ORIGINAL

UNITED STATES
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

SEQUOYAH FUELS CORPORATION
SEQUOYAH UF6 TO UF4 FACILITY

DOCKET NO: 40-8027-MLA

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	:	Docket No. 40-8027-MLA
	:	
SEQUOYAH FUELS CORPORATION	:	ASLBP No. 85-513-03-ML
	:	
(Sequoyah UF-6 to UF-4 Facility)	:	

City Hall
Civic Center
111 North Elm Street
Sallisaw, Oklahoma

Wednesday, January 14, 1987

The hearing in the above-entitled matter convened, pursuant to notice, at 9:00 a.m.

BEFORE:

JOHN H. FRYE, III, ESQ.
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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PROCEEDINGS

JUDGE FRYE: Good morning. Could we go on the record, please? Mr. Nickles, do you want to bring your last panel up, please?

MR. NICKLES: Would the panel that was on the stand last evening please return?

JUDGE FRYE: We will continue with the fire protection, avoidance of accidents and malfunctions at other facilities testimony.

Whereupon,

STEVEN EMERSON

SAMUEL FRYAR

DONALD ARNOLD

and

BILLY J. BUNTZ

were recalled as witnesses by and on behalf of Sequoyah Fuels Corporation and, having previously been duly sworn, were further examined and testified as follows:

MR. MERSERVE: Judge Frye, Mr. Emerson would like to make one supplementary comment with regard to his testimony.

WITNESS EMERSON: Good morning, Your Honor. In reviewing the statement that we submitted earlier this week, we did uncover three separate numbers here that I would like to correct for the record. They are on Page 16 of our statement having to do with fire protection, avoidance of accidents

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and malfunctions at other facilities. On Page 16, we show at the top there an electric pump is capable of supplying 1,000 GPM. The pump is actually capable of supplying 2,000 gallons per minute of water.

Further down, toward the middle of that paragraph, we parenthetically insert a 150 minute supply. That should be a 75 minute supply.

And then in Footnote 3 at the bottom, parenthetically we say an additional 100 minute supply and that should be an additional 50 minute supply.

JUDGE FRYE: And the 150 minute supply should have been?

WITNESS EMERSON: 75 minutes.

JUDGE FRYE: 75 minutes?

WITNESS EMERSON: Yes, sir. I appreciate the opportunity to make that correction.

JUDGE FRYE: Mr. Lammers has submitted some questions. These are all based on this testimony; am I correct, Mr. Lammers?

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MR. LAMMERS: Yes, sir.

JUDGE FRYE: He asks, please describe the UH-2 hydrogen burner constructed near the UF-6 plant that disposes of excess hydrogen?

WITNESS EMERSON: The new H-2 burner that is constructed in the -- near the scrubber in the main plant is

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a design very similar to that presently employed in our hydrogen burner at the main plant. This is simply a similar design hydrogen burner. The exhaust is combined and scrubbed with our existing scrubber system to capture the fluoride and precipitate that for removal.

JUDGE FRYE: Describe the function of the high bay roof ventilators and inform us as to why they don't interfere with the product dust collection system. What prevents product from being thrown out through t'.e roof ventilators?

WITNESS EMERSON: Your Honor, the high bay ventilation system is designed specifically to just circulate the air in the ambient working place. In other words, to simply remove heat, for example, at the top of the high bay during Summer and to just replace the ventilation of fresh air through the building.

JUDGE FRYE: I guess, Mr. Lammers, I have a little trouble understanding the premise behind this question.

MR. LAMMERS: It seems to me somehow that if the dust collection and all the collection parts, you know, within the plant building would be inclosed so that no fresh -- you know, that there would be no other way for the air inside there to get out without being somehow run through a filtering system.

JUDGE FRYE: I'm still lost. I'm sorry.

MR. LAMMERS: Yeah. Well, the gist of the question

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is, to get right down to it is, is there any way that these ventilation fans can remove product in the air or any dust in the air that might be contaminated and put it out into the outside, outside the building basically?

JUDGE FRYE: Okay. There should be a yes or no answer to that, I would think.

WITNESS EMERSON: I'm sorry, Your Honor. Would you please --

JUDGE FRYE: His question really is, is there any way that the building ventilation fan might remove contamination, airborne contamination, in the plant and distribute it to the atmosphere outside the plant?

(The panel members are conferring.)

WITNESS EMERSON: Your Honor, the ventilation system is to replace the air in the working environment within the building. We have the baghouse with the pick-ups that are carefully placed around the process to contain dust emissions into that working environment.

We do not expect that to be the case. Nonetheless, we have the ventilation that is intended to keep the fresh air in the building.

Now, it's improbable but -- it's improbable that the ventilation fans would remove dust-laden air to the environment because of the design for our baghouse pick-ups.

JUDGE FRYE: And if the dust happened to be product,

it could but it would have to first escape our first pick-up point.

MR. LAMMERS: That's what I wanted to know.

JUDGE FRYE: Yeah. Please inform us of the anticipated amount of HF gas that will be passed through the hydrogen burner and go into the HF scrubber at the UF-6 plant?

(The panel members are conferring.)

WITNESS EMERSON: Your Honor, I'm informed that our process flow sheet, which has been submitted in the license amendment request, shows an estimated quantity of approximately three pounds per hour of HF that does go over to the scrubber and is captured there.

JUDGE FRYE: Mr. Lammers, the product filling drum is covered in -- that area is covered in this testimony?

MR. LAMMERS: I believe all aspects of safety would be, you know, accident prevention.

JUDGE FRYE: Okay. Well, two quick questions here. In respect to the product drum filling area, when the drum is filled at 1,400 pounds capacity how far from the top of the drum will the product be?

Do you know offhand?

(The panel members are conferring.)

WITNESS EMERSON: I understand the volumetric fill is approximately 90 to 95 percent.

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JUDGE FRYE: Okay. Are rollers used to move the drums through the filling area powered electrically or operated manually?

WITNESS EMERSON: Electric drive, I understand, sir.

JUDGE FRYE: Okay. Is there any mechanism to prevent the drum from falling off the end of the line?

WITNESS EMERSON: Yes, sir. We have a carefully designed series of blocks and stops that would prohibit it from moving unimpeded off the end.

JUDGE FRYE: Okay. Mr. Henshaw asks, Mr. Emerson, if you can convert the three pounds per hour HFF going to CFM per hour?

(The panel members are conferring.)

WITNESS EMERSON: Our calculations, sir, indicate the conversion is -- comes out to be 57 standard cubic foot per minute -- per hour, I'm sorry.

JUDGE FRYE: In the cylinder handling risk analysis report, how does the safety of this facility compare with the four UF-6 facilities that have had major cylinder failures?

Now, you may need to give some background on that one. Do you understand the question?

WITNESS EMERSON: No, sir, I don't.

JUDGE FRYE: Okay. Which --

MR. HENSHAW: There has been a cylinder risk analysis

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done, Your Honor, and --

JUDGE FRYE: Okay. You say four UF-6 facilities that have had major cylinder failures. What are the four UF-6 facilities?

MR. HENSHAW: One in 1960 at Paduchah, Kentucky; one in 1962 at the Erwin, Tennessee Fuel Fabrication Plant; one in 1966 at the Fernald, Ohio Plant; and, one in January '86 at this facility.

JUDGE FRYE: Okay. Does that help?

WITNESS EMERSON: The cylinder handling analysis that is referred to here must relate to our SFC cylinder handling analysis, is this --

JUDGE FRYE: Yes. You have a cylinder handling risk analysis report; am I not correct, that was filed some time last Summer if I'm not mistaken?

WITNESS EMERSON: Yes. License Condition Response 11.A and B, filed I believe in April, early Summer, analyzed our handling of cylinders in the UF-6 plant. It did not address the UF-4 facility.

JUDGE FRYE: Okay.

MR. HENSHAW: Judge Frye, may I follow that up?

JUDGE FRYE: What's your follow-up?

MR. HENSHAW: I would like to know why, with this plant being in the licensing stage, that wasn't included in that risk analysis.

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JUDGE FRYE: Why what wasn't included in the risk analysis?

MR. HENSHAW: The UF-6 to UF-4 -- depleted UF-6 to UF-4 plant, why it wasn't included in the risk analysis since UF-6 handling will be done there also?

JUDGE FRYE: Yeah. Was it included?

WITNESS EMERSON: No, sir.

MR. NICKLES: Your Honor, excuse me. Just to note for the record that, of course, you have indicated cylinder handling is not an issue in this case, although all the questions have been satisfactorily answered.

Mr. Emerson, go ahead.

WITNESS EMERSON: Your Honor, the 11.A and B response we submitted in early Summer 1986 responded to some specific requirements set forth by the NRC. Those were very explicit, and we answered those correctly.

JUDGE FRYE: So, the answer is that you were responding --

WITNESS EMERSON: Yes, sir.

JUDGE FRYE: -- to a specific requirement layed out by NRC?

WITNESS EMERSON: Yes. I might add, as we pointed out in our statement on the UF-4 plant, we handle solid UF-6 in this UF-4 facility.

So, the conclusion to draw from that is, the risks

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are even -- are less because of the fact that we are handling the solid UF-6. We pointed this out in the statement and indicated the -- just described those facts in the statement.

JUDGE FRYE: How does the risk analysis data submitted in this proceeding compare with the -- this says erroneous, one in one hundred million risk assessment figure used in the 1975 EIS? In other words, the 1975 EIS for the UF-6 production plant, I take it?

MR. HENSHAW: Yes, sir.

JUDGE FRYE: And you are asking how the risk analysis for the UF-6 to UF-4 compares to that figure?

MR. HENSHAW: How does the factuality of that data compare with the factuality of the risk analysis data submitted in these proceedings?

WITNESS EMERSON: Would you kindly ask the question, sir?

JUDGE FRYE: I will read it again. How does the risk analysis data submitted in these proceedings -- in other words, for this UF-6 to UF-4 plant, compare with the erroneous, it says here, one in one hundred million risk assessment figure used in the 1975 EIS?

I would assume it's a one in one hundred million chance of --

MR. HENSHAW: Cylinder failure.

JUDGE FRYE: -- cylinder failure. Okay.

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WITNESS EMERSON: To my understanding from communication with the individuals on this panel, we have not submitted quantitative numbers for this UF-4 proceeding.

JUDGE FRYE: Okay. Will thin wall cylinders such as Union Carbide cylinders be used?

(The panel members are conferring.)

WITNESS EMERSON: DOE will send us cylinders of a number of different designs, and it's entirely possible -- and we design carefully to safely handle both thin and thick wall cylinders in this UF-4 facility.

JUDGE FRYE: Okay. Ms. Carter-White, do you have any questions that you wanted to submit?

MS. CARTER-WHITE: Not as to the issue of cylinder head.

JUDGE FRYE: This is the fire protection testimony as well.

MS. CARTER-WHITE: The only question I would wish to ask is at what point was it determined that additional hydrants would be utilized at the facility, the date on which that was --

JUDGE FRYE: At what point was it determined that what? Additional what?

MS. CARTER-WHITE: Fire hydrants would be installed for utilization at the UF-4 facility.

JUDGE FRYE: Fire hydrants.

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WITNESS EMERSON: Fire protection is an integral part of the safe design for any process from the ground up. Adequate fire protection was designed into the system.

JUDGE FRYE: She is asking when did you put in more fire hydrants?

(The panel members are conferring.)

WITNESS EMERSON: Your Honor, I am advised that early in the design process, we upped the number of hydrants from one to three. This -- evidently, according to our recollection, this took place early in the design process well over a year ago.

MS. CARTER-WHITE: So would that have been prior to installation of any fire hydrants for the facility?

JUDGE FRYE: I can't hear what you are saying?

MS. CARTER-WHITE: Would that have been prior to any fire hydrant installation at the facility?

JUDGE FRYE: Would that have been prior to any fire hydrant installation at --

MS. CARTER-WHITE: At the UF-4 facility, yes. In other words, what --

JUDGE FRYE: In other words, what you are really asking is did they put in two and then decide to add two more?

Is that what you are asking?

MS. CARTER-WHITE: Essentially, yes. I want to know if all the fire hydrants were installed simultaneously, and

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if we could have a more close approximation as to when that design change was implemented in terms --

JUDGE FRYE: I'm not sure you have established a design change.

Did you add fire hydrants after you had installed fire hydrants? Did you put in some and then add some more?

WITNESS EMERSON: As I understand, our design was to design with three fire hydrants was well ahead of the construction and so during construction we went ahead and installed the three hydrants as designed.

JUDGE FRYE: Okay. So, there was no design change?

WITNESS EMERSON: There was no design change after construction according to my information.

JUDGE FRYE: Okay. I think that answers that.

MS. CARTER-WHITE: And, finally, could I determine when the approximate date of construction would have been for that element of design?

JUDGE FRYE: For the fire protection?

MS. CARTER-WHITE: Yes.

JUDGE FRYE: Do you know?

MS. CARTER-WHITE: For example, 1985, 1986, early in '86, late in '86?

JUDGE FRYE: Do you know?

WITNESS EMERSON: I don't know precisely, Your Honor. I understand the Fall of '85 or early 1986 is an estimate.

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MS. CARTER-WHITE: My next question would be --

MR. NICKLES: Your Honor, I --

JUDGE FRYE: Wait a minute. If you have got a whole lot of questions I think you should write them out and bring them up the way everybody else has been doing.

MS. CARTER-WHITE: I have only one more question.

JUDGE FRYE: Well, that's what you started out with, one. And now we've had a whole series.

MS. CARTER-WHITE: Well, Your Honor -- okay, I will write it out.

JUDGE FRYE: Okay.

(Pause.)

JUDGE FRYE: While she is writing it out, I think yesterday evening you indicated that fork lift trucks are used or may be used in the cylinder handling operation. And, Mr. Lammers asks whether their use has been studied with respect to thin wall cylinders and whether their use with thin wall cylinders might be dangerous or more dangerous, I suppose, than the ordinary cylinders?

(The panel members are conferring.)

WITNESS EMERSON: Your Honor, I am advised that we have, in fact, studied that issue with fork lift handling solid UF-6 contained in thin wall cylinders, and the conclusion I understand was that that can be done satisfactorily and safely.

JUDGE FRYE: Thank you.

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(Ms. Carter-White handed a paper to Judge Frye.)

JUDGE FRYE: I don't think, Ms. Carter-White, that they have indicated that there was a design change with regard to the fire protection.

MS. CARTER-WHITE: Sir, the original application indicates I believe one fire hydrant. Let me verify on that.

JUDGE FRYE: Okay.

(Ms. Carter-White is going through documents.)

MS. CARTER-WHITE: Isn't that correct, Mr. Nickles?

JUDGE FRYE: Now, wait a minute. Isn't what correct?

MS. CARTER-WHITE: That --

MR. NICKLES: Your Honor, we have covered this fully in the testimony that we have submitted.

JUDGE FRYE: Okay. Can you point me to it?

MR. MESERVE: Page 15, Your Honor.

MR. NICKLES: And the questions that have been asked are to clarify that.

MR. MESERVE: The first full paragraph.

JUDGE FRYE: Okay. So, that's what you are referring to, Ms. Carter-White, I gather, Page 15?

MS. CARTER-WHITE: Of the original application, sir?

JUDGE FRYE: No, no. Of the testimony.

MS. CARTER-WHITE: Yes, that's correct.

JUDGE FRYE: Well, I don't really see the relevance

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of your inquiry. Your point, I suppose, is that you weren't told that they had made this change as quickly as you would have liked to have been told; is that it?

MS. CARTER-WHITE: Well, that's not my point. My point is that I didn't receive -- well, my inquiry is, at what point did those changes take place and why weren't parties -- why weren't those design changes implemented into the application at that point in time as opposed to having been presented in November of 1986, over a year after the application was submitted?

JUDGE FRYE: Yeah. Do you know when -- your testimony on Page 15 says at the time of the submittal of the application you had planned to install a single fire hydrant. Okay.

Then, since that time you upgraded the system and put in a buried 8-inch pipe fire water loop encircling the building, et cetera.

How soon after you made those changes were those submitted to the NRC?

(The panel members are conferring.)

WITNESS EMERSON: We would have to check the record to find the answer.

JUDGE FRYE: I think it's probably in the record.

WITNESS EMERSON: Yes, sir.

JUDGE FRYE: Are you required by the State of Oklahoma to have your fork lift truck operator licensed following

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completion of a safety course?

WITNESS EMERSON: No, sir, I understand we are not.

JUDGE FRYE: Okay. Thank you. That completes all of the questions that were submitted. Thank you very much, gentlemen.

(The panel of witnesses stood aside.)

JUDGE FRYE: Mr. Lammers, do you have any testimony you want to offer on this topic?

MR. LAMMERS: Yes, I do, sir.

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JUDGE FRYE: You are still sworn.

MR. LAMMERS: My testimony will be very brief. I just want to bring up this one point. I have been a supporter of containment capable autoclaves since I began this investigation of the plant. I have been working trying to encourage the NRC and get them to encourage SFC to replace the steam chest in the UF-6 plant with these containment capable autoclaves.

There are some implications in that particular area concerning the UF-4 plant with the installation of these autocalves that does claim to change the safety factors. And I would like to say at this time that we will continue support in the entire plant, the installation of containment capable autocalves so that it will tend to reduce the fears in the area around the plant.

Thank you.

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JUDGE FRYE: Thank you. Mr. Ikard, does NACE have any testimony.

MR. IKARD: No, sir.

JUDGE FRYE: Fine. Ms. Synar?

MS. SYNAR: No.

JUDGE FRYE: Mr. Henshaw?

MR. HENSHAW: Yes, sir, I do.

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JUDGE FRYE: Okay.

MR. HENSHAW: I have found some fault in the Pickard, Lowe & Garrick report that was submitted to the risk handling analysis that I would like to point out in these proceedings.

They assume a 1.8 per year according to the new study of minor releases such as result in the failure of gaskets or valves. And I know from experience we had many, many more than that.

In SFC's December 22, '86 response to filings from Intervenors, SFC's statement is that I seek discovery of information about vehicles that have been painted or repaired. The discovery system was modified in mid-1986 to prevent surges that could upset the scrubber operation and to improve scrubber performance. No vehicles have been damaged by vapor from the scrubber discharge since May 1985.

And I've requested that -- earlier that that information should have been incorporated into these proceedings since

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the effluent from this facility does go to that scrubber.

We have heard testimony previously of release of radionuclides from the scrubber while the facility was done. And we are adding 57 standard cubic feet per minute of hydrofluoric acid off-gas to the scrubber from this new facility.

I'm not sure that was just hydrofluoric acid. I don't know whether it was nitrogen and other off-gases in this off-gas flow or not. I should have asked that question of the experts and forgot it. But, any additional flow to this scrubber increases the possibility of more effluent from the stack.

There is questionability to the validity of their dilution factor of 1,000 meter height used on their stack calculations. They are required by the Code of Federal Regulations to monitor their radionuclide effluents which should be monitored at the point of release to the atmosphere, not to the point of release of the restrictive boundary of the facility. It's playing with figures.

JUDGE FRYE: Aren't you mixing apples and oranges there a little bit? You were talking about hydrogen fluoride, I gather, coming out of the scrubber --

MR. HENSHAW: Yes, sir.

JUDGE FRYE: -- which could damage property.

MR. HENSHAW: I probably am.

JUDGE FRYE: Well, I'm just trying to follow it,

that's all. And then you started talking about --

MR. HENSHAW: I'm getting into this monitoring area. I should have stayed off that.

JUDGE FRYE: Okay.

MR. HENSHAW: There have been hundreds of vehicles damaged at the facility from acid from the stacks. And, my point is, if the scrubber itself, not the hydrogen burner, but it's the scrubber and waters used to scrub the hydrofluoric acid has been modified, those modified changes should be added to this -- or should be produced in these proceedings so that the parties to the hearing could know what changes have been made to accommodate this added flow.

Judge Frye, this is January 2, 1985, Chapter 17 Accident Analysis. It is contained in a letter from Mr. Stauter to Mr. Page, 1/24/1985. "The two most probable causes of accidents will be the unplanned release of hydrogen or the unplanned release of UF-6 during vaporization. These two unforeseen events have been examined and engineering has been developed to eliminate the hazard."

The date of this document is November 22, 1985. It is the outline of Sequoyah Fuels' testimony on the avoidance of accidents. "The facility is designed so as to assure safe operation. Layers of safeguards, for example, detectors, relief valves, automated interlock systems enhance safety. Operating procedures are designed to minimize risk."

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This is the September 13, 1985 license. "The facility has been designed with operational safeguards common to chemical plant process systems. For example, indications and alarms on tank levels, critical system temperatures, and pressures, flow rates..." et cetera.

The point I'm making here, Your Honor, is -- the date of this document is 8/23/85. That's four months before the cylinder rupture. We had these same identical commitments at that time as we have in these proceedings about the safety of this facility.

The indicators, alarms, tank levels, alarms and indicators in the reports on the cylinder rupture were not there at the time of the accident. They were not working. They weren't maintained.

That's my concern with this process that we are here talking about the license now. Will it be maintained? The other facility wasn't.

This is the September 20, 1985 source material license. Conclusions and recommendations by the Staff. "Upon completion of the safety review of the licensee's application and compliance history, the staff has concluded that the activities authorized by the issuance of the renewed license to Sequoyah Fuels Corporation subject to the additional conditions developed by the Uranium Fuel Licensing Branch staff will not constitute an undue risk to the health and safety of

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the public."

JUDGE FRYE: I think basically you are questioning whether there is assurance being given in this application that there will not be an accident.

MR. HENSHAW: If there is a commitment to maintain the equipment to prevent the accidents.

JUDGE FRYE: Right.

MR. HENSHAW: If there is oversight by the NRC, if there are going to be inspections by the NRC, which there hasn't been in the past, properly.

JUDGE FRYE: Okay.

MR. HENSHAW: That's my point.

JUDGE FRYE: I think we got that.

MR. HENSHAW: Thank you.

JUDGE FRYE: Ms. Strachan.

MS. STRACHAN: My only testimony on this section is just to maintain that since we are discussing the prevention of accidents in this section, I am still very concerned that since the Nuclear Regulatory Commission admitted in the December 17th Federal Register that there is a serious implementation gap in the regulation of a facility such as this that also has non-radiological hazardous substances, that the NRC should not be licensing a plant until they are positive how and if they will regulate those kinds of facilities.

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JUDGE FRYE: A non-radiological hazard; is that --

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MS. STRACHAN: Yes. You should not license a plant at all unless you are sure how you will regulate both facets of its hazardous materials.

JUDGE FRYE: Okay. Thank you. Ms. Carter-White, did you have anything?

MS. CARTER-WHITE: Your Honor, I would only state with regard to the fire protection system that if you review the course of events in this proceeding, the original 1985 application indicates that there will be one fire hydrant utilized at the UF-4 facility.

Then, we proceeded on that assumption until the one year litigating these issues on the pleading and then it was indicated in August 1986 by way of a response to a request, the Sequoyah Fuels' response of 8/1/86, that the system includes a loop around the facility with three fire hydrants and hoses located near the hydrants.

Now, this was not provided at the licensing amendment, a revision or an amendment of any nature. It was -- there was no request for amendment of application submitted. It was merely submitted as an incidental matter on Page 22 of the Sequoyah Fuels' response.

JUDGE FRYE: That sort of thing happens quite frequently in NRC proceedings. Applications are never static. They are constantly changing.

MS. CARTER-WHITE: Yes. And perhaps there should be

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a periodic revision, you know, in order to reflect the changes that have taken place over the course of the proceeding. A number of the issues have changed since August of 1985 when the original application was submitted.

I won't digress on those things. But I just wanted to point out that the fire protection system is substantially changed. And that was not done formally in the pleadings until November of 1986.

JUDGE FRYE: Okay. We understand. Mr. Kellogg, did you have anything?

MR. KELLOGG: No, Your Honor. Thank you.

JUDGE FRYE: Okay. That would bring us to adequacy of staffing; am I correct?

MR. MESERVE: That's correct.

JUDGE FRYE: Let me follow up on one point that Mr. Henshaw raised with Mr. Emerson. Can you hear me, Mr. Emerson? You don't need to come up.

But, Mr. Henshaw raised the question of whether the addition of the HF going through the scrubber is attributable to the UF-6 to UF-4 plant required any changes, any significant changes, to be made in the scrubber. I'm not sure you covered that.

WITNESS EMERSON: They did not.

JUDGE FRYE: They did not? Okay.

MR. MESERVE: Your Honor, we have previously submitted

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a statement as to the adequacy of staffing. You may recall that there were two staffing issues, one directed at the qualification of the staff which a subsequent panel will be dealing with; and the panel dealing with the adequacy of staffing is what is next on the agenda.

The panel for that is James Randolph, Steven Emerson and Richard Parker. And Mr. Randolph, who is the President of Sequoyah Fuels Corporation, will be serving as the spokesman for the panel.

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(Mr. Parker was sworn by Judge Frye.)

Whereupon,

JAMES RANDOLPH

STEVEN EMERSON

and

RICHARD PARKER

were called as witnesses by and on behalf of Sequoyah Fuels Corporation and, having been previously duly sworn, were examined and testified as follows:

WITNESS RANDOLPH: Good morning, Your Honor. I am James G. Randolph, President of Sequoyah Fuels Corporation. And, this panel is here to respond to questions raised about the adequacy of the staffing for the UF-4 plant.

Joining me on the panel is Steve Emerson and Dick Parker. Steve has been introduced before, so you are familiar with him. However, Dick has not been. Dick is Manager of

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Maintenance at the Sequoyah Facility. He earned a B.S. degree in Electrical Engineering from Western Michigan, Michigan University. And he has worked three years as an instructor in the Electrical Engineering Department at a college and then has spent the last ten years in maintenance and operations in the minerals processing industry.

And he has been at Sequoyah as the Maintenance Manager for the last ten months.

The UF-4 plant will be managed by an area manager assisted by a superintendent. And, parenthetically I would mention that my testimony this morning is based upon submittals that have been previously served on all the Intervenors in October, November and January. And this is a summary of the content of those documents.

The plant will be operated initially -- initially we are planning to operate the plant three shifts per day, five days per week, manned by three supervisors and seven chemical operators who are working under the direct supervision of the area manager and superintendent.

Since plant operations are continuously monitored and controlled by the distributive control system which is incorporated in the plant design, the staff and this operating crew size are ample to ensure safe and comprehensive operations.

As a matter of progress report, the UF-4 plant staff has been selected and is now in training.

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Additional questions were then raised about the adequacy of staffing for various supporting departments, specifically the Maintenance Department, the Health Physics staff, the Laboratory or the Facilities Training Department. Workload and manning requirements for all of these departments have been evaluated and appropriate changes are being made in the supporting departments where necessary to ensure that the UF-4 plant receives proper support to ensure continual safe operations.

The maintenance of the UF-4 plant equipment will be accomplished by our Central Maintenance Department managed by Dick Parker which is responsible for all plant and equipment maintenance at the facility. Maintenance work at the UF-4 plant may be classified for purposes of this discussion into two ways. One part of it is scheduled or planned maintenance. And, this is the routine preventive maintenance such as filter changes, lubrication or services which is accomplished on a schedule, much as we are advised to change filters or oil and grease our automobiles every 5,000 miles.

This work is planned and managed to ensure the highest reliability of the various equipments and systems in the plant. The remaining maintenance work that is required is termed unscheduled.

Whenever a piece of equipment malfunctions, appropriately skilled maintenance specialists are dispatched from the

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1-27-SueW1 Central Maintenance organization to repair the problem. Maintenance specialists are assigned to all of the operating shifts. Further, should the nature of the problems require, other maintenance specialists may be recalled from being off-duty to assist in accomplishing the task expeditiously and safely.

We have recently increased the size of the maintenance staff to handle the additional work to be brought about by the UF-4 plant and as a part of our overall program to upgrade the quality of the entire facility maintenance. Workload trends are constantly reviewed and changes are made to balance the manning in the Maintenance Department with the workload which in turn is dependent upon the rate the plant is operated.

In the Health Physics Department, this group supports the UF-4 plant by surveying the air quality and stack emissions periodically as required, and they also monitor any repair or maintenance in which a hazardous work permit is required. This may be in the case when it is necessary to open ducts or things of this nature where they might have access to uranium.

The health physics support will be provided on each shift by the health physics technician who is present to support the operation at both plants. We estimate that the five-day, three shift operations of the UF-4 plant will add about thirty manhours per week to the health physics staff

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workload. We are adding one senior health physics technician to this particular staff to handle this work.

In the Training Department, formal instruction for UF-4 plant employees will be provided by the Facility Training Department and by the UF-4 plant supervisory staff.

The Facility Training Department present what we call the core subjects, those subjects which are general to all employees in all departments. And the UF-4 supervisory staff will present the specialized process training which we described yesterday.

As a consequence, we do not consider that the UF-4 workload will require any additional training spaces in the Training Department.

In summary, the staffing requirements for the UF-4 plant has been thoroughly studied. Early on, we sought the advice of the Department of Energy experienced managers in establishing the proper staffing levels for planning purposes. We have further evaluated the actual workloads as the plant has now evolved and believe that we have examined all of the additional work, accounted for in the changes that we are planning and/or have already made, and that the resulting staffing patterns that we have described in our documents is more than adequate to ensure safe operation of the UF-4 plant.

Thank you.

JUDGE FRYE: That completes your statement?

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WITNESS RANDOLPH: Yes.

JUDGE FRYE: Why don't -- are you all r eady with questions now?

(Intervenors are submitting questions to Judge Frye.)

JUDGE FRYE: Mr. Randolph, my recollection is that when I first -- it seems to me when the original application was -- the original application referred to the fact that only one additional person would be needed to operate the UF-6 to UF-4 facility; is that correct?

WITNESS RANDOLPH: I don't believe that's correct.

JUDGE FRYE: How many did you originally plan to --

WITNESS RANDOLPH: Ten people.

JUDGE FRYE: Ten?

WITNESS RANDOLPH: I believe that's correct. That's the number I recall. I'm not sure that we were specific, but in questions -- in response to questions, we estimated it would take an additional ten people to support th UF-4 operation.

JUDGE FRYE: Now, that's the figure you are at now, isn't it?

WITNESS RANDOLPH: No.

JUDGE FRYE: Where are you at now?

WITNESS RANDOLPH: Ten people plus an area manager and a superintendent who have somewhat broader responsibilities. They are also responsible for operation of the utilities to support both plants. We assume that about 80 to 90 percent of

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE

John H. Frye, III

Administrative Judge

In the Matter of:	)	Docket No. 40-8027-MLA
SEQUOYAH FUELS CORPORATION	)	ASLBP No. 85-513-03-ML
(Sequoyah UF_6 to UF_4 Facility)	)	

STATEMENT

ON BEHALF OF

SEQUOYAH FUELS CORPORATION

ON

STAFFING

STAFFING

The Presiding Officer requested that SFC submit information concerning the adequacy of staffing for the proposed Facility, including in particular whether personnel associated with the existing UF_6 Facility will be required to increase their responsibilities. Memorandum and Order, 12 (Oct. 10, 1986). SFC has subsequently submitted detailed information on this matter in its Supplemental SFC Response, 1-5 (Jan. 7, 1987), and in the SFC Statement on the Organization and Staffing of the UF_6 to UF_4 Facility, 2-3 (Nov. 20, 1986). These submittals fully respond to the Presiding Officer's inquiry and are incorporated by reference in this statement.

The material submitted by SFC demonstrates that the UF_4 Facility will be adequately staffed. An operations staff, which includes an area manager, an area superintendent, three shift supervisors and seven chemical operators is either exclusively or predominantly dedicated to the UF_4 Facility. Several departments with responsibilities associated with both the existing UF_6 Facility and the UF_4 Facility, such as maintenance and health physics, have benefited from augmented staff. No staff will be overburdened.

In addition, subsequent to the January 4, 1986 accident, SFC has made changes in the management structure that serve to strengthen oversight. The changes include the addition

of highly qualified and experienced managers in health, safety and environment; administrative services; and quality assurance. These changes at the UF_6 Facility will also strengthen the UF_4 Facility.

In sum, SFC has ample qualified staff to safely operate both the UF_4 Facility and the existing UF_6 Facility.

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their time will be devoted to the operation of the UF-4 facility.

JUDGE FRYE: Do you have a reference, Mr. Ikard?

MR. IKARD: Only that my recollection is --

JUDGE FRYE: My recollection is the same as yours.

MR. IKARD: The same as mine. One of the questions when they said this would be very good for the local economy, as we pointed out the application indicated that whatever the internal assignment between shifts and staff between the two plants, only one additional person was going to be hired.

That's my recollection.

JUDGE FRYE: That's my recollection. But, that's not so, you say?

WITNESS RANDOLPH: No.

MR. MESERVE: Your Honor, I looked back at our previous filings and I know that on our outlines of testimony for the originally scheduled hearing which were filed on November 22nd, 1985, on Page 19 we did indicate that ten additional people --

JUDGE FRYE: And that was when?

MR. MESERVE: -- would be employed. That was filed with all the parties on November 22nd, 1985.

JUDGE FRYE: '85. Okay, then I'm wrong.

MS. SYNAR: Your Honor, November 5th, 1985, a revision before the NRC. It states that a shift chemical

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operator located in the facility's central control room -- oh, I'm sorry. A shift chemical operator located in the DUF-6 to the DUF-4 facility under the direction of a shift supervisor shall assist the chemical operator and shall be present each shift that operations are conducted.

JUDGE FRYE: What are you reading from?

MS. SYNAR: This is from the revision on November the 5th, 1986, before the NRC.

It says, "Additional shift operators shall assist as required, especially during initial startup." But, what after startup?

JUDGE FRYE: Well, we will take a break in a moment and you all can look for that.

You are going to have a control room operator for the UF-4 facility?

WITNESS RANDOLPH: That's correct.

JUDGE FRYE: Will he have any other duties than those pertaining to the UF-4 facility?

WITNESS RANDOLPH: No. He operates -- I believe you saw the control panel?

JUDGE FRYE: Right.

WITNESS RANDOLPH: That is his station where he actually controls and operates the entire UF-4 facility.

