrounding the two tanks to be excavated.

17 A Yes, sir, in the restricted area.

18 Q In the restricted area, yes. We're talking about
19 the SX excavation only. Do you agree with me that it was
20 understood amongst the staff out here, and even particularly
21 amongst your staff and yourself, that there could possibly
22 be some contamination out there around the SX excavation
23 area?

24 A Yes, sir. It's not just the SX, it's anything in
25 the restricted area --

1 THE REPORTER: I'm sorry.

2 THE WITNESS: It's not just the SX area, it's --
3 any area in the restricted area could be contaminated.

4 That's why our controls are set up at the gate.

5 BY MR. CHAPMAN:

6 Q Now I ask you what you base your belief on that
7 you feel comfortable to know that there was a possibility of
8 contamination out there.

9 A As a restricted area, we handle radioactive
10 material inside that area, yellow cake barrels are brought
11 back and forth across the pathways these trucks travel. It
12 has been that way for 17 years. We pull a lot of equipment
13 out of the plant that's contaminated, something could drop
14 off. It's just -- it is defined as a restricted area
15 because of those -- because you do handle material in there,
16 not just in the SX. If the SX job had been clean -- for
17 example, if we're working on some area, still a truck when
18 it comes out is treated the same.

19 Q Okay, sir. Would I be correct that your
20 department would have had some knowledge over past spills,
21 particularly in connection with uranium solvent dump tank, I
22 guess we call it the dump tank -- that there had been
23 overflows of that tank?

24 A Yes.

25 Q And I believe you mentioned to you of notice to you

1 was that the NRC had been out here in 1988 and had taken
2 some soil samples in reference to a complaint about improper
3 disposal of material?

4 A Right, I had heard that.

5 Q Were you personally aware of that? That occurred
6 I believe during the time you were here.

7 A It happened in '88?

8 Q Yes.

9 A I remember he come out because the complainant had
10 taken some soil samples.

11 MR. CHAPMAN: Speak up a little.

12 THE WITNESS: They had come out and taken some
13 soil samples because of a complaint. I've never seen
14 results from it.

15 BY MR. CHAPMAN:

16 Q You never saw the results?

17 A No, sir.

18 Q So even though you're aware the NRC was out here
19 taking some soil samples, you never received any results
20 from the NRC soil samples?

21 A No, sir.

22 Q Did you ever have contact with the NRC reference
23 these soil samples in which they expressed to you that there
24 was some levels of uranium in the soil?

25 A With regard to this --

1 Q This particular incident.

2 A No, sir.

3 Q Did the NRC at any time during its inspections up
4 to the time we came up with this problem here make you aware
5 of the fact that they felt there was some elevated levels of
6 contamination in the soil?

7 A I was generally aware of contamination in the
8 restricted area. I mean it's pretty well common knowledge
9 that the area around there was above normal background, that
10 was pretty well -- everybody knew that.

11 Q Okay, sir.

12 MR. SHAPIRO: But Mr. Chapman's question would go
13 to whether the NRC had ever conveyed that to you.

14 THE WITNESS: No, sir.

15 MR. SHAPIRO: It was more general knowledge that
16 you had from working here.

17 THE WITNESS: It was more general knowledge from
18 working here.

19 BY MR. CHAPMAN:

20 Q Okay, sir.

21 MR. DRISKILL: Let me ask a question about that
22 before you go on to something else.

23 MR. CHAPMAN: All right, sir.

24 MR. DRISKILL: When the NRC took those samples, it
25 was my understanding early on in this investigation in some

1 discussions with various people, that the samples that the
2 NRC took were taken in conjunction with samples taken by
3 Sequoyah Fuels Facility and Sequoyah Fuels had lab analysis
4 performed on the samples that they had and the NRC
5 independently sampled the materials that they had obtained.
6 Were you aware of the results of the samples in that area
7 taken by Sequoyah Fuels for analysis?

8 THE WITNESS: No, sir, I was not. I was in Health
9 Physics at the time, I had nothing to do --

10 MR. DRISKILL: Who would the NRC have coordinated
11 taking these samples with?

12 THE WITNESS: Probably with Carol Couch and Lee
13 Lacey. I was strictly Health Physics at the time.

14 BY MR. CHAPMAN:

15 Q That leads me to what I was getting to, because I
16 took that to be your answer there. As I understand it, you
17 were the Health Physics Manager, is that correct? Manager
18 of Health Physics is probably the proper title.

19 A Yes, sir.

20 Q Which is a -- somewhat of a subdivision of Health,
21 Safety and Environment as it was known back in 1988.

22 A Yes, sir.

23 Q And I think we've established, Mr. Nichols, that
24 the Manager of Health, Safety and Environment was Lee Lacey.

25 A Yes, sir.

1 Q And as you've indicated, the Manager of Health
2 Physics was you, Mike Nichols.

3 A Yes, sir.

4 Q Just for the record so we'll have some dates
5 nailed down, when were you the -- the specific dates you
6 were Manager of Health Physics only, month and year will be
7 fine.

8 MR. SHAPIRO: That's generous of you.

9 THE WITNESS: Gollee.

10 (Laughter.)

11 THE WITNESS: I could probably tell you the year -
12 - coming up with the month --

13 MR. CHAPMAN: Season of the year.

14 MR. DRISKILL: When did you start the job you've
15 got now?

16 THE WITNESS: I started -- let's go back. I
17 started as Manager of Health Physics in February of '88.

18 BY MR. CHAPMAN:

19 Q February of '88, Manager of Health Physics.

20 A Right. I continued that job up until sometime the
21 next year. Okay?

22 Q Of '89?

23 A Of '89.

24 Q You were promoted to Manager of Health, Safety and
25 Environment sometime in '89?

1 A Manager of Health and Safety.

2 Q That's right, they moved Environment out with Mr.
3 Lacey when he left.

4 A That's right, he had Environment until May of '90
5 -- May or June.

6 Q Okay. Mr. Nichols, the reason I asked that is I
7 want to discuss with you some Sequoyah facility operating
8 procedures that I have in front of me here that are called
9 HS-005, and the one I have in front of me is Revision Number
10 7. As you indicated earlier before this interview, there
11 was an earlier issue of this. And I've only got a couple of
12 areas I want to talk to you about.

13 A Okay.

14 Q And these are health physics routines.

15 A Okay.

16 Q Would I be correct that these are specifically, at
17 the time you were Manager of Health Physics, your
18 subdepartment's duties?

19 A Yes, sir.

20 Q Inside this particular facility operating
21 procedure, it discusses some monthly routines that your
22 staff is required to perform.

23 A Right.

24 Q And I think I'm correct that it discusses them in
25 Chapter 4.1.2 of this procedure, which we know now has been

1 rescinded, but that was sometime in '90, so this was in
2 effect during part of your time.

3 A Yes, sir.

4 Q Now of interest to me is two items under this
5 monthly check; one would be F, SX sandwells, first Wednesday
6 of the month.

7 A Uh-huh.

8 Q And another one that I want to talk to you a small
9 bit about is D, beta/gamma surveys, third Tuesday of the
10 month.

11 A Okay.

12 Q And I think probably what we'll start off with is
13 the beta/gamma surveys because I'd like to know what
14 specifically is this referencing.

15 A The beta/gamma survey was a routine survey and we
16 still do it once a month, we go around with an ion chamber
17 and check the walkways, the working areas, the different
18 buildings throughout the plant, to ensure that they're safe
19 and they're posted correctly.

20 Q Okay.

21 A This primarily is equipment checks, just to make
22 sure that the radiation areas are posted as they should be
23 and we don't have any high radiation areas coming up, we
24 don't have any build up of powder, et cetera, that the meter
25 picks up that you couldn't visually see. That's what that

1 was.

2 Q And not to argue with you again over the NRC's
3 judgment values of that, I just want to ask you why you felt
4 that when you surveyed this equipment out here as it left or
5 as you surveyed these contractors, you didn't feel beta was
6 applicable to the contractors?

7 A We felt that as far as contamination leaving the
8 site, that surveying with the alpha meter was appropriate,
9 as we discussed yesterday.

10 Q I understand we had quite a discussion on this and
11 I want to get it on the record as to why you felt, as the
12 Health Safety Manager, that beta had no value in surveying
13 the contractors.

14 A Well we felt that by surveying it with an alpha
15 meter, that you were controlling the beta. Now on some of
16 the contractors' trucks we did do some smear surveys for
17 beta, but we didn't check it with a meter. We looked for
18 loose contamination. But this survey that you're talking
19 here is with an ion chamber.

20 THE REPORTER: I'm sorry?

21 THE WITNESS: With what's called an ion chamber,
22 i-o-n c-h-a-m-b-e-r. It's not the same kind of meter that
23 you would always use to check a contractor leaving.

24 BY MR. CHAPMAN:

25 Q Okay, without getting into a lot of discussion on

1 numbers again, what you're telling me is basically Health
2 Safety's view was that by making alpha surveys, that would
3 be more restrictive than beta surveys and would encompass
4 beta surveys, and if they passed the alpha, there was no
5 danger of going off site.

6 A Yes, sir.

7 Q I can't remember your words yesterday, but
8 basically you said if you're satisfied on alpha, you can be
9 satisfied on beta.

10 A Yes, sir.

11 Q Okay. All right, sir. Now I'd like to move on to
12 the portion of sandwells, SX sandwells, the first Wednesday
13 of each month.

14 A Okay.

15 Q Of note also is attached to this particular
16 facility operating procedure are some attachments and in the
17 back of this under Attachment Number 1 on page 6 of 6, it
18 has mention of this item again, SX sandwells, first
19 Wednesday.

20 A Uh-huh.

21 Q And it has a location out here which I assume is a
22 place for someone to sign that they've done this, is that
23 correct?

24 A Uh-huh.

25 Q To initial or to record the fact they have made

1 these --

2 A Initial and date is what this says here.

3 Q Initial and date.

4 A Initial and date.

5 Q So there are documents within Health Physics that
6 will show who and when the SX sandwells were sampled.

7 A Should be, yes, sir.

8 Q And I guess it'd be an appropriate time to state
9 that my understanding of SX sandwells as discussed here are
10 pipes that are buried in the sand, either adjacent to or in
11 close proximity of certain fire stations in this restricted
12 area.

