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SEP 05 2001

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24 MR. DeBOTTARI: This is a first for me. This
25 document, 480-plus pages, attempts to justify a site

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1 and compare it to a requirement that has been proposed
2 but not approved. Nowhere in the report is there any
3 mention that the site meets any of their requirements
4 that were established for the deep geological disposal
5 of high-level nuclear waste. The report attempts to
6 tell the powers-to-be that if the proposed criteria is
7 approved, the site will be suitable. This is like
8 saying, here are the requirements for an airplane. The
9 contractor replies, here's my proposal, and if you
10 change the criteria and method of evaluation, I can
11 simulate all the parameters that are based on my
12 experience, instead of flying the plane. I can build
13 your airplane. Would anyone be the first one to fly in
14 that plane?

15 The Department of Energy's record has been at
16 best poor when it comes to operating any site that was
17 required to meet health considerations. The entire
18 report uses a simulation that has not been approved to
19 justify the statements that the site is adequate. DOE

20 states that the site will meet the proposed criteria
21 for the regulatory period. This 10,000-year period has
22 no correlation to the period of dangerous radiation.
23 Figure 3.3, page 3-10 clearly illustrates the problem
24 past 10,000 years. The annual -- the mean annual dose
25 at 20,000 years is 500 millirems per year. This far

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1 exceeds the EPA specified dose limit beyond the
2 artificial requirement of 10,000 years. This
3 illustrates the folly of the 10,000-year requirement as
4 a regulatory period.

5 It is interesting to note that DOE, after
6 reviewing the results of their own simulation, decided
7 the data didn't look too good. It shows there was no
8 radiation before 10,000 years, period. So DOE simply
9 varied some of the simulated data and ran the
10 simulation again to show that radiation exposure was
11 minimal for many more years. This proves the entire
12 simulation process is suspect. The entire report is
13 fraught with questions concerning parameters used in
14 the simulation. The reader is given a list of reports
15 without the DTN number, making it very difficult to
16 find the information. One example of this is the

17 corrosion rates of Alloy-22. Alloy-22 corrosion
18 resistance depends in part on the thin film. DOE has
19 simulated the effect of earthquakes, humidity,
20 temperature, et cetera, on the life of the waste
21 package. The placement of the waste packages on the
22 support legs will cause damage if there's any rubbing
23 motion as the support legs and waste package come in
24 contact. Small earthquakes will cause slight movements
25 between the two pieces and will break the film.

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1 I could not determine that DOE simulated many
2 point defects in the film, and used these defects in
3 the simulation. One must assume that the film on these
4 waste package was damaged during installation, and the
5 natural repair of the film was interrupted many times
6 during the time before closure and during the 10,000
7 years, due to small earth tremors. Please tell me the
8 report and page number where this problem is discussed
9 and evaluated. I don't want an answer that says,
10 quote, "We studied the problem."

11 Alloy-22 is the centerpiece on which DOE
12 build their case that man can build a system that will
13 withstand the elements of mother nature for a minimum

14 of 10,000 years without any maintenance. This far
15 exceeds what man has done to date. DOE and the nuclear
16 power industry want the public to believe that they are
17 smarter engineers than God.

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18 I have more -- I have many more questions on
19 performance. Because of time constraints, I will speak
20 to one more. DOE proposes to use helium, page 3-78, to
21 conduct the heat from the center of the waste package
22 to the outside ambient. Helium is a very difficult gas
23 to contain, as it easily diffuses through metal. The
24 welds may be structurally strong, but I question the
25 robustness of the metal cask to contain helium, even

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1 through 500 years. This comes from experience of at
2 least 30 years in the use of helium. I would like the
3 DOE to show why they think they have solved this
4 problem, and how they can prove it, and more important,
5 how do they know the helium is in the container before
6 the site is closed? Again, I do not want an answer to
7 be, it was studied. Where was it studied, what's the
8 page number? Not the DTN. I can't follow that.

9 It has become clear that DOE, after
10 investigating minimal natural barriers, concluded that

11 engineering barriers are required to contain the
12 high-level nuclear waste, so as not to harm future
13 generations. The DOE has continually added engineering
14 barriers to replace the nonexisting natural barriers.
15 The DOE, after much study and simulation, finally came
16 to the conclusion that the original criteria could not
17 be met. The DOE-proposed criteria has not been shown
18 to be credible when examined against the real purpose
19 of a deep geological repository.

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20 MODERATOR LAWSON: 30 seconds.

21 MR. DeBOTTARI: The proposed site cannot
22 ensure that waste can be isolated for as long as it's a
23 hazard to future generations. Congress selected this
24 site based on incomplete data, assuming the natural
25 barriers in the Southwest would be adequate, in other
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1 words the salt mines, and that engineering barriers
2 would augment the natural barriers. It now appears
3 that the natural barriers are about 5 percent, a fact
4 very cleverly concealed in this report.

5 Mr. Secretary, in all good conscience, can
6 you recommend to the President that this is a good
7 site, when about 95 percent of the containment is

8 man-constructed from materials that have been tested
9 for no more than .004 percent of the required years?
10 This site, based on all the simulation to date, is not
11 a suitable deep geologic repository for high-level
12 nuclear waste. It would be just as safe to leave it
13 above ground, as DOE has done in the past at some of
14 their sites. Please, Mr. Secretary, wherever you are,
15 do not rely on man-made barriers to ensure the safety
16 of future generations. There are sites in this country
17 that are far more suitable and do not require
18 engineering barriers as a first line of containment.
19 The northern portion of the state of Wisconsin is one
20 such site. This is the same type of site that Sweden
21 and Finland are considering for their deep geological
22 repository, which have been praised by members of the
23 White House and the nuclear energy lobby.

24 MODERATOR LAWSON: I must ask you to complete
25 your comments.

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1 MR. DeBOTTARI: I have three sentences. The
2 Yucca Mountain Site does not have adequate natural
3 barriers, and DOE has demonstrated that it cannot,
4 after spending billions trying to justify a bad

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5 decision, made by Congress, replace mother nature.

6 Please do not let this continue. I will add more

7 comments on this report when I send it to DOE. Thank

8 you.

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