MR. IKARD: Your Honor --

JUDGE FRYE: You need to use the microphone.

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MR. IKARD: In Chapter 11 of the original application of January 2nd, 1985, at Page 11-1, it says: "As it is described in Chapter 2 the UF-6 to UF-4 processing plant is operated in conjunction with the conversion plant. The operator will report to the shift foreman. The operation is under the general technical direction of the area supervisor. Additional information on this subject will be found in the Sequoyah Facility application for license renewal, Sub 1010, dated September 1982."

So, I thought my recollection was in the original application back in January of '85 there was a provision for one additional chemical operator. And in talking it was my recollection there would be on in the control room and one actually in the plant.

JUDGE FRYE: That was my recollection as well. But, I would --

MR.IKARD: And I recall that one of the reasons that they gave for this was that the plant was being highly automated and, therefore, was not labor intensive and would not require that kind of staffing.

So, I think the predicate for my question then can be stated as, since the application was first prepared I understand the plant to have gotten simpler in terms of staffing rather than more complex requiring more labor. And I think the predicate still applies.

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MR. NICKLES: Your Honor, I believe the original application which has been read doesn't say what Mr. Ikard said. But the witness can answer as to the adequacy of the number. That's the number --

MR. IKARD: Judge, I read the thing. It says what I said because I read it correctly.

JUDGE FRYE: Right. Do you recall this original application that Mr. Ikard just read?

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WITNESS RANDOLPH: In general fashion, yes, sir.

JUDGE FRYE: At the break why don't I get that for you so you can look at it.

WITNESS RANDOLPH: I don't see the germaneness of this whole area of pursuit. We have told you what the staffing pattern was in November of '85 and it is unchanged in its essential elements now.

JUDGE FRYE: Well, it is a matter that I have some interest in and have had some for some time.

WITNESS RANDOLPH: I will be happy to answer your questions, Judge.

MR. IKARD: Judge, I do want to make a clarification. I am not claiming that I have been misled in any way by staffing. That is not the point. It is not a surprise to me, and I am casting no aspersions that all of the sudden they told us some number that we didn't know about. That is not the point of my question and that is not my position with regard to that.

MR. LEWIS: Your Honor, if we may, we do a page in front of us which I think was the source of Mr. Ikard's recollection. We do have the page from the original application. It is page Roman I.2-1.

There is a sentence that says: "The operating group consists of one person per shift." Then it has a parenthetical that says: "Three during startup if

required, including a lead operator who reports to the shift supervisor of the Sequoyah facility."

JUDGE FRYE: That is what I recall, and that is what I had some interest in as to who that would be sufficient. And now you are telling me that actually one per shift was not correct?

WITNESS RANDOLPH: Well, what that overlooks in that sentence, and that may be implied, is that there is still the control room operator that is responsible for that segment. So you have the operator in the plant and then you still have the controller at the facility.

But in any case, we have clarified that a year and a half ago, Judge, and I don't see that there is a great deal of -- it is a matter perhaps of definition and how do you express the manning for the facility.

JUDGE FRYE: Okay. So you answered the question about whether the control room operator would be assigned other duties, and your answer, as I recall, was no, he would not.

WITNESS RANDOLPH: That's right.

JUDGE FRYE: I don't understand this. Is this yours, Mr. Henshaw?

MR. HENSHAW: Yes, it is.

JUDGE FRYE: Will there be three control room operators assigned to the control room? What is that?

MR. HENSHAW: I am referring to there are two required for the UF6 facility now, the control room operator and an assistant control room operator. I was wanting verification that there would be three control room operators in the control room and not one or two.

JUDGE FRYE: So now you would have three?

WITNESS RANDOLPH: We have three present given the present configuration of the control system for the old plant. And that plant, incidentally, is being examined, the design of that, and we will probably be making some changes in the future as far as the UF6 facility.

JUDGE FRYE: But you have now that operate the the UF6 and one for the UF4.

WITNESS RANDOLPH: We have two for the UF6 and one for the UF4.

JUDGE FRYE: Ms. Strachan, I don't understand your question. Are you posing something that in your mind is inconsistent? I guess I don't see the inconsistency.

MS. STRACHAN: On the beginning page of the comments on staffing it indicates that the shift supervisors will be predominantly or exclusively dedicated to the UF4 facility and that several departments have responsibilities associated with both the existing facility and the UF4 facility.

It indicates there that there will be

supervisory personnel who would have responsibilities to both plants. And we are supposed to only be allowed to consider this proposed plant as a separate entity, then I don't see why we must consider supervisory personnel who might be operating for both facilities at the same time.

JUDGE FRYE: Well, I think it is clearly a separate plant. The fact that it may share some supervisory personnel I don't think would change that.

This one from Mary Custis for Pat Costner, I don't see the relevance really here. They can hire people if they want. That is their business really.

Didn't we cover your first question yesterday, Mr. Lammers?

MR. LAMMERS: It never really has been answered of exactly what schedule will be followed in the routine maintenance of the dust collector. Being that this gentleman sitting here is the Manager of Maintenance, I thought maybe he would be able to inform me of that.

It is related somewhat to staffing because it will take maintenance personnel to do that job, and I want to find out if maintenance does it or if the chemical does it.

JUDGE FRYE: Does the actual inspection for the filter.

Does maintenance or the chemical operator have

responsibility for inspecting the baghouse?

WITNESS RANDOLPH: It is actually a shared responsibility. The indirect ways of determining the performance of the baghouse is monitored by not only the control system but the chemical operators, and then periodically you will have inspection by the maintenance personnel.

Now, Dick, I will turn to you on that.

WITNESS PARKER: On the frequency we would annually do a thorough inspection of the dust collector.

JUDGE FRYE: Annually, and that entail taking it apart and putting it back together again, I take it?

WITNESS PARKER: Yes, sir.

JUDGE FRYE: And from what was brought out yesterday, I gather that visual inspections would only occur if your monitoring program indicated that you had a leak?

WITNESS PARKER: Yes, sir.

WITNESS EMERSON: The Health Physics Department, Your Honor, is also involved in tracking the emissions and ascertaining performance of the baghouse. So that is a third, as I testified yesterday, operators, maintenance and health physics department. There are three groups accountable for the proper operation of that baghouse.

JUDGE FRYE: I think you second question I will

hold for the next panel.

I think we have probably covered this, but in thinking about it I am not certain in my own mind. So I am going to ask it.

Will any person associated with the UF4 process also have duties associated with the UF6 process?

WITNESS RANDOLPH: Say that again, sir?

JUDGE FRYE: Are you going to have some people who are associated with the UF4 process who also have duties with respect to the UF6 process? I think it probably just calls for a simple yes or no answer, and I think I know the answer, but I just wanted you to confirm it.

WITNESS RANDOLPH: The supporting staff certainly will be associated with both, and the direct operators and things will be exclusively assigned in the UF4 facility.

JUDGE FRYE: The direct operators?

WITNESS RANDOLPH: In other words, the people that are operating that plant will be assigned to UF4 duties, and when they are assigned to UF4 duties they will be doing that exclusively.

JUDGE FRYE: Okay, but support staff will be shared.

WITNESS RANDOLPH: I want to point out though that if in fact load of the UF4 were to decline so that we

would not have to operate that plant, then people would be reassigned commensurate with their qualifications and training skills.

JUDGE FRYE: Oh, I understand that. I think that the only question is whether the operating personnel when they are working in the UF4, that is all they will have to work with.

WITNESS RANDOLPH: They will be exclusively to UF4.

JUDGE FRYE: Your first question, Ms. Synar, that you submitted earlier I am going to hold because I think it is more relevant to the next panel.

The next one again is in the same category. Again I think I know the answer to this one, but I just want to be sure it is on the record.

Do you have a separate shift manager for each facility?

WITNESS RANDOLPH: We have a shift supervisor that is responsible for the UF4 facility. He in turn reports to an overall shift supervisor who is responsible for the entire plant and who in fact acts as the Acting Plant Manager at any given time. In other words, he is the senior person on duty at the moment.

MS. SYNAR: Excuse me. If this for the UF6 also?

JUDGE FRYE: Yes, it is. It is the Senior Shift

Supervisor.

WITNESS RANDOLPH: The Senior Shift Supervisor is responsible for the entire facility.

MS. SYNAR: That means for both plants. Okay.

JUDGE FRYE: I think we have covered this business about the work week. I don't think we need to get into that any more.

MS. SYNAR: Your Honor, is that the revision? Is that what you are speaking of there?

JUDGE FRYE: There is a revision stating seven-day work week and we are talking about a five-day work week and all that sort of thing. I don't see any need for us to -- I think that has been answered, the kind of schedule the plant is going to be on.

MS. SYNAR: Well, Your Honor, they cited in the revision that first it was five days per week and now it is seven days per week.

JUDGE FRYE: So what? So they want to work eight days per week. That is their business.

MS. SYNAR: Well I just would want to know why they changed it.

JUDGE FRYE: That is their business.

I want to take a little break right now for about 10 minutes and then we will come back and finish up with this panel.

(Recess taken.)

JUDGE FRYE: Shall we go back on the record, please.

Mr. Randolph, I think in reviewing this staffing business that perhaps it might be enlightening if we talked about it in terms of requirements per shift as opposed to total staffing requirements.

I see that in the original application submitted back in January of '85 it states that "The operating group consists of one person per shift (three during startup if required) including a lead operator who reports to the Shift Supervisor of the Sequoyah facility."

Then in the revision which was filed last fall, last November it says "The DUF6 to DUF4 automated conversion process shall be operated by a chemical operator located in the existing Sequoyah UF6 conversion facility central control room. A shift chemical operator located in the DUF6 to DUF4 facility under the direction of a shift supervisor shall assist the chemical operator and shall be present at each shift that operations are conducted."

I take it from what you are telling me that basically the staffing requirements that are stated in these two applications are essentially the same?

WITNESS RANDOLPH: Essentially the same because the first one really did not elaborate on the fact that

they were talking who physically would be present in the UF4 facility as opposed to the actual operations were controlled by a control room operator working at a console in a different building controlling the flow because of the interconnection with regards to the utilities and the flow of certain of the stream and ammonia and nitrogen and things of this nature.

So we always had the situation where we had a control room operator. That is still the same. And we have a shift supervisor on duty each shift who has responsibility for the UF4 facility spending 80 to 90 percent of his time there, and he also has responsibility on another area which is also large automated or controlled, primarily the utility system.

JUDGE FRYE: So it serves both?

WITNESS RANDOLPH: That is correct, but we believe that about 90 percent of his time will be required for the UF4 facility. And during the day shift we will have an additional chemical operator who will have the responsibility to actually fill the drums and move the material out of the facility.

JUDGE FRYE: So that is one person to package the product?

WITNESS RANDOLPH: One person on the day shift to package the product, but for the actual operations there

will be an operator at the console and then the person who is his ears and eyes in the facility in radio contact working as a team.

JUDGE FRYE: Okay. Now the individual who is working in the facility also will have responsibility for handling the cylinders, will he not, of unloading them and placing them, or is that separate?

WITNESS RANDOLPH: He might be able to assist unless he was busy on something else, but we don't see that he will be required for that purpose. That will not be a part of his job duties.

JUDGE FRYE: So that is a additional function that is going to require additional people?

WITNESS RANDOLPH: That is correct. The product man will be normally handling the drums in and out.

JUDGE FRYE: The man who is loading the product would also have responsibility for unloading the cylinders and putting them in the autoclaves?

WITNESS RANDOLPH: No. Unloading the cylinders would probably be the chemical operator.

JUDGE FRYE: Okay.

WITNESS RANDOLPH: Plus maybe some of the yard crew from the facility that would be operating the forklift would be working together with the forklift operator.

JUDGE FRYE: I just want to be sure that this is

clear. You have got one person in the control room who has overall responsibility for controlling what goes on in the plant.

WITNESS RANDOLPH: That is correct.

JUDGE FRYE: You have during the day shift one person in the plant itself who has responsibility for loading the product.

WITNESS RANDOLPH: Yes, sir.

JUDGE FRYE: You have one person also at each shift that it operates in the plant who is in radio contact with the control room operator.

WITNESS RANDOLPH: That is correct.

JUDGE FRYE: And I would assume that his primary focus will be the chemical reactor and what is going on there.

WITNESS RANDOLPH: He is to do whatever the control room operator wants to reverify by actually having someone on the site to reinforce what he sees from the control room system.

JUDGE FRYE: I see. So he is sort of the eyes and ears of the fellow in the control room.

WITNESS RANDOLPH: That is correct. He really has no direct operating function since all of the actuators and things can be normally operated by the control room.

JUDGE FRYE: Okay. Now you have to unload

cylinders and weigh them and put them in the autoclaves and connect them and so on.

WITNESS RANDOLPH: We have a yard crew that handles cylinders and drums and things of this nature and moving them around with a forklift operator. So we are looking at one or two drums a day at the most and that is maybe 15 minutes, and that may be when the supervisor will be there to actually supervise that operation and assist as well.

JUDGE FRYE: The Yard Crew Supervisor?

WITNESS RANDOLPH: The UF4 Supervisor.

JUDGE FRYE: The UF4 Supervisor.

WITNESS RANDOLPH: Yes, sir.

JUDGE FRYE: So the yard crew would just come over as needed I gather from the other facility?

WITNESS RANDOLPH: That is correct, and bring their forklift to do whatever has to be done.

JUDGE FRYE: I see. Okay. So essentially that has been the way it has been from the very beginning?

WITNESS RANDOLPH: Well it has been that way ever since we really got into the detailed definition of the staffing requirements which is in my time for the last two plus years. The original application was submitted before I had responsibility for Sequoyah Fuels and also before we had a contract because the license is always the

longest action item to get any facility going as it has proven to be the case here.

So we had started with an initial license application at the same time we started doing the detailed analysis and design and evaluation of the facility, and as we looked into it and studied the Paducah operations and other places, changes were made which were then reflected in some of the submissions in November of 1985 and further reflected in license recommendations later on in 1986.

JUDGE FRYE: That seems to complete all the questions.

MR. IKARD: Your Honor, I have one question more of the staff than anything else.

MR. NICKLES: That question should be in writing, Your Honor. That is the procedure we have been following.

MR. IKARD: Oh, don't be a jerk. Come on.

JUDGE FRYE: Let's don't get personal.

MR. NICKLES: We have been following a procedure and I want to adhere to the procedure, Your Honor, because it avoids the kind of ---

MR. IKARD: I have already had a discussion with Mr. Lewis during the coffee break and he knows what the answer is and I would just like it to be on the record. I mean, if you want me to write it out ---

JUDGE FRYE: Why don't you do that. Let's don't create problems.

I don't think this question is relevant?

MR. IKARD: Mine?

JUDGE FRYE: No, not yours.

(Laughter.)

I'm clairvoyant. I can tell what you are writing.

(Laughter.)

MR. IKARD: I was going to say I know people can read handwriting upsidedown, but not from 20 feet.

(Laughter.)

(The question by Mr. Ikard was given to Judge Frye.)

JUDGE FRYE: I think this is more of a question for staff.

MR. IKARD: That is what I said. Mr. Nickles wanted me to write it out.

JUDGE FRYE: Let's get the answer on the record then.

Mr. Lewis, I take it you are familiar with the question.

MR. LEWIS: Why don't you read it anyway.

JUDGE FRYE: Okay. The NRC has previously expressed concern over disputes between NRC and licensee

concerning what exactly is the effect of the incorporation by reference of commitments made in Articles 1 through 8 of the license application. Since the latest revision of SFC's staffing, et cetera, have been made in this proceeding (and not a formal amendment to the application) will SFC be required to file an amended application so that these representations will be enforceable as a matter of law and any breach thereof will be a violation of license conditions?

MR. LEWIS: The answer is yes. An amended application may convey a more grandiose concept than in fact will be necessary, but the staff considers that matters that are raised here in the hearing record may well be reflected in the Judge's decision.

We would be considering what final additional requests we would make from Sequoyah Fuels Corporation in terms of what needs to be reflected in a final set of revisions to the license application which would reflect whatever loose ends the staff identifies on its own.

In addition to that, we would be awaiting the Judge's decision, your decision and would intend to assure that the license application reflects whatever findings or directions you may make in your decision.

So it is correct that what Mr. Ikard says, that if there is additional elaboration or additional

specificity provided during the course of the hearing record that the staff decides it would be beneficial for that to be reflected in fact in the license application, we would request SFC to do that, and those would become incorporated into the license and enforceable.

JUDGE FRYE: Fine.

MR. IKARD: If I might, the reason for the question, and I would bring it to your attention for purposes of your findings, is that some of these representations that are being made both today and previously have been made since the original application had been filed, it is my understanding that unless they are incorporated into an amendment they will not have the force of law and Sequoyah Fuels could choose to, for example, change the staffing, if they chose to do so, without NRC permission and with no penalty or violations of those license conditions unless those commitments are contained in Articles 1 through 8.

JUDGE FRYE: Or contained as a condition that I might impose.

MR. IKARD: That is correct, but looking at the license that existed, for example, in the UF6 plant, it, as you recall, incorporated by reference Articles 1 through 8 of the amended application and that was a lot of detail. In fact, they were cited for violations of that.

So I just wanted to bring that to your attention that these representations that are being made in this proceeding unless they are incorporated either in your decision or in a requirement of an amended application will not have the force of law and they could then, if they chose to do so for all sorts of reasons, change those commitments as soon as they were licensed.

JUDGE FRYE: Fine. I understand your concern.

I think this isn't really relevant to this particular topic, is it?

MR. HENSHAW: No, sir, it is not.

JUDGE FRYE: Thank you very much, gentlemen.

(The panel was excused.)

JUDGE FRYE: Mr. Ikard, did you have any direct testimony that you wanted to offer?

MR. IKARD: On staffing, no, Your Honor.

JUDGE FRYE: Mr. Lammers.

MR. LAMMERS: In the matter of staffing we have a few comments to make. This was one of our particular contentions. In our original observation of the original 1985, the earliest amendment, we were surprised to find that just one person was assigned to run the plant in conjunction with shared supervision and shared radio control or control room duties.

Since that time many things have been changed,

and our contention was that there should be two pairs of eyes, two pairs of ears and two brains to handle things that gadgets can't handle. It's a four level structure and it's difficult for one person to go to the back of the plant and pick up heavy containers and bring them to the front and still watch things inside.

The gadgets are fine, but they should not be relied on in place of human eyes, human brains and human hands. They should assist those brains, hands and eyes. People should not allow robotry and gadgetry to take over the jobs or the safety of the citizens surrounding the area and the safety of the workers in the plant.

We feel that it would take a minimum of two people each shift inside of the plant for performing the duties such as loading the cylinders out in the yard and bringing them around, and while this is being done by one man, if that is all it takes, the other person would be inside watching the building.

In the latest proposal we understand that one man will be working full time on the console in the control room, and we have no problem with this, and one man would be working on the day shift loading and unloading and, as I understand, will also be responsible for some of the utilities around the outside of the plant, the boilers, et cetera, et cetera, and we have no problem with this

additional man to handle that.

Where our problem is is there is one chemical operator assigned in the plant each shift. We insisted on some type of supervision because we did not like the shared supervision with the main plant. It is quite a distance between the UF4 plant and the UF6, and we felt that in the wintertime at about 10 degrees that supervision would be scarce and in the summertime it wouldn't be much better.

So we insisted on a full-time supervisor. A shift supervisor was what was substituted in the latest amendment. Now we only have the shift supervisor approximately 80 percent of the time. We welcome that, but we do have some concerns about the other 20 percent because this shift supervisor has the responsibility to handle utility work at the UF6 plant and the UF4 plant according to our understanding of the latest amendment.

We are worried that this 20 percent that is allotted for those duties may become enlarged to the point where shift supervision on the plant site may become scarce and this is something that we are highly concerned about.

CARA, which represents the people around the plant, we want adequate staffing, and it is imperative that this plant be staffed adequately to provide us the measure of safety that we are entitled to with this regulated industry.

Thank you.

JUDGE FRYE: Thank you.

Ms. Synar?

MS. SYNAR: No, sir.

JUDGE FRYE: Mr. Henshaw.

MR. HENSHAW: Judge Frye, I have got a statement here.

JUDGE FRYE: Is this the statement that Dr. Gourd asked to be entered?

MR. HENSHAW: Yes, it is, and I was wondering if I could go ahead and do that before mine, if I may?

JUDGE FRYE: I'm sorry?

MR. HENSHAW: May I go ahead and present that before I present mine? I had one point to make on the staffing and I didn't write it down and I have forgotten what it was.

JUDGE FRYE: Do you want to read that? Why don't you just read it. That is probably the best way to do it.

MR. HENSHAW: Okay. This is a prepared statement by Dr. Gourd handed to me in his absence. It regards personnel at Gore, November 28, 1986.

The type of experience of personnel at the Kerr-McGee Nuclear Fuels Plant at Gore is typical of the type of personnel found at most any plant now in existence.

It is a mixture of both well educated personnel and those who have gained their position by local training. In most cases this mix of personnel is acceptable and quite often superior to a wholly technically trained group.

In most cases there is a minimum of jealousy and envy of status or position in the diverse group while such problems quite often exist in where every person has essentially the same training.

There only problem where there is a diversity of educational backgrounds is in the training of those without primary education in technical operations. In most cases these people have been trained locally and the quality of their training is dependent on the care and interest displayed by their supervisors or teachers.

JUDGE FRYE: I don't mean to interrupt, but this sounds more like this goes to the next topic than this topic.

MR. HENSHAW: Okay. On qualifications, is that what we are on?

JUDGE FRYE: We are not on that yet, but that is the next topic coming up.

MR. HENSHAW: Okay.

JUDGE FRYE: Did you have something that you wanted to say?

MR. HENSHAW: I had one point on the training, and I've forgotten what it was. I should have written it down. So if I might wait until after the others speak maybe I can think of it.

JUDGE FRYE: Ms. Strachan.

MS. STRACHAN: Your Honor, I just have one point to make, and that is that I also am concerned that there is not a shift supervisor 100 percent of the time for that proposed building, and also because it has already been introduced in discussion for this section, I am very concerned that there is a possibility of operating three shifts a day, seven days a week. That seems to allow room for there to be a shortage of maintenance opportunity and so on.

JUDGE FRYE: Thank you.

Does the National Water Center have anything?

MS. CURTIS: No, Your Honor.

JUDGE FRYE: CASE?

MS. CARTER-WHITE: With regard to the issue of staffing, an examination of the original UF4 application dated January 2, 1982 indicates that only one individual would be employed at the UF4 facility.

However, if you compare that with the evolutionary process of this application over the past two years, or one fully year and slightly into another, then

you will discover that they have in fact added additional personnel.

The question that I have that relates to the present staffing arrangements at Sequoyah Fuels is what licensing application factors have been taken into consideration for instances where the existing Sequoyah facility is closed for any reason, for example, licensing violation infractions or down for maintenance and that sort of thing.

Will the facility personnel from the existing Sequoyah facility which were described by Mr. Randolph as support staff, will those individuals be on line for the UF4 facility in full scale, or in fact is the UF4 facility merely an ancillary and subordinate wing of the Sequoyah Fuels operation?

If staffing is such that the UF4 operation can in fact be operated with three individuals or four individuals, then I suspect that that will in fact take place if the Sequoyah facility is down.

The likelihood that this would incur is increased by the fact that the application states that the facility might operate five days per week at one point historically and at another place the application or rather the most recent filings in the proceeding indicate that the facility would operate as much as seven days per week with

three shifts as opposed to one shift or a five-day shift.

I might note also that while in reviewing the Sequoyah facility UF4 operation yesterday the potential exists for the addition of an additional reactor and, in addition, the operation of two autoclaves simultaneously such that the production could be increased from what appeared to be five days per week in 1985 to seven days. That would add an additional two days per week to the operation. Those shifts have been increased to a potential for three per day and that in fact has been doubled by the potential for including another reactor.

Now the expansion of the UF4 facility plan during the course of this proceeding is evidenced by the fact that the original 1985 application shows a square footage for the UF4 facility of 2,520 feet, whereas the present application shows a square footage of either 7,000 or 10,000 feet. Those two figures have been given most recently and both within the last six months.

So the size of the facility has increased tremendously since the original application was implemented. The capacity of the proposed facility has increased tremendously also by reason of the operating schedule that has been proposed.

And with regard to staffing the existing Sequoyah Fuels facility cannot be relied upon as admitted

by the applicant in its original application and in subsequent pleadings in this case by reason of the fact that it states that the facilities are interdependent as to product supply but not interdependent as to operating schedules.

Thus, the question that we would have is why does not this application reflect the actual staffing that will be utilized at the UF4 facility?

Questions?

(No response.)

JUDGE FRYE: Thank you.

Mr. Kellogg, do you have anything?

MR. KELLOGG: Nothing, Your Honor. Thank you.

JUDGE FRYE: Thank you.

Then I believe we are ready to move on to the qualifications of personnel.

MR. HENSHAW: Excuse me, Judge Frye?

JUDGE FRYE: Oh, I'm sorry.

MR. HENSHAW: On my facility tour I want to think I was told that 37 additional personnel would be hired, and I was wondering if we might get a clarification of that?

JUDGE FRYE: That 37 additional personnel would be hired? You think think was told on the tour?

MR. HENSHAW: Yes, sir. I am not sure if that

was facility wide or if that was for the expansion project.

JUDGE FRYE: Can you clarify that?

MR. MESERVE: Mr. Henshaw was with me on the tour and, to my recollection, no such statement was made. I believe that there was some statement made by somebody in the course of limited appearance statements who had made some mention of that number of employees, and I have no idea where that number came from.

MR. HENSHAW: I was thinking that Mr. Utinage is the person that told me. It wasn't a part of the tour. It's just that we were speaking on the site. It wouldn't have been a public statement before the whole tour.

JUDGE FRYE: Okay. Well how does this relate --

- MR. HENSHAW: I was just wondering if that figure is a commitment to staffing for this facility?

JUDGE FRYE: I think it is safe to say that that is probably no a commitment to staffing for this facility.

MR. NICKLES: Your Honor, our revised application submits the manpower on the UF4 facility.

MR. HENSHAW: Okay. Thank you.

JUDGE FRYE: Ms. Carter-White.

MS. CARTER-WHITE: There has been some disinformation to the public with regard to the amount of jobs that the facility would employ. At one time the citizens in support of Sequoyah Fuels Corporation sought

to intervene in this proceeding to assert the economic advantage of the additional jobs which would be created by the facility which it was pointed out at that time that one job was shown in the application.

JUDGE FRYE: I am aware of that history and that really doesn't go to the adequacy of the staffing of the facility.

MS. CARTER-WHITE: Then, additionally, the limited appearance statements that were made at the initiation of this proceeding on Monday the 12th, the opening date of this proceeding, there was testimony which was given by a governmental employee I believe, Ms. Ferguson with EODD that indicated that the additional employment that would be provided by the facility was a significant factor and requested citing the facility based upon that.

So my question that I proposed to the panel during the question session was identical to that of Mr. Henshaw. How many new employees would be staffed ---

JUDGE FRYE: We have gone through the adequacy of staffing and I think they have answered how many people they are going to add per shift which gives you an indication of what sort of staff will be on hand per shift. How many people they are going to hire overall is another question and I don't really see the relevance here

to that.

So let's move on now to qualifications of personnel.

MR. MESERVE: Your Honor, as with the other panels, we have prefiled a statement on behalf of Sequoyah Fuels Corporation. The panel who will speak in support of that statement and on the qualifications issue are again Mr. Randolph and Steven Emerson.

Whereupon,

STEVEN EMERSON

and

JAMES RANDOLPH

were called as a panel on behalf of Sequoyah Fuels Corporation and, having been previously duly sworn by Judge Frye, testified as follows:

WITNESS RANDOLPH: Good morning. Steve Emerson and I are here to respond to questions concerning the qualifications of the Sequoyah Staff that will be directly or indirectly involved in the operation of the UF4 facility.

An NRC license to operate a facility of this type establishes the minimum qualifications for various positions in our previous submissions to all parties Sequoyah Fuels has demonstrated that the personnel assigned to these positions exceed the qualification standards

established by the NRC.

That is all we have to say, sir.

JUDGE FRYE: Why don't we take a 10-minute break at this point and you can submit your questions when we come back.

(Recess taken.)

(The Statement on Behalf of the Sequoyah Fuels Corporation on Personnel Qualifications follows:)

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE

John H. Frye, III

Administrative Judge

In the Matter of:	Docket No. 40-8027-MLA
SEQUOYAH FUELS CORPORATION	ASLBP No. 85-513-03-ML
(Sequoyah UF_6 to UF_4 Facility)	

STATEMENT

ON BEHALF OF

SEQUOYAH FUELS CORPORATION

ON

PERSONNEL QUALIFICATIONS

Statement on Personnel Qualifications

The Sequoyah Facility is operated by a staff that is amply qualified to operate the UF_4 Facility. This statement is submitted to respond to various contentions raised by intervenors as to the qualifications of SFC staff.

I.

On November 5, 1985, SFC was requested by the Presiding Officer to demonstrate that the personnel at the Facility meet the minimum qualifications for their positions as set forth in the Facility License. Memorandum and Order, 15 (November 5, 1985). SFC has provided detailed information concerning the license and the qualifications of personnel in:

(1) Response of SFC to Petitions, App. XV (October 16, 1985).

(2) Outlines of Testimony by Sequoyah Fuels Corporation, 2-12 (November 22, 1985).

(3) Sequoyah Fuels Corporation's Statement as to Organization and Staffing of UF_6 to UF_4 Facility (November 20, 1986);

(4) SFC Response to Filings by Intervenors (December 22, 1986); and

(5) Supplemental SFC Response (January 7, 1987).

These documents are incorporated in this Statement by reference. They demonstrate that the SFC staff exceed the minimum qualifications

established by the NRC.[1] Moreover, as shown by the Supplemental SFC Response, those staff whose qualifications are not established by the license are also fully qualified for their positions.

II.

Various intervenors (CARA, CASE, Dr. Gourd and Mr. Henshaw) have raised questions concerning the requirements for specific personnel assigned to the UF_4 Facility. In particular, some of these intervenors assert the requirements for the positions of Manager of Health Physics and Industrial Hygiene, the Area Superintendents, and the Health and Safety Technicians should include more stringent educational requirements.[2] The Presiding Officer has indicated that this matter may be addressed at the hearing. Memorandum and Order, 6-8 (Dec. 31, 1986).

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[1] In evaluating the restart of the facility, the staff concluded:

"The safety-related positions....are filled by individuals who meet stated minimum qualifications of academic training and experience...." Safety Evaluation Report by the Division of Fuel Cycle and Material Safety Related to the NRC Source Material License Renewal for Sequoyah Fuels Corporation UF_6 Conversion Plant, Gore, Oklahoma, September 20, 1985, at page 18. Appendix I sets forth relevant pages from the Report.

[2] CASE may have raised an issue as to whether a requirement associated with experience in nuclear processing, as opposed to chemical engineering, should be demanded of the Manager of Facility Engineering. CASE Response, 1 (Dec. 12, 1986); see Memorandum and Order, 8-9 (Dec. 31, 1986). The existing requirement is fully appropriate in light of the fact the Facility process involves chemical, as opposed to nuclear, reactions.

The qualifications for the positions are established in the existing license for the Facility. The activities involved in the operation of the UF_4 Facility are similar in all respects to the activities carried out in the existing UF_6 Facility. Because the NRC has found the qualification requirements are satisfactory for the positions at the existing facility, they are appropriate as well for the positions at the UF_4 Facility. Any revision of the qualifications would constitute a collateral attack on the underlying license.

NRC has also published guidance for the qualifications of health physics personnel for activities involving uranium processing.[3/] That guidance does not require a college degree or associate degree for the positions at issue here. NRC states that the educational requirements for the position of radiation safety officer (Manager of Health Physics and Industrial Hygiene) is either a bachelor's degree in the physical sciences, industrial hygiene or engineering or an equivalent combination of training and relevant experience. For the position of health physics technician (Health and Safety Technician), the educational requirement is either an associate degree or two or more years of college and specified training and experience or a high school diploma and specified training and experience. Reg Guide 8.31 at page 8.31-4 and -5. In short, SFC's personnel requirements are consistent with NRC guidance.

3/ Information Relevant To Ensuring That Occupational Radiation Exposures at Uranium Mills Will Be As Low As Is Reasonably Achievable, NRC Regulatory Guide 8.31, May 1983.

The Sequoyah Facility personnel have the required combination of education, training, experience and skills for the safe operation of the UF_4 Facility. SFC personnel are fully able to fulfill their responsibilities and will do so.

APPENDIX 1

2. Minimum Qualifications

The safety-related positions shown in Figure 4 are filled by individuals who meet stated minimum qualifications of academic training and experience as follows:

The Facility Manager shall have at least 5 years' experience in management of manufacturing facilities with at least 3 years management experience in nuclear manufacturing facilities. He shall hold a bachelors degree in science or engineering and have demonstrated the proficiency to manage significant portions of required management activities.

The Manager, Health Physics and Industrial Safety, shall hold a degree in science or engineering and have at least 2 years' experience in radiation monitoring and personnel exposure or shall have a high school diploma and at least 10 years' experience in radiation monitoring and personnel exposure evaluation. He shall have demonstrated a proficiency to: (1) conduct specified radiation safety programs, (2) recognize potential radiation safety problem areas in the operations, and (3) advise operation supervision on radiation protection matters. He must also be capable of directing the surveillance activities of health physics technicians.

The Manager of Conversion Engineering shall hold a degree in science or engineering or equivalent, with broad experience in chemical processing, uranium processing, and chemical materials handling.

The Manager of Production shall hold a bachelors degree in science or engineering with 5 years' experience in a supervisor position. He shall have demonstrated a proficiency to manage the operations of the Sequoyah Facility and to identify process changes which require health physics analysis.

The Area Supervisor shall have broad supervisory industrial chemical processing experience or a degree in science or engineering with a general background in the production and handling of uranium materials.

The Shift Supervisors shall have a bachelor degree with 2 years' experience in working with radioactive materials or a high school diploma with 5 years' experience in chemical plant processing. The Shift Supervisors shall be thoroughly familiar with the uranium production activities and have thorough knowledge of the approved operating procedures.