13 A Right, there's like four of them I believe.

14 Q Of interest to me in my discussions with you,
15 we're interested in four specific ones. I don't know if
16 there are others or not, but we're interested in fire
17 station number two, number three, number four and number
18 five. And I have a map of where these fire stations are
19 located, and I now show it to you, it's called "Subject:
20 Fire Water System" and it's referenced N-160-3. What I want
21 you to notice, Mr. Nichols, is that basically fire station
22 number two and fire station number -- I'm reading upside
23 down here -- three are to the north of the SX building.

24 A Right.

25 Q In fact, fire station number three is to the

1 northwest and fire station number two would be to the
2 northeast, am I correct?

3 A That'd be northeast -- no, I'm sorry, you're
4 right.

5 Q Fire station number three is northwest, fire
6 station number two is northeast.

7 A Okay.

8 Q When I say fire station, I'm talking about -- I
9 assume they're hydrants or fire stations for hooking up
10 water.

11 A Hose stations.

12 Q Hose stations. And then fire station number four
13 is basically to the southwest of the SX building and fire
14 station number five is to the southeast of the SX building.

15 A Right.

16 Q Now of course we don't have a scaled drawing here
17 of the excavation itself, but as you can see, to the south
18 of the excavation there runs a water line for this and we
19 know that that line was not ruptured. No one has ever told
20 us that that line between basically number two and number
21 three was ruptured, so we know that the excavation must have
22 been within that SX building. Do you agree with that?

23 A Uh-huh.

24 Q So we can get an idea of the area we're
25 discussing.

1 A Right.

2 Q Okay. As I understand, Mr. Nichols, the SX
3 sandwells are pipes stuck in the ground as I mentioned, in
4 close proximity to these stations that we have so
5 identified.

6 A Right.

7 Q Correct?

8 A Right.

9 Q Do you know the depth in which they go into the
10 ground?

11 A No, sir, I do not.

12 Q It's my understanding that they're somewhere
13 between two and three feet into the ground.

14 A Okay.

15 Q That's what I have been told.

16 A I was told there was just a pipe that was driven
17 down several feet.

18 Q Driven down several feet in the ground.

19 A Yeah.

20 Q Okay, but we agree they puncture the ground and go
21 down for some distance.

22 A Right.

23 Q Also as I understand, sir, this procedure as
24 listed here when it says SX sandwells, first Wednesday, is
25 instructions to the Health Physics staff to take samples of

1 liquids should they be in these pipes.

2 A Right.

3 Q Is that correct?

4 A (Nodding head affirmatively.)

5 Q Now for the record, are you well aware that
6 samples were taken of these pipes over a period of time?

7 A Yes, sir.

8 Q You are. Are you familiar with the fact that
9 these samples were taken for measurements of uranium?

10 A The discussions I had was that they were taken --
11 yes, possibly for uranium, for water, to see if there was
12 water down around the pipes, et cetera.

13 Q To see if there was water down around the pipes.

14 A Yeah.

15 Q And we agree that there was water found around the
16 pipes?

17 A Oh, yeah, several times. We used to sample them,
18 yes, sir. And I'm not disagreeing with you, that they were
19 looking at the amount of uranium coming in there.

20 Q Okay. It's well established through documents
21 that I have in front of me that I'll be glad to share with
22 you.

23 A I give them to you, I'm aware of them.

24 Q That you gave to me.

25 Q Are you saying that you yourself provided this

1 information perhaps via the attorney or someone else?

2 A Somebody asked us for it and we dug it up out of
3 our files.

4 Q You don't know who asked you for it?

5 A No, sir, I dcn't.

6 Q Do you know when you dug it up out of your files?

7 A It wasn't too long ago, about a week ago.

8 Q About a week ago?

9 A Yeah, somebody came over and said they wanted to
10 see the sand -- the SX sand pile.

11 Q Did they come and ask you personally?

12 A No, I just remember somebody saying they wanted it
13 and I remember talking to Sheila or somebody and saying
14 let's get it for them.

15 Q So you were not asked personally for this data.

16 A No.

17 Q But you're well aware that it was wanted so you
18 did provide it.

19 A Yes, sir.

20 Q Okay.

21 A I dug it up and looked at it.

22 Q Had you ever seen this material before you dug it
23 up and provided it to me through whatever method it was
24 conveyed?

25 A I mentioned it to you about two weeks ago, we were

1 talking about the '89 incident. You were asking me where I
2 had looked for information and I said I looked at the
3 sandwell files but they didn't go back that far -- we quit
4 taking them before then. And I looked at the HP log and
5 couldn't find anything there, and --

6 Q Well when you mentioned these to me, Mr. Nichols,
7 did you give me an explanation of what sandwells were?

8 A No.

9 Q For the record, so that we don't have a
10 misunderstanding, my question to you --

11 A I didn't expect -- go ahead.

12 Q -- my questions to you were in reference to some
13 spills that occurred around the solvent dump tank.

14 A That's right, you were asking about that and I
15 went back t o see if possibly we picked something up on
16 these, but I found out we had quit these before.

17 MR. SHAPIRO: You made a passing reference to
18 sandwells in this earlier conversation.

19 THE WITNESS: Right.

20 BY MR. CHAPMAN:

21 Q Okay. Now my question back to you again, Mr.
22 Nichols, had you ever seen these -- this information prior
23 to making the passing reference to me? I need to get that
24 specific.

25 A I had seen the sandwell files before, I had talked

1 to Carol about then several years ago or something like
2 that, and --

3 Q If we need to get some time references --

4 A This was back let's say spring of '89, I talked to
5 her about it.

6 Q What did you talk to her about?

7 A The fact that we weren't getting any useful
8 information from them and did I need to keep wasting the
9 manpower on them, because I didn't understand the data, it
10 was just a pipe in the ground, didn't tell me anything.

11 Q This data didn't tell you anything?

12 A No. I mean I didn't know if it did or not, I was
13 not an expert in that area and I was spending a lot of
14 manpower on it. So I discussed it with her and I said are we
15 getting anything useful out of this.

16 Q What did she tell you?

17 A She said no.

18 Q You discussed these specific results with Carol
19 Couch?

20 A The ones we were -- yes, sir.

21 Q On these sheets that I'm showing you. And you've
22 got plenty of opportunity to review them now.

23 A I don't remember these back in '80 or so, but I
24 remember the ones we were getting back in '88, early '89.

25 Q Mr. Nichols, were you looking at the summary or

1 were you looking at actual lab reports?

2 A I was looking at the actual lab reports.

3 Q Actual lab reports.

4 A At the time.

5 Q I don't have those lab reports in front of me, but
6 I assume --

7 A They were in the same file this was in.

8 Q I'm sure they were. And I assume that they show
9 the same information we're discussing here, that they had
10 these numbers on the face of these lab reports, is that
11 correct?

12 MR. SHAPIRO: Yeah. None of us have gone through
13 and matched each number, but --

14 MR. CHAPMAN: We made a cursory review in the
15 presence of Don Knoke.

16 MR. SHAPIRO: Yes, that's right.

17 MR. CHAPMAN: And we felt that --

18 THE WITNESS: How far back did they go? Did they
19 go back this far?

20 MR. CHAPMAN: Yes, sir.

21 MR. SHAPIRO: They may go back further, but we
22 haven't seen anything --

23 THE WITNESS: '74-'75?

24 MR. SHAPIRO: -- we haven't seen anything prior to
25 '80 -- we haven't pulled anything prior to '80.

1 THE WITNESS: Somebody asked me two weeks ago or
2 something about how far back they went and I told them '74-
3 '75, you're right, I remember now.

4 BY MR. CHAPMAN:

5 Q Okay, so I'm right that you've seen these before
6 or I'm right they go back?

7 A Yes, I've seen the file before, yes, sir.

8 Q And you've seen the actual lab reports?

9 A Yes, sir.

10 Q And these lab reports are what you held the
11 discussions with Carolyn Couch with?

12 A Yes, sir.

13 Q In the discussions with Ms. Couch, did y'all
14 discuss the numbers on there and what was being sampled in
15 reference to pH, nitrates and uranium?

16 A At the time, yes.

17 Q And at the time that you talked to Ms. Couch. And
18 did y'all particularly have a discussion on the fact of the
19 values of the uranium, the numbers being reviewed?

20 A I asked her what they meant, if they were really
21 telling us anything, because it was surface contamination
22 because they weren't very deep, coming from washing down.
23 If they were really wells, what were they, what was I
24 wasting my time -- not wasting time, but I was using a lot
25 of manpower for this that I didn't have. And I asked her at

1 the time if it was necessary to keep doing it.

2 Q And her answer was no?

3 A Her answer was she didn't feel we had any useful
4 information.

5 Q I guess my concern, Mr. Nichols, as I'm asking you
6 this, is this not an indication to you and Ms. Couch that
7 there is water present underground around this SX excavation
8 area -- soon to be SX excavation area, and that this water
9 does contain some volume of uranium contaminants in it?

10 A Well when you look at the fact they're only a
11 couple of feet down and there is a lot of surface
12 contamination, I personally even at this point don't feel
13 that they could tell you, no deeper than they go.

14 Q I guess, Mr. Nichols --

15 A I'm just giving you my impression at the time,
16 they were a piece of pipe that was driven in the ground.
17 They were labeled as sandwells but they were not a well,
18 they were just a piece of pipe. We knew we had some
19 contamination on the surface that could be affecting it.
20 They weren't rain covered, it would rain inside of them,
21 that's where we'd get a lot of our water. They were not set
22 up like the wells are now to keep being affected from other
23 things in the soil. And I discussed it with her and felt
24 they were no useful information. That's two years ago.

25 Q Yes. Two years ago your discussion with her?

1 A It was spring of '89, maybe --

2 Q Yeah, the data was stopped in about May of '89,
3 for your information.

4 A Okay, we actually stopped -- I talked to Simeroth
5 that we were going to stop doing it, about January-February
6 if I remember. It might have taken us two or three months
7 before we actually stopped because of the routines, but I'm
8 pretty sure that's the time period.

