

## IN THE MATTER OF PRIVATE FUEL STORAGE - DAVID C. SCHEN

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of ) Docket No. 72-22  
PRIVATE FUEL STORAGE ) ASLBP No. 97-732-02-ISFSI  
L.L.C. )  
(Private Fuel Storage ) DEPOSITION OF:  
Facility) DAVID C. SCHEN

The deposition of DAVID C. SCHEN, a witness in the above-entitled cause, taken before LANETTE SHINDURLING, Registered Professional Reporter and Notary Public in and for the State of Utah, at the law offices of PARSONS, BENLIS & LATIMER, 201 South Main, Suite 1800, Salt Lake City, Utah, on the 25th day of May, 1996, commencing at 9:20 a.m.

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## APPEARANCES:

## FOR THE INTERVENOR:

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## I N D E X

## WITNESS

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DAVID C. SCHEN

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## P R O C E E D I N G S

DAVID C. SCHEN,

called as a witness, for and on behalf of the Applicant, being first duly sworn, was examined and testified as follows:

## EXAMINATION

BY MR. GAUKLER:

Q. Would you please state your full name for the record?

A. David C. Schen.

Q. David, my name is Paul Gaukler. This morning I'm going to be asking some questions to try to understand the State's position on various matters which I understand you are involved. I'll try to make my questions as clear as possible, but if at any time you don't understand my question will you please ask me to clarify it?

A. I will.

Q. What is your current position and employer?

A. I'm employed by the State of Utah, Division of Forestry, Fire and State Lands. It's one of seven divisions within the Department of Natural Resources.

Q. And what are your responsibilities as division manager?

A. My responsibilities include oversight of our

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1 natural resource programs. That includes program coordinators for about seven major programs.

Q. And what programs are those?

A. Those include Landowner Assistance Programs, Forest Health, Urban Forestry, the Lone Peak Conservation Center.

Q. What is it?

A. Where is it?

Q. What is it.

A. It's comprised of trees and shrub seedling nurseries and fire fighting resources. Our Fire Management Program and our Mineral Leasing Program.

Q. So fire management is one of the seven programs that you coordinate?

A. That's one of the programs within my work unit.

Q. And please describe for me the Fire Management Program.

A. Our responsibilities are arrived at through law. State law charges the Division with protecting about 15 million acres of State and private lands. The responsibility on private lands is shared with the counties.

Q. And do you have any responsibility for BLM land?

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1 this.

2 Q. So that still would be your statement of your  
3 opinion today, that the wildfires would not present any  
4 specific problem with respect to the spent fuel itself  
5 stored in the sealed canisters?

6 A. I don't feel I have adequate information to  
7 respond either way to that, to confirm or deny that  
8 statement at this point.

9 Q. But you haven't changed your opinion in terms  
10 of what you stated here since May 1997, right?

11 A. Well, that was my reaction at that time.

12 Q. Is that still your reaction today?

13 MR. NELSON: Objection, it's been asked and  
14 answered. You can go ahead and respond.

15 THE WITNESS: Pardon?

16 MR. NELSON: You can go ahead and respond if  
17 you want to.

18 THE WITNESS: It's still my opinion that the  
19 two greatest risks to the fire fighters would be the  
20 wildland fire itself and the potential for some exposure  
21 to radioactive materials in some form, but I do not feel  
22 that I have the technical expertise to say whether or  
23 not the method of storage would minimize the risk of  
24 exposure to radioactive materials.

25 Q. (BY MR. GAUKLER) Where would the

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1 volatilization of radioactive materials come from?

2 A. That's a good question. I don't have the  
3 answer to that.

4 Q. It would have to come from the spent fuel rods  
5 sealed inside the canisters would it not?

6 A. It would seem that it would have to, yes.

7 Q. You go on to say here that, the last paragraph  
8 on page 2, you say that "Fuel breaks would provide an  
9 effective protective barrier to the principal storage  
10 site." I take it you believe that to be a true and  
11 correct statement at that time?

12 A. I do.

13 Q. And you believe that to be a true and correct  
14 statement at this time?

15 A. I do believe that fuel breaks can provide a  
16 barrier that can be used effectively to protect a site.  
17 They don't do so unto themselves.

18 Q. What do you mean, they don't do so unto  
19 themselves?

20 A. Fire can cross fuel breaks from wood burning  
21 embers. So they provide a degree of protection, but not  
22 full protection.

23 Q. But if you had a fuel break around the entire  
24 area of interest then that would provide a protection  
25 for that area of interest, correct?

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1 A. It would provide protection, but not guarantee  
2 that a fire wouldn't cross that barrier.

3 Q. Cross the barrier in what sense?

4 A. In the sense that it would not preclude  
5 burning material from being carried by currents of air  
6 across the barrier and igniting materials on the other  
7 side of the barrier.

8 Q. But there would have to be materials that  
9 could be ignited on the other side of the barrier for  
10 that to be a problem, correct?

11 A. That's correct.

12 Q. What responsibility have you had for fighting  
13 wildfires throughout your various positions in your  
14 career? I guess the simplest way would be to look at  
15 your resume and start--

16 A. Which point in my career?

17 Q. Let's start from the beginning, okay? Page 3  
18 of your resume you talk about being a RC&D Forester and  
19 a Bear River Forester.