The Director, Nuclear Licensing and Regulation (Environment and Health Management Division of Kerr-McGee Corporation), shall hold an advanced degree in engineering or science or its equivalent, with at least 8 years in technical management, 5 of which involve nuclear activities.

The Staff Health Physicist (Environmental and Health Management Division of Kerr-McGee Corporation), shall be professionally qualified with a bachelors degree in science or engineering and shall have had 5 years' experience in assignments involving radiation protection. He shall be capable of providing authoritative advice and counsel in matters of health physics, industrial hygiene, and industrial safety.

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JUDGE FRYE: Can we go back on the record, please. You have a correction you want to make, Mr. Messerve?

MR. MESSERVE: We have noticed over the break that there is a slight error on Footnote 1, on page 2, of the statement on behalf of Sequoyah Fuels on Personnel Qualifications. The footnote deals with a citation, and correctly cites a document, but in the first line it mischaracterizes that document. The footnotes should state, in evaluating the renewal of the facility lincensed, the Staff concluded.

JUDGE FRYE: All right. The first question comes from NACE, and it says of those individuals who are identified in SFC's filings as being involved in the cite and or corporate supervision, and management of the UF04 plant, were any of them determined by SFC or Kerr-McGee internal investigation, to have been responsible for the two causes of the January 4 accident; the causes being those causes identified by the NRC Staff?

MR. RANDOLPH: The short answer is, no, sir. We are fully confident of the capability and competency of the people that are assigned, and have indicated in our submissions and staffing pattern for the UF-4 and UF-6 facility.

JUDGE FRYE: But those people who are responsible for the UF-4 plant were not involved in any way in the causes -- I think it was lack of training and failure to follow procedures?

MR. RANDOLPH: The answer is, no.

JUDGE FRYE: Okay. Those who were involved, do you have any --

can you at all predict whether those who were involved might at some point become involved in the UF-4 facility?

MR. RANDOLPH: I cannot predict with certainty, but the answer is I do not expect that they will be involved.

JUDGE FRYE: Okay. Ms. Synar, I think I understand this, but I may not. In the qualification of personnel, do employees always have an opition of engineering science or high school diploma.

By that do you mean that there are three different ways they can show qualifications?

MS. SYNAR: Right. It is stated as or, or, or. It is stated as any preference they want to refer to.

JUDGE FRYE: Okay. All right. The question really is then if I understand it correctly, in a number of positions I know there is an option of meeting the qualifications for the facility through an engineering degree, science degree, or high school diploma? Is that -- there are a number of different alternative ways in which an individual might meet the minimum qualifications.

MR. SYNAR: Or experience, in other words. I mean , it is or, it doesn't give an option there.

JUDGE FRYE: Right. And the question is: Why do you provide those options?

MR. RANDOLPH: Well, the NRC provides that people can meet their standards in many ways. One, having a formal degree in the appropriate discipline, or having a combination of a high school education, plus certain amount of technical training.

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JUDGE FRY: So, the experience. It is the NRC's -- you are basing this on NRC requirements?

MR. RANDOLPH: We are using NRC license requirements, or guidelines for staffing patterns in the respective functional areas. Where they consider that experience and technical training to be the equivalent, for purposes of qualification, to a formal degree in a science or something which is not directly related to a UF-6 facility.

MR. NICKLES: Your Honor, in our November 20th submission, we have the stated license condidtion, and the names of the individuals besides those, and what experience they have, so one can see exactly how they meet the conditions.

JUDGE FRYE: Yes, right. I understand that. I don't think the question goes to the individual so much as to the options they were given, and I was frankly quite surprised that the NRC's requirements are that detailed, that they actually state that.

MR. RANDOLPH: For instance, they provide in their guidelines, regulatory guides, and that is what we are following.

JUDGE FRYE: That is what you are following; Reg Guides.

MR. RANDOLPH: Yes, sir.

JUDGE FRYE: Okay.

MS. SYNAR: Your Honor, this is also for radiation safety officer manager, and health physicist. They also have that in their submittal here, where it is always -- they have stated or, or, or.

JUDGE FRYE: Right. And he has just answered your question, that what they are doing is following regulatory guidance put out by the

NRC.

MS. SYNAR: I know they are following the NRC, but why is NRC giving them this option to do this? I mean, do we not have any laws or rules that we go by as far as our safety?

JUDGE FRYE: You are certainly free to take that position. I can't ask this witness that question, because he can't answer it.

Coming back to the original question from NACE, just to clear up an uncertainty here, Mr. Buntz and Mr. Marler, who are respectively the start-up manager and the operations manager for the UF-4 facility, were not involved in regard to the UF-6 accident?

MR. RANDOLPH: I do not consider that they were directly involved. Mr. Buntz was not at the site, Mr. Marler was an area where he did not have direct responsibility for any of the UF-6 operations.

JUDGE FRYE: I see. Okay. Ms. Carter-White, what is the Cushing Facility?

MS. CARTER-WHITE: That is a facility that is no longer in operation. I think it is referred to in the Appendix to the January -- I was served this Pleading on January 20th. It doesn't have a file date on it, but it refers to a resume which was submitted within that January 20th -- I am sorry, November 20th proceeding -- filing.

JUDGE FRYE: By whom?

MS. CARTER-WHITE: By Sequoyah Fuels.

JUDGE FRYE: The November 20th filing by Sequoyah Fuels?

MS. CARTER-WHITE: It is entitled, Sequoyah Fuels Corporation Statement on the Organization and Staffing.

JUDGE FRYE: And where is it in that, Ms. Carter-White?

MS. CARTER-WHITE: I don't know. It is in one of the appendices, Your Honor. Either Exhibit 1, 2, or 3.

JUDGE FRYE: The Cushing Facility?

MS. CARTER-WHITE: Right.

JUDGE FRYE: I am trying to find out what it is all about, and I am not getting very far.

MS. CARTER-WHITE: Your Honor, my question goes to the other -- the safety record at the former facilities that the hiring relates to.

JUDGE FRYE: Well, I don't think I want to get into --

MS. CARTER-WHITE: Your Honor, the point that I sought to make with determining those facts, the relevancy will be established , if you will ask the questions and determine the answers.

Specifically, it appears that this employee was employed at the Cushing Facility when it exploded, then he was employed at the Cimerron Facility at the time of the death of Caron Silkwood, and he was employed at Sequoyah Fuels in January 1986, when Chief Harrison was killed.

That is three employee deaths which are linked to his management functions at those other facilities, and I think it is a very, very relevant questiuon.

JUDGE FRYE: I am not going to ask those questions.

MS. CARTER-WHITE: All of those accidents had resulting radiological releases -- I am sorry, not the Silkwood incident, but there

was a tremendous quantity of loss of plutonium there. Those questions are relevant, and we ask that our exceptions be noted on the record for purposes of appeal.

JUDGE FRYE: You have noted your objection. Mr. Henshaw, what do you mean by former plant manager?

MR. HENSHAW: Did he meet the minimum qualifications.

JUDGE FRYE: Former plant manager of what?

MR. HENSHAW: Did he meet the minimum qualifications as set forth in the SB 1010 license?

MR. NICKLES: He is referring to the UF-6 facility.

JUDGE FRYE: I think you are referring to the UF-6 facility, aren't you?

MR. HENSHAW: Judge Frye, in these proceedings, Sequoyah Fuels has stated that that manager did meet the minimum qualifications of that license. Since that time, they have been cited by the NRC for failure to meet the license requirements.

Now, for that point it is relevant to these proceedings.

JUDGE FRYE: Well, it is UF-6, and I have no authority over that, and then from --

MR. HENSAHW: Judge Frye, the testimony in this proceeding though that you do have jurisdiction over it. If the testimony in this proceeding is not accurate, then you most certainly do have jurisdiction over that.

JUDGE FRYE: Well, I don't know. I will just ask: Did the former plant manager meet minimum license requirements?

MR. RANDOLPH: Not as we have them defined in this license.

MR. HENSHAW: Judge Frye, may I follow that up with --

JUDGE FRYE: No. I just really have trouble finding the relevance of it all, to be quite frank with you.

MR. HENSHAW: Judge Frye, if the NRC will allow the plant license to be renewed with a plant manager that did not meet the license requirements which it was a question before the NRC, they can do the same thing on this facility right here.

JUDGE FRYE: I think I know what you are talking about now. Okay. That is a matter of record. I think the point you are trying to make is already a matter that is set out in the record in this proceeding, and I don't think we need to puruse any questions here.

I know what you are referring to.

MR. HENSHAW: Thank you.

JUDGE FRYE: I don't think drug testing is relevant to this particular topic.

MS. CURTIS: Your Honor, is there a time that it will be relevant?

JUDGE FRYE: No, I don't think that is involved in this. My recollection is I don't believe it is involved in any of the admitted --

MS. CURTIS: I brought it to the attention of the court because as we all know, when you are handling dangerous materials, if you are under the influence of any form of drug, then that does affect the incidence of accidents.

JUDGE FRYE: Okay. Thank you very much, gentlemen.

(Panel stands aside.)

JUDGE FRYE: Do you have any testimony to offer, Mr. Ikard?

MR. IKARD: Yes, I do, Your Honor. My name is James A. Ikard, and I am an attorney and I represent the Native Americans for a Clean Environment in this proceeding, and have done so since it was commenced.

I am an attorney -- I practice in Oklahoma City, Okalahoma. I was admitted to practice after graduating from the University of Oklahoma College of Law in 1972. Been admitted to practice in all of the Federal District Courts in Oklahoma. The Oklahoma Supreme Court, the 10th Circuit Court of Appeals, and the United States Supreme Court, and have been involved in these matters involving Kerr-McGee and its successor, the Sequoyah Fuels Corporation, for a long time, about ten years.

Now, I appear as a witness for NACE, and I seek to address three specific topics. One is the regulatory background as it bears on this proceeding. Second, the NRC proceeding -- or findings which reflect on the competence issue, the qualification issue, which is before the presiding officer, and then other conduct of Sequoyah Fuels or its parent corporation which relate to its competence.

I am very cocerned about what I perceive as a fixation on these minimum qualifications being an absolute proof of competence.

They are only minimum qualifications. They are those that are set at a minimum. They are not ends, but simply the means by which the

NRC seeks to assure the competence of performace by the personnel.

A company that had all Ph.Ds, but that violated its license continually would not -- notwithstanding those exhaulted degrees, be deemed competent, and it is the performance of the persons holding these positions and not the resumes that they have accumulated over the years that should be the focus of this license proceeding, and it seems to me that Sequoyah Fuels position as it as repeatedly asserted itself in this case, is that since each one of those individuals that are deemed to be utilized in this facility meet those minimum qualifications, which are quite honestly almost anybody off the street could almost meet -- well, anybody off the street with a college degree could almost meet some of them -- seems to be the end of the inquiry.

And I submit that it is not the end of the inquiry. That the question is, as the old saying goes, the proof is in the pudding, and it doesn't matter what the recipe looks like, but what the pudding tastes like.

And I say that in these circumstances the recipes or these minimum qualifications, but as the accident of January 4th demonstrated, the possession of those qualifications are no guarantee of safety.

In fact, as I understand the record, with the exception of the plant manager, all of those people who were involved in those decisions that led to the causes as they are characterized by the NRC, had all those qualifications. Every single one of them met the minimum qualifications, and yet the NRC made some findings in assessing it. A fine, and in modifying the license, that clearly indicate that the

possession of those qualifications was not a guarantee of safety.

Now, I think as a background it is important to note that the nature of the regulatory process makes competence absolutely essential in terms of management at every level, parent corporate in Oklahoma City, corporate in Oklahoma City and the site itself. It is absoulutely essential, because of the nature of this regulatory process, that the management be competent.

The first factor is the infrequency of inspections. According to Table 9.2 of the Lessons Learned Report, that is NUREG 1198, there was one inspection in 1975, '76, '77, '79, '80, '82, '83 and '84, and none in 1981. In 1978, there were two inspections, but one was an unrelated matter and it involved eight hours on site, and there were two in 1985, and one involved only three hours onsite.

So, the annual inspections, the nature of the inspection process, is one of sampling. Where certain documents are selected for review as representative of all of the documents. The NRC inspectors do not wade through all of these documents. They just assume if they look at a number of them, those would be representative of compliance.

They also assume that if the document is there, it reflects reality. If a drill is documented, the drill happened. They don't interview people to see if the drill occurred. They just simply checked to see if a required drill is documented. If it is documented, as far as they are concerned, the drill occurred.

So, that the infrequency of the inspection process and the use of the sampling model make a very important -- the competence of

the management involved in the proceedings.

The NRC has acknowledged serious deficiencies in its regulation of fuel facilities, especially the non-radiological aspects of the operation, and in the lesson learned report, in Section 8, and as I understand from reading the lessons learned report, it is an attempt to look at what happened in the January 4th accident, and to draw some conclusions about what the Nuclear Regulatory Commission's staff can do better to regulate these, and in this NUREG 1198, the lessons learned report, it is very clear that the NRC recommendations in Paragraph 8.1.2, require, for example: Licensing guidance should also more definitely identify those areas of Applicant's operations which require the development and implementation of proceudres and formalized training. This guidance should be in sufficient detail to permit the applicant to develop an acceptable program.

When you read the lessons learned report, you discover, for example, that in source materials licensing, the license proceeding is perceived by the NRC Staff as being involved in far too general an approach.

Second, in radiological contingency plans, they note that there was no, at the time of this report, currently no organization in the NRC dedicated to non-reactor radiological contingency plan review.

I guess that explains how a contingency plan approved by the NRC turned out to be so wholly inadequate.

And, third, the inspection program, the NRC in Section

9.1.1, states: Aspects of facility operations, such as engineering and design control, establishment and adequacy of administrative and operating procedures, the selection, training, and qualification of management, and technical personnel associated with the facility, and the control of hazardous chemicals were not generally inspected during this period.

In other words, during these annual inspections, the very things that caused the injuries in the January 4th accident were not really subject to inspection. While several different inspectors performed these inspections, all were radiation specialists. Furthermore, there had been apparently no apparent continuity of inspectors assigned to inspect the facility.

While one inspector is shown to have performed more inspections than others in this period, the single inspection per year and the intermittant use of the same inspector, do not indicate continuity in inspection program implementation.

And the recommendations are that the inspection program procedures be revised to better emphasize inspection program aspects relative to procedures, hardware and personnel training, and then finally in regard to training and qualification, 9.2.1, interviews of NRC Region IV personnel associated with the inspection at the Sequoyah facility indicated that they generally were unaware of the specific thermal mechanical behavior of UF-6.

Only a few of the personnel were aware of technical documents such as ORO 651. Recommendations contained in

paragraph 9.2.2 indicate inspector qualification procedures should be changed. Technical publications should be provided, and then secondly, in a report published in the Federal Register, at Volume 51, page 45,122, on December 17, 1986, the materials safety regulation review study group report, which was triggered apparently in part by the accident of January 4th, the NRC goes through with a series of recommendations, and these recommendations very clearly demonstrate that the regulatory process has been structured in the past in such a way that there is no guarantee of safety in the regulatory process.

In fact, some of the recommendations clearly identify -- in fact, at one point they acknowledged, for example, at page 45,124, our review and our discussions with NRC Staff members, and State and Licensee representatives supports our concern that there exists at present a serious regulatory implementation gap at NRC licensed facilities which possess or use non-radiological hazardous materials in connection with NRC licensed materials.

For the most part it is unclear whether at such facilities the NRC has exclusive authority and responsibility for protecting the public health and safety.

The point of all of this is that given the NRC regulatory structure as it relates to this fuel facility, this facility must be considered -- as far as I am concerned in my perspective from my review of these materials, as if it were unregulated when you look at the quality of the management.

It is clearly the NRC regulatory process cannot take the place of competent managment, and in fact the reverse is true.

The nature of the process requires management that is sufficiently competent to act in the absence of an oversight by the NRC of specific license requirements.

Therefore, I think that it is absolutely essential that more than the minimum qualifications, which have proven inadequate in the January 4th accident, be required of the licensee. If you were to look at the pudding to see whether or not the staff at Sequoyah Fuels, and its parent corporation, are adequate to carry out its licensed commitments -- it has not done so before, and to operate the plant safely, it has not done so before. And to assure the public health and safety, it has not done that before.

And the prior conduct since this plant is not yet operating, the only way to know whether or not these commitments that are made as to the competence of the management, is to look at how they have behaved in the past.

It is impossible for us to gaze in a crystal ball and to determine whether or not the management is competent as it is presently proposed. We just look to how the corporate management from the very top to the site have performed, and I would submit that when you examine the lesson learned report in terms of the process and facility design, and the radiological contingency plan, the conclusions expressed in that about what apparently was in the absence of rigorous NRC regulation, how Sequoyah Fuels conducted

itself, because it was primarily self-regulating in relation to this.

That is what the lessons learned report said, that is what the material safety group report says, is that the areas that led to the cause of this accident were essentially unregulated.

They fell through a regulatory crack, and we can look at the performance of Sequoyah Fuels as reflected in the lessons learned report, and other documents generated by the NRC and see that in fact the plant was not run safety.

For example, and I state this on the basis of personal knowledge, in a related -- in some litigation related to this accident, we asked to see the documents which reflected the decision to go to the 14 ton cylinder instead of the ten ton. And I call it trying to put a size 10 foot in a size 8 shoe.

And we asked to see those documents, and none were produced, and apparently none exist. According to the lessons learned report, a significant change in facility operations at the Sequoyah facility resulted in the use of 14 ton cylinders in addition to 10 ton cylinders several years after operation commenced. This change was significant because the fill station was designed for the shorter ten ton cylinders.

Use of the 14 ton cylinders resulted in significant reductions in the safety margins associated with physical locations of the cylinder on the filling station mechanical scale, and the measurement range of the scale.

Both these conditions contributed to the cylinder rupture on January 4th, and what the reports disclose is that there never

apparently was any concern for the significance of this change.

There was apparently among all of these managers who possess all these minimum qualifications, an inability to identify the significance in using a 14 ton cylinder in a bay designed for a 10 ton cylinder.

In terms of radiological contingency plan, according to the lessons learned report in Section 3.1.1.1, the contingency plan was generated primarily at the corporate office of Kerr-McGee, with some input from site management;subsequent to the submittal of the plan to NRC, the individuals who had prepared the plan left the corporation. The corporate officers who succeeded these individuals did not have the in-depth knowledge, and I assume all of these officers had the minimum qualifications required under the license conditions. These individuals did not have in-depth knowledge of the plan, and their responsibilities established in the plan.

Corporate audits of the contingency plan were conducted, but they were not of sufficient depth to identify problems in plant implimentation, or to evaluate the overall effectiveness of the plan.

The plan had no clear specific assignments or responsibility for overall maintenance of the plan for various emergency functions.

At the time of the incident, the contingency plan had not been reviewed and updated as required, and was outmoded in several areas.

Facilities and equipment, access to virtually all of the emergency equipment was lost during the January 4th incident. The one

available emergency kit located at the guard post did not have adequate and appropriate equipment. First aid supplies. The site ambulance. Radiological survey equipment, et cetera, et cetera, were lost as well as the onsite radioanalytical laboratory.

Employee emergency assembly areas designated by the radiological contingency plan were uninhabitable. Self-contained breathing apparatus were not readily available for employees leaving the plant areas through the noxious fumes. In addition, with no offsite radio network, and very limited telephone capability, local police could not recontact the facility for updates of emergency status, et cetera.

It goes on, and on, and on. As to the -- so the first proof of the competence of the SFC Staff to operate in this essentially self-regulatory atmosphere was NUREG 1198, lessons learned, and there were findings there on over-pressurization monitoring, on monitoring filling, on facility operations, and under plant maintenance training, exercises, and drills and facility equipment under radiological contingency plan.

In the document dated October 14, 1986, which was the notice of violation and proposed imposition of fines, penalties, the Office of Inspection and Enforcement Director stated: The findings of the inspections demonstrate that company procedures were flagrantly violated. That the physical equipment and facilities used for filling and weighing UF-6 cylinders were inadequate for safe use with 14 ton cylinders. That management failed to ensure that operating procedures

important to safety were properly implemented, and that management failed to ensure that its personnel received adequate training in order to perform their duties.

These findings demonstrate a major breakdown in Sequoyah Fuels Corporation management control and oversight of licensed activities.

The NRC finds that this failure of management was a contributing factor to the accident. The accident resulted in the death of an individual and demonstrates the need for major improvement in Sequoyah Fuels control and implementation of its radiation safety program to ensure strick adherence to NRC requirements, and the safe performance of licensed activities.

Since this was a severity Level 1 problem, the base value is ten thousand dollars, but the director said: However, I have concluded in accordance with Section 5.B of the enforcement policy, that the three violations in Section 1.A as discussed previously, involved flagrant NRC identified violations that reflect a serious breakdown in management controls, which resulted in the January 4th 1986 accident, and should be assessed a civil penalty of a hundred thousand dollars.

And then in the actual notice, there are a series of identified shortcomings which all are management-related, and I pose the question for you, Judge Frye, to ask Mr. Randolph about who it was that was involved in this, and my impression from his answer is only those people on the site that day are responsible for this.

I think that if you read the order modifying the license,

the lessons learned report, the inspection reports, the documents imposing the fines, you will find that these are all management problems.

They are not problems at the bottom, they are problems from the top down, and I think that in that perspective, if you examine the document that I previously provided you, and you look at the corporate flow chart, the organizational chart, it is virtually impossible that the people who were responsible, culpable for the January 4th accident aren't still involved in the regulation of this facility. Impossible.

Because as I read these reports, the culpability goes all the way to the top, and starts at the top and goes down, and so it is impossible that this proposed facility will not be managed and there will not be an oversight function by those individuals who are responsible for the January 4th accident. For those two causes, which were the use of facilities which were inadequate, and the improper training, those must be laid at the doorstep of management from the top on down.

And, therefore, it is I think wholly inappropriate to blame the people who were onsite that Saturday and to say that none of them are going to work in the UF-4 plant, therefore there is no involvement from anybody who was involved in the UF-6 accident in the UF-4 plant.

I would point out that in the Order modifying the license, that -- which is dated October 2, 1986, that for example, on page 4: The violations which have been identified, the seriousness of the January 4 accident, and the information recently provided by the

licensee demonstrate that there is a need for significant improvement in the licensee's control and supervision of licensed activities in UF-6 processing operations, especially those regarding the filling and preparation for shipment of UF-6 cylinders.

And they go through and make a serious of requirements, including an independent organization, which to submit reports, and I must digress, I must complain again, I objected last night, and the independent organizastion has already filed two monthly reports, and they have not been provided to any of us.

They are required in Page 7, Paragraph E, two weeks after startup and monthly thereafter the independent organization shall provide to the licensee with a copy simultaneously to the regional administrator, Region IV, written reports summarizing the licensee's activities during the period, and among the things that they are to review are the qualifications, training, commitment, and adequacy and capability of SFC's employees, including managers and supervisors.

We have not received this. And when you gave the NRC the discretion to decide what they would send to us and what they wouldn't, in my perspective they have continually withheld documents that were of potential importance, and I don't think I am alone in this, from the Intervenors standpoint, that none of us have received either the independent organization's reports, or what under Paragraph F is required, within thirty days after receipt of each report, SFC's response.

In addition to the lessons learned report, defined in the

order modifying the license, the NRC inspection conducted on February 10th to February 14th of '86, six weeks or so after the accident, found fifteen apparent violations, and four apparent deviations, and when you go through those, you will see time-after-time the violation or deviation or observation had to do with the quality of the management.

The supervision -- so that to this list of ducments we must add the inspection report of February 10th, which I might add I was also not provided by the Nuclear Regulatory Commission until months after I found out that it exactly existed, and then finally with regard to the Nuclear Regulatory Commission's evaluation of the performance of the management in the January 4th accident, there is NUREG 1179 which examines a cylinder overfill, March 12th to the 13th, 1986, and what happened in this case is that to try and get a handle on how much product was left in the system, and how much had been lost in the January 4th accident, Sequoyah Fuels was authorized to drain some cold traps. They were authorized under a specific procedure, and they were authorized to place twenty thousand pounds into the cylinder, and they went over it with NRC staff, and they put twenty-six thousand pounds in the cylinder.

3-B

The reason this occurred on March 12th, when they overfilled the cylinder by five thousand pounds more than the weight authorized, for the maximum shipping weight, and six thousand pounds over authorized by the NRC, was that a scale malfunction, and apparently what occurred was after the scale was first examined as part of the AIT inspection, it was decontaminated and a lever was knocked akilter, and neither the

NRC nor Sequoyah Fuels recalibrated the scale. They rolled the cylinder on the scale, and some of the operators noticed the scale wasn't working quite right, and the -- and one of them took it up with the supervisor who said that that was the result of a recent calibration performed on the scale.

However, there was no calibration performed on the scale. Fortunately, -- now, neither Sequoyah Fuels proposed drain-down procedures, nor the NRC order required them to recalibrate the scale, but apparently the only reason that the overfill was detected after six thousand pounds too much was put in, was that the same chemical operator who was at the plant on the midnight shift on January 4th, thought that the cylinder was behaving like that cylinder, and he recommended the cylinder be taken off and weighed, and that is when the overfill was detected.

So, that but for his presence on the midnight shift on January 4th, and his making that connection that this scale is operating much the same, the overfill might not have been detected until even more was put in.

The conclusions expressed in NUREG 1179, Volume 2, were that the scale used for weighing was malfunctioning. That the procedures for drain-down did not input any provisions for ensuring the proper scale functioning, and that the supervision in charge of the operation did not recognize early indications of malfunction. This is at page 4-1 of NUREG 1179, Volume 2: When the chemical operator adjusted the tear poise to compensate for the empty cylinder weight, he reported to

his supervisor that the poise was in an unusual position. The supervisor erroneously assumed that this resulted from the recent scale calibration activities, even though a detailed check of the north scale had not been performed.

Later, a chemical operator observed that the flow rate as indicated by the weight gain of the cylinder, was lower than anticipated. It was erroneously concluded that this was caused by contaminents clogging the newly replaced filters, even though this phenomenon was not observed on the South scale.

So, what we find is even six weeks -- I am sorry -- two months after the January 4th accident, employees and staff were not yet sufficiently trained and educated to observe this scale malfunction, and Sequoyah Fuels management was not sufficiently alert to the possible problems of scale malfunctioning that in the absence of an NRC order to check the scale, they didn't do it.

And I think that is the lesson that can be learned from all of these documents is the NRC does not require very much, and unless Kerr-McGee or Sequoyah Fuels is required to do it, they don't do it.

That is not the kind of circumstances given the possession of these minimum qualifications that would lend any credence to their assertion that they are competent to operate this facility.

Finally, I would call the Court's attention to what I recounted in my response to the NRC Staff Report, and that is if this were a single occurrence, the January 4th accident had occurred in a vacuum, and it could be viewed as just a very unfortuante accident,

where all sorts of things which could never had been anticipated had had occurred, then one might argue that it was just a bad break, and bad luck, and you can't really attribute any of those unfortunate occurrences to the -- place any culcability on the management.

If the NRC had been aggressively involved in the regulation of these non-radiological aspects, in these operational aspects, which they acknowledge they have not done, then you could lay the burden on the NRC and say they asleep at the wheel, and they didn't do their job.

And you could just assume with this unfortunate occurrence the company's declarations that they have learned what is wrong and they won't ever do it again could be taken on its face value.

However, my personal experience from having been involved for almost ten years from the intial filing of the case, the pre-trial discovery, trial preparation, the trial and the appellate levels, all the way up until the settlement of the Silkwood case, as I have reflected on testimony contained in the record, and in the statements of the trial judge in his Order overruling their motion for a new trial or judgment, notwithstanding the verdict, and the court of appeals on their decision overruling Kerr-McGee's request for a judgment notwithstanding the verdict, this is not an isolated occurrence. It has happened before.

In fact, as I point out, if you were to look at Commissioner Keppler's statements, both in the document that was admitted into evidence, and in his testimony in 1979, about observations he made in 1974 and in 1973, I wonder if these sound familiar.

Quote: There was no evidence that anyone in Kerr-McGee

management, outside of the plant, was concerned with what was happening at the Cimerron Plant.

Now, subsitute Sequoyah. Two, he, which is Keppler, was very concerned that Kerr-McGee's management was not committed to ALAP, that is as low as practicable on exposure. They have not replaced health physicists lost several years ago. Contamination incidents get short shrift if no limits are exceeded.

This is obviously a long standing corporate policy, which reflects that the minimums reflected in the NRC requirements are perceived as the maximum required.

If the limits aren't exceeded, it is not important.

Three, equipment used in the plant is archaic, prone to breakdown, or enhance contamination problems. Now, that sounds familiar if you look at the lessons learned report, specially in the failure of Sequoyah Fuels, and this is contained in a study done by -- I want to say Dow Chemical -- it is one of the consultants who noticed that Sequoyah Fuels had no systematic approach to the upgrading of the quality of the equipment.

In other words, assuming that the UF-6 facility was built state of the art, with tear scales before pocket calculators, apparently unless it was the standard of if it ain't broke, don't fix it, unless there was a problem, the facility was never upgraded as technological improvements occurred, and half the people in this room may have a digital scale in their bathroom, but Sequoyah Fuels was still using what could be used for a cattle truck.

A big tear scale, which obviously because of the malfunction on January 4th and then on March 12th, are not the best system.

And fourth, the large number of procedural errors is the result of one or more of the following: Personnel turnover, inadequate training, or lack of supervision.

I think that a review of Mr. Keppler's observations, applying them to this facility, they are uncannily accurate as a prediction of what some ten, twelve years later would be the observations of NRC inspectors coming in to view this accident.

In summary, I think the most important thing is this: We cannot accept on its face value the meeting of minimum qualifications contained in the NRC requirements as being indicative of their ability to discharge their duties to the public with regard to health and safety, and the safe operation of this facility.

The proof is obvious in the January 4th accident, where all of those people who possessed those minimum qualifications, nevertheless this accident occurred, and from the lessons learned report, and the fine imposed, and the Order modifying the license, clearly Sequoyah Fuels did not perform adequately in its self-regulatory capacity.

Second, I think that if one is to assume, since we cannot gaze into a crystal ball to see whether or not management will adequately perform, if we look backwards we can look into the distant past, as long as twelve or fourteen years ago, and as recently as March of '86, and see that when they have had the opportunity to operate under the current regulatory system, they have not performed well.

In those areas where change has not been mandated, they have not changed. In those areas where minimum standards are set, the minimum standards become the mamimum goals.

Therefore, I think that if we look at the performance of Sequoyah Fuels, as a predictor for the future performance, which is the only way you can do it, unless you simply want to accept everything they say as what I consider to be self-serving declarations of it won't happen again, and we will do much better this time.

We have made all these changes.

Then, I believe that this application simply should be denied until there is a history, and right now there is none -- in fact the history is the reverse, there is a history that Sequoyah Fuels is truly dedicated to its regulatory responsibilities, is truly dedicated to operating its licensed facilities in a safe manner.

It is, I think highly inappropriate to accept in the face of these findings these representations which are made clearly to placade the intervenors and the Nuclear Regulatory Commission, on their face value.

And, therefore, I would urge that the Court recommend that this license not be granted until Sequoyah Fuels and its parent corporation can demonstrate that it can perform under this system.

That is all.

JUDGE FRYE: Thank you very much. Mr. Lammers, did you have anything you wanted to offer?

MR. LAMMERS: Sitting in this chair after such an articulate

and extensive review of the history of Sequoyah Fuels made by Mr. Ikard, NACE's counsel, makes me feel awful humble.

It really does something for the ego. It makes me seem about two feet tall. However, in representing NACE -- I mean, I am sorry, in representing CARE, we do have concerns about the individuals who are employed in the UF-4 plant and also the upper management.

We are not sure that we can fully appreciate and perhaps concur with the way that these requirements are written up in the original license for the UF-6, which eventually will incorporate the UF-4 plant addition.

These qualifications, educationally and to experience are written in such a fashion as to be misleading to a person just casually going through there.

I read it a number of times before the small print finally caught my eye, and it was pointed out by another intervener that the qualfications actually really amount to nothing more than a minimal amount of experience in a nuclear facility, or a related industry.

It is very possible that a man could become plant manager with just a few years, or maybe even less of experience in another facility, maybe chemical. There is no requirment that really requires in our estimation a long and varied experience in the industry. It is written in such a way as just about anyone with a high school education, and a minimal of experience could perform very high level jobs.

We are disappointed, and we feel that this issue should be looked at by the NRC, and that this practice of allowing this in the

nuclear industry should be updated. I feel that a diploma from any college, a doctorate, or a master's degree does not indicate the character and the integrity of any individual.

Neither does a high school diploma, for that matter. However, I believe it does represent a variety of educational interests -- of educational items such as a chemical engineer would receive numerous hours of training under different professors, and under different teachers, and receive a wide variety, a wide degree of input from various sources, whereas a person working for one company for thirty years, operating under one set of rules, working with one group of people, learning everything that he learns specifically from that organization, would have a tendency to have a single interest, a single mind set so to speak. He would be more or less controlled by the corporate direction that the corporation goes in, because he becomes part of it after a number of years.

He doesn't have the input -- or hasn't had the input from other corporations, other educational institutions, or other individuals in the same manner as a person who went through a college, perhaps for six or eight or ten years, and studied all facets of the nuclear industry, not only the fuel cycle industry or not only that portion of the nuclear energy which has been Sequoyah Fuels and its predecessor, Kerr-McGee's traditional practice here in the State of Oklahoma, such as in Oklahoma City and other plants. I think this is the third plant they have been involved in nuclear industry.

Some of these people that are with the top management of

Sequoyah Fuels at this time started way back in Oklahoma City and they have followed the process -- the progress of this company, corporation, all the way up to this point, and as Mr. Ikard pointed out, many of them were involved in facilities which had a record of bad, perhaps, I want to say just a bad record of operation.

