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EIS000248

OCT 05 1999

3 MR. BENNION: Thank you very much. My name
4 is John Bennion. I am an assistant professor at
5 Idaho State University. I am also a licensed
6 professional engineer, and president-elect of the
7 Idaho Society of Professional Engineers, and a
8 certified health physicist. I would like to thank
9 you for the opportunity for making these comments.

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10 There is strong and widespread support
11 among the scientific community that the best means
12 to deal with the long-term disposition of used
13 nuclear fuel is the deep burial and the geologic
14 repository, thereby effectively isolating material
15 from the biosphere. This means of disposing of
16 high-level radioactive waste was first endorsed by
17 the prestigious National Academy of Sciences more
18 than 30 years ago. And as a preferred method for
19 long-term disposal of high-level radioactive waste
20 by 30-something countries operating nuclear power
21 plants worldwide.

22 The Yucca Mountain site has been studied
23 intensively for a dozen years with the federal
24 government spending more than six billion dollars
25 on characterizing the site. During this time the

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1 Yucca Mountain site has been studied by geologists,
2 seismologists, hydrological engineers, geotechnical
3 engineers, civil engineers, nuclear engineers, and
4 by specialists in virtually every other field of
5 scientific inquiry.

6 An enormous amount of credible
7 scientific data has been a mass from these studies.
8 At no time during these investigations have any
9 credible issues been raised that would preclude
10 further development of the Yucca Mountain site.

3...

11 A combination of natural geological and
12 engineer barriers would prevent the release of
13 radioactive materials back into the biosphere.
14 These barriers include the use of fuel itself,
15 which is a surround of material, which is designed
16 to maintain its integrity and be leach resistant
17 under severity of conditions; such as heat,
18 radiation, and chemical that are anticipated in the
19 repository.

20 Second barrier is the waste packaging,
21 which is designed to isolate the used fuel material
22 from the host media. This is robust stainless
23 steel canister. The host crop then isolates the
24 nuclear fuel from groundwater and limits the rate
25 of which release of material can migrate from the

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1 replacement site. And the shaft will be sealed
2 after the site has been closed to prevent intrusion
3 of surface against humans. Finally a monitoring
4 system will be in place to verify the integrity of
5 this site after closure.

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6 The Department of Energy has been overly
7 conservative in setting performance standards for
8 the Yucca Mountain repository site. Predicted
9 health effects have been calculated based on the
10 linear no-threshold model, which holds that no
11 amount of radiation exposure however small is safe
12 to humans.

13 This overly conservative model is
14 currently under severe scrutiny by the scientific
15 community because it predicts health effects at low
16 doses that are contrary to a large body of
17 undeniable scientific data. That is, that chronic
18 exposure to low levels of radiation actually
19 results in lower incidences of cancer and
20 longevity.

21 The risks of the proposed nuclear
22 repository at Yucca Mountain posed to the public
23 and environment are very, very small in comparison
24 to the risk that we all accept everyday as a
25 consequence of living in a modern and affluent

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1 society.

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2 I believe that the Yucca Mountain site
3 characterization project should proceed without
4 delay, and that the process should be based on
5 scientific fact and not on emotions or irrational
6 fears. Thank you.

7 MS. SWEENEY: Thank you.

8 MR. BROWN: Thank you. The last person who
9 is signed up to speak is Pam Allister. I'll
10 mention that after she has concluded her statement
11 anyone else who would like to speak, please feel
12 free to just let me know at that point. Good
13 evening.

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