9 Q Of course, of relevance to me, Mr. Nichols, is
10 you've indicated that this is surface contamination --
11 everyone around here has expressed how surprised they were
12 during this excavation that water was ever discovered.
13 Isn't this an indication and hasn't this been an indication
14 for some number of years since you by your comments earlier
15 knew these tests were being taken since 1975, that there was
16 a presence of water in and around the area soon to be
17 excavated?

18 A Not really. These were only a couple of feet into
19 the ground, they were not really a well to tell you useful
20 information. I just got the impression, right or wrong,
21 that they weren't telling me anything, that they were just
22 wells -- they weren't even wells, they were just a pipe. I
23 was the HP, I was not the environmentalist, I asked can I
24 stop taking these, are we getting anything that's telling us
25 anything, and the answer was yes, so I did.

1 Q Okay, grant you that you felt the values, in your
2 mind were not of consequence to you since you weren't the
3 environmentalist, but you were certainly the health physics
4 individual.

5 A That's true.

6 Q And you were certainly responsible to see that
7 these were taken.

8 A Yes, sir.

9 Q And obviously they were taken, your obligations
10 were met.

11 A Yes, sir.

12 Q And I'm sure that you've told me, or I understood
13 you to tell me that you were aware of this data and aware of
14 it being taken, even at the time it was being taken, by
15 procedures.

16 A Yes, sir.

17 Q And then somewhere down there, you decided it was
18 worth a look-see to see if it had any value, since you had a
19 manpower shortage.

20 A Yes, sir.

21 Q Granted. My question to you now, Mr. Nichols, is
22 you have expressed -- you and others here have expressed
23 some surprise that there could be any water in and around
24 the excavated area. Now I ask you, isn't this an
25 indication, since you have read these values and see there

1 are uranium in these values -- and I won't argue the values
2 as far as release and all of this -- but you have concrete
3 knowledge, the testing that you had been doing for some
4 number of years, that there is water below the surface of
5 the ground.

6 A Larry, I understand what you're -- I think I
7 understand what you're trying to say, but these were not very
8 indicative of what was really deep in the ground. Like you
9 said, they were shallow pipes, they weren't wells. They
10 picked up surface contamination, they picked up rain every
11 time it rained. They were really not an indication of
12 anything. Looking at these today, looking at these values,
13 they're nowhere close to what we found down below.

14 Q Oh, we're not arguing that, Mr. Nichols, let's
15 stay with my question.

16 A I understand that. And I'm telling you no.

17 Q Okay, you're telling me no.

18 MR. SHAPIRO: Let me suggest. I think Mr. Chapman
19 has asked the question clearly, but I think that Mr. Nichols
20 has answered it. Basically he didn't think that the
21 information that they were getting was of value because it
22 was more a reflection of surface contamination, rainwater,
23 and it didn't approximate a normal well. And he discussed
24 it with Ms. Couch.

25 THE WITNESS: I was not the subject matter expert,

1 I went to the person I thought should know, and discussed it
2 with her.

3 MR. CHAPMAN: I agree with you.

4 THE WITNESS: And I acted accordingly.

5 MR. CHAPMAN: Don't disagree. My question though,
6 Ira and Mike, was wasn't this data some indication to you
7 that there was water below the surface of the ground that
8 contained uranium.

9 THE WITNESS: As far as rainwater --

10 BY MR. CHAPMAN:

11 Q I didn't ask you what kind of water, that there
12 was -- I don't know the origin of the water, don't know how
13 it got there.

14 A That's like asking me do I still beat my wife,
15 Larry. I mean, there's not a clear-cut answer. What I'm
16 saying is we looked at the water that we were getting and
17 decided it was probably from rainwater or something coming
18 from the surface, not coming from down there. It was
19 something that the contamination there was not an indication
20 of really anything that was of any value to us because it
21 came from the surface, it was just a pipe in the ground.
22 And decided that the information was not useful, it didn't
23 tell us anything, it didn't tell me if I had a pipe leaking,
24 it didn't tell me anything, it just told me that there was
25 water in there that could have come from the surface. That's

1 the aspect we looked at.

2 Q That's what I asked you. Did it tell you there
3 was water below the surface of the ground. You now agree it
4 did tell you there was water below the surface of the
5 ground.

6 A Yes.

7 Q That was my question. Now that you agree there
8 was water below the ground, did this not -- these results --
9 not tell you that this water below the ground contained
10 some degree of contamination?

11 A Yes, it did.

12 Q Now that you finally agree with me that yes, this
13 did give you some indications there was water below the
14 surface of the ground and yes, now you see that it did give
15 you some indications there was uranium in the water below
16 the ground, why did it come as a surprise to you and
17 everyone else as they started excavating out there, that
18 water was located below the surface of the ground?

19 A Larry, you're talking about the surface, two or
20 three feet down, water that came from rainwater, it could
21 have rained into the pipe itself because the pipes weren't
22 covered, it could have come around the edges of it, they
23 weren't sealed, they're not a regular well, you know, versus
24 something that's completely different -- completely
25 different as night and day. I mean, I have even discussed

1 this with Carol since this thing came up, were we wrong, did
2 we take a wrong assumption, and we talked about it the other
3 day, she doesn't feel we took the wrong assumption. We
4 don't feel that it is indicative enough to give us enough
5 information to tell us what we found down there.

6 Q Okay, let me rephrase my question for you. You
7 were surprised that water was found in the excavation that
8 was being dug.

9 A Yes, sir, that much water coming up from
10 underneath wherever it came from, very surprised.

11 Q You were surprised that there was water in the
12 excavation.

13 A Yes, sir.

14 Q And your surprise was because you didn't think
15 this water would have any relationship to --

16 A No, sir, I did not.

17 Q -- water being found 17 feet below the ground.

18 A No, sir, I did not and I still do not.

19 Q Even though water flows down and there's a sand
20 layer some 10 to 12 feet before we hit shale out there at
21 the excavation?

22 A Well I'm not a hydrologist, I can't answer that.

23 Q I'm not either, that's why I know this
24 information, I figure you should know it.

25 A All I can say is I still don't feel that just a

1 couple of pipes driven in the ground which rain can get into
2 and get some contamination from the surface, give you
3 information as to stuff coming from underneath the SX
4 building.

5 MR. CHAPMAN: All right, sir, let's go off the
6 record.

7 (Brief pause.)

8 MR. CHAPMAN: We're back on the record here at ten
9 minutes to three, so people could get something to drink.
10 Also as information, Mr. Driskill has stepped out and is not
11 present at this time.

12 BY MR. CHAPMAN:

13 Q Mr. Nichols, one last question -- as Colombo would
14 say, one last question --

15 MR. SHAPIRO: One last visit.

16 MR. CHAPMAN: One last visit, one last question
17 here, sir.

18 BY MR. CHAPMAN:

19 Q I understand your comments to me was you felt that
20 the knowledge of these pipes had no direct relationship over
21 the water being found at a lower depth -- that there would
22 not necessarily be a relationship between the factors.

23 A Exactly right.

24 Q All right, sir. Did you attend any pre-planning
25 meetings -- I think I asked you this yesterday but I'm not

1 positive -- prior to the excavation, with the Engineering
2 people or anyone?

3 A Well there was so many meetings going on as far as
4 --

5 Q Just any that you can recall.

6 A I attended beaucoup of meetings on everything
7 from pulling the reactors out to pulling I-beams out, --

8 THE REPORTER: I'm sorry --

9 MR. SHAPIRO: That's French.

10 THE REPORTER: What did he say?

11 MR. SHAPIRO: Beaucoup.

12 THE REPORTER: No, after that, something about
13 pulling.

14 THE WITNESS: Okay, we were pulling the reactors
15 out to work on them, we were pulling -- we attended meetings
16 after meetings after meetings.

17 BY MR. CHAPMAN:

18 Q Okay, let me --

19 A My main problem was I may have had Simeroth go to
20 one for me and just prior to the outage, we were just trying
21 to plan everything, DUF-4 work, everything. This exact
22 meeting, I really can't tell you.

23 Q Okay, do you recall if you did attend any
24 meetings, did you ever mention to anyone the possibility
25 that there was a known factor of some water a few feet down?

1 (Mr. Driskill enters the room.)

2 MR. CHAPMAN: For the record, Mr. Driskill has
3 entered back in the room.

4 BY MR. CHAPMAN:

5 Q Did you bring this up to anyone that you had had
6 some indications of water two or three or four feet below
7 the ground at the distance of these pipes?

8 A No, sir.

9 Q Okay, you felt it wasn't relative the excavation
10 out here.

11 A (Nodding head negatively.)

12 Q Mr. Nichols, prior to the actual excavation
13 beginning, I believe by procedures, if contractors are to be
14 used on site, either the Health Safety Manager, it's now
15 called, being you, or the Safety Engineer, must approve
16 hazardous work permits. Am I correct or incorrect?

17 A Yes, sir.

18 Q That's correct?

19 A Yes, sir.

20 Q Okay, sir. I have an indication from Mr. Fryer
21 that prior to their excavation, they paid a visit to your
22 shop and they think perhaps to Mr. Gary Barrett, to discuss
23 the upcoming excavation and to seek assistance in preparing
24 a hazardous work permit.

25 A Okay.

1 Q Did any of these individuals ever speak to you
2 personally about preparation of these hazardous work
3 permits?

4 A I just don't remember.

5 Q Do you recall having any input into these
6 hazardous work permits prior to the excavation, personally?

7 A Yes, sir. I remember -- we talk just generally on
8 any permit that done, certain requirements, safety
9 requirements. As far as one for the SX, I do not remember,
10 but I do know when it comes to hazardous work permits, we
11 had some meetings to make sure that people did them right,
12 stayed on top of them.

13 Q Within your staff you're talking about, or with
14 other persons?

15 A Within my staff.

16 Q So you didn't have any meetings with project
17 engineer people or operations personnel prior to the
18 preparation of these -- or in relationship to these
19 hazardous work permits?

20 A Not that I can remember.

21 Q Prior to the excavation actually beginning, did
22 anyone inquire as to your knowledge of any water below or
23 any water around these areas?

