

25                   RICHARD DeKLEVER: 2628 Desert Sands Drive,  
1   Las Vegas, 89134. I'd like to say that I am pro  
2   nuclear. I have been in the industry for the past  
3   49 years, and I've seen the development of navy  
4   nuclear components, reactors, fuel and vessels since  
5   1958, and also Shippingport components. And the  
6   reason I mention this is, of course, the navy has  
7   five decades of successful transportation experience,  
8   and the Shippingport is now Greenfields so we've  
9   come a long way.

10                   Westinghouse has sort of invented the  
11   pressurized water reactor, and so doing many of the  
12   components, such as the controlled leakage pump for  
13   the commercial reactor and also the canned motor  
14   pumps for U.S. Navy program, has really identified  
15   with the evolution of nuclear energy from nuclear  
16   submarines, aircraft carriers into the commercial  
17   reactor field back in the '60s, whenever they finally  
18   began that particular activity, designing and then  
19   construction. So they're kind of a leader in that  
20   field, and as such we're an evolving technology and  
21   we need to complete the nuclear fuel cycle. By that  
22   I mean [we need a repository for either the used fuel  
23   or the reprocessed fuel and the high-level waste in  
24   vitrified ceramic form.]

25                   As such my comments and recommendations to  
1   the draft SEIS for the Yucca Mountain repository  
2   dated October 2007 are basically identified under

3 four major issues. I'll briefly mention those four  
4 major issues.

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5 [No mention or recognition of a quality  
6 assurance program in the draft SEIS.] [Number two, no  
7 mention of design basis allowing for retrievability  
8 of waste. Three, Global Nuclear Energy Partnership  
9 mentioned in section S.5 of the SEIS.] And four,  
10 [based on experience with project budget overruns,  
11 extending schedules and the lack of lessons learned  
12 published the DOE environmental management systems  
13 should commit to improving or issuing new DOE orders,  
14 specifications or regulations for certain areas or  
15 activities.]

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16 Further discussion on those four issues  
17 follow. [Even though the QA program was not  
18 mentioned, the DOE must comply with DOE order 414.1C,  
19 quality assurance, and also the regulatory program  
20 10 CFR 63.142, quality assurance, which considers  
21 items important to safe waste isolation and their  
22 related activities.]

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23 Issue number two, [10 CFR 63.111, performance  
24 objectives for geologic repository operations area  
25 through permanent closure. Now, the retrievability  
1 aspects are invoked by CFR 63.111. As such, we are  
2 silent on this very important activity, even though  
3 more than likely it won't come about until the  
4 operations phase, realizing that there's a  
5 forthcoming operations license application and  
6 possibly it may be held up for that reason. The

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7 complexity of such a system, number one, will they  
8 retrieve the used fuel out of the north portal or the  
9 south portal.

10 Number two, will they use rail cars or will  
11 they use a push/pulling arrangement, and how will it  
12 affect the radiological environmental conditions  
13 within the tunnel and around the tunnel and certainly  
14 the personnel working at the Yucca Mountain.

15 And the reason I bring this is up is there's  
16 a relationship between the retrievability of impact  
17 in place waste and Global Nuclear Energy Partnership,  
18 GNEP, from a standpoint of GNEP will address the  
19 advanced nuclear fuel process, nuclear waste process  
20 I should say, and that is directly related to  
21 retrievability.

22 For example, if we place used fuel into the  
23 repository for 10 or 15 years and find that we do  
24 want to retrieve it for reprocessing, then we may  
25 have to get involved with designing activities that  
1 would be constrained by high radiation fields and  
2 contamination fields, and it would not possibly be  
3 practical at that time to developing a safe  
4 retrievability system during the operations of the  
5 repository. That's why we should think about that at  
6 this point in time in terms of developing design  
7 criteria and installing the design as a pre-closure  
8 function.]

9 [The last issue, we have identified many

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10 condition reports issued and a lack of adequate DOE  
11 orders and regulations evolving such activities as  
12 modeling, data qualification, software control, and  
13 scientific investigation. For instance, the title of  
14 the modeling regulations that is currently in  
15 existence for Yucca Mountain is regulatory  
16 perspectives, underline perspectives, on model  
17 validation in high-level radioactive waste management  
18 programs: A joint NRC/SKI white paper. In reading  
19 the regulation it reads like a Ph.D. thesis rather  
20 than a specification or regulation.

21           The fact that DOE does not have DOE orders  
22 or specifications for these very important areas,  
23 I'll mention them again: Modeling, data control  
24 qualifications, software control, and scientific  
25 investigation, it could be identified as under  
1 lessons learned, because many millions of dollars  
2 have been spent for the revising of model reports,  
3 and as such we don't want to pass this along to  
4 future repositories. And depending on our GNEP  
5 program, we may need three or four new repositories  
6 in the future to satisfy our used fuel currently. I  
7 think that's about it.]