I don't really want to get into the specifics. Each of these plants, the predecessor plants, have had problems. And some of these individuals are still in the top management, and we feel that loyalty and perhaps on the job training does go a ways, but only if that individual, and only if this corporation has a proven record. In this situation with the background of this corporation up to this point, it leaves us in a position of forecasting the future from the past. Mistake after mistake after mistake has been made for many years, and by individuals who have diplomas and who have doctor's degrees, and have master's degrees, and as well as with individuals who have no degrees.

But, we still feel that a degree does have value, and experience does have value. But we feel that the varied experience that an individual would have, the input from the different teachers and instructors in different colleges, and different courses, that a person would be involved in obtaining a Master's Degree, or even a Bachelor's Degree, would put him in a position to make judgments in a matter more universally accepted, rather than a matter that would be taught through on-the-job training by a corporation which may or may not have a long history of problems.

And so, we still believe that a corporation of this size

with this long history, should take efforts -- make efforts towards improving the educational requirements and put them down on the license.

I think the top management should have no less than a Bachelor's degree in Science or Chemistry, or another related science which would be applicable to the particular industry they are working in, which is the nuclear industry.

This is a highly controlled industry, and it is a complicated industry. I have only been studying it for one year, and believe me, -- I have a high school education and several years of college, and it has been tougher than the devil for me, so I believe that a person with four or five years experience in different colleges and different universities would be able to approach these decisions and these processes and things with a much better field of knowledge, a much broader field of knowledge, rather than somebody who has been trained on-the-job training over a period of thirty years, brought up from plant to plant, after one plant closes, the next plant, and so on.

And the case in point is not -- I am not going to point out any individuals, because I know there is one member of the management team that does not have anything but a high school education, and has a long history of employment with Kerr-McGee and Sequoyah Fuels, and I do not know his personal qualifications, except that he has no educational qualifications.

But I would like to see some time in the future, we would like to see this changed perhaps in the renewal of the license in 1990, and tied down so that this UF-4 plant which is now being considered

would have fully competent, well qualified, well educated individuals in charge at the corporate level, and as far as the actual level, the working level in the plant, the area managers, the area superintendents, we are satisfied with their education at that point.

And also with the shift supervisors. We feel as a general practice Sequoyah Fuels should employ individuals with the highest educational qualities that can be obtained to work that job, but I would not require a Bachelor's Degree for a shift supervisor.

Now, in the health technicians, which will be involved in making numerous surveys and numerous reports concerning health and work safety in the UF-4 plant, I feel that after reviewing the list of health technicians, I find about fifty percent have several years of college education.

I would like to see that upgraded. The other fifty percent through the turnover before 1990, before the license is renewed for both facilities, I would like to see that upgraded to a minimum of two years, fifty-six units, however you want to call it, of college education in nuclear science, in chemistry, or in engineering or some field related to the types of reports for which they are responsible, and I believe that would give us more faith in the ability of the individuals to run the UF-4 plant.

Thank you.

JUDGE FRYE: Thank you. Ms. Synar?

MS. SYNAR: I will try not to be too critical, because I feel like there is two sides to everything. And I think that where the

problem lies is we have a problem with communication between the NRC and Sequoyah Fuels.

I feel that there needs to be some kind of communication with the public. The lack of -- what I want to also add is the lack of communication. When the NRC is called upon for questioning, I know for a fact that I have spent many phone calls calling the NRC to ask questions.

But they give me the answer that they don't know, or they pass the buck to somebody else.

Also, the guidelines which were given to the Sequoyah Fuels personnel, I think that they should be also regulated and changed. I don't feel that they can be given an or, or, or, response as to several different things. I believe that you have to maintain one specific degree.

I feel like this should be evaluated and looked into, and so this will ensure the safety of our health and our environment.

I think this will also pertain to our UF-4 and UF-6.

I don't think that we really have been having our license and regulations and requirements looked into in the manner that they should have been.

And I think, really, that we should go ahead and clean up UF-6, and the leakage of the ponds and different things before we go ahead and proceed with the UF-4 plant.

I really don't understand why this plant was built without some kind of assurance that this would be opened. I don't understand

the business aspect of it. I don't know why you would build it without some kind of assurance, because this is a nine million dollar plant.

So, therefore, I respond that this license not be granted until these things are settled and we do have more of an assurance of our safety.

JUDGE FRYE: Thank you. Do you want to read Dr. Gourd's statement at this point, Mr. Henshaw?

MR. HENSHAW: Do you wish for me to pick up where I left off, or start from the beginning?

JUDGE FRYE: Probably best to start from the beginning. It will be in one place.

MR. HENSHAW: Okay. In regard to personnel at Gore, November 28, 1986, written statement by Dr. Charles Gourd: The experience of the personnel at the Kerr-McGee nuclear fuels plant at Gore is typical of the type of personnel found at most any plant now in existence.

It is a mixture of both well-educated personnel and those who have gained their position by local training. In most cases, this mix of personnel is acceptable and quite often superior to a wholly technically trained group, In most cases, there is a minimum of jealousy and envy of status or position in the diverse group, while such problems quite often exist in where every person has essentially the same training.

The only problem when there is a diversity of educational backgrounds, is in the training of those without primary education

in technical operations. In most cases, these people have been trained locally, and the quality of their training is dependant on the care and interest displayed by their supervisors or teachers. If the Company just wants to get by, the quality of their training may be very poor. This is the part which should be investigated when appraising locally trained personnel.

All the documents and reports on hand suggest that the management were derelict in their training programs. In fact, there is a suggestion in the report that they believe that they had no reason to organize a formal training program for their employees, and that their planned operations were safe enough inherently that such a program would never be necessary.

This is a failure that many companies make. They trust a machine rather than a trained person to take care of emergencies. Unfortunately, they haven't perfected artificial intelligence to the point that a machine can make intelligent decisions. I notice that much of their planned improvements are dependent upon the instruments being able to stop an operation if something goes wrong, but I didn't see where there was a planned operational check of these instruments on an operational basis.

Many poorly trained operating personnel grow so dependent upon automatic equipment, that they are lulled into a false sense of security and depend upon the machine rather than their training to care for emergencies. This appeared to be a factor in the Three Mile Island nuclear accident, and could be the cause of a major accident at any

nuclear facility.

It may seem absurd to suggest that they should run a simulated emergency on a weekly basis, but this might be the best approach to maintaining a first class safety program.

You hear of the astronauts practicing landing daily while they are waiting for their flight. They keep themselves in tip-top condition and training by repeating the operations on a schedule basis.

To maintain the best safety record, the people involved must be trained to the point that they don't think of what to do, but do it as a reaction to the problem.

We are going to have problems with nuclear operations until such a condition exists. Companies involved with nuclear operations are going to have to recognize this factor and deal with it accordingly.

Kerr-McGee will attempt to work the disposal well problem until they obtain a qualified yes. This is obvious from documents.

My reaction to the problem is that it will be necessary to continue to fight until some judge provides an emphatic, no. Even then it may not be dead, since KM sees cost in handling their waste disposal, and will fight the problems as long as there are disposal problems. If there is an emphatic no, then they will try to locate a disposal well in some adjacent area.

There will be a fight for some type of disposal facility as long as KM has the Sequoyah Fuels plant at Gore.

JUDGE FRYE: Did you have anything that you wanted to offer on your own behalf?

MR. HENSHAW: Yes, sir, I do.

JUDGE FRYE: Okay.

MR. HENSHAW: First of all, from the --

JUDGE FRYE: 16th, I think.

MR. HENSHAW: 16th day of October 85, response by Sequoyah Fuels, Petitioners have raised concerns about the qualifications of SFC personnel and integrity of SFC management to operate the proposed depleted UF-6 or 4 facility safely, and with adequate environmental protection.

In this context, broad allegations of improper management at other Kerr-McGee facilities have been made. Because none of these allegations is based on fact, or bears any relationship to the license amendment request for the UF-4 -- UF-6 to UF-4 facility, SFC would be wanted in simply ignoring these inflamatory accusations.

That is at page 78, I am sorry. At page 81 of that same document, positions of importance have been filled with personnel which meet the minimum qualifications for their level of responsibility.

This is September 13, 1985, from Mr. Stoddard to Mr. Crow, Part I, License Conditions, Chapters 1 through 8, which was submitted to all the parties in this proceeding.

Page Roman Numeral I, 2-7, personnel education and experience requirements. Education training and exerpience requirements for all safety-related management and staff positions and for safety review

Committee, -- I am sorry, I went back to Page 2-6 rather than 2-7 to start this -- the education, training and experience requirements for all safety-related management and staff positions and for safety review committee members shall be as follows: Sequoyah facility managers shall have at least five years experience in managment of manufacturing facilities, with at least three years management experience in nuclear manufacturing facilities.

He shall hold a Bachelor's Degree in Science or Engineering, and have demonstrated the proficiency to manage significant portions of required management activities. This is in accordance with Regulatory Guide 8-31.

Sequoyah Fuel's outline of testimony by Sequoyah Fuels, page 8, Roman Numberal II, Subparagraph B, the SFC personnel adequately satisfy the minimum qualifications for their positions as set forth in the SFC license. See Exhibit 1.

This is 42 days prior to the January accident. This is testimony given in this proceeding.

In Inspection Report 86 -- this is from a letter dated August 8, 1986 from Mr. W. L. Utuage to Mr. R. J. Everett, and it is addressing the 8602/12 Inspection Report - Failure to meet personnel education and experience requirements, which they were cited.

The parties -- the intervening parties to this proceeding requested information pertaining to the personnel qualification requirements of the SFC management in these proceedings. We requested Staff in this proceedings -- NRC Staff in these proceedings to address that question.

This is November 22, 1985 to Judge Frye from Mr. Steven H. Lewis. The NRC Staff has reviewed your memorandum and order designating matters to be addressed at hearing, dated November 5, 1985, and does not intend to file testimony on the issue of whether plant personnel meet the minimum qualifications for their positions.

This is a letter from J. C. Stodard, January 3, 1986, to Mr. Bill Crow. Mr. William T. Crow, of the NRC. It is the date preceding the January release .

Dear Mr. Crow: Mr. William L. Utuage has been named facility manager of the Sequoyah Plant, and is responsible for all aspects of uranium conversion operations at the site. Mr. Utuage's educational and management background meets all the requirements embodied in Chapter 2. General organizational and administrative requirements, Section 2.5 of the Facility License.

Enclosed for your facility docket file are Kerr-McGee Corporation news bulletin announcements concerning Mr. Utuage's responsibilities, and a detailed resume.

This was received by the NRC January 21, 1986. That is seventeen days after the accident.

This is the December 22, 1986 SFC response to filings by Interveners. Page 24, Paragraph 4. Mr. Henshaw incorrectly asserts that the education requirements of the facility manager and the health and safety officer have been downgraded.

Not only has there been no dillution of the requirements, but the requirment for the facility manager of five years experience

in a manufacturing facility has been strengthened to assure that the experience is in a chemical processing facility.

This is June 27, 1986, memorandum of Sequoyah Fuels Corporation, regards implications of the January 4 accident at the SFC facility for the UF-6 to UF-4 conversion facility.

This is Page Roman Numberal I, 2-9. This is after the release. Personnel education and experience requirements. The general manager, Sequoyah Facility, shall hold a degree in science or engineering, and have at least five years experience in management of chemical processing, or allied manufacturing facilities, or shall have demonstrated proficiency in directing significant portions of required management and technical activities at such facilities.

4-A That is a degradation of the requirements of the license.

That does away with the need for a degree. It just requires experience is all it requires for the proficiency and experience. It is semantics.

The NRC Staff has seen this every day in every one of their reports.

This is a January 14, 1970 letter from Mr. G. E. Willard to Mr. Don F. Harmon.

MR. NICKLES: Your Honor, I am going to object at this point. It is repetitive testimony back to 1970, and we are talking about UF-6. I have not interrupted, but it seems to me there ought to be some point -- the witness ought to focus on matters -- not where he is referring to a 1970 document in the record. As far as I know --

JUDGE FRYE: You are switching subjects at this point, I think, or you are switching topics. You are not? What is --

MR. HENSHAW: Qualifications. If I may read just one paragraph.

JUDGE FRYE: How much more have you got?

MR. HENSHAW: Very little. Not much.

JUDGE FRYE: Okay. I think the reason I make that point is I think you have made your point, and that is why I was surprised --

MR. HENSHAW: I want to make it on one other position, Judge Frye, is what I would like to do.

JUDGE FRYE: Okay.

MR. HENSHAW: This is Attachment A, Page 2, paragraph 9. Minimum Qualificatiaons for the Sequoyah Health and Safety Officer are strengthened to assure that the position is adequately staffed, refer Appendix A-5.

This is from the license as renewed September 20, 1985. The Manager Health Physics and Industrial Safety shall hold a degree in science or engineering, and have at least two years experience in radiation monitoring and personnel exposure, or shall have a high school diploma, and at least ten years experience in radiation monitoring and personnel exposure evaluation.

He shall have demonstrated a proficiency to: One, conduct specified radiation safety programs; two, recognize potential radiation safety problem areas in the operations, and; three, advise operation supervision on radiation protection matters. He must also be capable

of directing the surveillance activities of health physics technicians.

If the minimum qualifications were strengthened in 1970, and how they are a high school diploma, what were they before 1970 is my point.

JUDGE FRYE: Okay. I got your point. Anything from NWC?

MR. HENSHAW: Judge Frye, I am not through.

JUDGE FRYE: Oh, I am sorry. I thought you had one more position.

MR. HENSHAW: In NRC documents and in public statements or public meetings, to assure the public that the processes and the facility are being operated properly, employees of the facility are being represented to the public as engineers. Employees of the facility are being represented to the NRC as engineers, when there is no engineering degree there. It is a title, and I would like to put that on the record. That there are often times when engineers are being stood up in front of the public. They are not actually -- they do not hold the requisite degree to be a --

MR. HENSHAW: You are not making an accusation, are you, that there are people who have been represented to the NRC as holding an engineering degree who do not hold that degree?

MR. HENSHAW: No, sir, I am not. I am saying they are being held up as engineers to the NRC and the implication of being an engineer carries quite a bit of weight with it, with an educational background.

When, in actuality, the educational background as being an engineer is not there.

JUDGE FRYE: Okay.

MR. HENSHAW: The manager of the conversion facility, September 20, 1985 license requirements for the manager of conversion engineering, shall hold a degree a science or engineering, or equivalent, with broad experience in chemical processing, uranium processing, and chemical materials --

JUDGE FRYE: Now, are you maintaining he doesn't fit those qualifications?

MR. HENSHAW: No. I am challenging the qualifications. The license -- I am challenging the fact that the manager of conversion engineering should have an engineering degree as far as I am concerned.

JUDGE FRYE: I see. So, you think the qualifications are not appropriate?

MR. HENSHAW: Exactly.

MR. NICKLES: I think Mr. Henshaw is talking about the UF-6 facility.

MR. HENSHAW: This is the license that was submitted in this proceeding, and it is also the supporting staff that will be supporting this facility.

JUDGE FRYE: Okay.

MR. HENSHAW: I am for progress, and that is what a lot of this has been about, this hearing; that is what the public is hearing. We have got to progress. And I agree, if we are to progress we will have accidents, and it is not the accident itself that I am attacking. It is the underlying cause of the accident. That the

commitment has not been there to see to it that these accidents -- to make every effort possible to alleviate the possibility of these accidents.

I feel that to continue in a manner as we have in the past is not progress. Mr. Randolph made a statement that to his knowledge none of the employees that were involved in the incident -- the cylinder rupture incident were employed at the UF-4 facility.

From public statements and private statements made, I know of four that were directly involved that are on the list as being employees at that facility. I am not saying that they were responsible for the cylinder rupture. That is not what I am saying. I am not trying -- some of them are better individuals than myself is the way I feel, but the point being that there are individuals that are on that staff that were involved.

Thank you.

JUDGE FRYE: Thank you? Anything from NWC?

(No response.)

JUDGE FRYE: Okay. Ms. Strachan?

MS. STRACHAN: (No response.)

JUDGE FRYE: Ms. Carter-White.

MS. CARTER-WHITE: Well, for you, Mr. Ikard, I refer and wish to incorporate into the record the 2-2-06 petition which was filed by Citizens Action For A Safe Environment, in terms of establishing that -- for purposes of establishing that the -- regardless of the personnel qualifications that have been set forth

by Sequoyah Fuels, as drafted to comport with NRC guidelines, are insufficient to ensure that the operation of the UF-4 facility will be a safe and effective operation.

So, in fact, Mr. Nickles to accommodate you, I will limit my discussion to matters which are not addressed within the 2-2-06 petition.

I would note that the qualifications which have been set forth by Sequoyah Fuels for the employees who will be operating UF-4 facility make no mention of the qualifications for start-up. Now, there is an employee who has been specifically hired to oversee the restart -- the initiation at the UF-4 facility assuming it were licensed.

That, in fact, many of the employees are new employees in the first place, and in the process of training, do have experience to meet the qualifications of an initial plant startup, and the most obvious weakness that I see with the personnel situation as far as immediate operating procedure is that you have new employees who will be performing job functions for the first time engaged in activities which have never been performed prior to this time, with a totally -- not to say totally, but rather predominently unique facility which is not a duplicate of any existing chemical operation in the world so far as the evidence establishes, and the propensity for error is great under those conditions.

And we would request the court at a minimum, that if this facility is licensed for operation, that it be done so in a manner

so as to ensure that the facility can be initiated for production safety despite the fact that you are having all new employees working in an all new facility, which handles inherently dangerous chemicals.

In addition to that comment, and what I wanted to make on the record and provide to you for your consideration, there are also a number of contradictions in the information that we have been provided, and I would like to get a clarification of that, if possible.

We have the original applciation dated January 2, 1985, and until November of this year, we assumed that that was the document upon which the Sequoyah Fuels was premising its license request to the Nuclear Regulatory Commission.

It sets forth an organizational chart for the operation as of Decmeber 1984 at Page Roman Numberal II.11-2, and includes the additional date of January 5, 1985, which is a number that has been typed in on that page, and didn't constitute a part of the original document.

It shows the organizational structure of Kerr-McGee Corporation. The Kerr-McGee nuclear Sequoyah facility division, and also a separate branch of Kerr-McGee which there is no indication of the significance of this other branch, and it is not identified.

I might note also that Dr. Still on this chart is included over on the other branch or arm of Kerr-McGee, and evidently is an employee of Kerr-McGee Corporation or was at that time as opposed to an employee of Sequoyah facility.

Then you look secondly at a more recent depiction of that same organizational structure, and this one is from the update revision of June 25, 1986.

By that time there were a number of alterations that had occurred. The health physics and industrial safety manager has changed his name, and perhaps it has been replaced. There is no indication regarding the persons who are filling these various described job position.

The production manager has been taken out of Sequoyah facility. The quality assurance manager has been added to Sequoyah facility. The administration and accountability officer has been removed, and replaced by an administrative and services officer. The facility maintenance manager has been added, but the industrial relations manager has been removed.

There is a maintenance and construction manager who has been removed from his job structure or function, and in fact, the conversion engineering division has been replaced by an operations manager.

So, you see, there have been a number of changes at Sequoyah fuels, but basically what has happened is that we have changed the name of a number of employees, and diversified their job function so that they do a little bit here, and a little bit there, instead of having discreet, regulated job functions under the licensing revision 2, Section 10.

Now, if you look at the Sequoyah Fuels Corporation

statement on the organization and staffing of the UF-6 to UF-4 facility, and I don't have that in my particular copy, it would have Been Exhibit 2, I believe, it has changed from the original application in not less than six individuals have been replaced or changed within that one year's time period.

That is not including the job description alternation, which had already taken place.

I have been now provided with a copy of that exhibit, which is, I suppose, the more recent of the three potential organizational possibilities here, and this most recent revision shows yet an additional branch on the Sequoyah Fuels operating facility structure, which shows a startup manager and operations area and area manager and area superintendent, superintendent, some shift supervisors, and a reference down here to chemical operators.

Now, it looks like a tiny little box, and there aren't any names on it, but if you refer back to the document that we received yesterday -- I am sorry, Monday -- for purposes of refuting the testimony of Sequoyah Fuels, we find that in fact there are seven chemical operators which will be fitting into this tiny little box at the bottom.

They aren't identified within the Sequoyah Fuel Corporation statement on the organization and staffing of the UF-6 to UF-4 facility, nor or those individuals indicated by name or by job description any place in the documentation that we have been provided during the course of this proceeding.

The shift operators, evidentally, are the individuals who will actually be drumming and routing the autoclades evidentally.

JUDGE FRYE: Weren't the chemical operators identified in your submission shortly before the hearing?

MR. MESERVE: Yes, Your Honor, on January 7th we submitted as you requested the supplemental SFC response. We gave all the information. The operators, including the names, experience, and qualification.

JUDGE FRYE: I thought so.

MS. CARTER-WHITE: I am sorry. I thought that was a response to my filing.

JUDGE FRYE: Yes, it was. You had asked a question, or someone had, and I asked them to furnish the information, which they did.

MS. CARTER-WHITE: So, my apologies. That information must have been available for the past four days prior to this proceeding. However, two of which were the weekend, and my secretary has not filed the January -- all of the January pleadings, and my files I don't have them here today.

MR. NICKLES: We Federal Expressed that to you.

MS. CARTER-WHITE: Yes, I received it, I believe, some time late last week. Either Thursday or Friday.

So, we discover now as of January 1987, that in fact the individuals who will be coming in contact with the actual chemical, the actual operators at the facility, have been made available to us in terms of -- for review, and the matter comes up for hearing at this late time.

My question again I suppose parallels that of Mr. Ikaed's earlier today. Will that form a part of the license, or will the license itself constitute the condition for the application as revised?

What is your answer?

JUDGE FRYE: Oh, I am not going to answer it.

(Laughter.)

JUDGE FRYE: Do you have anything else that you want to add?

MS. CARTER-WHITE: I am sorry, but my question was simply: What -- assuming that the facility is licensed, will the record consist of in terms of what will constitute the Applciant's request for license?

In other words, will the application itself be prima facie -- be evidence, or the data upon which the NRC makes it determination, or in fact, will it constitute all of the amendatory and revisionary information that has been provided.

JUDGE FRYE: I think this was addressed in a question to Mr. Lewis earlier, in which he answered at that time. He explained what the conditions of the license would be, and how they would be arrived at.

MS. CARTER-WHITE: Was that today?

JUDGE FRYE: Today, yes.

MS. CARTER-WHITE: Let's see. The statement indicates that two hundred hours of formal training has been developed for the operators at Sequoyah at the proposed UF-4 facility, and they indicate a number of training procedures which they intend to implement in effect, have personally implemented at this time. That would indicate, I believe,

thirty-seven hours of training which has already occurred, and that would leave approximately a hundred and sixty-three hours of training which is still pending.

I note also that the November 18, 1986 revised application does not contain any sort of management structure mapping whatsoever by reason which you, the NRC, can determine what individual is responsible for giving subject area. The map also will be very helpful to the NRC in terms of licensing if they should, in fact, have a decommissioning situation where Kerr-McGee, as opposed to Sequoyah Fuels, were found to need to be financially responsible.

And I think that is also important also in terms of the demommissioning situation because the size of the facility has increased by seventy-five percent since the initial application and the five hundred thousand dollar decommissioning amount was offered by Sequoyah Fuels to satisfy decommissioning.

JUDGE FRYE: You are straying a bit now from the question of qualifications of personnel?

MS. CARTER-WHITE: Your Honor, it is a very, very important question. Now, when you have reactor facilities --

JUDGE FRYE: But does it have to do with qualifications of personnel.

MS. CARTER-WHITE: They allocate one hundred million dollars for the decommissioning of the facility, you come up with these guys with superfund already, who want to allocate five hundred thousand, then I find it most unusual that you not even consider

those arguments.

JUDGE FRYE: You can appeal that. Thank you very much. Mr. Kellogg, do you have anything?

MR. KELLOGG: Thank you, Your Honor. The State Health Department has nothing.

JUDGE FRYE: Thank you very much. Let's break for lunch -- oh, excuse me.

MR. IKARD: Your Honor, I would like to leave now, if I can. Did you ask them if there are any written questions for me?

JUDGE FRYE: The way we have been running, they have not yet had any written questions.

MR. IKARD: Well, they may have one from me.

JUDGE FRYE: Do you have written questions for anyone?

MR. NICKLES: No. Only closing arguments.

JUDGE FRYE: So, we will break for lunch now and come back at 2:15.

(Luncheon recess taken at 1:05 p.m., this same day.)

End 4.
5 fols.

AFTERNOON SESSION

(2:15 p.m.)

JUDGE FRYE: Can we go back on the record, please. I think the next topic is Paragraph 1.8 of the Application, if I am not mistaken.

MR. MESERVE: That is correct, Your Honor, and we have previously submitted a statement on that topic. The panel who will be testifying in that area are Edwin Still, Lee Lacey, and John Stauter.

JUDGE FRYE: And I believe they have all been previously sworn?

MR. MESERVE: Yes, that is correct, Your Honor.

Whereupon,

EDWIN STILL,

LEE LACEY,

and

JOHN STAUTER,

were called as witnesses, and having previously been duly sworn, testified as follows:

MR. STILL: The responsibilities and background have previously been set forth.

Paragraph 1.8 addresses the conditions that the Sequoyah facility will meet and satisfy for release of articles from the facility which may have been contaminated with uranium, and a second issue, which is the manner in which

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the facility will be posted with radiation caution sign.

In each of these cases, what SFC has proposed in its amendment application is consistent with both the requirements and the content of NRC standards and guidance.

Let me speak first to the release of contaminated articles issues. NRC guidance for release of articles that may be contaminated is set forth in Appendix 1 to our statement that has been submitted. The limits that are stated in Sequoyah Fuels Corporation's application for amendment are identical to the limits that are set forth in NRC Guidance.

The guidance that NRC has established is based on reasonableness. The approach is to survey articles that may have been contaminated with uranium to determine the levels of radioactivity that are on those articles, and to decontaminate to the extent that is achievable, but in no case will an article be allowed to be released unless it was less, and did not exceed the limits that we have stated.

The approach that we have put in the license application is that as is set forth, based on reasonableness and has, in fact, been accepted by NRC in the existing facility license.

Not only is our decontamination approach identical to the guidance, but it is essentially identical to the language that appears in the existing license that was renewed

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September of 1985.

With regard to the posting procedure, SFC has just proposed an alternative method of complying with the requirement in 10 CFR 20, to define areas in which radioactive materials are present.

The key word in this situation is materials. This posting alternative that we have proposed applies only to the posting for areas in which certain quantities of uranium are stored, or maybe present. It does not apply to any other posting requirments, such as an airborne area, or an area where there is an external exposure potential situation.

Because the facility is not divided into rooms or areas, and because uranium in quantities that will exceed the amount stated in 10 CFR 20.203.B.2 will be in many locations. We feel the posting of all entrances to the facility is the proper approach. In fact, this approach is more conservative than attempting to define an area that is not unambigiously marked within a facility. The posting at the entrances call attention immediately to the potential, or to inform people, employees, visitors, or whomever, of the presence of uranium inside the facility.

The appropriateness of this posting facility has also been recognized and approved by the NRC. Again, as in the case of the disposition of contaminated articles, the posting procedure has been approved in the existing license,

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with essentially the identical wording.

In summary, the provisions we have sat out in Paragraph 1.8 of the Application are reasonable, they are consistant with NRC guidance, and they are fully protective of the worker and public health and safety.

(Prepared testimony follows.(

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE

John H. Frye, III

Administrative Judge

In the Matter of:	)	Docket No. 40-8027-MLA
SEQUOYAH FUELS CORPORATION	)	ASLBP No. 85-513-03-ML
(Sequoyah UF_6 to UF_4 Facility)	)	

STATEMENT

ON BEHALF OF

SEQUOYAH FUELS CORPORATION

ON

PARAGRAPH 1.8 OF

THE APPLICATION

PARAGRAPH 1.8 OF THE APPLICATION

Paragraph 1.8 of the revised application of the license amendment for the UF_4 Facility deals with two matters. First, it sets out the conditions that must be satisfied before articles that may be contaminated with uranium can be released to unrestricted areas. Second, it sets out the methodology for posting the facility with caution signs for radioactive materials. Specifically, paragraph 1.8 states:

1.8 Exemptions and Special Authorizations

Contamination-Free Articles

Articles which may have been contaminated with depleted uranium through use, handling, or storage in the facility shall be disposed of or transferred to persons not licensed to possess radioactive materials when each of the following conditions are satisfied:

a. All surfaces are accessible for survey or it is reasonable to assume from the design and usage that uranium could not have contaminated the inaccessible surfaces.

b. Surveys of accessible surfaces by health physics personnel verify that:

(i) fixed alpha contamination does not exceed 15000 disintegrations per minute (dpm) per 100 square centimeters (cm^2) and the average fixed alpha contamination does not exceed 5000 dpm per 100 cm^2.

(ii) removable alpha contamination does not exceed 1000 dpm per 100 cm^2; and

(iii) beta-gamma radiation does not exceed one millirad (mrad) per hour and the average beta-gamma radiation does not exceed 0.2 mrad/hr as determined at one centimeter from the surface with an end-window beta-gamma survey instrument with a window thickness of not more than 7 milligrams per cm^2.

Posting Exception

An exception to the posting requirements of 10 CFR 20.203(e)(2) shall be made for areas and rooms within the plant. All entrances to the

plant areas shall be conspicuously posted with a sign having the words:

> "CAUTION - Any area or room within this plant may contain RADIOACTIVE MATERIAL."

Various intervenors (CASE, EA and Ms. Synar) have raised questions regarding the section, asserting that: (1) surveys should be conducted of all surfaces to determine whether an article is free of contamination unless it is demonstrably certain, rather than "reasonable to assume," that uranium could not have contaminated an inaccessible surface; (2) the release of articles exhibiting any level of radiation is inconsistent with human health and safety; and (3) the posting exception substantially reduces the protection of workers and visitors to the facility.

The assertions of intervenors are without merit. SFC's proposals are consistent with NRC's regulations and requirements and are fully protective of worker and public health and safety.[1/]

I. CONTAMINATION-FREE ARTICLES

The NRC has established guidelines for the decontamination of facilities and equipment prior to release for unrestricted use. The relevant guidelines require only reasonable efforts to eliminate residual contamination. The guidelines are fully supportive of the approach defined in SFC's application.

The NRC guidance provides that inaccessible surfaces that are "likely to be contaminated" are to be assumed to be contaminated for purposes of surveying.[2/] The corollary, of course, is that surfaces that are not likely to be contaminated because of design or function may be deemed to be

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1/ SFC may have erred in setting out this information in a section styled as "exemptions and special authorizations." The caption may have erroneously implied that the SFC approach departs from NRC guidance.

2/ The relevant portion of the NRC guidance is set out as Appendix 1 to this statement.

uncontaminated. The SFC language is merely an alternative formulation of NRC guidance. Similarly, the NRC guidance requires reduction of residual contamination to certain limits. The limits set out in SFC's application are precisely those defined by the NRC. See Appendix 1.

The adequacy of the SFC protocol for release of articles to unrestricted areas has already been established. The NRC has previously evaluated this matter in connection with the licensing of the existing facility. Language is contained in the application for the license for the existing UF_6 facility (License SUB-1010) that is essentially identical to the language proposed for the UF_4 Facility.[3/] The language was accepted and approved by NRC in its renewal of the license on September 20, 1985. Thus, the challenge of SFC's paragraph 1.8 is not only without merit, it also represents an impermissible collateral attack upon the underlying license.

II. POSTING

The posting provision is merely an alternative method of meeting the intent of the posting requirement stated in NRC's 10 CFR 20.203(e)(2). That regulation provides:

> Each area or room in which natural uranium or thorium is used or stored in any amount exceeding one hundred times the quantity specified in Appendix C of this part shall be conspicuously posted with a sign bearing the radiation caution symbol and the words:
>
> CAUTION[1]
> RADIOACTIVE MATERIALS

---

[1] or DANGER

[3/] The relevant portion of the application for existing license is set out as Appendix 2.

There are many areas within the UF_4 facility where the quantity of uranium will exceed the stated amount. However, the facility is not unambiguously comprised of "areas or rooms" -- the facility is a multi-level open bay building. Thus, the posting of all entrances to the facility Restricted Area is a more conservative and practical approach than attempting to define and post "areas or rooms." In any event, the signs serve the purpose of regulation because they call immediate attention to the potential presence of radioactive materials in any facility area.

As with the requirement associated with release of articles, the NRC has granted this posting exception for the existing facility.[4/] There has been no compromise, nor will there be a compromise, of protection of workers and visitors as a result of this exception.

* * *

In sum, the provisions set out in paragraph 1.8 of the application are reasonable and are consistent with NRC guidance.

[4/] The relevant language is set out in Appendix 2, at A2-2.

ANNEX C

GUIDELINES FOR DECONTAMINATION OF FACILITIES AND EQUIPMENT PRIOR TO RELEASE FOR UNRESTRICTED USE OR TERMINATION OF LICENSES FOR BYPRODUCT, SOURCE, OR SPECIAL NUCLEAR MATERIAL

U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and
Material Safety
Washington, D.C. 20555

NOVEMBER 1976

The instructions in this guide in conjunction with Table I specify the radioactivity and radiation exposure rate limits which should be used in accomplishing the decontamination and survey of surfaces or premises and equipment prior to abandonment or release for unrestricted use. The limits in Table I do not apply to premises, equipment, or scrap containing induced radioactivity for which the radiological considerations pertinent to their use may be different. The release of such facilities or items from regulatory control will be considered on a case-by-case basis.

1. The licensee shall make a reasonable effort to eliminate residual contamination.

2. Radioactivity on equipment or surfaces shall not be covered by paint, plating, or other covering material unless contamination levels, as determined by a survey and documented, are below the limits specified in Table I prior to applying the covering. A reasonable effort must be made to minimize the contamination prior to use of any covering.

3. The radioactivity on the interior surfaces of pipes, drain lines, or ductwork shall be determined by making measurements at all traps, and other appropriate access points, provided that contamination at these locations is likely to be representative of contamination on the interior of the pipes, drain lines, or ductwork. Surfaces of premises, equipment, or scrap which are likely to be contaminated but are of such size, construction, or location as to make the surface inaccessible for purposes of measurement shall be presumed to be contaminated in excess of the limits.