24 A No.

25 Q I believe that if I'm correct, you indicated to me

1 yesterday that your first knowledge of any contaminated
2 water at this excavation area was August 22.

3 A Of the levels that you're talking about, yeah.

4 Q Right, that's correct, you did indicate to me that
5 you had heard some lower levels of uranium being discovered
6 early in the project.

7 A Right.

8 Q So then it would be a correct assessment to say
9 that you were aware of the fact that they had found water at
10 the site that did contain some uranium?

11 A Yes, sir.

12 Q Did it trigger your thought process when you
13 learned that, knowing that there had been some earlier
14 indications of water being discovered around this area, to
15 go and mention this material to anyone, of the SX wells?

16 A You mean the sandwells?

17 Q Yes.

18 A No.

19 Q Did you feel there was no correlation between the
20 two?

21 A That's exactly how I felt. They're 50-60 feet
22 away, they were only a couple feet deep, whatever. To me,
23 they were wells -- they weren't even wells, they were just
24 pieces of pipe that gives nothing useful. I mean, that's
25 how I put them in my mind and put them back years ago.

1 Q And you didn't --

2 MR. SHAPIRO: Let me just inject for a moment. Do
3 you have much of a sense of when the monitoring wells, the
4 network of monitoring wells that exist, were put in?

5 THE WITNESS: After the --

6 MR. SHAPIRO: I don't mean any that have been dug
7 since this incident. I mean what was there August 1.

8 THE WITNESS: You mean the deep wells?

9 MR. SHAPIRO: Yes.

10 THE WITNESS: I don't think there was any around
11 the SX before that. There was a few around pond two and
12 some other areas.

13 MR. SHAPIRO: Okay.

14 MR. DRISKILL: Of course, there's a series of them
15 around the outside of the restricted area.

16 THE WITNESS: Restricted area, yeah, that runs
17 along the south side and down. We were working real hard on
18 those because we felt they were being influenced, Carol did,
19 by pond two, and that's something we've been working with
20 the NRC on.

21 MR. SHAPIRO: Sorry.

22 MR. CHAPMAN: I need to kind of rethink my process
23 here where I was when y'all started about that.

24 BY MR. CHAPMAN:

25 Q We were discussing to some degree these hazardous

1 work permits. Mr. Nichols, once you -- excuse me, let me
2 back up. Do you recall any of the hazardous work permits,
3 you signing these yourself for the contractors?

4 A No. I'm not saying I didn't, I just don't recall
5 any. I think I was working mostly in the process building,
6 that was my main focus for the turn-around.

7 Q I'm sorry, say that again for me?

8 A That was -- the process building -- between being
9 tied up the first week with the NRC and trying to handle the
10 process building, that was primarily my main focus.

11 Q I believe that I'd asked you sometime earlier
12 during this investigation, to provide me with the hazardous
13 work permits that you had relative to the excavation.

14 A Right.

15 Q And you did so and I have them here in my
16 possession. And I'll let you have them for your review.
17 The reason I asked that, Mr. Nichols, is do you see any of
18 those that contain your signature referencing that hazardous
19 work permits for the SX excavation area?

20 (The witness reviews the documents.)

21 A No.

22 Q Okay, Mr. Nichols, the reason I was inquiring
23 about that is did you recognize any of these as perhaps
24 having been discussed with you by anyone on your staff prior
25 to their execution? And let's specifically limit it to ones

1 involving the HWP for digging the excavation. There's only
2 a couple there.

3 A That'd be this one, digging permit only.

4 Q What's the number of that digging permit only?

5 A Number 01736.

6 Q Mr. Nichols, did you have any input into the
7 preparation of this document, this hazardous work permit
8 number 017 -- whatever the number was?

9 A As to this exact one, Larry, I can't tell you.
10 But I know that I did sit down with my supervisors and
11 discuss the permits, how they were going to be done, to make
12 sure that we didn't have an explosive problem, safety belts,
13 generalities, yes, I did that. But I can't tell you the
14 exact ones.

15 Q Okay. What I'd like to know, Mike, is having prior
16 knowledge that there could be possible surface contamination
17 out there and that these contractors would be digging in
18 this area, did you express any concern to your staff that
19 they should address the possibility of contamination with
20 these contractors working out there?

21 A We addressed --

22 MR. SHAPIRO: Are we talking about soil
23 contamination or water contamination?

24 MR. CHAPMAN: Soil is all he knew about, he said
25 early on.

1 THE WITNESS: Yes, that's why we took air samples
2 at the very beginning. That's why they wore either
3 coveralls or smocks. It's pretty well common knowledge, any
4 time anybody works in the SX area, whether digging a pit,
5 working on a pipe or anything, we have minimum requirements
6 they have to meet to work there.

7 BY MR. CHAPMAN:

8 Q I guess I was just curious, Mr. Nichols, on none
9 of these hazardous work permits do I see any I guess
10 information that directly deals with uranium contamination.
11 It's all towards industrial safety, if I can read these
12 things correctly. Am I right or wrong?

13 A Well our normal procedures for wearing anti-C
14 clothing should have addressed this. This would address
15 just anything extra we thought we might be running into.

16 Q Say that again?

17 A Anybody that goes into the restricted area has
18 certain requirements they have to meet for contamination.
19 Okay, so you have a basic health physics program, so to
20 speak, which takes care of normal contamination, et cetera.
21 And they had to meet these, that's why they wore the shoe
22 covers, that's why they wore the coveralls, et cetera. This
23 hazardous work permit, we've tried to take care of anything
24 extra we thought they would meeting or running into.

25 Q So in the case of these contractors, you're saying

1 that your standard health procedures would address the
2 contamination issue?

3 A To a large extent, yes.

4 Q Okay, Mr. Nichols, the reason I'd like to know
5 that is once you heard these low values of water being
6 discovered out there at the excavation, did you take any or
7 did your staff take any interest or precautions to go out
8 and assure that these workers, since you now had an
9 additional factor involved of water, what their safety
10 clothing now included?

11 A I think we made sure they had boots on, which
12 would have happened whether it was contaminated or not. Any
13 time there's water, we put people in boots.

14 Q Well sir, not to disagree with you, but all the
15 contractors tell me that no one at Sequoyah Fuels instructed
16 them to wear boots, rubber boots.

17 A Well Larry, I can't help that.

18 Q Well, sir, you're the man in charge of the Health
19 Safety Department.

20 A I understand that -- I understand that, but as
21 long as you're willing to accept what they say, you might
22 say as gospel, and not willing to accept what we say,
23 there's not much I can do about it. I understand what you
24 were told.

25 Q Okay, Mike, let me put it this way, none of your

1 personnel have ever -- including you -- have told you have
2 told me that they instructed these people to put on rubber
3 boots in that pit.

4 A Bob Kiehn told me that he told them to put the
5 rubber boots on. And I don't remember --

6 Q Mr. Kiehn is not Health and Safety.

7 A I understand that, but I don't ever remember --
8 and I have not questioned my staff on this point, I have
9 questioned Mr. Simeroth and Mr. Callahan and a couple of
10 others, and they don't ever remember seeing anybody working
11 in shoe covers in water.

12 Q Well you told me yesterday you saw muddy shoe
13 covers and that consequently you couldn't take some surveys
14 of those.

15 A Yes. If it rains or something, we wear them out
16 there, but we don't allow people to work in water in shoe
17 covers. It's just bad news, whether it's contaminated or
18 not.

19 Q Mike, my question to you is this, once you learned
20 early on in the project, values notwithstanding, that there
21 had been a discovery of water in the excavation, did the
22 Health and Safety Department take any precautions to go out
23 and check on these workers in the pit now that there's a
24 known quantity of water that contains uranium?

25 A Without discussing it with the rest of my staff, I

1 don't know, Larry.

2 Q Did you personally go out there and do this?

3 A I know that when I saw people in water, I made
4 sure they had boots on, I know that.

5 Q Let me back up -- I'll accept that as an answer, I
6 understand what you're saying. But what you're telling me
7 is no, sir, I didn't go out there, once I knew this value on
8 the first, and instruct anyone myself to ensure that the
9 staff had on rubber boots.

10 A No, but if I saw people working in water, I did
11 make sure they did have rubber boots on.

12 Q We had a little trouble yesterday establishing
13 exactly when you were by that pit. Water showed up right
14 around the first, as we all know. And you by the fact of
15 knowing these lower limits to some degree early on, know
16 water showed up in an early project, so you're not the
17 person that's telling me you ensured they had on rubber
18 boots?

19 A No.

20 MR. SHAPIRO: As a general matter, would it be the
21 responsibility of your people and something they would
22 ordinarily do to make sure that the people working in water
23 had boots on?

24 THE WITNESS: Yes, it's a pretty common thing. We
25 don't allow anybody around here -- if they're going to be in

1 water, put on rubber boots, whether us, contractors or
2 whatever. It's just a general thing, it's just a basic
3 health physics practice.

4 MR. SHAPIRO: And in fact, is it probably a
5 general procedure that the engineers know of too?

6 THE WITNESS: Yes.

7 MR. SHAPIRO: And the contractors?

8 THE WITNESS: Yes.

9 BY MR. CHAPMAN:

10 Q Mr. Nichols, in relation to this, does it matter
11 whose rubber boots they are, as long as they have on rubber
12 boots?

13 A Should be our boots.

14 Q I understand. It's a given if you see a man in
15 rubber boots, you assume they're yours.

16 A Yes, sir, that's what we do.

17 Q But of course we've had a discovery since then of
18 the fact the contractor was using some of their boots and in
19 fact one pair of them left the site above the release
20 limits. And I realize --

21 A Excuse me, you brought that up two or three times.
22 I haven't seen data that -- you're talking about the boots
23 that was in Jim Smith's truck?