20 A. I didn't have any responsibility other than--  
21 any direct responsibility as an RC&D Forester, but as  
22 the area forester in Logan I had responsibility for  
23 supervising what we call our district fire wardens, and  
24 they are the parties at the county level that we hire  
25 jointly with the county to help train and organize and

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1 supervise volunteer fire fighters when they respond to  
2 fires under our jurisdiction.

3 I also had the responsibility for negotiating  
4 agreements with the counties in my area. I had  
5 responsibilities for negotiating documents similar to  
6 the Annual Operating Plan we have talked about that  
7 covered that geographic area and had responsibility for  
8 assisting wardens on, you know, our staff on the fires  
9 within the area and providing management of those  
10 incidents when they needed assistance.

11 Q. The Bear River area forest, where is that  
12 located?

13 A. That area at that time was a three county area  
14 comprising Cache, Rich and Box Elder counties.

15 Q. If you look at Exhibit 3, are they shown  
16 anywhere in Exhibit 3?

17 A. No, they're not.

18 Q. Where would they be in reference to the map on  
19 Exhibit 3?

20 A. North.

21 Q. So they would be north--

22 A. North and northeast.

23 Q. So basically they're north/northeast of Salt  
24 Lake City?

25 A. The western end of Box Elder County borders

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ada, the northern end of Box Elder, Cache and Rich  
counties border the State of Idaho, and the eastern end  
or east side of Box Elder County borders Wyoming.

Q. So it's north--

A. It's north, north and northeast of this  
location.

Q. North to northeast of this location, okay.  
When you say "of this location" you're referring to--

A. Oh, yeah. Look down, do you see the little  
state map in this quadrant?

Q. Yes.

A. If you just take a look at those three  
northern counties, those are Box Elder, Cache and Rich  
going from west to east.

Q. Okay. The three counties going across the  
northern part of Utah. I see. What type of vegetations  
in those areas, primarily?

A. It varies. The western part of Box Elder  
County is very similar to Tooele County's vegetation  
plant communities. And in Rich, the eastern side of  
Rich County is high desert fuels, but sagebrush,  
grasslands, pinion, juniper, woodland, but moister  
sites. And in the mountains bordering-- well, in the  
high mountain areas of Box Elder County as well as the  
Wellsville range and Bear River Mountain range and

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bordering Rich and Cache County you can find high  
elevation alpine timber types. So there's a great  
variety of plant communities and fuels.

Q. Going to your next position, northern regional  
manager, did you have any responsibilities with respect  
to the fire fighting?

A. My responsibilities included-- in that  
position I had three areas, administrative areas within  
my region. That included basically all the counties in  
the northern half of the state from-- if you look at  
this little map on Exhibit 3, the south end of Tooele  
County, in a line generally going from Colorado to  
Nevada, from the south end of Tooele County north, we  
had offices in Salt Lake, Logan and Vernal, and the area  
foresters in those three offices had responsibilities  
such as I described I had in my position as Bear River  
area forester. So they were responsible for those  
day-to-day things, activities. I had responsibility for  
assisting them negotiate agreements, primarily the  
Annual Operating Plans, but my responsibilities were  
associated with overall management of that program for  
that geographic area as well as other programs that the  
division administered at the time.

Q. As opposed to actually being involved in  
fighting or managing the fighting of particular fires?

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A. That's correct.

Q. Then your position from 1982 to November 1995  
as forest stewardship coordinator?

A. My direct responsibilities during that period  
of time did not include administration of aspects of the  
Fire Management Program as administered by the State.

Q. Have you ever conducted experiments or test  
burns with respect to wildfires?

A. I have conducted prescribed fires.

Q. And what are prescribed fires?

A. Those are fires that we intentionally set to  
achieve some management, land management objective. And  
I have set fires as part of a wildland fire suppression  
operation to control wildfires as a tool to control the  
spread of the wildfire itself. I wouldn't necessarily  
refer to those as experiments. Sometimes they worked,  
though, sometimes they didn't.

Q. So basically the objective of the prescribed  
burning was to kind of control the vegetation in an area  
for some particular reason?

A. To modify the plant community. Typically it  
was to reduce the sagebrush and the pinion, juniper  
component and allow native grass and shrub species to  
cover.

Q. Why would you want to do that? Is there any

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purpose with respect to wildfires for doing that?

A. The purpose, typically we were doing that as  
assistance to private landowners who were involved in  
ranching and raising livestock and their objectives  
included increasing the volume of forage suitable for  
their livestock on that property and in some cases it  
also included restoring the yield of water and streams  
and springs that was a side benefit. But primarily they  
were targeting, you know, changing the plant communities  
to include more grasses.

Q. Have you ever conducted test burns to measure  
temperatures of wildfires, for example?

A. No.

Q. Have you ever conducted test burns to  
different fuel loadings to identify the intensity of  
wildfires with different type of fuel loadings?

A. No.

Q. Do you believe that wildfires pose a  
significant hazard to the Private Fuel Storage facility  
and the spent fuel storage area?

A. I believe that wildfires do present a hazard  
to the proposed facility.

Q. And how much of a hazard do you see it  
presenting?

A. Based on my knowledge, I do believe that