4. Upon request, the Commission may authorize a licensee to relinquish possession or control of premises, equipment, or scrap having surfaces contaminated with materials in excess of the limits specified. This may include, but would not be limited to, special circumstances such as razing of buildings, transfer of premises to another organization continuing work with radioactive materials, or conversion of facilities to a long-term storage or standby status. Such requests must:

   a. Provide detailed, specific information describing the premises, equipment or scrap, radioactive contaminants, and the nature, extent, and degree of residual surface contamination.

   b. Provide a detailed health and safety analysis which reflects that the residual amounts of materials on surface areas, together with other considerations such as prospective use of the premises, equipment or scrap, are unlikely to result in an unreasonable risk to the health and safety of the public.

5. Prior to release of premises for unrestricted use, the licensee shall make a comprehensive radiation survey which establishes that contamination is within the limits specified in Table I. A copy of the survey report shall be filed with the Division of Fuel Cycle and Material Safety, USNRC, Washington, D.C. 20555, and also the Director of the Regional Office of the Office of Inspection and Enforcement, USNRC, having jurisdiction. The report should be filed at least 30 days prior to the planned date of abandonment. The survey report shall:

   a. Identify the premises.

   b. Show that reasonable effort has been made to eliminate residual contamination.

   c. Describe the scope of the survey and general procedures followed.

   d. State the findings of the survey in units specified in the instruction.

Following review of the report, the NRC will consider visiting the facilities to confirm the survey.

TABLE I

ACCEPTABLE SURFACE CONTAMINATION LEVELS

NUCLIDES [a]	AVERAGE [b c f]	MAXIMUM [b d f]	REMOVABLE [b e f]
U-nat, U-235, U-238, and associated decay products	5,000 dpm α/100 cm^2	15,000 dpm α/100 cm^2	1,000 dpm α/100 cm^2
Transuranics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	100 dpm/100 cm^2	300 dpm/100 cm^2	20 dpm/100 cm^2
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, I-133	1,000 dpm/100 cm^2	3,000 dpm/100 cm^2	200 dpm/100 cm^2
Beta-gamma emitters (nuclides with decay modes other than alpha emission or spontaneous fission) except SR-90 and others noted above.	5,000 dpm $\beta\gamma$/100 cm^2	15,000 dpm $\beta\gamma$/100 cm^2	1,000 dpm $\beta\gamma$/100 cm^2

[a] Where surface contamination by both alpha- and beta-gamma-emitting nuclides exists, the limits established for alpha- and beta-gamma-emitting nuclides should apply independently.

[b] As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

[c] Measurements of average contaminant should not be averaged over more than 1 square meter. For objects of less surface area, the average should be derived for each such object.

[d] The maximum contamination level applies to an area of not more than 100 cm^2.

TABLE I
2

[e]The amount of removable radioactive material per 100 cm^2 of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be reduced proportionally and the entire surface should be wiped.

[f]The average and maximum radiation levels associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mrad/hr at 1 cm and 1.0 mrad/hr at 1 cm, respectively, measured through not more than 7 milligrams per square centimeter of total absorber.

1.8 Exemptions and Special Authorizations

Contamination-free Articles

Articles which may have been contaminated with source uranium materials through use, handling, or storage in the facility shall be disposed of or transferred to persons not licensed to possess radioactive materials when the release criteria and conditions specified in the NRC requirements, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source or Special Nuclear Material," are satisfied. Generally, the following conditions must be met:

a. All surfaces are accessible for survey or, it is reasonable to assume from the design and usage that no uranium could have contaminated the inaccessible surfaces.

b. Surveys of accessible surfaces by health physics personnel verify that neither the fixed alpha contamination is in excess of 15,000 disintegrations per minute (dpm) per 100 cm^2 with an average not in excess of 5,000 dpm nor the removable alpha contamination is in excess of 1,000 dpm per 100 cm^2, and the beta-gamma radiation is not in excess of one millirad (mR) per hour with an average not in excess of 0.2 mR/hr as measured by an open-window beta-gamma survey meter with a window thickness of not more than seven milligrams per square centimeter.

Posting Exception

An exception to the posting requirements of 20.203(e)(2) shall be made for areas and rooms within the plant. All entrances to restricted areas shall be conspicuously posted with a sign having the words "Caution - Any area or room within this plant may contain radioactive material".

Uranium Surface Contaminated Action Guidelines for Sequoyah Facility

	Alpha		
	Fixed	Smearable dpm/100CM^2	Total
Restricted Areas			
Controlled Areas	---	4,000	---
Semi-Controlled Areas	---	2,000	---
Release for Unrestricted* Use	15,000 max. 5,000 avg.	1,000 max. ---	---
Skin Surface of Persons Leaving Restricted Areas	---	---	Not Detectable
Personal Clothing When Leaving Restricted Areas	---	---	100
Unrestricted Areas			
All Unrestricted Areas	5,000	1,000	---

* Items and equipment released from the Facility for unrestricted use shall meet release criteria and conditions specified in Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct Special Nuclear Material.

JUDGE FRYE: Any questions based on that? This is really waste disposal I think, Mr. Henshaw?

MR. HENSHAW: We are talking about disposal of materials here aren't we, Your Honor?

The release of materials to offsite areas? Also, it includes the release of material to the licensed burial ground, doesn't it?

JUDGE FRYE: We are concerned about two separate things here. One was the disposal of contamination-free articles, okay?

MR. HENSHAW: Yes.

JUDGE FRYE: And the posting requirements. Now, what you pose here has to do with waste disposal --

MR. HENSHAW: This material has been certified as contamination free at the existing facility, Your Honor, when in fact it is not.

JUDGE FRYE: The point is -- trash incineration, sweeping the floor, licensed burial ground, that sort of thing. I don't see the relevance.

MR. HENSHAW: It has been released as uncontaminated material to the existing trash incinerator at the site. That is the reason I was asking the question.

JUDGE FRYE: What is the relevance of that to this particular testimony?

MR. HENSHAW: If contaminated materials are going

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to be released as uncontaminated materials.

JUDGE FRYE: This just has to do with the standards for determining what is contamination free.

MR. HENSHAW: Exactly, Your Honor. Your Honor, there is some other evidence that goes along with this.

JUDGE FRYE: I am going to come around to the point where you can offer your own testimony in a moment. Are there any other questions based on this?

MR. KELLOGG: Yes, Your Honor. Just a moment please.

JUDGE FRYE: Okay. Mr. Kellogg's question is: With respect to the use of terms in paragraph 1.8.B.1 of the Application, and of the statement, please discuss the differences, if any, between the terms, 'fixed alpha contamination,' and, 'average fixed alpha contamination?'

WITNESS STILL: The Section to which reference is made here, fixed alpha contamination does not exceed fifteen thousand disintegrations per minute per one hundred square centimeters, and the average fixed alpha contamination does not exceed five thousand dpm per one hundred centimeter square, and that merely indicates that over the total surface of the article in question, the level of contamination would not exceed an average of five thousand dpm per one hundred centimeters square.

But a small localized area could exceed the five

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thousand average. It could be up to fifteen thousand, but you could not release an article where in all surfaces had a level of fifteen thousand dpm.

JUDGE FRYE: Does that answer your question, Mr. Kellogg?

MR. KELLOGG: Thank you, Your Honor. It does.

JUDGE FRYE: Miss Deer in Water's question is whether the present standards are the same as those that are given in the November '76 document, which is your Appendix 1. I assume they probably are.

MR. STILL: Yes, they are identical.

JUDGE FRYE: Mr. Lammers asks whether this material -- let me just read it. Will the eventual disposal of this material be carried out in the manner now proposed in the new comprehensive disposal plan? Is this material included in the newly proposed comprehensive waste disposal plan?

WITNESS STILL: Your Honor, this material I would characterize as, on a current basis, articles within the plant that might be transferred outside the facility. Such as scrap metal when we replace a water cooler, or duct work, or things of that nature.

It is not solid waste we are referring to here, but articles of equipment, tools, things of that nature that are used in the facility. When their use is over, or when

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the equipment is replaced, would be to dispose of it as scrap. And to dispose of it as scrap will require it to not have radioactivity that exceeded the limits that we have stated.

JUDGE FRYE: That you have just given.

WITNESS STILL: Correct.

JUDGE FRYE: So, this is not included in the waste disposal plan?

WITNESS STILL: To my knowledge it is not.

MR. LAMMERS: May I add to that. I notice in reading the new comprehensive waste disposal plan for the UF-6 facility, that there were bricks and plastic pipe and other paraphanalia used in the manufacture included in that, and there isn't going to be any inclusion from the UF-4 plan into that plan for the same type of material.

JUDGE FRYE: I think, Mr. Lammers, what these standards that he just testified to are standards that indicate the material may be disposed of as if it were not radioactive, or assumed to be not radioactive, and therefore would not be included in the comprehensive waste disposal.

MR. LAMMERS: I may be confusing two issues.

JUDGE FRYE: I think perhaps you are.

JUDGE FRYE: Thank you very much, gentlemen.

MS. CARTER-WHITE: There is one more that I have not yet written.

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JUDGE FRYE: All right. What release standard did CASE propose?

MS. CARTER-WHITE: We offered an alternative plan. The language would read: It is demonstratably certain that no uranium has contaminated the inaccessible surfaces, as opposed to reasonably assumed.

JUDGE FRYE: I don't see the relevancy really of the first question. The objection to the radioactive -- posting of each radioactive material area, I think they have addressed that in their testimony as to why they are approaching it on a different basis.

MS. CARTER-WHITE: Your Honor, would you read the first question on the record so that that matter can be addressed on appeal if you don't feel it is relevant?

JUDGE FRYE: It will be listed, don't worry. All of the questions that are not asked will be listed, so you can appeal it.

MS. CARTER-WHITE: Your Honor, there hasn't been any objection in the record to the alternative proposed by CASE.

MR. MICKLES: We certainly object to it.

JUDGE FRYE: You just got an objection to it. I am not sure I understand the third question. Let me get to the fourth question. Where would the exempted articles end up offsite?

WITNESS STILL: Your Honor, we would not be able to end up where these articles migth end up offsite.

JUDGE FRYE: Right, because there are no restrictions. The third question says does the 1.8 deviation request go only to the onsite materials and other tangibles which would be for unrestricted use?

I don't understand that. Do you understand that?

WITNESS STILL: Sir, I do not.

MS. CARTER-WHITE: My question is: Does your exemption request regarding paragraph 1.8, go only to items which you propose be allowed release for unrestricted use?

JUDGE FRYE: Well, by definition the items that meet this requirement may be released for unrestricted use. That is what the definition is about.

MS. CARTER-WHITE: The point being there are other types of releases as opposed to unrestricted use release. I just want a vertifiation for the record.

JUDGE FRYE: That is what the whole definition is about. If it meets a certain standard, it can be released for unrestricted use.

JUDGE FRYE: Thank you very much, gentlemen.

(Panel stands aside.)

JUDGE FRYE: Now, Mr. Lammers, did you have anything on this particular topic?

MR. LAMMERS: I just have a very brief statement

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to make concerning the posting of warning signs concerning radiation.

I am aware, and we went through this before, about the NRC rules which require posting onsite, and so what I would like to do at this time is propose that some warning sign be posted at the -- from a position that could be seen from offsite.

The reason for this is the location of the UF-4 plant is only fifteen hundred feet from the nearest residence, and extremely close to a major highway which is a major route to the areas where vacationers come and camp and fish and hunt, et cetera.

I realize that if deer hunters were to walk close enought to the fense they probably would see radiation warning signs. However, I am concerned about easy visibility for people driving the area. Maybe concerned or maybe thinking of purchasing property. It is a nice place to live, stuff like that. And I have heard this often in the last year, if I had known what was going on at Sequoyah Fuels Plant, I wouldn't have purchased my property here, so I am asking at this time that the NRC and perhaps through this record the NRC will realize the necessity for this type of offsite posting. It doesn't have to be right out on the road, but it should be visible from the road so that people realize this is a nuclear facility. It does contain

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radiation and hazardous materials. Originally, years ago I did not have any excuse because when I moved there it had a sign that said: Kerr-McGee Nuclear Corporation.

I didn't happen to drive by there until I had purchased the property, but still it did have a sign. At this time it says: Kerr-McGee Corporation, and I don't believe it has the word nuclear in there. I don't believe it has anything that signifies, to my knowledge, that it does contain radiation and it is a nuclear facility, and I would like this particular problem addressed by whomever can help us on this.

We would like these type of warning signs posted I know around reactors. They are posted. I know the fuel cycle suppliers are now being -- there is a study going on with the NRC about different ways to handle different problems, and I would like warning signs be considered also in this situation where they are changing their attitude towards fuel suppliers.

Thank you.

JUDGE FRYE: Ms. Synar, do you have anything?

MS. SYNAR: I was concerned with what one of the gentlemen said up here a while ago. There is no requirement, am I right, as to where they put their contaminated --

JUDGE FRYE: No, no, no, no. The whole point is this definition defines uncontaminated material.

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MS. SYNAR: It is defined as uncontaminated.

JUDGE FRYE: Yes. You have to have some sort of a definition as to what is contaminated and what is not contaminated. The material we are talking about is not contaminated.

MS. SYNAR: All right, thank you.

JUDGE FRYE: Mr. Henshaw?

MR. HENSHAW: My question, Judge Frye, or my statement I guess it is, is that I am concerned about the measuring capabilities of this contamination by the facility. I have here a letter, May 8, 1985, from Mr. Everett, R. J. Everett, to Sequoyah Fuels Corporation, J. C. Stauter.

This is page 8. The NRC inspectors questioned the licensee concerning possible systematic errors introduced into the data by using a calibration standard that is both smaller in diameter (25.4 millimeters versus 50 millimeters.) And higher in alpha energy than the sample being measured, (5.2 mev) 73 percent for Plutonium 239 versus 4.2 mev (77 percent for U-238).

This was unresolved when this was issued.

JUDGE FRYE: But this doesn't seem to me, at least at first blush to be related to this particular topic.

MR. HENSHAW: It is, Your Honor.

JUDGE FRYE: Is it?

MR. HENSHAW: Yes, sir. This is the instrumentation

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that -- you are right, Your Honor. This is for the gas proportional air sample counters, that is right. I am sorry. That is not related to 1.8.

However, I have some that is. Page 11. No. 6, external exposure and contamination control, Paragraph B, contamination control. Middle of the paragraph: The NRC inspectors measured a portion of these contaminated areas and found levels to be sixty times the action level for prompt cleanup of two thousand disintegrations per minute per one hundred square centimeters, identified in the licensed application.

JUDGE FRYE: But you have a cleanup standard there, don't you?

MR. HENSHAW: These are the alpha counters that are used to make this determination for Section 1.8, Your Honor. That is what I am going at.

JUDGE FRYE: So, your point is the counters don't work?

MR. HENSHAW: They did not at that time, according to this document. I will elaborate on it in just a minute, if I might. I am on Page 13. Your Honor, that is unrelated also.

Okay. Page 15, contamination measurement. The NRC inspectors performed over forty white tests throughout the plant process and non-process areas, and compared these

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results obtained with the NRC's thin window guiger meter pancake probe with these measured with the alpha survey instrument used by the Licensee.

The NRC results were from three to six times highe than those obtained with the alpha instrument. This indicated that the Licensee's instrument may not be the optimum for these measurements.

Despite this, the measurements showed all areas to be below the actual levels for contamination.

This is NUREG 1179, Volume 2, Page B-48. After cutting the sections -- we are speaking of the cylinder that was set to the Battalle Corporation to be tested for --

JUDGE FRYE: You know, this standard really only has to do with the difference between a contaminated article and a non-contaminated article, and I don't see how any of this is relevant to it.

MR. HENSHAW: Judge Frye, if the instrumentation that measures that contamination is erroneous, there is no way they can make their determination.

JUDGE FRYE: Perhaps, but that wasn't challenged. It was the standard that was brought into question.

MR. HENSHAW: That is why I was challenging the standard.

MR. NICKLES: This is not the appropriate forum. We have heard Mr. Henshaw for three days now, and he has gone

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through unrelated matters. This is clearly, clearly --

JUDGE FRYE: I think this is pretty clearly outside the scope of this particular topic.

If the instruments don't work, the instruments don't work. I am not sure there is much we can do about that except say you have to have instruments that work.

MR. HENSHAW: That was what I was wanting to get determined if we could ask the Staff if this has been resolved, and if the instrumention is, in fact, the appropriate instrumentation for measuring this contamination. Because evidentally it doesn't look like it was when this cylinder rupture happened in January of last year, one year ago.

JUDGE FRYE: I still don't think that instrument -- has the Staff got any particular problems with the instrumentation used by Sequoyah Fuels?

MR. LEWIS: My understanding is that that was a 1984 finding, and in the 17 inspections the NRC has conducted this year, we have not identified any problems with the adequacy of the instrumentation.

JUDGE FRYE: Thank you.

MR. HENSHAW: Thank you.

JUDGE FRYE: Anything from NWC?

MS. CURTIS: No, Your Honor.

JUDGE FRYE: Ms. Strachan?

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MS. STRACHAN: Subparagraph A, under Contamination-free articles, I would like to object to the phrase: Reasonable to assume, from the design and usage that uranium could not have contaminated the inaccessible surfaces.

I don't like operating on a standard of, 'reasonable to assume' when dealing with any question, no matter how remote, of uranium contamination.

If these articles are to be released to persons not licensed to possess radioactive materials, and therefore any incorrect assumption would cause contaminated materials to be foisted on an unsuspecting general population at some point.

That is all, sir.

JUDGE FRYE: Okay. Thank you. Ms. Deer in Water?

MS. DEER IN WATER: I would just like to say that this is all very well on paper, and they work things out very well. And if this is all you want, just paper documentation, that is one thing.

And -- but I think it is relevant what Mr. Henshaw brought up, if their equipment is working so you can monitor. Time after time we come up with everything looks good on paper, you know, and just like their license condition report on the ponds.

All the ponds are leaking, but they made a report, and therefore they stayed in there. They complied with the

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license requirement by reporting on the leaking ponds. They didn't say they were going to fix them. They said they complied with the license requirement by reporting on them, and they spend three pages in their report very technically documenting by Darcey's Law that it is going to take three hundred and eighty-six years for the contamination to reach our ground water.

Well, I say that by Murphy's Law it will take one Oklahoma Gopher five minutes to reach our ground water. Thank you.

JUDGE FRYE: Okay. Ms. Carter-White.

MS. CARTER-WHITE: Well, if I might I would -- I know that everyone here is sick of listening to my objections. I would like to interpose an objection on behalf of Mr. Henshaw here a while ago. What happened to him was you shifted the burden of proof that the radiation detection equipment had been historically inoperative to Staff, and that burden of proof was met.

Now, the question of the viability of the processes by which these restricted use determination is made, is to be made by the Applicant. Because the Code of Federal Regulations requires that they meet a minimum standard of licensee fitness before a license can be granted or amended.

JUDGE FRYE: What does that have to do with 1.8

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of the Application?

MS. CARTER-WHITE: Okay. Now I would like to go ahead and present CASE's presentation which is very short.

Sequoyah Fuels has indicated that they meet the requirement that was established in 1976 and constituted a minimum requirement at that time. We don't agree that that standard is sufficient protection to the public, and we would suggest to the court here today, with the administrative agency here today, that a higher standard should be applied.

Sequoyah Fuels does have the capability of doing better than the standard which they propose for the Application Section 1.8 definition of what constitutes a unrestricted use article. They can exceed the standard that they have established for themselves by applying a standard that CASE has suggested, which would be a standard which they demonstrated with certainty that no uranium has contaminated inaccessible surfaces.

The standard Sequoyah Fuels proposes, that of reasonableness, is a subjective standard, and it is not as low as reasonably achievable, and for those reasons Sequoyah Fuels would request that the NRC impose a definite standard that can be determinable, that of no contamination prior to release.

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The reason we ask for this is because in this area, as we all know, the economy is not in a real good condition, and a number of people purchase used lawn mowers, tractors, or fork lifts, or other machinery and tools. Sequoyah Fuels can't even tell us where these unrestricted used items will, ultimately, end up.

Now, I think individuals who assume the risk of the radioactive at the nuclear industry get what they agreed to, the risk they have assumed. But on the other hand, there are individuals who prefer not to have that risk, and for those individuals they shouldn't have that risk foisted upon them by Sequoyah Fuels Corporation for the purpose of economic gain. The Nuclear Regulatory Commission cannot take economic benefit to the Applicant into consideration in making its determination regarding these matters, especially when the alternative and counter-vailing factors is the public health and safety.

With regard to the posting exception, I have much less strong feelings, but I would point out that this facility is going to be operated by new employees, who have not in the past been subject to the constant -- possibly to the constant considerations of, for example, the risk associated with where they are located in the room when they sneeze and that sort of thing, and we would suggest that posting areas as opposed to the general posting of the outside

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of the door would be a favorable and more appropriate means of notifying individuals of a potential radiation hazard there.

That is all.

JUDGE FRYE: Mr. Kellogg, did you have anything?

MR. KELLOGG: Nothing.

JUDGE FRYE: Thank you. The next topic --

MR. MESERVE: Your Honor, the next topic has to do with Chapter 6 of the Application, which is the special process commitments, and you asked that that panel also address the adequacy of nitrogen supply. And as with the other subject areas, we have previously submitted a written statement, and our panel who will testify on that matter are William Utuage, Billy J. Buntz, and Michael Chilton. I believe Mr. Utuage and Mr. Chilton have not been sworn previously.

Whereupon,

WILLIAM UTUAGE

MICHAEL CHILTON

and

BILLIE J. BUNTZ,

were called as witnesses, and having first been duly sworn, testified as follows:

WITNESS UTUAGE: My name is William Utuage, and I am General Manager of the Sequoyah facility. I believe my

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credentials and background has been submitted in the record.

On my right I would like to introduce Mr. Michael Chilton, who is the area manager of the UF-6 facility for the Sequoyah Fuel Corporation.

Mike joined the Kerr-McGee organization in 1981. He is a B.S. Chemical Engineer from the University of Missouri. He has six years of experience in Engineering, process development, design, construction, and the operations related to uranium processing.

He has been designated as the operations liaison man during the construction and the initial design of this plant. Has reviewed all of the design in the construction, and has been responsible for program the UF-6, UF-4 facility control system. He is heavily involved in the selection of training materails, and for the UF-4 personnel.

He is also responsible for the implementation of procedures along with Mr. Buntz on my left for the startup of the facility.

With respect to the Chapter 6 testimony, certain interveners have questioned why reference to cooling water emergency system and gas coolers have been omitted from the revised UF-4 plant license application.

The answer is very simple. Engineering changes have eliminated the need for these systems. And with clarification, the existing UF-6 facility has two water

systems.

Cooling water supply, which we designate as CWS, and cooling water emergency, which is designated as CWE.

The CWS system, the supply system, is a conventional cooling water system employing softened water to prevent scale build-up in piping and equipment. The water is recirculated over and over through a cooling tower, which cools the water, and the water is reused.

The CWE System, by contrast, is raw untreated water that can be used to cool equipment in the event that the CWS System is interrupted.

CWE water is direct from Lake Tenkiler and is colder than CWS water in the plant. The initial license amendment planned for the use of CWE in the UF-4 plant to cool steam chests and UF-6 cylinders, if needed, in order to resolidify the liquified UF-6.

However, with the substitution of autoclaves in place of the steam chests, this requirement is no longer needed, and the CWE water is no longer required.

Normal cooling water requirements for the HF refrigeration system, the air conditioned -- air compressors, the products cooling screw, and the steam condensate condenser, can readily be satisfied using the cooling water supply system.

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Loss of CWS water in any of these systems will not

jeopardize safety in any manner.

Similarly, the gas coolers that were initially intended to pre-cool the chemical reactor offgas are no longer needed because an engineering evaluation indicated that the amount of cooling that could be accomplished by the CEW or CWS System was very minimal compared to the cooling that is provided by the refrigeration systems.

The extra equipment and controls were unnecessarily and needlessly complex, and they complicated the cooling system. Therefore, the refrigeration system was increased in size to compensate for the elimination of the gas coolers.

Now, with respect to the nitrogen for the UF-4 plant, the existing UF-6 plant supply system is more than adequate to provide the nitrogen for the UF04 plant.

Nitrogen in our facility is received by tank truck. The storage tanks are checked daily, and we keep them topped off daily, or whenever we can accommodate a full truck load of nitrogen. They have minimum points for immediate reorder, which would be three thousand gallons in one tank, and five thousand gallons in another.

The system has two storage tanks, ninety-three hunred gallons and eleven thousand gallon capacity, equivalent to eleven point six million standard cubic feet of nitrogen.

A vavorizing system is also a part of this system, and it vaporizes the nitrogen from a liquid to a gaseous

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state at the rate of fifty thousand standard cubic feet per hour.

At the minimum, the -- at the minimum, fill points on these tanks, if the tanks were allowed to get to that low level, the plant would still have ninety-two hours of nitrogen available for use in operating the plant.

The UF-4 plant, maximum consumption is going to be four thousand, eight hundred and sixty standard cubic feet per hour. The system that we have installed can deliver twenty-two thousand five hundred standard cubic feet per hour under normal operating conditions.

Even with the UF-6 plant in full operation, we can still provide twenty-one thousand standard cubic feet per hour to the UF-4 plant.

A UF-4 plant shutdown requires no more than two hours of nitrogen supply, so it is very obvious that the existing system is more than adequate to provide our needs for nitrogen.

(Prefiled testimony follows.)

Ace-Federal Reporters, Inc.

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE

John H. Frye, III

Administrative Judge

In the Matter of:	)	Docket No. 40-8027-MLA
SEQUOYAH FUELS CORPORATION	)	ASLBP No. 85-513-03-ML
(Sequoyah UF_6 to UF_4 Facility)	)	

STATEMENT

ON BEHALF OF

SEQUOYAH FUELS CORPORATION

ON

CHAPTER 6 OF THE APPLICATION

AND

NITROGEN SUPPLY

Chapter 6 of the Application

and

Nitrogen Supply

The Presiding Officer has requested that SFC submit testimony concerning certain matters covered by Chapter 6 of the revised application and the adequacy of nitrogen supply. Memorandum and Order, 14-15 (Oct. 10, 1986). This statement covers these matters.

I. Chapter 6 of the Application

Chapter 6 of the revised application describes certain special process commitments that were submitted by SFC so as to assure radiological, chemical, and fire safety. Certain intervenors have inquired as to why reference to the Cooling Water Emergency System and gas coolers has been omitted from the revised application. The answer is simple: engineering revisions have eliminated the need for the systems. The circumstances surrounding these changes have been fully explained in the Supplemental SFC Response, 6-8 (Jan. 7, 1987).1/

1/ This filing is hereby incorporated by reference in this statement.

Ms. Synar has inquired what "routine confirmation" means in the context of the Special Process Commitments. This too has been fully explained in SFC's filing. Id. n.5. "Routine Confirmation" refers to the continuous monitoring of important process parameters during operations.

II. NITROGEN SUPPLY

Nitrogen gas is used extensively throughout the UF_4 plant, primarily as a purge gas. All systems employing hydrogen must be thoroughly purged with nitrogen to remove oxygen (air) prior to the introduction of hydrogen and conversely, all systems to which hydrogen has been admitted must be thoroughly purged with nitrogen before the system is opened to the air (oxygen). The nitrogen supply at the Facility is more than adequate to meet facility needs.

The UF_4 Facility will use nitrogen supplied from the existing UF_6 Facility. Liquid nitrogen is shipped to the Sequoyah Facility in tank trucks and is transferred to two storage tanks. One storage tank has 9300 gallons capacity (equivalent to 5.3 million standard cubic feet (SCF) of nitrogen gas), and the other has 11,000 gallons capacity (6.3 million SCF of nitrogen gas). Minimum target levels for refilling the tanks are 3000 gallons and 5000 gallons,

respectively, or 4.6 million SCF.[2/] A vaporizing system at the existing plant transforms liquid nitrogen to nitrogen gas and causes it to flow into the 6 inch pipe main header at approximately 100 PSIG. The vaporizing system has the capacity to provide 50,000 SCF per hour (SCFH). The 4.6 million SCF of nitrogen in the tanks at the minimum target levels is adequate to supply nitrogen at the maximum system capacity for a period of 92 hours.

The nitrogen supply line to the UF_4 Facility is capable of transferring about 375 SCF per minute (SCFM) or 22,500 SCFH. The required flow of nitrogen for the UF_4 Facility, as calculated by Stearns Catalytic Co., is 486 SCFH on the average, and a maximum of 4860 SCFH if all systems employing nitrogen are on stream at the same time. The supply line is thus more than adequate.

In 1985, the main plant used nitrogen at an average rate of 5107 SCFH during the month of lowest usage and 7950 SCFH for the month of highest usage. The highest

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2/ It is unlikely that the supply ever will reach the minimum level. The SFC nitrogen supplier calls the control room each morning to check on the tank levels and will refill as soon as there is room in the tanks for one truckload. The supplier delivers the material from Pryor, Oklahoma, which is only about two hours from the plant. Even allowing for equipment failures and/or adverse weather conditions, there is no problem in making delivery within the several days of reserve supply.

instantaneous rate of flow that might be expected would occur if one of the 21,000 SCFH plant air compressors were to fail. (In such a case the nitrogen supply system automatically provides pressurized nitrogen to maintain pressure.) The instantaneous demand in such a case would be 21,000 SCFH plus the normal usage of less than 8000 SCFH, for a conservatively estimated total of about 29,000 SCFH. Subtracting this amount from the 50,000 SCFH supply capacity of the vaporizing facility still leaves 21,000 SCFH available for the UF_4 plant. Even in this extreme case, the available supply far exceeds the maximum demand of 4860 SCFH for the UF_4 Facility.

The minimum expected inventory of 8000 gallons of liquid nitrogen (the equivalent of 4.6 million SCF of nitrogen gas) can supply both the main plant and the depleted UF_4 plant for a period of more than 5 days at the 33,860 SCFH maximum estimated demand. By way of comparison, shutdown of both the existing plant and the UF_4 plant can be accomplished in a matter of a few minutes and nitrogen purging of equipment and systems can be performed in less than 2 hours.

The status of the nitrogen system is under continuous surveillance during operations. The pressure of the nitrogen supply gas at the UF_4 plant will be continually monitored by the Distributed Control System and an alarm will be activated in the central control room if the pressure falls below an acceptable level. Should this occur, the UF_4 process will be safely shut down.

Since the installation several years ago of expanded nitrogen storage, there has never been a problem with either a shortage of supply or pressure to deliver the supply. The history of operations provides a high level of confidence in the reliability of the system.

In summary, the nitrogen system is more than adequate to provide adequate pressure, adequate flow, and adequate reserve supply.

earthquakes. Therefore, there exists an extremely low probability of any potential earthquake effect on man-made structures at the Sequoyah Facility.

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Jackson, K. C., 1979, Earthquakes and Earthquake History of Arkansas, Information Circular No. 26, Arkansas Geological Commission, 70 p.

U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards, August, 1985, Environmental Assessment for Renewal of Special Nuclear Material License No. SUB-1010, Docket No. 40-8027; U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards, November, 1985, Environmental Assessment for Amendment to Source Materials License No. SUB-2020, Depleted UF6 to UF4 Conversion Facility, Docket No. 40-8027.