24 Q Correct.

25 A Okay, sorry, I thought you were talking about Mr.

1 Taylor. That boot got out and should not have, but that was
2 our boot.

3 Q I mentioned contractors in general.

4 A That was not a contractor boot, that was our boot.

5 Q That was your boot?

6 A That was our boot.

7 Q I didn't know that.

8 A It was an SFC boot.

9 Q Okay. How about Mr. Taylor, do you know if any of
10 his boots made it off-site?

11 A No, sir, I do not.

12 Q Oh, that's right, because you haven't had an
13 opportunity to survey his equipment.

14 A We had one incident of questioning one of the
15 technicians, that took one of his boots away from him.

16 Q Mr. Taylor?

17 A Mr. Taylor, because it was contaminated. It was
18 not above the release limits, but it was contaminated and we
19 told him he couldn't have it back and he got very irate,
20 according to the technician. In fact, I called Mr. Taylor
21 and told him, I said if you'd like for us to buy you another
22 pair of boots, we will. He never responded.

23 Q The reason I'm kind of curious too, Mr. Simeroth
24 was present at this excavation frequently, is that correct?

25 A Yes.

1 Q Did Mr. Simeroth discuss with you at the time of
2 the excavation the fact they had found water at the moment
3 that they discovered it out there? I say moment -- the day.

4 A I don't remember, Larry, I really don't. I don't
5 remember if he came to me and says we've found water in
6 there, because there wasn't any need for it. We knew we had
7 sewer water in there and we knew we had shower water in
8 there. You mean as far as the yellow water, is that what
9 you're talking about?

10 Q Well yes.

11 A No, he did not do that.

12 Q He did not come to you and give you any early
13 indications of that?

14 A No, sir, he did not.

15 Q Okay.

16 (Brief pause.)

17 Q Mr. Nichols, one other area that has occurred to
18 me that I want to address, and I'll take your response that
19 you took your clue that everyone that works in water has to
20 have boots on and you felt comfortable that these people had
21 met that requirement even though you yourself have told me
22 you didn't take personal instructions to these individuals
23 to wear them. Do you agree with that?

24 A Yes, sir.

25 Q I wanted to come back to a little bit of area

1 which I think has some bearing on this, and I ask you your
2 first indications of contamination out there, and we got a
3 little bit of confusion as to when you first saw solid
4 contamination out there and we started with a discussion of
5 looking up under the SX building and so forth and so on, and
6 we ended up going through another period of time.

7 Not to belabor an issue, but I need to know this
8 because it has a bearing on a question or two I'm going to
9 ask you. Have you now had an opportunity to think when you
10 were first down in the excavation with Mr. Vasquez and you
11 first observed yellow solids in the excavation?

12 A That was the 22nd or 23rd, whatever, when he came
13 out here for his trip, when he was called back out after we
14 reported it. That's when he and I were down in the pit
15 together.

16 Q All right, sir. And I believe you indicated to me
17 that you never saw yellow streaks in the walls.

18 A Not that I considered to be uranium, no, sir.

19 Q No, I didn't ask you what you considered them. I
20 said you never saw yellow streaks, Mike.

21 A Well there was clay there, but I did not see --

22 Q Clay that's yellow?

23 A I wouldn't even call it yellow, I'd call it kind
24 of a -- I'm just trying to answer the question, Larry.

25 Q No, you're not. The question is -- and I asked

1 you yesterday -- did you ever see yellow streaks in the
2 soil.

3 A No, sir.

4 Q Okay. And I've mentioned to you the fact that I
5 have seen a montage of pictures that showed some and you
6 didn't have any recollection or knowledge of these pictures,
7 right?

8 A I remember the pictures, but I didn't remember
9 seeing them as uranium. You're talking about the ones Jim
10 Mestepey took?

11 Q Yeah, that show yellow streaks in the ground. We
12 didn't identify what they were, just that they were yellow
13 streaks.

14 A Yeah.

15 Q And what about these pictures -- now you've lost
16 me as to what you're saying yeah to.

17 A I remember the pictures, okay? But I don't
18 remember seeing them as yellow streaks, let's put it that
19 way.

20 Q Okay. The reason I asked you that is Ms. Couch
21 has indicated to me through testimony that she took some
22 soil samples on the 4th of August.

23 A Okay.

24 Q And that she brought these jars, pint jars, back
25 into her office.

1 A Uh-huh.

2 Q And that she showed these jars to you and that in
3 these jars was soil that she had taken from the excavation.

4 A Ms. Couch brought some jars back in there in a
5 box, she said she had taken for hexane, to be tested for
6 hexane.

7 Q Okay.

8 A I saw the box sitting there.

9 Q You never saw the jars themselves?

10 A Not really.

11 Q What does not really mean? Did she take them out
12 and show them to you?

13 A No, sir.

14 Q They stayed in the box the whole time?

15 A They were sitting behind her desk, the box was
16 there. I asked her what they were and she told me, and I
17 said to get them out.

18 Q Why would you be concerned to get jars of hexane
19 out of there?

20 A One of the basic rules of industrial hygiene or
21 health physics is anything -- and I always enforce it -- is
22 you do not have any kind of jars of hexane, chemical, or
23 anything else that's edible in an area that your normally
24 eat. We enforce this every place we have.

25 Q She had them in an eating area, is that what

1 you're telling me?

2 A She eats in her office quite often.

3 Q And that was the reason why you asked that they be
4 removed?

5 A Yes, sir.

6 Q Did she have a discussion with you about the fact
7 that she believed that this soil contained any type of
8 uranium contaminants when she was discussing these jars in
9 the box with you?

10 A Not to my knowledge. She discussed with me the
11 fact that she had smelled them and they smelled like hexane
12 and she was almost sure that there would be a problem with
13 them passing the test for hexane.

14 Q Now do you recall or are you able to associate the
15 time you saw these jars, or the box with the jars in them,
16 whether you had already received information that they had
17 discovered water out there that had some low values of
18 uranium in the excavation?

19 A I can't tell you, Larry, I don't know if it was
20 the day before, day after, week before, week after.

21 Q You can't put a correlation between observing
22 these jars and your knowledge of the low levels of uranium
23 in the water out there?

24 A No, sir, I can't.

25 Q So you had no reason to be concerned that the jars

1 she showed you contained any contaminants?

2 A Oh, I knew they probably contained hexane and
3 maybe some other chemicals or something.

4 Q And also, Mike, in the fact that you had had some
5 data from the SX sandwells for years indicating there was
6 some uranium in the water in the ground, and it was well
7 established and well known around here that the soil would
8 contain uranium contaminants vis-a-vis split samples,
9 overflows, incident reports, that it did not occur to you
10 that the soil could contain uranium contaminants, nor did
11 you inquire of that?

12 A I think I know what I want to say but let's go
13 over the question one more time. Did I have concern about
14 contamination?

15 Q No, my question was did she discuss -- did Ms.
16 Couch discuss it with you and you said no, she discussed
17 hexane with me.

18 A That's right.

19 Q And you were only concerned to get the soil out of
20 the room because of it being -- it's a well established
21 safety practice, you don't bring chemicals in any kind of
22 area --

23 A The whole conversation took maybe 15 seconds at
24 the most.

25 Q I don't doubt that, Mike, I'm not asking you --

1 A She asked me about the hexane.

2 Q My question is you didn't ask any questions or
3 express any concern with the knowledge that you've now
4 conveyed to me that you knew there was a possible
5 contamination out there if the soil contained any type of
6 uranium contaminants.

7 A At the time, I probably put in the back of my mind
8 about contamination in the soil because we all knew there
9 was some. Nobody is saying there wasn't any. My biggest
10 concern at the time was that there was hexane in there.

11 Q Okay. What I'm a little bit --

12 A That's what I was driving at when I wanted them
13 out of there.

14 Q Wanted the samples out. Mike, one of the things
15 that I'm having a little trouble grasping here is that
16 you're the Manager of Health, Safety and Environment at that
17 time and then you became Manager of Health, Safety when they
18 moved Environment out -- I'm sorry, you were Manager of
19 Health Physics and then you became Manager of Health Safety
20 -- Health and Safety, and you also had Carolyn Couch for a
21 short period of time as Manager of Health, Safety and
22 Environment.

23 A Yes, sir.

24 Q As a manager of this, you had some previous
25 indications that there had been sandwell samples taken, you

1 had reviewed these sandwell samples at some period of time
2 prior to the excavation, you had a known that there was a
3 possibility of soil contamination out there and you had
4 received some information early in the project that there
5 was some water out there at very low levels. And yet, Mr.
6 Nichols, I've asked you on numerous occasions if you
7 expressed any concern to anyone about the safety of the
8 contract workers. And I've yet to understand why you would
9 not be out there ensuring that your staff is meeting every
10 possible guideline.

11 A I felt that my staff was meeting all the
12 guidelines that were required to protect the health and
13 safety of the workers. We knew there was some
14 contamination, that's why we had them in anti-C clothing.

15 Q Anti what?

16 A Coveralls.

17 MR. DRISKILL: You're calling it anti-C clothing?

18 THE WITNESS: That's what it's commonly called.

19 MR. DRISKILL: Anti-contamination?

20 THE WITNESS: Right. We felt for the hazards that
21 were there, that they were well protected. We knew there
22 was some contamination --

23 BY MR. CHAPMAN:

24 Q For the hazards that were there, and the hazards
25 that you thought were there were what?

1 A Hexane and a small amount of contamination.

2 Q Small amount of contamination.

3 A Primarily we felt that the biggest hazard there
4 and the feedback I was getting from my staff, my safety
5 engineers, my supervisor, was that yes, there was a little
6 contamination but we expected that, but the biggest hazard
7 there was the hexane explosiveness, the industrial safety --
8 you can see by the pictures you showed me, people are
9 walking around rebar, if they fall -- those kinds of things.
10 And that was why I was checking mostly. That's what I did.

11 Q And just as a matter of information, the pictures
12 I showed you, I referenced the date of August 14 and there's
13 considerable water down there that I think we all can see
14 had a kind of yellow tinge to it. You'd never seen that
15 water in the pit?

16 A I do not remember that, no, sir.

17 Q Ever seeing water of that -- okay.

18 A And I'll be honest with you, I'm sure I could have
19 taken a lot of heat off myself by saying it, but sir, I do
20 not remember that.

21 Q Okay. Also Mike, in relationship to the concerns
22 you had going into the excavation at that time, is there not
23 a requirement that contract personnel provide urine
24 bioassays on a semi-monthly basis?

25 A Yes, sir.

1 Q Twice monthly I think it says.

2 A I think the procedure says for contractors on an
3 as needed basis. I think normal employees are twice
4 monthly.

5 Q And I believe that you were taking bioassays of
6 Sequoyah Fuels personnel regularly out there?

7 A Yes, sir, including Bob Kiehn, who was in the
8 water, some of the operators who were pumping the water --
9 yes, sir.

10 Q Were these people wearing protective rubber gloves
11 when they were pumping the water, do you know? And I ask
12 you that, Mr. Nichols, because you're going to tell me some
13 values associated with these people but I want you to be
14 able to tell me why these people vary from the people down
15 in the pit. If they were wearing rubber gloves and
16 protective equipment other than what the contract personnel
17 were wearing, how can you equate these values with the
18 values of people down in the pit.

19 A Not always, no.

20 Q They weren't wearing rubber gloves?

21 A Not always, no. A lot of people were not always
22 wearing rubber gloves because they were handling pumps and
23 things.

24 Q Were they handling the water directly like these
25 contract personnel were? I want to know how you have

1 absolute reliance on the bioassays of Sequoyah Fuels
2 personnel who were not handling the water in contrast to the
3 contract people who are handling it.

4 A Larry, we have handled this same water in
5 concentrations hundreds of times what you're talking about.
6 We've had instances where Herman Leatherman, for example,
7 was sprayed down with it, 800 grams per liter, and still had
8 no uptake. We've had our own people pumping thousands of
9 gallons for many years, thousands of manhours handling this
10 water. Since then we have had them take 55-gallon drums and
11 turning them over at the vat, standing there. The soil --
12 we have air samples, we have yet to come up with a high
13 urine or anything that could be elevated above SFC limits as
14 far as our own people. Right or wrong, but it gives you a
15 pretty good indication, because when a man turns a 55-gallon
16 drum over like a miscellaneous digest, and the air samples
17 don't show anything and his urine doesn't show anything, and
18 Bob Kiehn, for example -- even your report, you said did he
19 feel like he was being covered by the liquid sometimes, Bob
20 Kiehn didn't show anything.

21 I've talked to Ken Simeroth who was down there
22 handling pumps and everything, looked at his urine. I've
23 talked to -- some of the operators -- that was after the
24 22nd -- was down there pumping the water out, moving the
25 pump, wading in the water, so to speak, you know, shoveling,

1 et cetera and we still haven't shown any urines. Tony
2 White, for example, I talked to him extensively and I asked
3 him, "when did you get into it"? He told me he got into it
4 mostly when he was doing the floor. Immediately after that,
5 I pulled two urine samples from him and still didn't have
6 anything above our --

7 Q Immediately after that?

8 A It was like two or three days.

9 Q What is your time frame of immediately?

10 A Two or three days. Something like that.

11 Q Tony White was working on the floor around the
12 17th of August and you did it prior to the 22nd of August?

13 A I think we did it on the 22nd.

14 Q You took a urine sample of Tony White on the 22nd?

15 A The 22nd or 23rd. We got them for him, Jim Smith
16 and these people, okay, after the 22nd.

17 Q After the NRC brought it to your attention?

18 A Right. After the 22nd, we continued to pull urine
19 samples from all of our people that were pumping this water
20 and working with it.

21 Q Mike, I --

22 A And to this day -- I'm just trying to put
23 something reasonable into it. I'm just trying to show you -
24 - you asked me for my basis for it, and that's my basis for
25 it.

1 Q That's your basis for why you didn't -- what
2 you're telling me then is that your -- all of these things,
3 your past knowledge you're saying, you applied to these
4 contractors working --

5 A No --

6 Q -- in the pit --

7 A -- no --

8 Q Let me finish now.

9 A I should have urine sampled the contractors, if
10 that's what you're trying to say -- and did not.

11 Q I'm trying to understand why you felt very
12 comfortable as the Health, Safety and Environment Manager
13 and not taking any urine samples; (B) not being overly
14 concerned to come by the pit on occasions and ensure that
15 your staff are meeting all of the procedural requirements.
16 And you're telling me that you had no indications of it and
17 when you went into a long litany of reasons why you felt
18 this. I want to make sure I understand, Mike, that you're
19 telling me why you felt absolutely comfortable that these
20 workers were protected in the pit. That's what I think
21 you're trying to tell me.

22 A No, sir.

23 Q Then what are you trying to tell me, Mike?

24 THE WITNESS: Can we take a break?

25 MR. SHAPIRO: Do you want to talk?

1 THE WITNESS: Yeah.

2 MR. CHAPMAN: Sure, absolutely we can go off the
3 record. For the record, Mr. Nichols has requested a break
4 to speak to Mr. Shapiro.

5 (A short recess was taken.)

6 MR. CHAPMAN: Okay, we're back on the record here
7 again at 20 minutes till 4.

8 BY MR. CHAPMAN:

9 Q Mr. Nichols, let me ask the question again and
10 I'll give you my data and give you an opportunity to respond
11 to it. Keep in mind that I do not want you to give me
12 information that you knew after the fact of the NRC.

13 A I agree.

14 Q All right, sir.

15 A And if I did that, I apologize.

16 Q My question to you, sir, is, as the Health, Safety
17 and Environmental Manager, or Health, Safety Manager, the
18 man in charge of the Health Physics and Safety Department,
19 pick whatever title you want -- during the period of time
20 between the time the contractors began their excavation in
21 the pit sometime around the 1st of August and until such
22 time as this matter was reported to the NRC; in light of the
23 fact that you have indicated to me that (A) you knew prior
24 to excavation that there was a possibility of contaminated
25 soil; (B) whether you put any value on the information or

1 not there had been some sandwells taken and showed water in
2 that area and had heard early on from someone that there was
3 some contaminated water found with low levels. As the
4 manager in charge of this, what assurances did you have that
5 these individuals down in the pit were being protected?

6 A Can I ask you what was the first part of your
7 question? It's a three part question and you asked me about
8 the sandwells, contaminated water --

9 MR. SHAPIRO: Soil contamination.

10 BY MR. CHAPMAN:

11 Q Soil contamination. The possibility of soil
12 contamination.

13 A We have a basic health physics program which gives
14 the minimum requirements for people working out there. You
15 know, if they are going to be working in the dirt, they have
16 to wear anti-C clothing or coveralls. We have basic things
17 that would handle the normal levels of small contamination.
18 The sandwells -- for instance sandwells, that was
19 information we had stopped receiving a year and a half,
20 almost two years prior to that. I had talked to our
21 environmentalist, which mean nothing, because they weren't
22 real wells. They were just a pipe in the ground which were
23 picking up surface contamination. That was my impression of
24 it, okay. Contaminated water that they said they had found
25 was very small, like .010, .020, very small amounts. You

1 could discharge it to the environment. I had my best -- I
2 had my only supervisor out there and I had placed a
3 technician out there and I had received no information from
4 them indicating that I had any kind of other problem.

5 Q Okay, that was what you rested your assurances on?

6 A Yes, sir.

7 Q All right, sir.

8 MR. SHAPIRO: If I could just interject one thing.
9 If you had had -- and it's another question as to why you
10 didn't. But if you had had information at the time, that
11 is, between August 1st and August 22nd, that there was
12 significantly higher levels of uranium, you know, one to
13 eight grams, would you have done other things?

14 THE WITNESS: Yes, sir, I would have.

15 MR. SHAPIRO: But you didn't have that?

16 THE WITNESS: No, sir, I did not.

17 MR. SHAPIRO: So what you did in the -- the degree
18 of care that was taken by you and your technicians were
19 based on lower levels or knowledge of lower levels?

20 THE WITNESS: I felt that it was adequate -- the
21 information that I was getting and the protection we were
22 giving was adequate at the time.

23 BY MR. DRISKILL:

24 Q Let me ask you this question though. But based on
25 -- and there were a few more -- a few more clues based on

1 just my personal recollection. It may go beyond this. I
2 would have to review some of my old notes on this. But you
3 had the '88 spill incident, the NRC came here, there was
4 split samples tested and all of that. The NRC made a big
5 deal about contamination in the area of the hexane tank and
6 the -- whatever the other tank was, I forget.

7 MR. SHAPIRO: The solvent dump tank.

8 MR. DRISKILL: Yeah, the dump tank.

9 Okay, so that was -- that was a clue there that,
10 you know, there was some contamination in that particular
11 area and that's the specific area where the excavation was
12 taking place. You told me earlier on in our first interview
13 there was an evaporator tank or something on a pad directly
14 west of those tanks that may have contributed to some of the
15 contamination in that general area, an elevated level of
16 contamination in that general area. I'm not saying highly
17 elevated, but I'm saying some degree of contamination.

18 THE WITNESS: Yes, sir.

19 BY MR. DRISKILL:

20 Q There probably have been historical spills from
21 that. You had these sandwells, 10 years or 15 years they've
22 been taking samples out of those things and they've shown
23 varying levels of contamination in the water that existed
24 there, and I don't care where the water came from, if it was
25 rainwater or somebody took a leak in the tube or where it

1 came from, if they were pouring their coffee cups. I don't
2 care where the water came from that was in there, but when
3 it came out it was contaminated. When it was sampled and
4 tested, right here (indicating documents), these documents
5 here tell you that.

6 A Yes, sir.

7 Q That it was sampled and tested and showed some
8 degree of uranium contamination despite where the water came
9 from. Okay, then we go on to August the 1st or the 2nd.
10 You told me yourself that you told people to pick up sold
11 pieces of uranium, yellow rocks that were laying on the
12 ground, when they started cleaning the gravel back.

13 A Yes, sir, on the surface.

14 Q That's right. You told them to pick that up.
15 They didn't pick up but maybe a bucket or so of it, okay.
16 So there wasn't a tremendous amount of it there, but that's
17 solid uranium on the ground which is indicative of some
18 degree of contamination in that specific area where those
19 people were working, okay. You knew about various water
20 that was in that area because of a broken shower main or
21 something. You refer to that a number of times. That on
22 the other end of the excavation there was a --

23 A A sewer.

24 Q -- for a couple of days a broken sewer pipe. But
25 according to Kiehn there wasn't more than a 55 gallon drum

1 of water that came out of that, if that much, and it was
2 taken care of in just a very short period of time. The
3 thing was repaired and that went away, but that contributed
4 some level of water there.