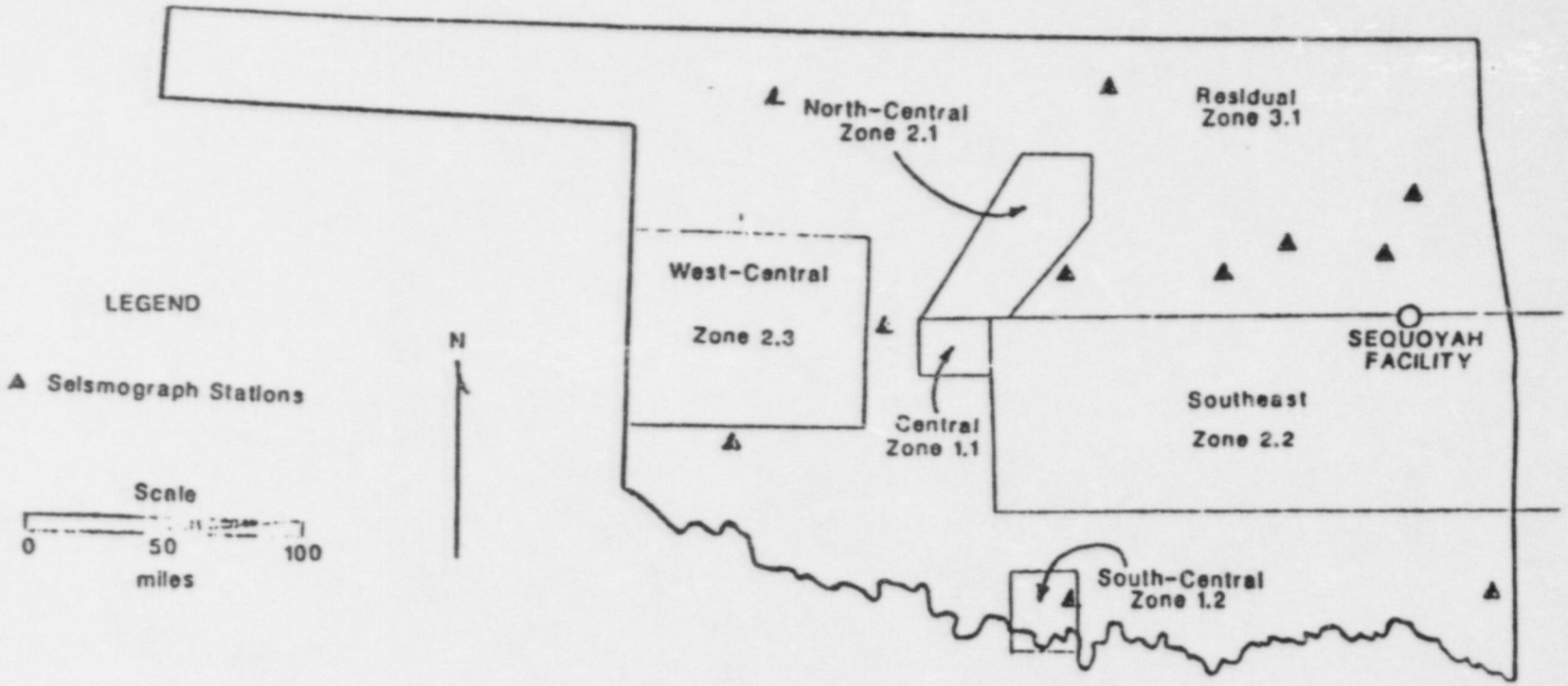


Figure 1

SEISMIC-SOURCE ZONES OF OKLAHOMA

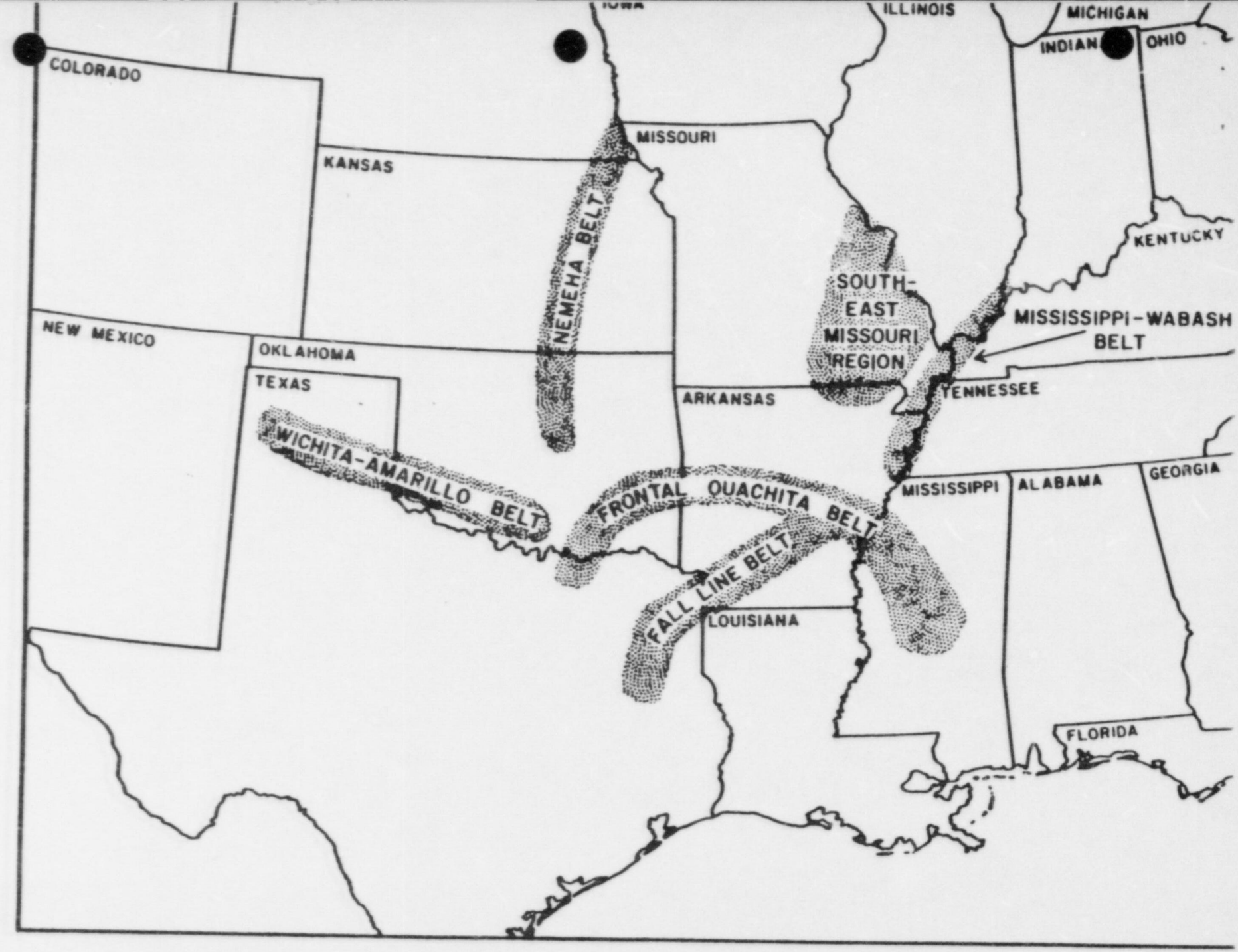


Figure 2
Seismic regions.

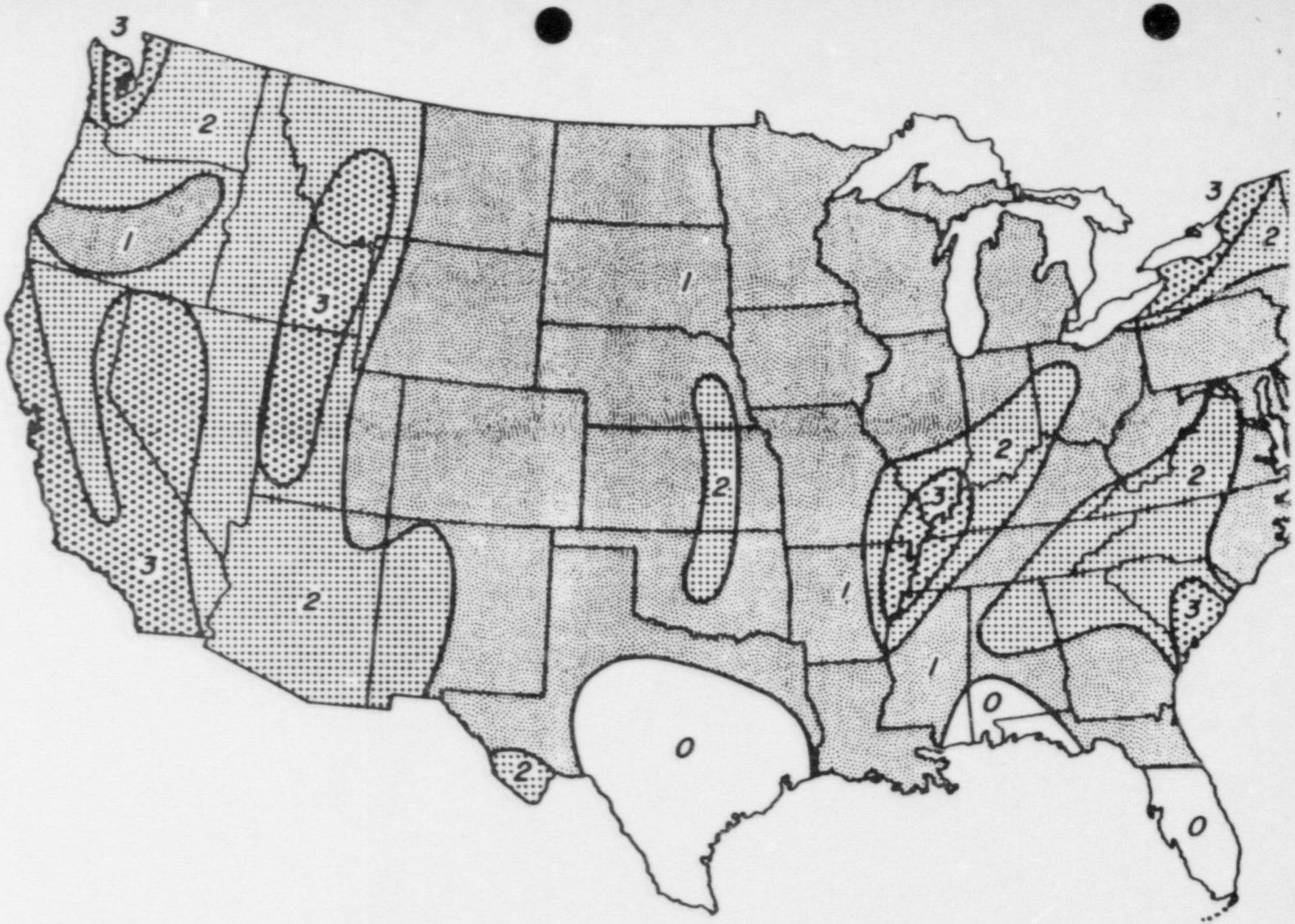


Figure 3

Seismic risk map for conterminous United States. Zone 0 – no damage. Zone 1 – minor damage; corresponds to intensities V and VI of t scale. Zone 2 – moderate damage; corresponds to intensity VII of the M. M.* scale. Zone 3 – major damage; corresponds to intensity VIII of the M. M.* scale. (* – M. M. refers to the Modified Mercalli Intensity Scale.)

JUDGE FRYE: Any questions. Mr. Henshaw, I think this is really outside the scope of what was set down for hearing. We asked them to explain the CWE System, and the gas coolers and the nitrogen supply, and they have done that.

MR. HENSHAW: Chapter 6 of the Application, Your Honor.

JUDGE FRYE: I know Chapter 6 says that, but we did't ask them --

MR. HENSHAW: Is that not what the hearing --

JUDGE FRYE: It was not included in this subject matter.

MR. HENSHAW: Your Honor, excuse me. The Agenda, Page 18, states Chapter 6 of the Application, and nitrogen supply. This is Chapter 6, Special Process Commitments.

JUDGE FRYE: Right. And if you will read the Memorandum and Order, it says SFC was directed to respond to certain questions regarding the cooling water emergency system and the gas coolers.

MR. HENSHAW: And the what, Your Honor?

JUDGE FRYE: And the gas coolers. And it did not get into questions reguarding the HS System.

MR. HENSHAW: Your Honor, is this not germain to this licensing --

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JUDGE FRYE: It wasn't spelled out. If it had been brought up earlier, I think it probably would have been a reasonable one. But this was not something that was brought up and set down for hearing.

MR. HENSHAW: Your Honor, I have brought up the effluence to the scrubber earlier.

MR. NICKLES: Your Honor, we went through a long period of time, where Mr. Henshaw had every opportunity to state whatever contention he may have had here. He has not done so.

MR. HENSHAW: Your Honor, I have stated that as a contention that any further flow going to the scrubber is more than it should be, the scrubber will not handle all of the effluent now. That is why there have been releases at the facility. That is why I brought up the HF flow to the scrubber. That is what I have asked to be addressed because Paragraph D of Chapter 6 says the HF System shall be designed and constructed as a closed system.

JUDGE FRYE: I think your question is really answered in the Application, as I recall, and in any event it wasn't brought up and included in this topic.

MR. HENSHAW: Your Honor, we are ahead of schedule an hour and fifteen minutes.

JUDGE FRYE: CASE asked when was the design for offgas coolers changed? I take it by that, when did you

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change your plans with regard to the use of gas coolers?

MR. UTUAGE: The change was introduced prior to the submittal in April or May, but after the initial preliminary design was submitted.

So, the changes to those systems were made after the -- I believe it would have been January of '85, and it would have been then before the November '85 license amendment.

JUDGE FRYE: November '85.

MR. UTUAGE: When was that amendment? '86 was the revised. It was the Spring of '85 when the design was finalized.

JUDGE FRYE: Spring of '85. So, it would have been Spring of '85.

MR. HENSHAW: Your Honor, I would like -- excuse me.

JUDGE FRYE: Last question here from CASE, Mr. Utuage, do you mean that the UF-4 facility can operate for ninety-six hours only without UF-6 facility operation due to nitrogen requirements?

I gather just must mean the UF-4 facility could continue to operate for ninety-six hours if the UF-6 facility was shut down?

WITNESS UTUAGE: No, sir. Both plants combined could operate for ninety-six hours, on the minimum amount in

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both storage tanks, before those tanks would be exhausted.

JUDGE FRYE: Will be exhaused. Okay. The second question here, Ms. Carter-White, how will reheated UF-6 cylinders be cooled, I don't think anybody plans to reheat cylinders here.

MS. CARTER-WHITE: Your Honor, he stated earlier -- and I believe it was Mr. Utuage who stated when he indicated initially why the design change had occurred, that there were two reasons for that.

One, was for heating UF-6 cylinders, and the second was for the offgas scrubber cooling system.

JUDGE FRYE: Yes, he explained that I think. I think you will find it in the transcript.

MS. CARTER-WHITE: As to the cooler, he never again discussed the UF-6 cylinder.

JUDGE FRYE: He did discuss the UF-6 cylinders.

MS. CARTER-WHITE: How will those be cooled, then?

JUDGE FRYE: Cooling Water Emergency was no longer required because of the substitution of autoclaves for steam chests, am I correct.

MS. CARTER-WHITE: And my question is: How will the heated UF-6 cylinders now be cooled?

JUDGE FRYE: I assume by atmosphere, right?

MR. UTUAGE: That is correct.

MS. CARTER-WHITE: Thank you.

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JUDGE FRYE: Will Mr. Chilton be running the computer that runs the UF-4 facility?

MR. UTUAGE: No. The control room operator, the UF-4 plant control operator runs the computer. Mr. Chilton is skilled in programming computers, and establishing computer systems. So, he had a large part in the establishment of the design, the logic, the displays, and how the system is used, but he will not run it personally.

JUDGE FRYE: Mr. Lammers asked: If the emergency water cooling system is used, will any water be drained into ponds, or will it go back into the river?

MR. UTUAGE: The water cooling system that is installed in the UF-4 plant is only the cooling tower system.

JUDGE FRYE: No, he is talking about the emergency, the CWE?

MR. UTUAGE: We have no CWE.

JUDGE FRYE: The CWE is totally gone now.

MR. UTUAGE: The CWE is totally out.

JUDGE FRYE: I didn't understand that either. Glad you cleared that up. There no CWE at all?

MR. UTUAGE: No CWE.

JUDGE FRYE: We are back to the same problem, I think Mr. Henshaw, but in view of the fact that we are ahead of time, and you have two questions, we will ask them

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and that will be it.

Paragraph D of Chapter 6 states that the HF System shall be designed and constructed as a closed system. Please explain the three pounds per hour hydrogen cloride that is directed to the scrubber. And I take it by that if is totally closed why the three pounds per hour that end up in the scrubber?

MR. UTUAGE: The system has been designed as a totally closed system, but with any gaseous material, there is always an ultimate point, no matter how cool you get it, when there is a partial pressure of gas above the liquid, whatever that may be, the three pounds comes from the partial pressure that you can't get rid of because of the laws of physics and chemistry. Therefore, that goes to the scrubber.

JUDGE FRYE: Okay. And does the three pounds per hour represent the maximum amount of HF that would be directed to the scrubber if the facility were expanded?

MR. UTUAGE: I believe that would be correct. The same conditions of temperature and pressure exist, so therefore it should be the same irregardless of the amount of material.

JUDGE FRYE: If you increased your capacity, you would get more --

MR. UTUAGE: You could get slightly more HF. It

would be in the same ratio.

JUDGE FRYE: About the same ratio, right. Ms. Strachan, what are you referring to? You got a quote from a rapid mitigation of small releases in Paragraph A. What does that refer to?

MS. STRACHAN: On Chapter 6, which is part of the heading that we are now discussing;under Paragraph A refers to the handling systems being done in a manner as to preclude significant release of depleted uranium hexofluoride from cylinders, autoclaves, sampling ports and piping, and to permit rapid mitigation of small releases.

I am concerned about the admission of small releases of anything from this facility. I want to know if anyone can name what the safe level of exposure to radiation is, since they are admitting once again, that there is something going out into the atmosphere?

JUDGE FRYE: We can't get into a debate about safe levels of radiation. Everybody is going to have a different opinion about that.

MS. STRACHAN: Sir, this has permanent consequences, and, Your Honor, I believe that other people at different times have asked the NRC what a safe level of exposure was, and no one has ever been given an answer.

JUDGE FRYE: I cited, I think, your organization to certain materials with regard to current thinking on what

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levels of radiation were. I am not getting into it any further than that.

MS. STRACHAN: Yes, sir.

JUDGE FRYE: While the facility is in operation, your control room will always be manned, will it not?

WITNESS UTUAGE: That is correct.

JUDGE FRYE: Does that answer your question?

MS. CARTER-WHITE: Control room operators, 2 related to the UF-6 facility, and only one related to the UF-4 facility. My question specifically is who mans the 4th facility controls when -- if the operator steps away from the control room.

JUDGE FRYE: He would not ever step away from the control room -- he would never leave the control room unmanned, would he?

WITNESS UTUAGE: That is correct.

JUDGE FRYE: We certainly hope not.

MS. CARTER-WHITE: Does he not ever have to go to the bathroom?

JUDGE FRYE: The point is, there will always be someone at the controls. Indeed, you are going to have to have more than one person, obviously.

MS. CARTER-WHITE: Your Honor, will they have two operators per shift?

JUDGE FRYE: We have covered this topic. Thank you

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very much, gentlemen.

MS. DEER IN WATER: I have a question.

JUDGE FRYE: Did you bring it up?

MS. DEER IN WATER: Yes, I surely did.

JUDGE FRYE: Where is it?

MS. DEER IN WATER: I handed it right to you.

WITNESS UTUAGE: Will Mr. Chilton be running the computers? I answered that.

JUDGE FRYE: He answered that. He said no, Mr. Chilton programmed the computer, but he is not the person who would be actually running it.

Thank you very much, gentlemen.

(Panel stands aside.)

JUDEGE FRYE: Mr. Lammers, did you have anything on this particular subject?

MR. LAMMERS: No, Your Honor.

JUDGE FRYE: Ms. Synar?

MS. SYNAR: Yes, I do. I know you are not going to like this, but I think that what Kathy said, about the gentleman leaving the control room, there is a necessary time when you have to leave the control room.

JUDGE FRYE: I am not trying to make light of her concern. And certainly the point is that you can never have the control room unmanned.

MS. SYNAR: Right. This is the point I am making,

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sir.

JUDGE FRYE: It simply means they are going to have to have more than one person available.

MS. SYNAR: That is the point I am trying to make.

JUDGE FRYE: Yeah, I agree with you.

MS. SYNAR: Do you not have a relief person, or do they have a relief person?

JUDGE FRYE: Obviously. They have to have a relief person.

MS. SYNAR: Okay, thank you.

JUDGE FRYE: Mr. Henshaw?

MR. HENSHAW: Your Honor, your assumption is wrong. I have worked the control room, and at times there is just one control room operator in the control room, and he does have to leave to go heat up his lunch, downstairs to heat up his lunch, go to the restroom, or other items. It leaves the control room unmanned.

JUDGE FRYE: How often did you observe that happening?

MR. HENSHAW: Every day. Well, Your Honor, let me take that back. Any time there was just one control room operator in the control room was when that would happen.

JUDGE FRYE: Was that very often?

MR. HENSHAW: There were times when the shift supervisor would be upstairs, and he would cover for the

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control room operator. He stepped out, and there were times --

JUDGE FRYE: How frequently would you say it happened that the control room was not -- there was no one in the control room?

MR. HENSHAW: Not very frequently.

JUDGE FRYE: Not very frequently?

MR. HENSHAW: No, sir.

JUDGE FRYE: What? On the order of once a month?

MR. HENSHAW: The Sequoyah Fuels Manager is in there. I just honestly can't give you a quantitative answer.

JUDGE FRYE: Was there supposed to be some sort of relief available so the control room operator did get up to heat his lunch, or --

MR. HENSHAW: No, sir.

JUDGE FRYE: There was not?

MR. HENSHAW: There was nothing that I knew of.

JUDGE FRYE: There was no formal arrangement made to have someone come in and relieve him?

MR. HENSHAW: No, sir. Lots of times a chemical operator, during their lunch break, they will come to the control room to eat his lunch, to watch what the control room operator is doing, and visit, and whatever, and eat their lunch in the control room.

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And the chemical operator might sit there and watch

while the control room operator went down. There are times when it has been, you know, unmanned. And it was not a frequent occurrence.

JUDGE FRYE: But it did occur from time to time.

MR. HENSHAW: Yes, sir; many times.

JUDGE FRYE: Thank you. NWC?

MS. CURTIS: No, Your Honor.

JUDGE FRYE: Ms. Strachan?

MS. STRACHAN: I just want to state into the record that in the book entitled: No Immediate Danger?, and that is written with a question mark, by Dr. Rosalie Bertel, of the International Institute of Concern for Public Health in Canada, that it says there is no known safe level of exposure.

JUDGE FRYE: All right. Ms. Deer in Water? You pass? Ms. Carter-White?

MS. CARTER-WHITE: It has not been established here today that Sequoyah Fuels does have an active and predictable policy for relieving the control room operator of the responsibility of full time duties at the computer controls, such that there will inevitably be times when the control center is unmanned unless some policy or procedure or licensing condition is imposed to cover that contingency.

Additionally, I also want to state that these changes that were made in the Spring of '80 -- the statement

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was 1985, but I am sure that he meant 1986, when Mr. Utuage stated this. It is awfully late for us to be finding out about those, and I just wish that this proceeding could have been conducted in a manner so that we could have had access to this information sufficiently prior to this time.

A number of issues could have been placed aside, or stipulated, or resolved prior to this hearing if, in fact, there had been current communication between Sequoyah Fuels and the intervening parties in this case.

JUDGE FRYE: Mr. Kellogg?

MR. KELLOGG: Nothing. Thank you, Your Honor.

JUDGE FRYE: Thank you. Why don't we take a break until three-thirty at this point, and then we will come back, and the next topic is Seismicity?

MR. MESERVE: Yes, sir, Your Honor.

(Recess.)

End 5.
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(Whereupon, the hearing was reconvened after the recess at 3:30 p.m., this same day.)

JUDGE FRYE: Can we go back on the record, please? Do you want to call your next panel?

MR. MESERVE: In your November 5, 1985 Order you had indicated that you would like to hear some testimony on seismicity. We have a panel, Professor Robert DuBois, J. Clement Burdick and Robert Mitchell.

We have previously circulated to all the parties in this proceeding a statement as to seismic effects.

(Mr. DuBois and Mr. Mitchell were sworn by Judge Frye.) Whereupon,

ROBERT DuBOIS

J. CLEMENT BURDICK

and

ROBERT MITCHELL

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were called as witnesses by and on behalf of Sequoyah Fuels Corporation and, having previously been duly sworn, were examined and testified as follows:

MR. DuBOIS: Your Honor, I am Robert DuBois, Professor of Geology and Geophysics at the University of Oklahoma. I am also Assistant Director at that school.

My educational background consists of a Ph.D degree at the University of Washington. I also received a Master's degree and a Bachelor's degree there in Engineering. I

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originally started teaching at the University of Arizona in 1952 to 1967. I came to the University of Oklahoma as Director of their Geophysical Observatory and also as Professor of Geology and Geophysics.

Since that time I've built up the Observatory primarily interested in seismicity, earthquake sensing and studies about the State.

I am joined here by Dr. Burdick on my left and also Dr. Robert Mitchell -- pardon me, Robert Mitchell on my left over there. Mr. Mitchell is a professional engineer. He has been with the Kerr-McGee Company for nine years as a professional civil engineer. He was a managing engineer for that company.

Since then he has been a consultant in civil engineering and has been Director of the Civil Engineering portion of the construction and design of this plant.

Kerr-McGee has asked me to evaluate the seismicity associated with the Sequoyah facility. Particularly in that area, to accomplish this objective I have used the seismic records that have been accumulated at the Observatory, the Observatory being located south of Tulsa, Oklahoma, about 20 miles near Bixby.

We have established a state-wide network of sensors throughout the state. There is about eleven of them at the various corners of the state and in the central area to monitor

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the seismicity. In addition, I have set up three specially located seismometers around the Sequoyah facility. I was associated in this regard with Dr. Ahern, also of the University of Oklahoma.

The special seismometers were very sensitive with the design of picking up micro-earthquakes, very, very small earthquakes, to see if any such events did occur around the Sequoyah facility. The Observatory records from the Tulsa facility have been in operation since 1961, so we are talking of records where we have monitored the seismicity for some 25 years in this area; specifically site survey specific. We have monitored it there for a little over a year with the three instruments themselves.

I would like to summarize for you here now the report that was presented to you in writing so you shall have some idea. I want to stress two points. One is going to do with the geological setting of Sequoyah, the Sequoyah facility. The second is going to do with the recording of the seismicity in that area.

First, with the geological setting, I would like to say that that occurs, for the Sequoyah facility, occurs in the general mid-continent area. That part of the area which is geologically stable. And in this area here, from that sensitive point of view, has been geologically stable for some 300 million years. It's not an area like we would have on one of the coastal

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6-4-SueWalsh1 plains or coastal areas where earthquakes do occur. We are in this geologically stable area.

We have monitored this, as I mentioned in the record; we have looked at those. There has been only one earthquake occur near the Sequoyah facility since we started recording in 1961. This earthquake occurred in 1979. This was a very small earthquake. We would give it a magnitude of 1.9. The magnitude of 1.9 is almost below the level at which man could sense. It would not be what we would describe as a felt earthquake to a normal observer.

In other words, if you were there and I told you that there was going to be an earthquake occurring in another five minutes and you had your senses sort of tuned, yes, you would feel it. But if that was not the case, if you were just a casual observer in the area you would probably not even feel this earthquake, it's so small. It's merely one we think that is mainly detected by sensitive instruments.

That is the only seismic event that has occurred in all of our recordings since 1961 in that area. Now, there are smaller earthquakes that have occurred in other parts of Oklahoma but they are not related to the area in the Sequoyah facility.

So, in summary I would say I've made two points. One, that we are in a geologically stable area, one in which we would not expect to see earthquakes. And, two, we have detailed

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the seismicity of that through seismic instrumentation and we have not found any earthquakes to have occurred there. The only one we have recorded is one with a magnitude of 1.9.

JUDGE FRYE: Thank you.

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(The statement on seismic effects follows.)

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE

John H. Frye, III

Administrative Judge

In the Matter of:	Docket No. 40-8027-MLA
SEQUOYAH FUELS CORPORATION	ASLBP No. 85-513-03-ML
(Sequoyah UF_6 to UF_4 Facility)	

STATEMENT

ON BEHALF OF

SEQUOYAH FUELS CORPORATION

ON

SEISMIC EFFECTS

SEISMIC EFFECTS

The Presiding Officer has requested that SFC address seismic concerns. Memorandum and Order, 14-15 (November 15, 1985). This statement describes the seismic environment at the Facility. It establishes that there is an extremely low probability that an earthquake could occur with sufficient intensity to endanger structures or processes at the Sequoyah Facility.

I. Evaluation of Potential Seismic Effects

Oklahoma is located in the geologic region known as the Stable Central Province, a large area extending westward from the Applachian Mountains to the Rocky Mountains and from the Gulf Coastal Plain northward to south-central Canada. The Sequoyah Facility is situated in Eastern Oklahoma near the Southwestern edge of the Ozark uplift which is within the Stable Central Province. To the south of the site, the rock formations dip gently into the Arkoma Basin. These basin and uplift geologic structures date from Early Pennsylvania time, approximately 320 million years ago and have been structurally stable since that time (Lawson et al, 1979).

There is extensive geophysical data on the low magnitude seismic activity in Oklahoma. The area that contains the Sequoyah Facility is monitored by the Oklahoma Geological Survey through

a major facility in east-central Oklahoma and a network of eleven seismograph stations distributed throughout the State. Some site specific data also have been collected. The State-wide data show that the area is quiet seismically in comparison with the rest of the United States.

As Figure 1 shows, Oklahoma has been divided into six seismic-source zones based upon studies of earthquake intensity and distribution (Luza and Lawson, 1982). The Sequoyah Facility location is near the border of the fourth and sixth lowest seismic activity zones in the State, is seismically quiet, and offers very minor seismic risk.

The nearest zones (See Figure 2) of measured seismic activity are in central Oklahoma and are in part related to the Nemeha belt near El Reno, Oklahoma approximately 150 miles west of the facility. The Ouachita belt (Jackson, 1979) located some 75 miles to the south has been seismically measured by the observatory and is inactive with only minor intensity earthquakes. The areas near the Nemeha belt have greater earthquake frequency than the rest of the State. Any earthquake in this region would be expected to be in the weak to moderate range, although the greatest recorded earthquake in the State

occurred in this belt. However, the event did not damage buildings of good design and would have had little effect at Sequoyah, as this zone is located rather far from the plant site.

A recent probabilistic acceleration map of the contiguous United States (Figure 3) shows that the expected horizontal acceleration in this area of Oklahoma from an earthquake is less than 5% of gravity. (An earthquake of this size could be expected to occur only once in every 1000 years.) The loading on the plant structure from an earthquake of this intensity is much less than the design loading for the plant.[1] This confirms that any earthquake that is likely to occur would be minor and would not affect the structures at the facility.

Seismic monitoring at the site confirms the low seismic risk. In 1982, a seismic network at the Sequoyah Facility was established with the aid of Dr. J. L. Ahern of the School of Geology and Geophysics of the University of Oklahoma in Norman,

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[1]The structures at the Sequoyah Facility including the proposed UF_4 plant have been designed and constructed using the Uniform Building Code for Seismic Zone 2. This provides a minimum safety factor of 1.5 for protection against bending of structural components by loadings in excess of design loadings. There is an additional inherent safety factor against structural failure after bending commences. This provides more than adequate structural strength to withstand earthquakes of the magnitude and intensity which can possibly occur in the area on even a rare frequency. This design is fully consistent with the current professional standards employed in the United States for the structural design of such facilities.

Oklahoma. The network was monitored from October, 1982, until September, 1983. Neither the on-site monitoring station data nor that from the surrounding stations operated by the Oklahoma Geophysical Observatory indicated any significant seismic events during the study period. These results are consistent with the lack of any significant historical seismicity based upon State records over the past 85 years. This region is tectonically stable (Ahern and DuBois, 1984). In fact only one earthquake has been recorded for Sequoyah County since the start of seismic monitoring in 1961. This earthquake occurred in 1979 and was so weak that it probably was not felt.

Similarly, the NRC has concluded that it is highly unlikely that a large magnitude earthquake will affect the Sequoyah Facility site (USNRC, 1985).

II. Conclusion

The Sequoyah Facility is located within a large geologic region which has been structurally stable for over 300 million years. Historical records and seismic monitoring show that only one earthquake -- an earthquake of low intensity -- has been recorded in Sequoyah County. The design loading for the plant is in accordance with the Uniform Building Code for Seismic Zone 2 and is more than adequate to protect against any likely

earthquakes. Therefore, there exists an extremely low probability of any potential earthquake effect on man-made structures at the Sequoyah Facility.

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U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards, August, 1985, Environmental Assessment for Renewal of Special Nuclear Material License No. SUB-1010, Docket No. 40-8027; U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards, November, 1985, Environmental Assessment for Amendment to Source Materials License No. SUB-2020, Depleted UF6 to UF4 Conversion Facility, Docket No. 40-8027.