5 It only stands to reason -- furthermore, you had
6 been made aware of the fact -- early on in the -- on the
7 first day, Kiehn had taken a sample of some water there and
8 it come out with some very low level of contamination, like
9 .04 or 5 or something like that, okay. I'm not saying
10 that's the figure, but it's something low.

11 A It was very low.

12 Q Okay, so you've got all of these different clues
13 that adding up in your mind as you go along should -- and
14 I'm not trying to discount the fact that you were -- you
15 were concerned about hexane and you were concerned about
16 other industrial safety, people falling in the hole and
17 trucks running over people and, you know, checking trucks at
18 the gate. You've got a huge responsibility here and I'm not
19 trying to discount that fact, but it's all part of your job.
20 It's all in your job description and all of these things,
21 you know, should be in your mind. And so -- and I recognize
22 too that perhaps your people were not as -- were not as
23 conscientious as they should have been in perhaps thinking
24 about these things themselves or maybe they were worried
25 more about one thing than they were another, but somehow the

1 end of all of this information didn't get to you. When you
2 were there, you didn't see certain things, perhaps yellow
3 water or whatever else, yellow stains on the wall or
4 whatever else and so on and so forth. But my whole point
5 here is, there was obviously contaminated soil, based on all
6 these things I've told you about. There was contaminated
7 soil on the ground; it rains on the ground, this stuff goes
8 down into the ground, people are digging there. There's
9 going to be some degree of contamination there.

10 A Yes, sir. I've always admitted there was
11 contamination. That's never been in controversy. It was
12 the eight grams per liter that we were not expecting to see
13 -- or the one gram per liter.

14 Q But did you ever instruct anybody to take any soil
15 samples prior to this thing beginning to determine what
16 kinds of levels of contamination may exist there?

17 A No, sir.

18 Q Did you ever ask anybody to take -- to drill any
19 holes in the ground to see if there was water down there or
20 whatever else might be there?

21 A Well, as we went down digging, we had looked for
22 it and not seen it. You know, as we were digging -- the
23 shovels and things.

24 Q Well then, you're scraping the gravel off the top
25 of the ground?

1 A I'm talking about when they were using the
2 trackhoe.

3 Q Okay, then --

4 MR. CHAPMAN: How do you know they didn't --

5 THE WITNESS: How do I know what?

6 MR. CHAPMAN: How do you know they didn't find
7 water? You weren't at the pit.

8 THE WITNESS: I was back and forth at different
9 times. I wasn't there all the time but I never saw any
10 water.

11 BY MR. DRISKILL:

12 Q You've been talking to the wrong people. They
13 found water -- right when they first started digging they
14 started finding water.

15 A I remember there was one -- and I discussed it
16 my last interview -- one spot with some black water or
17 something around a tank.

18 Q That was a week later.

19 A Yeah, a week later or sometime or another. It was
20 just a small --

21 Q Well, we're not talking a week later. We're
22 talking the first day.

23 A Okay. I was unaware of --

24 Q That's where the first soil samples came from.

25 MR. CHAPMAN: I just want you to make sure you

1 have your time frames straight.

2 THE WITNESS: Okay.

3 BY MR. DRISKILL:

4 Q All I'm getting to is a couple of questions here.
5 I just want to get them in here for the record. You didn't
6 take steps before this thing began to determine what degree
7 of contamination there may be in the soil, even after --
8 even after they started working, I guess, on July the 30th
9 or 31st and finding solid bits of uranium on the top of the
10 ground. You took steps to see that it got picked up but you
11 didn't stop to do an evaluation of the situation.

12 A We took air samples to see if the dirt was going
13 to give us any kind of a problem because of uranium.

14 Q You did that on the 30th, or on the 1st, or the
15 2nd, or did you start that later on?

16 A The 2nd and the 3rd. We took about 20 air
17 samples, which is a very good indication of what's in the
18 dirt.

19 BY MR. CHAPMAN:

20 Q Surface dirt?

21 A No, this --

22 Q You stopped when they got down below -- when they
23 started digging at the bottom -- you weren't out there
24 taking air samples when they were working in the bottom of
25 the pit?

1 A We took them as they were bringing dirt with a
2 trackhoe, or whatever it was, out, as I understand it.

3 Q You took these air samples continuously during
4 that two-day period of time?

5 A Yes, sir.

6 Q All day long?

7 A Well, I would have to look at the times on them to
8 get the exact times.

9 Q Well --

10 A There were 20 air samples taken over two days -- a
11 two day period and that's when the trackhoe was there.
12 That's when the dirt was being moved.

13 Q Was the dirt moist?

14 A Somewhat. Some of it was, some of it wasn't.

15 Q Will moisture in dirt keep it from flying around
16 in the air as opposed to dry dirt?

17 A Oh, yes. Yes, it will -- it will. But if you've
18 got high volume air samplers down in there and things like
19 that and you dry them out, you can still get a pretty good
20 indication.

21 Q I don't understand what high volume air samplers -
22 -am I interrupting you?

23 A Or low volumes or goosenecks or anything.

24 Q The volumes of air, I don't care, Mike, high or
25 low or whatever.

1 A Okay.

2 Q Is that something where you basically scoop air
3 out of the air?

4 A Uh-huh. You have a filter and you pull air
5 through the filter.

6 Q Now, I'm going to ask you this question. With the
7 dirt being moist, and the fact that the sand or dirt is
8 moist, would that have a direct bearing on the amount of air
9 -- the contamination floating in the air that could be
10 surveyed?

11 A Yes, sir.

12 Q It would?

13 A Yes, sir.

14 Q So would you get a different reading if the ground
15 was dry and powdery and stirred up all across, as opposed if
16 you were walking across damp dirt and taking air samples?

17 A You would get more dirt into it, yes, sir.

18 Q Just so I understand -- I don't want to -- I want
19 to make sure that I clearly understand this. You're taking
20 high volume air samples during moist sand is going to give
21 you different readings than if you took them at a dry sand
22 level?

23 A Somewhat, yes, sir.

24 Q Somewhat?

25 A It should still -- if your airborne is still very

1 high, you should still pick up something.

2 Q I don't argue that. My question to you, Mike, is

3 --

4 A We didn't pick up anything.

5 Q But I want to know if it should be tempered with
6 the fact that the ground was now moist and it would have a
7 direct relationship on the air samples?

8 A Oh, yes. You have to put it into perspective,
9 yes, sir.

10 Q So I guess my next question to you, Mike, is,
11 knowing you had moist dirt and taking air samples, and
12 there's a suspect between moisture and dry ground, why
13 didn't you take some steps to scoop the dirt up and take a
14 soil sample?

15 A I don't know.

16 MR. DRISKILL: Well, I think the serious
17 contamination problem resulted perhaps not from the
18 contamination that may have existed --

19 THE WITNESS: In the dirt.

20 MR. DRISKILL: -- I'm not a -- I don't think the
21 serious or the higher contamination levels came from
22 probably right there, although that area was probably
23 contaminated. It was the water that was coming from beneath
24 the SX building, which had been there for a long time and
25 was highly contaminated.

1 BY MR. CHAPMAN:

2 Q I just want to --

3 A I understand what you're saying.

4 Q I just want to indicate that --

5 A And I'm not --

6 Q -- there are some degrees of contamination to
7 these samples.

8 A I understand that and I'm not trying to change
9 time frames here, okay. Let me explain. We took 300 air
10 samples of this dirt after it dried out and still found
11 nothing and we felt --

12 Q But that doesn't protect those workers at the time
13 they're digging the dirt, Mike.

14 A I understand that. But the dirt was not muddy.
15 You know, it may have been moist or --

16 MR. DRISKILL: Where is that list -- where is that
17 list of -- that computerized list of samples that came from
18 the lab? You know, we had that early on in the game. It
19 shows about four or five or six soil samples that were taken
20 there that were taken to the lab and they showed higher --
21 yeah, right here.

22 MR. SHAPIRO: That's water.

23 MR. DRISKILL: I think there were some soil
24 samples --

25 MR. CHAPMAN: Mike, let me ask you this question--

1 MR. SHAPIRO: Larry, let me inject one thing.

2 MR. CHAPMAN: Okay. Sorry, Ira.

3 THE WITNESS: In five minutes, I've got to go.

4 MR. SHAPIRO: We had given notice that he had to
5 leave at four o'clock. If you're close to finishing, you
6 know, I'll ask him if he's got time to stay a few more
7 minutes, otherwise, I would rather recess it and continue
8 it, as much as I don't want to. But he has -- it's a
9 personal appointment and it's important.

10 MR. CHAPMAN: All right, let me -- okay, noted.

11 BY MR. CHAPMAN:

12 Q Let me ask you this question. Were you aware of
13 the fact that on the 4th, the 6th and the 7th, Carolyn Couch
14 took samples of water in that excavation?

15 A No, sir.

16 Q Undeniably, you never knew that? She never
17 mentioned it to you?

18 A If I had of known that --

19 Q Give an answer so that we will know.

20 A If I had of know that, I would have followed up
21 and made my life a hell of a lot easier, gentlemen.

22 Q Okay. Were you aware that one of your industrial
23 engineers took a sample of that water out there -- by the
24 name of Gary Barrett -- on the 7th of August?

25 A I found that out -- he brought that up to me maybe

1 two or three months later after you guys had interviewed me.

2 Q Okay.

3 A At the time, I was --

4 Q At the time. That was my question.

5 A No, sir.

6 Q At the time, you did not know that?

7 A No, sir.

8 Q Mr. Barrett, he never discussed it with you?

9 A No, sir.

10 Q Okay. He discussed it with Jim Mestepey. Did
11 anyone else ever discuss this with you during the time frame
12 of the 1st to the 22nd?