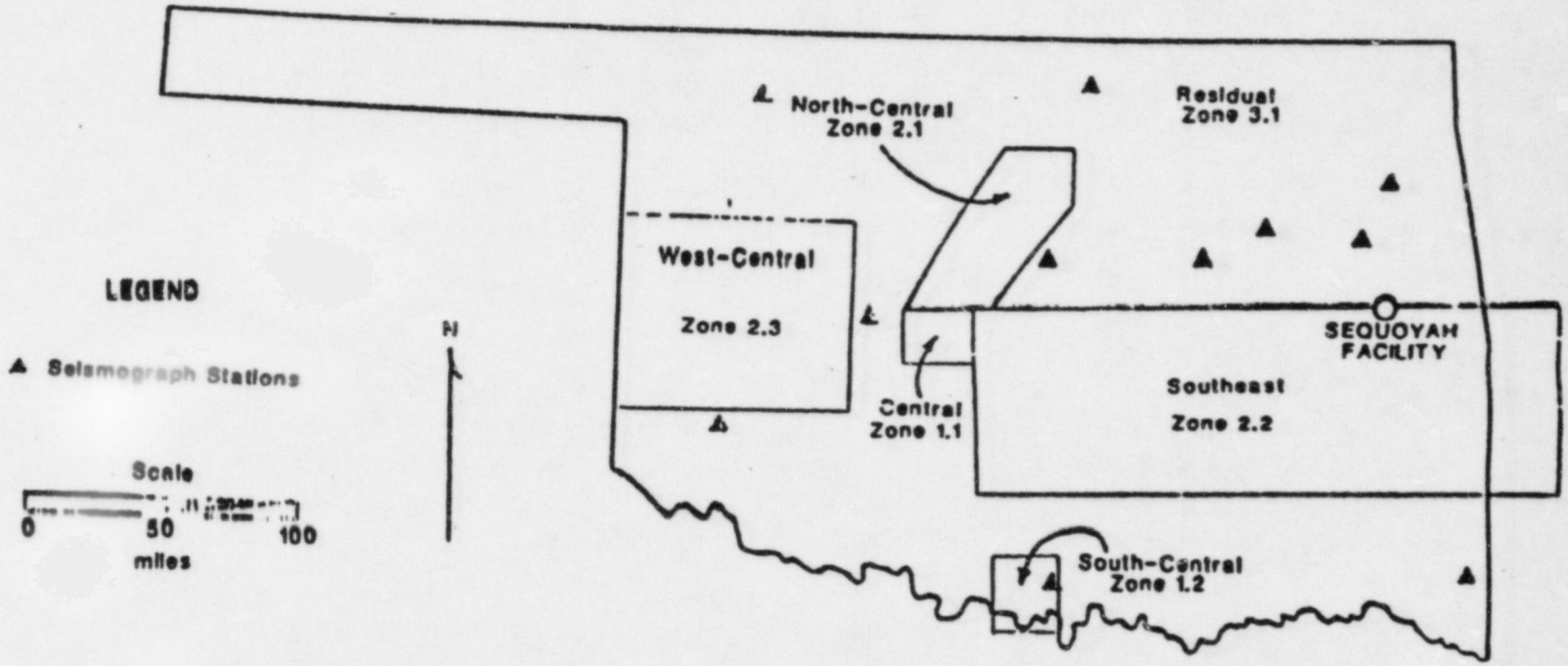


Figure 1
SEISMIC-SOURCE ZONES OF OKLAHOMA

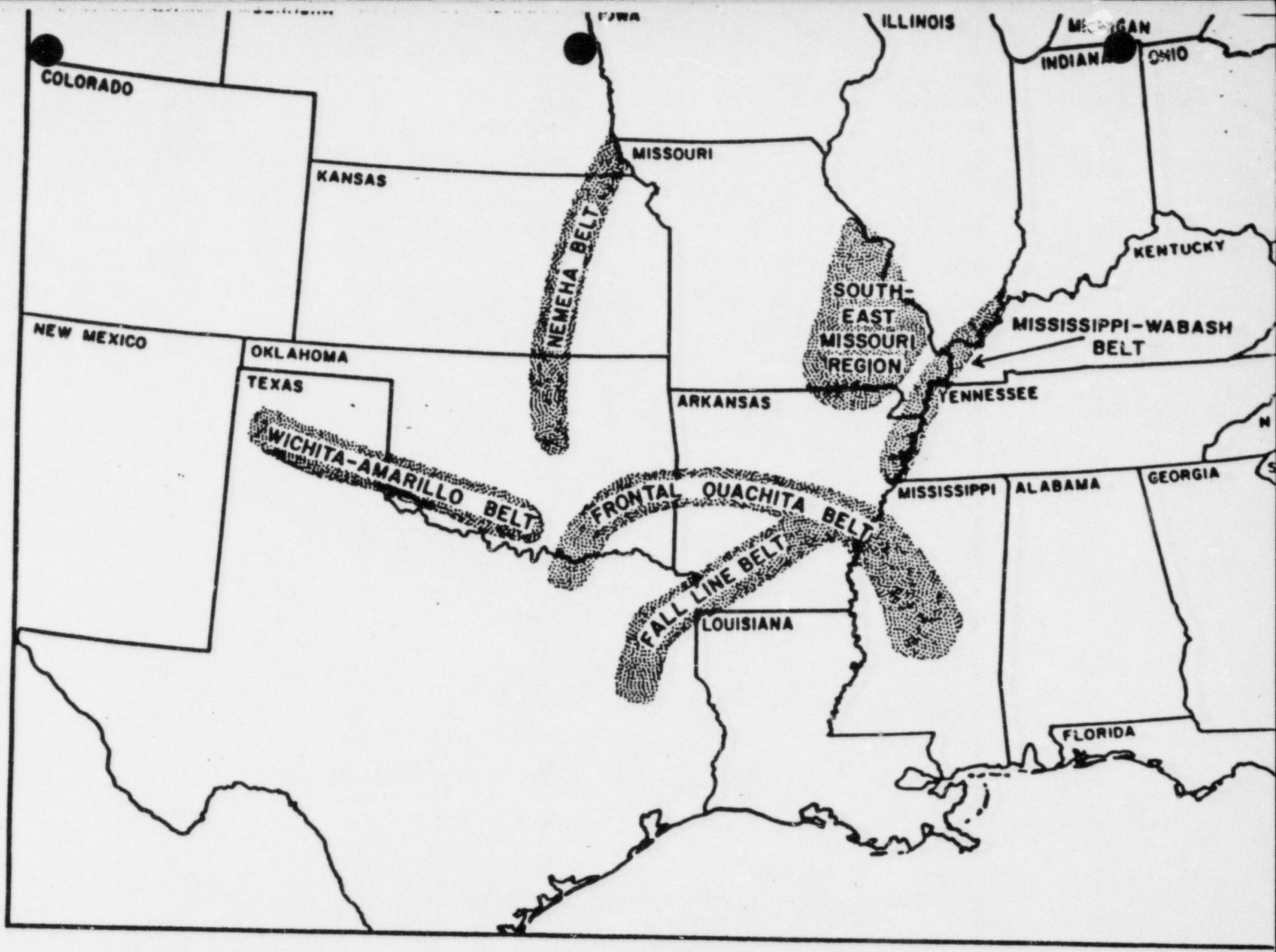


Figure 2

Seismic regions.

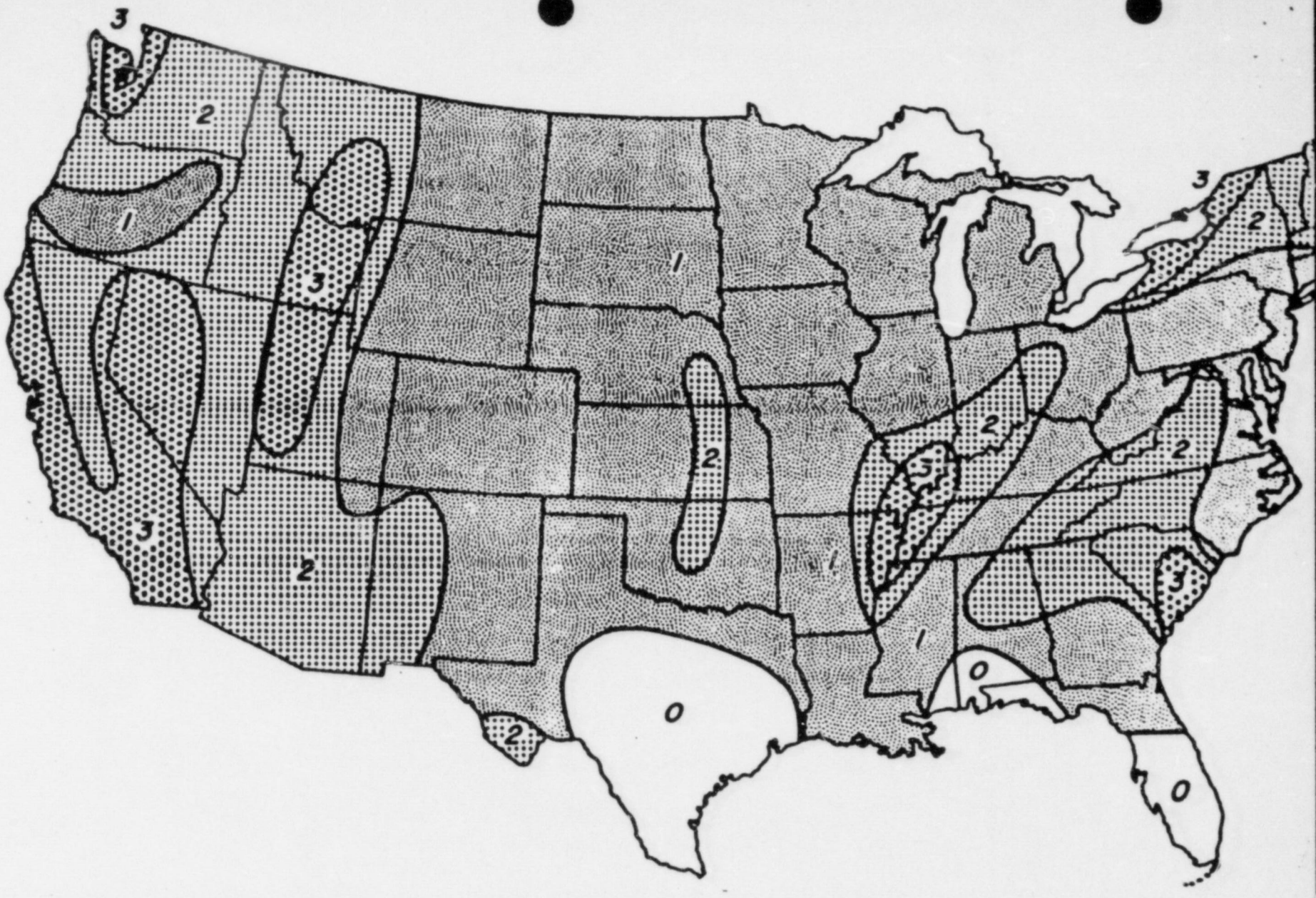


Figure 3

Seismic risk map for conterminous United States. Zone 0 – no damage. Zone 1 – minor damage; corresponds to intensities V and VI of the M scale. Zone 2 – moderate damage; corresponds to intensity VII of the M. M.° scale. Zone 3 – major damage; corresponds to intensity VIII and h of the M. M.° scale. (° – M. M. refers to the Modified Mercalli Intensity Scale.)

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JUDGE FRYE: Thank you. Do you have any questions based on that?

(No response.)

JUDGE FRYE: Do I take it there are no questions? Or, are you just writing them?

MS. DEER IN WATER: I have one.

JUDGE FRYE: I see. This is from NACE. And the question is, how many fault lines are there in the vicinity of the facility?

WITNESS DuBOIS: Distributed out from the facility but not in the immediate -- in other words, i.e. beneath the facility, beneath the facility I do not know of any fault lines occurring.

Out from the facility, there are some ancient faults. These deal with the older rocks. They would probably be in this pre-300 million year period of time when some of this area was geologically active.

I know of no modern faults anywhere in this part of the area.

JUDGE FRYE: No active faults as that term is used by NRC, I would take it?

WITNESS DuBOIS: That's correct. No active faults.

JUDGE FRYE: Any other questions?

MS. SYNAR: I've got a question.

JUDGE FRYE: I'm sorry. Did you --

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MS. SYNAR: Are you ready for statements and response on this?

JUDGE FRYE: I can't hear you. I'm sorry.

MS. SYNAR: Okay. I thought you were through with the questions. I'm sorry.

JUDGE FRYE: I was just asking if there were any more. I take it there are no more.

Thank you very much, gentlemen, for your testimony.

MS. SYNAR: Excuse me. Could I ask something?

JUDGE FRYE: Yes, you can. I was trying to get questions.

MS. SYNAR: Okay. I was waiting for you to finish your questions there is what I was waiting on.

JUDGE FRYE: Okay. Now, you are going to bring it up to me, aren't you?

MS. SYNAR: Yes, I am.

JUDGE FRYE: That's the procedure we have been following.

MS. SYNAR: I just thought that they may want to have some kind of comment on it.

What I am reading from is --

MR. NICKLES: Your Honor --

MS. SYNAR: -- the NUREG 1157 which is --

JUDGE FRYE: Are you going to bring the question up?

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MS. SYNAR: Yes, I am. It says in --

JUDGE FRYE: No, I mean bring it up. Are you going to write it down and bring it up to me?

MS. SYNAR: No, I'm not.

JUDGE FRYE: Why not?

(Laughter.)

MS. SYNAR: I just want to ask them a question.

JUDGE FRYE: You have got to follow the procedure.

MS. SYNAR: Okay. Can I ask you the question?

JUDGE FRYE: Write it down and bring it to me.

(Pause.)

MS. SYNAR: Okay.

(Ms. Synar hands a question to Judge Frye.)

JUDGE FRYE: Okay. I'm not sure what you have got down here. Could you come here?

(Ms. Synar and Judge Frye are conferring.)

JUDGE FRYE: Are there any distant earthquakes which are strong enough to be felt in this area?

WITNESS DuBOIS: It's a difficult question to answer, Your Honor. I will try, simply because it's a matter of scale and scope and how far I go into distance. And also what we talk about being able to detect or measure what would be felt here.

For instance, an earthquake occurring Mexico City, I can record a very nice signal from here. I would see that

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earthquake. So a distant earthquake with a large magnitude, yes, I can detect that that earthquake had occurred there, but I would be looking at that with rather sensitive instruments.

So, if I interpret this question to involve would we see distant earthquakes here, we would see those distant earthquakes any place in the world.

JUDGE FRYE: Using sensitive instrumentation?

WITNESS DuBOIS: Yes. It's a matter of sensitivity. Is that where the --

JUDGE FRYE: But if you were just the ordinary person --

WITNESS DuBOIS: No, you would not.

JUDGE FRYE: -- sitting in this room, you would not?

WITNESS BuBOIS: No, sir.

JUDGE FRYE: I see.

WITNESS DuBOIS: The distance an earthquake is felt depends upon not only the size or magnitude of that earthquake at the source but something about the intervening geology and the geology at the area.

If, for example, Sequoyah facility was built on a flood plain or if there was a lot of mud or wet rocks, like that, that magnifies a signal and an observer standing there might detect an earthquake that's some place quite far away. Whereas, on a normal kind of a rock strucuture, or normal that we have

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here in Oklahoma, you wouldn't see that because that isn't there to amplify that vibration that might have occurred in the earthquake and to be amplified by the local geological setting.

We do have to transmit the energy from the source of the earthquake to us. So, there has to be some sort of intervening geology that can do it. It can't be just a bunch of water that's out there that is maybe not going to transmit it to us as a shock kind of signal.

I think a good example of that kind of thing -- and maybe what this lady is alluding to -- was one that occurred in the eastern U.S., not in this area but in the eastern U.S. They did feel that for some tens of miles, hundreds of miles away in some directions. In other directions, they didn't feel it.

It just depends on the site and the location of the observer.

MS. SYNAR: This is out of NUREG 1157, environmental assessment.

JUDGE FRYE: Is this another question?

MS. SYNAR: No, Your Honor. I was just quoting -- I wanted to quote what --

JUDGE FRYE: You were just going to read that sentence?

MS. SYNAR: Right.

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JUDGE FRYE: Okay. Why don't you read that sentence?

MS. SYNAR: "The area of eastern Oklahoma where the Sequoyah facility is located lies in a quiet seismic region of the United States. Although distant earthquakes may produce shocks strong enough to be felt in this area, the region is considered to be one of minor seismic risk."

And this is why I was asking this question, because I was concerned with what it was saying here.

JUDGE FRYE: I think what they -- you would not quarrel with that statement?

WITNESS DuBOIS: No, I don't quarrel with that. It's exactly what I have said, I think.

JUDGE FRYE: Yes, I think it is.

WITNESS DuBOIS: I think it is, too.

JUDGE FRYE: Thank you very much, gentlemen.

(The witnesses stood aside.)

JUDGE FRYE: Mr. Lammers, anything on seismicity?

MR. LAMMERS: No, Your Honor.

JUDGE FRYE: Ms. Synar?

MS. SYNAR: No.

JUDGE FRYE: Mr. Henshaw?

MR. HENSHAW: No, Your Honor.

JUDGE FRYE: Ms. Curtis for -- you are Ms. Curtis, aren't you, for NWC?

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MS. CURTIS: Right. No, Your Honor.

JUDGE FRYE: Okay. And, Ms. Strachan.

MS. STRACHAN: The Arkansas Peace Center contends that the existence of the frontal Waschata Belt and the Nehima Belt which lie close to Gore, Oklahoma and have been active in the past 40 years is sufficient reason to deny the application out of hand.

The existence of the Carlile fault is evidence that there has been earthquake activity. The APC contends that relatively light tremors could conceivably open cracks in the existing nuclear waste ponds that could cause contamination of ground waters also. There is no reason, when dealing with radioactive materials on the premises, to take any degree of risk whatsoever.

I am quoteing from "Earthquakes and Earthquake History of Arkansas" by Kearn C. Jackson about the frontal Waschata Belt: "The arbitrarily selected north margin of the Waschata Mountains in Arkansas is defined by a fault system that extends in a south facing arc from north Little Rock to Wyche City. It extends westward in Oklahoma."

At another point it says that, "Some faulting extends further north and is still quite evident as far north as the Arkansas River in western Arkansas and eastern Oklahoma."

Also of particular concern is Sequoyah Fuels'

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statement regarding seismic effects, the one given to us this week. It says, "The NRC has concluded that it is highly unlikely that a large magnitude earthquake will effect the Sequoyah Facility site."

The reason I am concerned about this, I need to compare it to a similar statement in document NUREG 1157, Page 4-41, "Although a large UF-6 release from a cylinder at the Sequoyah Facility is unlikely, such an accident conceivably can occur. At least two such accidents have been recorded, one in 1977 in a French facility..." and so on. All right. It says, "The applicant's administrative controls make the catastrophic breach of the liquid UF-6 cylinder very unlikely."

I become extremely agitated and weary, Your Honor, when people quote that they should be able to do things because they quote that the NRC has said it is highly unlikely. The NRC said a catastrophic release of UF-6 was highly unlikely.

Also, last year in The Arkansas Times, there was an article on the Numadrid fault. Geologists now feel that the Numadrid fault is due to produce activity at some time definitely within the lifetimes of anyone in this room. And it was written that it could induce minor damage as far away from the Numadrid as Fort Smith. When you are dealing in that kind of mileage and you are talking just in chances, and you are talking in terms of what could happen to radioactive

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materials, then risking some type of activity as far away as Fort Smith is not much different from risking it as far away as Gore, just a few miles over the line from us.

And the Peace Center strongly objects to taking any chances whatsoever in this matter.

JUDGE FRYE: Thank you. Ms. Deer in Water.

MS. DEER IN WATER: Yes. We would like to call Charles Roark.

JUDGE FRYE: Charles Roark?

MS. DEER IN WATER: Yes.

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CHARLES ROARK

was called as a witness and, having first been duly sworn, was examined and testified as follows:

MS. DEER IN WATER: We would like for Mr. Roark to reaccount his experiences living approximately one mile south of the current facility during earthquakes in other parts of the country such as Mexico, one in Alaska, and his experience with his well water at that time.

JUDGE FRYE: Let me -- but, first let me ask Mr. Roark, if you don't mind, would you state your name for the record and spell it so the reporter will get it straight?

WITNESS ROARK: Charles Roark, R-o-a-r-k. This happened during the last earthquake. I don't remember exactly the dates, I think sometimes in the 60s. Probably everybody

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here remembers when it was. I had two water wells. I lived about a mile and a quarter southeast of Kerr-McGee out there.

And it contaminated both wells. It made them muddy. And then before that, I lived over there on the Interstate 40, probably half a mile from the Kerr-McGee plant, south of it, and had an earthquake there. I don't remember whether it was in New Mexico or California. It caved that well in, and I had to get a well driller to redrill it. And the NRC said that -- stated in their record that there wasn't anybody using any water out of wells out in that vicinity, and that's all the source of water I had. I had two water wells.

And when that injection well there, they put pressure on it, you know. And one of my wells that was so good, had such a strong vein in it, they contaminated it. And it turned to -- you flush the toilet stool and it pretty near blows the top off that, the lavoratory. It contaminated Bud McClaine's. He said he was going to put somebody in the house, and I told him he ought not to do that until he hooks up to the lake water 'cause those wells are both contaminated.

There have been tests made in Texas, Arkansas and California, Washington and one over in Canada out of those wells, and they are contaminated. And they ought not to put anybody in there until they hook up to the lake water. I don't want to see anybody contaminated.

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I was in that January the 4th in '86. I lived a

mile and a quarter southeast of the Kerr McGee plant and the wind was from the northwest. And it blew that cloud of hexafluoride right over on us, just like a big fog all around our house.

And my daughter called me and said: Daddy, there is something afire. There is smoke all over the country.

So, earlier, you know, when Kerr-McGee couldn't sell their hay they would burn it and sometimes the smoke would come over around our place. And I thought maybe that might be what it was and hung up and went out there, and it was just a white cloud all over the country and all around our home. And I didn't know what it was.

And it went into my nose, burnt my nose and affected my eyes and my throat and my lungs. It has never quit burning since that happened. It still bothers me. And I've talked to some doctors and they said it wasn't any medication for it, said I would just have to live with it.

And so I thought I was going to make 100, but I don't know whether I will make that 100 or not. I'll be 91 the 22nd of next month, and I hope to make that birthday. I kind of believe I will, 'cause I never been in the hospital in my life and hadn't been under the care of a doctor for sickness. Well, one time when I was seven years old I had some kind of fever and daddy had the doctor with me, and then when I was 81 I had the flu and my daughter back there, she

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kept after me to go to a doctor and I went and got some medicine from him. And them is the only times I've ever been under the care of a doctor for sickness in my life. And I never did have any lung trouble before. Never did smoke and my lungs are burning right now, and they have ever since the 4th of January last year.

And I don't know, guess I'll just have to live with it.

JUDGE FRYE: Thank you very much for your testimony.

WITNESS ROARK: Thank you.

(The witness stood aside.)

JUDGE FRYE: Ms. Carter-White?

MS. CARTER-WHITE: We don't have any presentation to make at this time.

JUDGE FRYE: And, Mr. Kellogg?

MR. KELLOGG: Thank you, no, Your Honor.

JUDGE FRYE: Okay.

MR. MESERVE: Your Honor, we have one additional panel here that we could deal with today. We have a series of matters that you have designated as to monitoring requirements and so forth with two rather narrow issues that you have defined that you would like to have testimony from SFC, which you had indicated that you wanted testimony from Sequoyah Fuels Corporation.

And our panel on those matters is a series of

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gentlemen who have been sworn before. They are Edwin Still, John Stauter and Lee Lacey.

MS. DEER IN WATER: Your Honor, which one is he talking about?

JUDGE FRYE: I got a little confused on that, too. Are you talking about the radiation protection and monitoring requirements?

MR. MESERVE: Yes.

MS. DEER IN WATER: I have to say that NACE has an expert witness to talk about that scheduled for tomorrow, and I would have to say if they want to talk about the facility need that would be fine. But, we would have to --

JUDGE FRYE: Well, we can pick up your witness tomorrow. Do you want your witness here when their witness testifies?

MS. CARTER-WHITE: Your Honor, the questions of radiation protection, effluent control and monitoring requirements are set for in the morning. I believe Mr. Nickles is confused on what is on the agenda for this afternoon.

JUDGE FRYE: Well, now, wait a minute. Ms. Deer in Water, we are trying to move ahead. Do you need to have your witness here wher their witnesses present their testimony?

MS. DEER IN WATER: I would prefer it.

JUDGE FRYE: You would prefer it?

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MS. DEER IN WATER: Yes. I prefer that if we finish early then we knock off for the day.

MR. NICKLES: Well, Your Honor, we would like to go forward. At a minimum, we will do facility need now and then come back to this.

JUDGE FRYE: Can you do facility need now and then come back to this?

MR. NICKLES: Yes, we will do facility need. And we would like to present this on the record if we have time.

MR. MESERVE: The panel on facility need is Steven Emerson and Ron Adkisson are the two witnesses on facility need.

(Mr. Adkisson is sworn by Judge Frye.)

Whereupon,

STEVEN EMERSON

and

RON ADKISSON

are called as witnesses by and on behalf of Sequoyah Fuels and, having been duly sworn, were examined and testified as follows:

WITNESS EMERSON: Your Honor, we are here to provide a short statement on facility need. I am Steven Emerson, and with me is Ronald J. Adkisson. Mr. Adkisson is Director of Contract Management and Operations for the Sequoyah Fuels Corporation.

His educational background is a Bachelor's in

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Business Administration from Central State University, and he has over 23 years of plant operations' experience, as well as administration, marketing, planning and sales in the nuclear fuel cycle industry.

His contribution to this proceeding on facility need primarily relates to his involvement in the company decision to undertake this venture and is able to speak to that issue today.

To briefly summarize our statement on facility need, I will simply refer to our earlier statement. In June 1984, the military procurement group that deals with munitions and armaments and chemicals announced that the U.S. government would be no longer involved in supplying depleted UF-4 to uranium munitions fabricators. There were two reasons for this.

First, they did not want to rebuild some government facilities that were for conversion of UF-6 to UF-4; and, secondly, this decision to go outside for UF-4 production was consistent with this policy of privatization.

SFC understood this announcement then to be a new product opportunity and promptly moved ahead then to satisfy that opportunity. The UF-4 operation makes a logical fit at the Sequoyah Facility for four prime reasons. First, the process is very compatable with that which we already do. Basically, it's just the reverse of our final step in the main UF-6 plant. Secondly, the HF that is generated is a

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valuable byproduct, and we beneficially use that HF then in our main UF-6 plant. Third, it enhances the viability of our existing facility. It provides another product outlet to complement the service we now provide from our main UF-6 plant. And then, finally, for the fourth reason Sequoyah identified the fact that this would position us as a supplier of UF-4 in a number of unfolding new markets that are becoming more apparent for depleted uranium metal. We would be able to provide this depleted UF-4 to people who would manufacture uranium metal.

In summary, this amendment request would allow us to satisfy a significant national need that has been identified. Moreover, it would provide Sequoyah -- it would allow Sequoyah to provide an important economic opportunity in this area for both our facility and for the local area.

That summarizes the statement.

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(The prepared statement on Facility Need follows.)

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE

John H. Frye, III

Administrative Judge

In the Matter of:	)	Docket No. 40-8027-MLA
SEQUOYAH FUELS CORPORATION	)	ASLBP No. 85-513-03-ML
(Sequoyah UF_6 to UF_4 Facility)	)	

STATEMENT

ON BEHALF OF

SEQUOYAH FUELS CORPORATION

ON

FACILITY NEED

FACILITY NEED

In his Order of November 5, 1985, the Presiding Officer requested that SFC provide testimony concerning the need for the UF_6 to UF_4 Facility. Memorandum and Order, 18 (Nov. 5, 1985). This statement is submitted to address this point. 1/

Depleted uranium metal is used in large quantities for the production of munitions of military importance to the United States defense programs. These munitions capitalize on the density and pyrophoric nature of uranium metal, as opposed to any nuclear properties. They are effective for defense against armored vehicles, such as those presently marshalled in Europe by the Warsaw Pact nations.

The proposed UF_4 facility converts uranium hexafluoride ("UF_6") to uranium tetrafluoride ("UF_4"). The UF_4 will subsequently be reduced to uranium metal by munitions fabricators under contract with the military.

The U. S. Army Armament, Munitions, and Chemical Command (AMC-COM) serves as the Department of Defense's procurement center for all of the military services' unclassified requirements for such munitions. These munitions are designed by military agencies and are procured through AMC-COM from private industry.

1/ This need for the Facility was briefly addressed in a prior SFC filing in this proceeding. SFC Response, p. 16, App. I (Oct. 15, 1985). This prior filing is incorporated by reference in this statement.

In June, 1984, AMC-COM announced the military would discontinue their practice of supplying depleted UF_4 to munitions fabricators, but would supply depleted UF_6 instead. The reason cited by AMC-COM for this major policy change was that the government stockpile of depleted UF_4 was being rapidly exhausted and, after studying the costs of rebuilding government facilities to produce more UF_4, AMC-COM concluded it would be in the government's interest to establish commercial sources of supply. 2/ Redirecting production of UF_4 to private industry also complies with the long-standing government mandate to encourage privatization of appropriate government activities.

AMC-COM projected annual requirements through 1995 at 7,000,000 to 12,000,000 pounds of UF_4 equivalent, not including UF_4 needs associated with several new kinetic energy projectile programs which were in various development phases. Nuclear Metals announced almost immediately after the June, 1984 AMC-COM announcement that it would build a 3,000,000 pound per year UF_6 to UF_4 reduction facility in Barnwell, South Carolina. The new plant began operations in August, 1985.

In 1985, Sequoyah Fuels entered into a long-term agreement with Aerojet Heavy Metals Company, a large munitions contractor to the government, to reduce UF_6 to UF_4. The pending license amendment arises from SFC's effort to satisfy

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2/ The government stockpile of UF_4 had resulted from a lengthy campaign to recover and recycle fluorine from millions of pounds of depleted UF_6 in storage at various government enrichment plants. (Depleted UF_6 is a by-product of the enrichment process.) The government was successful in reducing the operating costs of these plants by recovering and recycling the recovered fluorine in the depleted UF_6. In 1977, after millions of pounds of fluorine had been recovered, the government terminated their fluorine recovery activity and dismantled their UF_6 to UF_4 reduction facilities.

its contractual obligations. The proposal is attractive to Aerojet and SFC because of the projected demand for UF_4. It is important to the Government not only because of UF_4 supply needs, but also because it enables the Government to avoid a single source/non-competitive supply situation. The SFC involvement in the production of UF_4 helps insure continuous supply and competitive pricing.

In fact, Major General Peter G. Burbules, past-Commanding General of AMC-COM, wrote to William J. Dircks, Office of the Executive Director of Operations, Nuclear Regulatory Commission, to urge expedited review and approval of SFC's application. The letter describes both the strategic importance of the kinetic energy penetrator munitions to the nation's defense programs and the necessity to develop new capabilities within private industry to reduce UF_6 to UF_4. 3/

SFC views the new facility as a significant opportunity for several reasons:

- The process for reducing depleted UF_6 to UF_4 is compatible with the existing licensing operation.

- The fluorine removed from the UF_6 is directly recyclable into the UF_6 conversion process which represents a significant reduction in raw materials costs and serves to conserve resources.

3/ This letter is set out at SFC Response, App. I (Oct. 16, 1985).

- The facility builds on the existing extensive experience and qualifications of the SFC workforce by employing similar technology to that at the existing plant.

- The new business opportunity enhances the economic viability of the overall facility at a time of a significant downturn in the nuclear fuels industry.

- The expansion also would position SFC to supply UF_4 for use in non-military materials, such as counterweights for aircraft, shielding, and sinker bars, and may result in a significant advantage to the facility if the Department of Energy ultimately elects to follow through on the proposed change-over to an advanced laser isotope separation process for the next generation of enrichment plants.

In summary, authorization of the license amendment thus promises both to satisfy a significant national need and to provide an important economic opportunity to SFC and the local area.

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JUDGE FRYE: Any questions?

MR. HENSHAW: Yes.

JUDGE FRYE: I guess I don't understand the question.

MR. HENSHAW: Your Honor, in the October 16, 1985 response, General Burbles has written a letter to Mr. Dirks.

JUDGE FRYE: And the letter was in March of '85?

MR.HENSHAW: That is the date received marked on the letter, Judge Frye. The letter is undated.

I'm wondering if the General was the Major General, if he was in fact in a position of authority at that time.

JUDGE FRYE: Well, I doubt that they know. Do you know whether General Burles who wrote the letter which forms a large part of the basis for the meat of this material was in command of this particular group in March of '85?

WITNESS ADKISSON: Major General Burbules --

JUDGE FRYE: Burbules?

WITNESS ADKISSON: Yes, was a Commanding General of AMC Com which is the Rock Island Arsenal in Rock Island, Illinois.

JUDGE FRYE: In March '85?

WITNESS ADKISSON: In March 1985.

JUDGE FRYE: Okay.

MR. HENSHAW: The reason I was asking, Judge Frye,

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recent documents show that he is the past Commanding General of that facility.

JUDGE FRYE: Well, you know, they don't stay in the same place very long in the army.

MR. HENSHAW: I just wanted to clarify to make sure he was at the time.

JUDGE FRYE: Okay. Mr. Lammers, I really think this is outside the scope of the need for the facility probably by a good bit.

MR. LAMMERS: Thank you, Your Honor.

JUDGE FRYE: Just for the record -- and this really goes back to some of the limited appearance statements that we heard Monday evening, there was some confusion voiced by some people as to precisely what this is that you are going to be producing. And by that, I mean that some people seem to think that this in some way is tied up with termonuclear weapons, and I think it would be helpful if you would set the record straight on that.

WITNESS EMERSON: I would be pleased to do that, Your Honor. We receive depleted UF-6 in cylinders from DOE in Richmond Facilities. This material is depleted with respect to the valuable portion of uranium used in nuclear reactors. As such, it has no value for nuclear reactors.

JUDGE FRYE: Right. And I would think if it has not value for nuclear reactors it has even less value for

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nuclear weapons; is that correct?

WITNESS EMERSON: Yes, sir.

JUDGE FRYE: Okay.

WITNESS EMERSON: The UF-6 is simply converted in our process to a bluish powder, UF-4. That is an article of commerce sold to other people who manufacture metallic uranium from that UF-4 powder.

JUDGE FRYE: Thank you. We have covered this Ms. Carter-White, in several Orders, if I'm not mistaken.

(After reading a written question to himself.)

JUDGE FRYE: I sincerely hope not.

MS. STRACHAN: Then, Your Honor, that should do away with this concern about what we need because of what the Warsaw Pact nations are using.

JUDGE FRYE: I'm sorry, I missed what you said.

MS. STRACHAN: If you sincerely hope not and you sincerely do not believe we are, then that should do away with the contention that we need to be doing this because of anything the Warsaw Pact nations have in their armament.

JUDGE FRYE: Okay. The question, so everyone will know, was: Are we at the brink of conventional warfare with a Warsaw Pact nation?

(Laughter.)

JUDGE FRYE: Am I to understand the primary reason for this UF-4 conversion plant is to manufacture the final

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product --

MS. CURTIS: Armor piercing --

JUDGE FRYE: -- armor piercing bullets, and the answer to that -- well, I will let you answer it.

MS. CURTIS: Is this product to be used as a means to the end, of making -- manufacturing armor piercing bullets?

WITNESS EMERSON: Your Honor, I'm sorry, I didn't understand the question.

JUDGE FRYE: The product that you will manufacture, will ultimately end up in armor piercing munitions, will it not?

WITNESS EMERSON: Yes, sir. Our primary consumer at this point is involved in the manufacture of these armaments or these munitions.

JUDGE FRYE: Munitions?

WITNESS EMERSON: Yes, sir.

JUDGE FRYE: Ms. Deer in Water, which EPA rules do you have reference to here?

MS. DEER IN WATER: Beg your pardon?

JUDGE FRYE: Which EPA rules do you have reference to here?

MS. DEER IN WATER: The ones that they -- that Indian tribes must be considered as state governments when any kind of hazardous facility or anything is located within their boundaries, then they have to be -- their permission as well as

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state permission. They have to be worked with.

JUDGE FRYE: Can you be any more specific?

MS. DEER IN WATER: I don't have the document with me. I can bring you the documents tomorrow, in the morning, 9 o'clock in the morning.

JUDGE FRYE: Why don't you do that?

MS. DEER IN WATER: Okay.

JUDGE FRYE: I don't think he can. Can you state why we need so many weapons?

MS. SYNAR: Why are we going to produce so much nuclear weapons?

JUDGE FRYE: I don't think you can answer that.

WITNESS EMERSON: No, sir.

JUDGE FRYE: Fine. That's what I thought.

MS. SYNAR: Thank you.

JUDGE FRYE: Do you have any knowledge as to whether any of these munitions might be exported to other countries?

WITNESS EMERSON: No, sir.

JUDGE FRYE: I didn't think so. Okay. That seems to complete the questions. Thank you very much for your testimony.

(The witnesses stood aside.)

JUDGE FRYE: Mr. Lammers, did you want to offer anything on this?

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MR. LAMMERS: Yes, Your Honor.

JUDGE FRYE: Okay.

MR. LAMMERS: The need for this plant expansion is something that we have given a lot of thought to the last year, especially since the accident which occurred a little over a year ago. The members of CARA and myself who live around the plant -- and I'm talking of a group of maybe 100 people, men, women and children -- have all given thought to whether the plant is really needed, whether the plant is justified considering the potential consequences to the people who live around the plant.

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It may seem minor to some people, but to those of us who live there every cubic foot of hydrofluoric acid which goes to the scrubber is of concern.

Witnesses here have testified today that hydrogen gas contains a certain amount of hydrofluoric acid which is to be scrubbed and we come up with probably one cubic foot every so often in addition to what we already tolerate.

Then when we get into the nitrogen gas we find out three more pounds and more cubic feet and another additional load which probably comes up to somewhere around two cubic feet per hour of increased acid.

Every additional process that is allowed at that plant does cause us a lot of concern. We are definitely concerned about the safety in our area and the need for the plant, whether it is fully justified by just a statement that the Defense Department needs the metal to make bullets, and whether this particular plant or any particular plant needs the metal is not our concern.

As a group we are not anti-nuclear nor are we anti-war. We are composed of people that are veterans. In one case I believe we almost have a regular visitor in our area who is a Medal of Honor holder from the Second World War. So we are concerned with national safety and we are concerned with all the issues and our own safety.

We really have to examine the need for this plant because we are the ones who are closest and we are the ones who receive no benefit from it whatsoever except for one family. We have one employee, and if you want to go over two and a half miles, we have two employees who live in our area.

We have a fellow who lives next to the plant who stores his clothes there during the week and goes home on the weekend, and when he makes a permanent residence he will be living in Muskogee and not in our area. So we are primarily talking in our general group of neighbors, friends and relatives that live around our area, about two families who receive benefit.

The others are all exposed to all the problems that come as a result of this plant and have come over the last 16 years, including accidental releases of radioactive material resulting in citizens being displaced from their homes, going through lengthy procedures such as this today and people like myself spending years of time trying to learn what this is all about, hiring expensive lawyers and the legal implications and the legal part of the last accident has not even begun to be litigated.

It is going to take years to get this whole business settled.

Now I'll admit that in the original application

that I saw when it included steam chests and other systems which we felt were unsafe we were incensed that here comes another polluter. But as it evolved when other groups such as NACE got involved, suddenly we begin to see a change of more safety and more improvements as time went. Eventually it evolved into a plant that produces a much lesser amount of pollution than was originally designed, and it places us at a lesser hazard than what it was when it was originally designed.

I don't believe that most of the people will have fears now of this plant as far as acid releases such as last year, but we are still concerned because there are lots of other factors involved. This plant does create pollution, and legal as it may be under EPA laws we still get, and now I may be wrong, but the last time I looked I believe it was just a little less than two parts per million on a daily and nightly basis because you produce 24 hours a day, seven days a week and we breathe two parts per million of your hydrofluoric acid.

We have received more than just two parts per million. In my neighborhood alone we have three car windshields that were damaged somewhere around the accident last January. In one instance Kerr-McGee was contacted in their parking lot and the representative for the insurance company was showing that windshield and admitted that it

looked like the employees cars that he was adjusting for insurance purposes.

This car, he told the man to take your car home and I will contact you later. He did not ever contact that man. Subsequently the car was stolen, demolished, burned inside and the windshield broken out at a later time. We do not feel there is any connection between SFC and this incident because two small individuals, probably 15 or 16 years old were observed driving this out of a parking lot. So I don't want to insinuate that this is another Karen Silkwood type thing because it is not.

However, we still have two windshields in our area that the people claim are pitted. Now with my eyesight I cannot see these pits, but other people can and they say they have these cars and they are still sitting waiting for a representative from SFC to come up and look at those windshields and either admit that hydrofluoric gas came that half a mile across to our hill and pitted those windshields.

We will continue to wait until we get tired of waiting and then we will do something about it, and more than what we have done so far.

So these things all add up. We are the people who are going to suffer if there is an accident and we are the people who are going to suffer every time you give a

license amendment and you get two particles more of hydrofluoric acid or you dump two particles more of something in the river because we fish those rivers and in some cases our kids swim in those rivers and we walk those woods.

I have personally been behind the Kerr-McGee on State-owned property along the river banks and I have found that area uninhabitable and unusable by those of us who live in the area. The smell of ammonia can become so bad in that area that fishing is nearly impossible. So there is another inconvenience.

Our river which is a prime area for stripe or bass fishing has virtually been removed from use because of the fumes and the contamination that this plant does release. I realize that they need water. In the solvent extraction process they need water. You need water. You need a million gallons a day. You take four million to dilute the discharges from the plant for whatever purpose you want to dilute. But if you take in four million and only use one million and discharge four million, there must be some reason for it, and the only reason we can figure is for dilution purposes.

We tolerate all this all so that you can have another plant and produce more product, and in turn we ask safety, absolute safety. We ask for integrity, we ask for

character and we ask every official of Sequoyah Fuels to consider us when you consider making these moves because we can only tolerate so much so that you and all the employees can live in areas that we cannot afford to live in.

In our area we have two employees that live on the same standard that we live on. In the other areas when I go to other towns I find in the better areas of Sallisaw, I find many Sequoyah Fuels employees, and I find in the better areas around Paradise Hill and Tahlequah Lake, I find many well paid employees. I find employees living in Muskogee in nice homes. That is one of our problems and we wonder why Sequoyah Fuels employees don't live around the plant. They always seem to move out anywhere from three and a half to 6, 10, 12 to 20 miles.

So really you are getting the money and we are getting the problems. We have asked you and we will continue to ask you to consider us when you develop your property there because we are the party that absorbs all of your waste that is not correctly handled and all of your airborne releases and waterborne releases.

So to try to justify another plant addition for the sample reason that it will allow the Army to have bullets and allow airplanes to have more counterweights and several other uses really, and then you ask us to handle more hydrofluoric acid, and in the original amendment it

was a lot more you asked of us.

I will admit now that there is less asked of us than what there was then, and for that we do commend those groups who participated in this process and SFC who participated in this process by improving the plant while it was being developed. We do appreciate that. Our appreciation is there, and we do appreciate your good intentions when you make an improvement on your plant and we can see that it is a legitimate improvement and we can see its value and we do appreciate it.

It is difficult to balance whether we should have bullets or health. This is a problem that is bantered around our neighborhood quite often wherever I go, you know, what is the plant for? What is the use?

Here a few years back when it used to be called Kerr-McGee Nuclear Corporation, my friends who worked at the plant, and I have several friends and I have acquaintances who work over there, they were talking about getting laid off and they were sincerely worried. Their overtime had been reduced and, you know, they were beginning to get a little worried.

I asked them why. Well, the market is down, UF6 is not selling and so on and so on. And then we noticed that the plant was apparently gotten into position. Legally to the advantage of Kerr-McGee they changed the

name. They created a separate corporation and it became a wholly owned stock owned subsidiary and was in a very good position for bankruptcy and things were not looking so good.

Then all the sudden it seemed like international sales of nuclear fuel products were allowed, fuel rods and things. Then all the sudden business is booming again. My friends are all happy and they are all taking home big pay checks and everything and all the sudden UF6 is being produced again rapidly because of an international market.

I don't know where this stuff goes, but I do believe at this time as opposed to a few years back this product was restricted to sale in the United States or perhaps other friendly countries and now it is open for shipment pretty near all over the world, maybe Italy, France and places of that nature.

The question has been asked repeatedly by different intervenors of is any of this product sold to a communist country? Through any devious or legitimate means is UF6 produced at this plant and will any of this product produced at this plant be shipped to countries such as Israel, such as France, such as England or perhaps how about Yugoslavia, a communist country which has their own brand of communism and not necessarily allied with the ---

MR. NICKLES: Your Honor, I'm going to object at

this point. I think we are really getting far afield. I think we have had the statement in a variety of forms and we appreciate the comments, but I think we have heard it a number of time and we are getting far afield.

MR. LAMMERS: Well I have one central issue that I would like to bring up, and I'm just about through.

JUDGE FRYE: Okay.

MR. LAMMERS: And that is there is much concern of are we risking our health for national concerns, for our national defense or are we risking our health for your profit and international use. Is any of this product ever going to be used by any communist country.

We have been accused of being communists, and I don't like the idea of you selling to my fellow communists.

(Laughter.)

So I would like an answer to that some day somewhere because this is the key to the whole thing. We are not worried, you know, we are not concerned with our health. We are willing to give a little bit of health. We are willing to work with Sequoyah Fuels and Kerr-McGee Corporation as long as they convince us that everything is safe and whatever comes out of that plant or any future addition does not adversely affect our health so that we will decide no more because there is a limit. There really is a limit to what people will tolerate, and we have almost

reached that point now. With this plant addition and with just a small amount of HF it is not too hard to justify, but if we find out that this stuff is going to communist countries, people are going to be unhappy with me and we are going to let everybody in the world know about it.

So I would like an answer at some point of whether this is only an international market friendly countries or whether any of this product is ever shipped to a communist country.

Thank you.

JUDGE FRYE: Ms. Synar, do you have anything?

MS. SYNAR: What I am concerned with is are they selling to our allies just for the money? I mean why do we have to put up with the facility and the contamination that we are putting up with just like Mr. Lammers said?

We also have other problems in our air with the heavy metals they are distributing. I feel like this is also included in that and I feel like it is a waste from UF6 and it will also be a waste from UF4.

I also want to add that I am sure that this eventually I hope will be taken care of, but right now there has been no regulations whatsoever on it. And I hope they will look into this, the NRC, and therefore I also hope that we are not selling to communist countries.

JUDGE FRYE: Thank you.

Mr. Henshaw, did you have anything?

MR. HENSHAW: Yes, sir, I do.

In the license history it is stated "Materials License No. Sub 1010 authorizes possession and use of source material for the purpose of refining uranium from uranium ore concentrates and converting this uranium to UF6 for use in Department of Energy enrichment plants and for foreign markets."

I am also concerned with the question that was the question that was submitted to the panel earlier of whether or not the need for this facility included depleted UF4 for Iran or communist countries.

JUDGE FRYE: I realize that, and I think the point of the question is that this particular group of witnesses can't answer it. I mean it is going to be a decision -- if this stuff is exported, it would have to be a decision that would be made I would think probably in the Department of Defense somewhere.

MR. HENSHAW: Exactly, Your Honor, but we might have a chance to have a part in that decision-making process right here today if we find that this material could possibly go to communist countries or to Iran. I am saying we have the opportunity to cut it off right here if that is the possibility.

There is a nuclear trade agreement that has been

negotiated with Communist China recently, and I wish to have that entered into the record. That is why for some of the concerns that I have.

JUDGE FRYE: That is an entirely different matter though. That has to do with the exporting of reactors to China.

MR. HENSHAW: This could be covered under it also, couldn't it?

JUDGE FRYE: I don't think so, no.

MR. HENSHAW: Okay. I stand corrected.

JUDGE FRYE: I don't know, but I would be very surprised if it could be.

MR. HENSHAW: Well, that is the reason that I have in question the need is what I was doing. I don't know the answer. That is why I was asking.

I have a question about the statement made in one of the recent filings by Sequoyah Fuels on facility need, the document that we were handed on the 12th, January 12th here at the hearing, on page 2. "In June of 1984 AMC-COM announced that the military would discontinue their practice of supplying depleted UF4 to munitions fabricators, but would supply depleted UF6 instead."

"The reason cited by AMC-COM for this major policy change was that the government stockpile of depleted UF4 was being rapidly exhausted and after studying the cost

of rebuilding government facilities to produce more UF4 AMC-COM concluded it would be in the government's interest to establish commercial sources of supply," and it is footnoted.

"The government stockpile of UF4 had resulted from a lengthy campaign to" ---

JUDGE FRYE: We have all got it and you don't need to read it into the record.

MR. HENSHAW: What they are stating here is that the government has a stockpile of depleted UF4 that is being sent to commercial munitions factories. Are the munitions coming back to the government? Why is it being depleted if it is coming back to the government? I mean I don't really understand the purpose of shutting down government facilities that are already built, stockpiling the material and selling it to private concerns. Now we are told that we have a need for the material again, and I am in doubt about that. I don't understand it.

JUDGE FRYE: I guess I don't understand why you don't understand it in a sense. They say very simply that the government stockpile was being exhausted and hence you need to make more material.

MR. HENSHAW: I guess my question should be how much does the DOE have stockpiled is what I would like to know actually, and I am wondering -- well, I won't ask that

question.

On page 3 of that same document it states that the SFC ---

MR. NICKLES: I am going to object to reading, Your Honor. If there is a point to be made, I think the point out to be made.

JUDGE FRYE: He has just referred to page 3. That is all he has done at this point.

MR. NICKLES: He is starting to read again.

JUDGE FRYE: I didn't hear that.

(Laughter.)

MR. HENSHAW: "The SFC involvement in the production of UF4 helps ensure a continuous supply and competitive pricing."

JUDGE FRYE: Okay. Now what is your point?

MR. HENSHAW: I'm sorry?

JUDGE FRYE: The point is that you wish to make is?

MR. HENSHAW: I was wondering if that was the same company that was involved in the price fixing of uranium products in France earlier? This is the document that says Past Commanding General also. That is where I got the question earlier.

The next paragraph states "In fact, Major General Peter G. Burbules, past-Commanding General of AMC-

COM wrote to William J. Dircks, Office of the Executive Director of Operations. . . " That is why I was wondering if he were still at the ---

JUDGE FRYE: That question was asked and they answered it.

MR. HENSHAW: On page 4 it states "The expansion also would position SFC to supply UF4 for use in non-military materials, such as counterweights for aircraft, shielding and sinker bars. . . "

JUDGE FRYE: We have the paragraph. So what's the point?

MR. HENSHAW: I was wondering what sinker bars were?

JUDGE FRYE: I don't know what sinker bars are. You understand that UF4 is a very dense material that is used for things that require weight.

MR. HENSHAW: Yes, sir.

JUDGE FRYE: So I would assume that if it is a sinker bar, it is probably a heavy bar.

MR. HENSHAW: Okay. Are we depleting the UF6 stockpiles for private use of this material?

JUDGE FRYE: Well this is a concern that you are raising then I gather?

MR. HENSHAW: Yes, sir, it is.

That is all I have, Your Honor. Thank you.

JUDGE FRYE: Thank you.

Anything from NWC?

MS. CURTIS: Yes, Your Honor, I do.

For the record I would like to say that I strongly oppose the UF4 facility expansion on the basis that we as a nation cannot afford to continue jeopardizing people's health and well being strictly on the basis of producing more weaponry for the U.S. military.

Honestly, it does make a person wonder who the enemy really is when you consider the long-term ramifications of this nuclear processing plant and the effects it will have upon future generations both in areas of contamination as well as the manufacturing of killing tools, a continuation of man's inhumanity to man.

That is all I have to say, Your Honor.

JUDGE FRYE: Thank you.

Ms. Strachan, do you have anything?

MS. STRACHAN: Your Honor, I would like to bring a witness to begin testimony of the Peace Center.

MR. NICKLES: Your Honor, I would object to any testimony that is in effect another limited appearance statement. This is a proceeding that is extraordinary enough, but what we have in a sense is limited appearance statements that are made by all the intervenors without any opportunity for the individuals who support this facility

to make the same kind of statements.

We have had over the last two days repeated statements that are the same by these same individuals. We understand their points and we understand their positions, but limited appearance statements were for Monday night. We are supposed to be talking about substantive evidence by qualified people on the issues that you directed at the ---

MS. STRACHAN: May I interrupt this interruption, Your Honor?

JUDGE FRYE: No.

Excuse me, continue.

MR. NICKLES: --- at the thorough briefing of all the issues over a period of years. In receiving papers from these groups you specified certain issues for which there was to be evidence. There was an evening set aside for limited appearance statements. I think we have all been patient, but every time someone gets another limited appearance statement they keep all of these people sitting around the room listening to that same limited appearance statement.

We know their position and if Ms. Strachan attempts to bring in another limited appearance statement we would object very strongly.

JUDGE FRYE: Who is your witness? Who do you propose as a witness?

MS. STRACHAN: Well, if I may answer something first. I am representing a legally filed body in this proceeding and I have testimony to present on this subject from them. Also, my witness is not someone who has spoken in this proceeding. My witness wishes to help me present from the United Methodist discipline the statement of social principles as it bears on the need for this facility.

MR. NICKLES: I object to that, Your Honor. It is not appropriate. That should have been done on Monday. There was an opportunity for this group to state their position just as there was an opportunity for those who favored the facility to state their position.

JUDGE FRYE: Is this a published statement of the United Methodist group?

MS. STRACHAN: Yes, it is, Your Honor, but I don't have it with me. I can bring it. But I think since we are on this subject that my witness should be allowed to speak.

JUDGE FRYE: How long is the statement?

MS. STRACHAN: Not too long.

MR. NICKLES: Your Honor, that individual I believe testified here on Monday night. I think I recognize the young lady.

MS. CURTIS: She didn't testify here because we

testify on Monday night.

MS. STRACHAN: She was not called as a witness. Does not an intervenor have the right to bring a witness, Your Honor?

JUDGE FRYE: Yes. Why don't you put her on and let's see how we go with this. However, I hope that it will be reasonably brief and to the point of need for the facility.

You know, it is fine to bring up all sorts of philosophical concerns about world peace and what-have-you, but those things, while they are very laudable, are not anything that I can do anything about. I am working within the framework of NRC rules and regulations.

Sequoyah was asked to provide on the record a justification of the need for the facility because under the National Environmental Policy Act there must be some justification provided. That is the rationale for having gotten into this in the first place.

If you are going to get into some sort of philosophical discussion, I am going to have to exclude it because there is nothing I can do with regard to that. If you want to raise some questions with regard to the specific need for the facility, then that is another thing.

MS. STRACHAN: I am prepared to do that for the Peace Center, but the witness is prepared to bring up the

discipline for us.

JUDGE FRYE: Bring up the what?

MS. STRACHAN: The matter of the Book of Discipline and how it pertains to this. The witness is prepared for that. I am prepared for the Peace Center's testimony on the subject.

JUDGE FRYE: I don't think I want to hear about the Book of Discipline. There is nothing I can do about the Book of Discipline within the context of this proceeding.

MS. DEER IN WATER: The Book of Discipline I believe is the governing rules or whatever. It is the official book of the Methodist religion. That is what they call their book of rules and regulations.

JUDGE FRYE: Right. Well, that's fine. I am not trying to disparage that in any way whatsoever. My point to you is simply that I have to function within the rules of the Nuclear Regulatory Commission and that doesn't include the Book of Discipline from the Methodist Church.

MS. STRACHAN: I understand that, Your Honor, but for some individuals the bock of discipline determines how they determine need.

JUDGE FRYE: Okay, but nonetheless I am going to exclude that. I am going to exclude testimony on the Book of Discipline. Now if you want to talk about the need for

the facility in the context of the Environmental Policy Act, that is another question.

MS. STRACHAN: All right. I will give Peace Center's testimony now.

JUDGE FRYE: Okay.

MS. STRACHAN: I would like to remind the Court that it was pointed out Monday evening that we have people affected by this plant, people who live in this area who are not able to represent themselves in these proceedings because even though they are among those most affected they do not speak English.

It has also come to my attention that there are residents who have already been adversely affected with health problems that they feel are from the Sequoyah facility.

They have told me that they are unable to attend meetings of this sort because their health problems do not permit it.

This is leading up to something, Your Honor.

In NUREG 1157 on page 2-1 when it is discussed what would be the alternative of not renewing the present license, they get into a philosophy that I think has bearing on this. They say that there are few other places that they could get the materials they need. They say that the alternative of no license renewal would involve

constructing a new facility somewhere else, and thus they would merely be transferring the impacts to another site.

This leads us to believe that the NRC has decided that the effects to the local population from any facility at Sequoyah Fuels are not important because they intend to do what they are going to do somewhere and the NRC would just as soon that whatever is done be done here and continue to adversely affect these people as to bother to move it somewhere else and adversely affect someone else.

They seem to contend that they are going to adversely affect someone and therefore it does not matter who.

JUDGE FRYE: No, Your Honor, but I'm afraid you don't particular want to hear the rest of it.

May I begin?

MR. NICKLES: Your Honor, with all due respect, Mr. Strachan testified five times I think on Monday and she has testified innumerable times here. This is not evidence.

MS. STRACHAN: Your Honor, on Monday evening I made one limited appearance statement in my own behalf. The other times I spoke was at the request of individuals who needed me to speak for them. I do not consider that doing a service for another human being is taking another

limited appearance statement for myself.

JUDGE FRYE: What is your point that you are trying to get to in this particular thing?

MS. STRACHAN: I was referring to the fact that he claims that I spoke four or five times for myself.

JUDGE FRYE: Okay. But what I am trying to find out is do you still have more of a statement that you want to make now?

MS. STRACHAN: That's right, Judge Frye.

JUDGE FRYE: Okay. What you just gave me was not the complete statement?

MS. STRACHAN: No, sir.

JUDGE FRYE: What was that, the introduction or what?

MS. STRACHAN: Yes, sir.

(Laughter.)

I don't find anything amusing about the fact that we have proven there is contamination from Sequoyah Fuels and that any new facility will vent further radioactivity into the air.

JUDGE FRYE: Okay, but now we are talking about the need for a facility?

MS. STRACHAN: Yes, we are, Your Honor.

JUDGE FRYE: Okay.

MS. STRACHAN: We have already established that

there will be more uranium vented into the atmosphere from any new facility. No on has refuted my statement from a world famous scientist that there is no known safe level of radiation.

Another witness for another intervenor has shown a map of all of the health problems in this area. It is the Peace Center's contention that there is no present need for additional weapons which could possibly outweigh damaging the health of individuals, risking damage to the future human gene pool, risking pollution to the land that can never be undone, the land that belongs to all of us and not just those who stand to gain from the nuclear industry.

One further point, Your Honor. Dr. Rosalie Bertell of the International Institute of Concern for Public Health in Toronto, she makes the point time and time again that cumulative exposure to low levels of radiation is extremely harmful, that not only does it lead to cancer that is so far down the road, 15 to 20 years for some type of cancer that no one can say yes or no to it right now, and by the time you can it is too late, but also because of the effects of radiation.

She begins by explaining how natural background radiation and not the modern concept of background radiation where every year they take that year's new load of man-made radiation and reclassify it as natural

background radiation, but I mean the God given background radiation we started out with. That is what is responsible for man's natural aging process.

JUDGE FRYE: How has that got anything to do with whether there is a need for this facility?

MS. STRACHAN: I am getting to that, Your Honor. I truly am.

When we have that happening, that is natural. That is from God and there is nothing we can do about that. But when man adds to the radiation in the environment it leads to secondary illnesses that are not immediately discernible and not as dramatic as cancer, but she says that this same type of cumulative, low-level radiation exposure leads to many health problems such as diabetes, miscarriages, birth defects and on and on and on. She devotes chapters to this.

The point is the Peace Center feels that the other problems I have already mentioned plus the possible health effects as documented in Dr. Bertell's books, we have no need for additional weapons that could possibly override exposing human beings' health, the future of the gene pool, contamination of their land and so on to the results of this facility. It is not moral and it is not in our defense to do that, Your Honor.

JUDGE FRYE: Okay. I think we understand your

position.

Ms. Deer In Water.

MS. DEER IN WATER: First, I would like to submit for the record, if I may a brochure done on aerial jets, uranium bullets and penetrators that they make in ammunition.

JUDGE FRYE: This for the record is a Uranium Traffic Special Report, Uranium Bullets, August 1984. At the bottom it says source, Aerojet Ordinance Company, undated.

Is this from a publication, Ms. Deer In Water, do you know?

MS. DEER IN WATER: It says on the inside "This tabloid was produced by Miles Goldstick and Ky Michaelson for the Uranium Traffic Network.

JUDGE FRYE: I see. Okay.

MS. DEER IN WATER: In this I would like to point out on page 3 where it speaks about the NK-15 Flax Close-In Weapon System, it says "The weapons using DU bullets increases a ship's end vulnerability making it more dangerous and forcing the other side to escalate its weapons development in defense."

It goes on to say that "General Dynamics Corporation is the system's contractor that has sold this system to Australia, Japan, Saudi Arabia and the United

Kingdom."

I think that at some point we have to say it is very good and well for them to say that the issue is not peace, but the issue here, the need for this plant brings forth, it is our position that we do not need this plant because at some point we have to quit rhetoric that it is all well and good that we all want world peace and no one wants war, the Catholics have taken a stand against the war as have most other religions except for the extreme right who is looking forward to it.

But there comes a time when you have to put it into reality, not unlike the old integration movement where everybody said some of my best friends are black people, they need their own neighborhoods, their own restaurants and no votes, you know.

Now we have the thing to date that everybody is for world peace but who is going to stand down there and somebody's face who is making millions of dollars off of it and say now is the time, stop this plant. That is one point.

Another point against the need for such a facility is that our United States Government has already banned the use of armor piercing bullets for individual use. They are only allowed by the military. How much longer -- if in 1986 they passed into law a bill banning

all manufacture of depleted uranium bullets by individual companies, how much longer before they ban them for total use?

I would say that it was silly to build a facility knowing that this law had already passed, and I would think that Kerr-McGee built this facility and that licensing of this facility is a privilege and not a right and that they built it at their own expense and at their own risk and that the licensing of it will set a precedent for any company in the nuclear industry to say our changes are better at licensing if we go ahead and build it and then have a licensing hearing as opposed to a construction permit hearing.

I think you would set precedent and history to deny this because they have not shown a need for the facility.

Thank you.

JUDGE FRYE: Thank you.

Ms. Carter-White.

MS. CARTER-WHITE: Your Honor, it had been my intention to request that a member of the Catholic Church to present testimony today on behalf of that church regarding that organization's ---

JUDGE FRYE: I'm sorry. Will you begin again because I didn't understand what you said in the first

part.

MS. CARTER-WHITE: Yes. I stated that it had been my intention to present the testimony of a member of the Catholic Church in order to explicate to the agency here today that the policy of the Catholic Church was in fact that it was also opposed to the proposed need that has been expressed by Sequoyah Fuels.

I am sure that Mr. Nickles will stipulate that the Catholic Church is opposed to the weapons production need that forms the subject matter of this area of presentation.

MR. NICKLES: I know of nothing in the Catholic Church that is directed to this facility, Mr. Carter-White.

MS. CARTER-WHITE: Your Honor, would you like me to present such testimony?

JUDGE FRYE: No. I said earlier ---

MR. NICKLES: I don't know what you are talking about.

JUDGE FRYE: I said earli[er] that I am functioning within the rules of th[e] [N]uclear Regulatory Commission ---

MS. CARTER-WHITE: Except Subpart 2, sir; isn't that correct?

JUDGE FRYE: --- and with regard to the National Environmental Policy Act it is necessary to show a need for

a facility. Now if you want to talk about or question the testimony that has been offered which says that there is a need for this material, that is fine, but there is no point in getting into a lot of philosophical considerations because I simply can't do anything about that.

MS. CARTER-WHITE: If I might clarify in my own mind, it seems that at the initiation of this licensing amendment request there had been some indication that environmental impact analysis was not necessary because this didn't constitute a major federal action. Is that your position, sir?

JUDGE FRYE: An environmental impact statement was not prepared because the staff determined that this was not -- excuse me, Mr. Lewis, you could probably state this better than I.

MR. LEWIS: I think we made a finding of no significant impact on the environment and that on the basis of the environmental assessment that was the basis for a negative declaration that an environmental impact statement was not required.

JUDGE FRYE: An environmental assessment was prepared, the environmental considerations were looked at and the National Environmental Policy Act, as far as I can tell from everything I have heard so far anyway, appears to have been satisfied.

Now we will see tomorrow when we get into the NEPA considerations whether there may be something there that needs to have another look.

MS. CARTER-WHITE: With regard to the issue of need, it is position of CASE that the facility is not needed.

There are a number of reasons for our position, but I should state initially that the Nuclear Regulatory Commission is premised upon the policy of the Atomic Energy Act, the policy of which was intended at its inception to be promoting the peaceful use of the atom.

In fact, this is not a proposed peaceful use of the atom and violates the original ---

JUDGE FRYE: But that doesn't have anything to do with need. If you want to talk about need, fine.

MS. CARTER-WHITE: I am talking about policy determinations upon which the NRC can premise its actions.

JUDGE FRYE: If you want to talk about need for the facility, fine, but let's stick to that and let's don't get off into policy considerations.

MS. CARTER-WHITE: Okay. Under the Atomic Energy Act the Nuclear Regulatory Commission is not empowered to consider the need for military applications within the private sector. This is based upon the granting language and policy and the legislative intent and history

of the Atomic Energy Act.

Not only does the Federal Statute by its legislative history not mandate the need for this facility, but also there is a natural law of irrationality that dictates against killing and it ---

MR. NICKLES: Your Honor, I'm going to object.

MS. CARTER-WHITE: --- it is in opposition to State law, Federal law and the Bible.

JUDGE FRYE: Hold on a minute.

MR. NICKLES: With all respect, this is a completely unfair situation where Ms. Carter-White and others are repeating over and over again statements in the nature of limited appearance statements. There has not been a word yet on the question of need. We have talked about the Bible and about natural law. I wish she would talk about need or terminate.

JUDGE FRYE: I will give you one more chance to talk about need, Ms. Carter-White, and if you are not going to do it at this point then I am just going to exclude your testimony.

MS. CARTER-WHITE: Okay. I wish I could clarify my reason for making these statements though. Under the requirements of the Code of Federal Regulations, and I believe the cite would be 10 CFR 40.32, it states that a licensee must establish fitness and compliance with State,

local and Federal laws in order to be granted a license amendment.

So I was pointing out that the underlying purpose upon which the UF4 will be used to produce bullets which will be used for killing and killing is a violation of not only State but also Federal law and of natural law.

JUDGE FRYE: Okay. Thank you very much.

MS. CARTER-WHITE: With regard to the statement of facility need that is set forth and was provided to us as these hearings began, an examination of the testimony at page 2 indicates that the government chose not to rebuild government facilities. There has been no testimony to establish this as a proper alternative to rebuilding government facilities.

Additionally, the testimony states that redirecting production for UF4 to private industry also complies with the long-standing government mandate to encourage privatization of appropriate governmental activities. While privatization of appropriate governmental activities is in fact a goal that we would not find fault with, the question then becomes is the production of munitions an appropriate private activity for suppliers to the military, and it would be our position ---

MR. NICKLES: I'm going to move to strike, Your Honor. With all due respect, Your Honor, I am going to

move to strike all of this testimony.

MS. CARTER-WHITE: Allow me to finish my sentence.

MR. NICKLES: You have had four chances.

JUDGE FRYE: Are you finished?

MS. CARTER-WHITE: I lost my train of thought, sir. I can't finish the sentence.

JUDGE FRYE: Well there has been a motion made to strike. Do you have any reason to indicate why your testimony shouldn't be stricken?

MS. CARTER-WHITE: Yes, I do. The testimony was appropriate and the motion to strike does not seem to be premised upon any objection according to the Federal Rules of Evidence. It is merely an unfounded objection.

JUDGE FRYE: I am going to grant the motion.

MR. NICKLES: Thank you, Your Honor.

JUDGE FRYE: And I think that will complete your testimony.

MS. CARTER-WHITE: I haven't finished my presentation, sir.

JUDGE FRYE: I realize that, but that completes it. I am not going to hear any more.

MS. CARTER-WHITE: Your Honor, my ---

JUDGE FRYE: I am not going to hear any more, Ms. Carter-White.

MS. CARTER-WHITE: I would very much like to finish this presentation, sir. There are some very relevant and important matters which I would like to discuss.

JUDGE FRYE: Does any one of them have anything to do with need?

MS. CARTER-WHITE: They all have to do with need, sir. For example, the Union of Concerned Scientists states that with regard to military superiority between the United States and Russia in the area of ---

JUDGE FRYE: Ms. Carter-White, I am not going to listen to that. I'm sorry.

MS. CARTER-WHITE: Okay. Sequoyah Fuels, 1985. "Sequoyah Fuels continues to market its UF4 reduction services which indicates that Sequoyah Fuels has to make conscious efforts to make its UF4 services available or to market them to persons other than the military."

I am very upset over this whole matter.

Additionally, it states that "The United States industry has been adversely affected ---

MR. NICKLES: With all respect, Your Honor, I renew my motion to strike.

MS. CARTER-WHITE: --- by large worldwide uranium inventories." That goes directly to the question of whether or not there is adequate UF4 supply or the need

for UF4 supply from private industry.

JUDGE FRYE: Does that complete what you had to offer?

MS. CARTER-WHITE: No, it doesn't.

JUDGE FRYE: You have had plenty of chances to address need and so far you haven't done it.

MS. CARTER-WHITE: Your Honor, are you ruling that the large worldwide uranium inventories recited do not constitute matters relevant to the issue of need?

JUDGE FRYE: You have not yet to address the question of need. Your testimony is going to be stricken and you can appeal that matter, but that's that.

MS. CARTER-WHITE: Very well.

Will I be allowed to finish my presentation?

JUDGE FRYE: No.

MS. CARTER-WHITE: Thank you.

MS. STRACHAN: Your Honor, if I may, the Arkansas Peace Center feels that they are cheated out of evidence they would like to have heard by not hearing Ms. Carter-White's evidence of lack of need.

JUDGE FRYE: You may appeal as well.

Mr. Kellogg, did you have anything you wanted to bring up on this matter?

MR. KELLOGG: With all due respect to this tribunal, Your Honor, the State Health Department has

nothing to offer.

JUDGE FRYE: Thank you.

Why don't we adjourn until 9 a.m. tomorrow morning.

(Whereupon, at 5:10 p.m., the hearing in the above-entitled matter recessed, to reconvene at 9:00 o'clock a.m., Thursday, January 15, 1987.)

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