13 A His sample?

14 Q Well -- okay, if you're going to pin me down --

15 A My --

16 Q -- yes, Mr. Barrett's, and/or did anyone express
17 to you that they had taken water samples during the period
18 of time from the 1st to the 22nd?

19 A There was the real low samples that I had heard
20 about, the .01, the .02 and the ones that we discussed
21 yesterday, the low ones. Those are the only ones I was
22 aware of.

23 Q Okay, so the record is clear, that's the only
24 water samples you ever had any indications of between that
25 period of time, the 1st to the 22nd?

1 MR. SHAPIRO: Can I just ask one thing? I can't
2 recall, but on the 17th when there was a general discussion
3 with Mr. Lacey about the rumor of some samples, are we
4 counting that? Did you know of any samples then?

5 THE WITNESS: I knew of the ones that were very
6 low.

7 MR. SHAPIRO: Just the low ones?

8 THE WITNESS: Just the low ones.

9 BY MR. CHAPMAN:

10 Q You went into a long discussion yesterday about
11 the fact that you didn't know values on the 17th, you had
12 just heard a rumor. So, I'll temper my question with the
13 fact --

14 A We tried to check that out and couldn't find
15 anything.

16 Q And, of course, you took no additional air
17 samples, even though contractor personnel were down in the
18 pit shoveling dirt and moving dirt around between -- or
19 after those first air samples, correct?

20 A Correct.

21 Q So that I will also understand, Mr. Nichols, no
22 one was wearing any type of lapel -- or anything that
23 measured the air itself, is that right? Or do film badges
24 measure the air itself?

25 A Film badges do not measure the air itself.

1 Q Now, I understand some of the contractors were
2 wearing film badges during this period of time.

3 A They should have all been wearing film badges.

4 Q They should have all been. I know they should
5 have been, but we know that some of them lost them also.

6 A Okay, if they lose one, the next day they can't
7 get in until they get another one.

8 Q Okay. I don't argue that with you. I agree with
9 you a hundred percent. I guess I'm just --

10 A If you're asking should we have taken urine
11 samples, yes, we should have, but we did not.

12 Q Well, I think this has a direct bearing on you
13 telling me the reasons you felt so comfortable were your
14 standard health practices, but yet, I'm finding holes in
15 your standard health practices.

16 A Possibly so.

17 Q Possibly so? I mean, you've given me all of these
18 procedures and standard health practices, Mike, and yet, I
19 find people didn't get lapel pins, urine tests, the film
20 badges are not handled in accordance, their ID badges are
21 not issued in accordance. I'm trying to understand how --

22 A I disagree with the film badge thing and
23 accordance, because I think we tried to issue one every time
24 one was lost.

25 Q All right, sir. If you say so, I'll take your

1 word.

2 A We looked at those.

3 Q Okay. I won't disagree with you on that because I
4 don't have all the specific data.

5 A And as to whether the dirt was dry enough to give
6 us accurate air samples -- I think that's what you were
7 referring to awhile ago.

8 Q Well, you answered that. You said, no, it does
9 taint it.

10 A It will. It will.

11 Q Yeah.

12 A It just depends on the degree of it and how wet it
13 is.

14 Q Oh, I agree with that.

15 A And the technician there, they were trained to
16 look and see what they think.

17 Q I think if we have to, we can probably go and get
18 testimony as to some dampness of it, but I think -- the
19 point I want to derive -- and I understand there are varying
20 degrees to everything in life -- is that the ground was
21 moist and it does have an effect on those air samples.

22 A Yes, it does.

23 Q Okay. One last thing I wanted to ask you before--
24 Do you have a problem with letting him go?

25 MR. DRISKILL: No. We'll probably have to pick

1 this up for a little while in the morning.

2 THE WITNESS: That's fine.

3 BY MR. CHAPMAN:

4 Q As I understand, Mike, from Mr. Martin, the
5 Manager of Training basically, it is the responsibility of
6 the personnel inviting contractors on site to see that they
7 are properly trained.

8 A Yes, sir.

9 Q Does any of that responsibility fall in your
10 departments?

11 A We do quite a bit of training. They, for example,
12 ask us what kind of training they need to work in the area.

13 Q Okay. In light of these contractors here that
14 came on, basically S&S General Contractors being Jimmy Smith
15 and Calvin Taylor being Taylor Concrete Construction; did
16 you have any input as to the training requirements of these
17 contractors?

18 A Yes, I specified that they all receive the
19 contractor training, everyone that was going to work in it.

20 Q Did you receive assurances from the Training
21 Department that they had received -- everyone in that pit
22 had received the training that they --

23 A I asked Derrell Martin and he told me that the
24 initial group had finished and they had completed it,
25 because I look at who failed, who passed, if they do fail,

1 do we want to send them back though or what.

2 Q Okay. In light of this comment, this information,
3 Mr. Martin has indicated to me that one of the methods by
4 which Sequoyah Fuels at that time assured that people had
5 received the one-day training, which is in depth to some
6 degree, is the issuance of the face badge, a picture ID
7 badge.

8 A Right.

9 Q It's well established that some of the contract
10 personnel came on site without receiving the one day
11 orientation program.

12 A I think to the best of my knowledge, that was
13 about -- five or six people worked for S&S were brought on
14 after excavation started when he found out he couldn't get a
15 bulldozer down there. I was unaware of that.

16 Q You weren't aware that they brought those people
17 on site?

18 A Yes, sir, I was.

19 Q Yet -- Mr. Nichols, one of the guards on my way up
20 here while ago when you were leaving to go to lunch said
21 that's my boss, Mr. Nichols. He's in charge of Security.

22 A That's true.

23 Q And you're telling me --

24 A The contractor --

25 Q -- that your security personnel are letting people

1 come on site that you're not aware of?

2 A No, that's not what we're saying. They were
3 brought on site -- they were brought on site and they
4 decided to use them in the excavation pit without being
5 trained. They were given just a short video.

6 Q Now wait a minute, you're opening a whole new
7 area, Mike. What do you mean they're letting them on site
8 without being trained? Who's bringing them on without being
9 trained?

10 A Evidently Mr. Fryer.

11 Q Mr. Fryer has failed to see that these people are
12 properly trained -- you're telling me?

13 A That's what happened.

14 Q But yet, you told me, Mr. Nichols, you're the
15 person that specifies to the Training Center what
16 contractor's training --

17 A What happened was, they asked me what kind of
18 training did I require for people going to be working in
19 there and I said they must have the full blown contractor
20 training. They started the job, they worked -- I don't know
21 how many days. I can't give you a time frame on this one.
22 Then they decided they needed four, five or six more people.
23 At this time, they brought these people in there to work for
24 Jim Smith under Mr. Fryer, issued them film badges, gave
25 them the video -- which we've been cited for your people for

1 inadequate training -- and put them to work.

2 Q And, of course, this was totally unknown to you?

3 A Yes, sir.

4 Q Even though you were at the site and I'm sure you
5 probably noticed visitors badges on some of these people?

6 A That's a good point.

7 MR. SHAPIRO: Well, since it's a good point, I
8 suggest we break at this point.

9 MR. CHAPMAN: Okay, I'll pick up with that again
10 tomorrow then, Mr. Nichols, because it's hard for me to
11 understand why the Manager in charge of Health and Safety
12 would not know there was people down there untrained.

13 Okay, for the record, it is now three minutes
14 after four. It is the desire of OI that we continue this
15 interview, but at the request of Mr. Shapiro and Mr. Nichols
16 due to a pressing matter, we agreed that in fairness to Mr.
17 Nichols -- he has a prior commitment of a personal nature --
18 we will continue this interview in the morning, if Mr.
19 Nichols will agree to return in the morning.

20 THE WITNESS: Yes, sir.

21 MR. SHAPIRO: That's fine.

22 MR. CHAPMAN: Any problems with that, Mr. Shapiro?

23 MR. SHAPIRO: Only with the caveat that if you
24 want to start -- it's up to you -- if you want to start with
25 someone else and put him in some other time, you can do

1 that.

2 MR. CHAPMAN: No, sir. I would much prefer to
3 continue on with this individual and move on to the next
4 area.

5 MR. SHAPIRO: In that case, I hope we can get some
6 agreement to start earlier than the ten o'clock we've been
7 starting at. Everyone's schedule has been affected, but I
8 would like to start, you know, as early as is convenient for
9 you.

10 THE WITNESS: It's getting impossible for us to do
11 our job the way the schedules are set up. I mean --

12 MR. CHAPMAN: Well, in all fairness, and for the
13 record, last week, I tried to interview some people -- if
14 we're going to get into scheduling here -- and I had nobody
15 to see. So, let's just put it on the record that Larry
16 Chapman ain't the only individual trying --

17 MR. SHAPIRO: No, no, everyone has got schedules.
18 He's the only exception. He's the one I offered you that
19 day.

20 THE WITNESS: You had me.

21 MR. CHAPMAN: Let me close the record, Mr.
22 Nichols, first, before you get out of here.

23 Mr. Nichols, have I or any other NRC
24 representative here threatened you in any manner or offered
25 you any reward in return for this statement?

1 THE WITNESS: No, sir.

2 MR. CHAPMAN: Have you given this statement freely
3 and voluntarily?

4 THE WITNESS: Yes, sir.

5 MR. CHAPMAN: Is there anything further you care
6 to add to the record at this time?

7 THE WITNESS: No.

8 MR. CHAPMAN: Okay, the time is five minutes after
9 four and the interview is closed. Thank you.

10 (Whereupon, the interview was concluded at 4:05
11 p.m.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

C E R T I F I C A T E

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

This is to certify that the attached proceedings before the
U. S. Nuclear Regulatory Commission in the matter of:

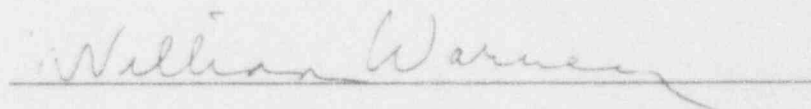
Name: Interview of Michael Nichols

Docket Number:

Place: Sequoyah Fuels Corporation, Gore, Oklahoma

Date: March 6, 1991

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



WILLIAM L. WARREN

Official Reporter

Ann Riley & Associates