



**INSTITUTE FOR ENERGY AND
ENVIRONMENTAL RESEARCH**

6935 Laurel Avenue, Suite 201
Takoma Park, MD 20912

Phone: (301) 270-5500
FAX: (301) 270-3029
e-mail: ieer@ieer.org
<http://www.ieer.org>

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The Honorable Bill Richardson
Secretary of Energy
US Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Richardson,

On a recent visit to Nevada you were asked about research conducted by Dr. Yuri Dublyansky, a geologist, indicating that groundwater below the Yucca Mountain repository had risen in the geologic past to the level where the repository is proposed to be located. You made a commitment at that time that a decision on the viability of the site would be made on the basis of science and not politics. I want to thank you for that commitment.

Tomorrow, 1 December, the Institute for Energy and Environmental Research (IEER) will be releasing [Dr. Dublyansky's detailed report](#) on the subject. It is based on mineral samples he collected from the Yucca Mountain Exploratory Study Facility in June 1998. The report and associated materials, including a letter from me to Dr. Lake Barrett, are enclosed. This report has been thoroughly reviewed by independent researchers. IEER also arranged to send actual mineral samples to an independent fluid inclusion expert in Austria (Dr. Larryn Diamond) for study. Only one review, by a panel of reviewers associated with the Yucca Mountain project, arranged by Dr. Barrett, disagreed with the main findings. And even they have recommended future work to resolve the outstanding issues.

Dr. Dublyansky has carefully addressed the issues raised in all the reviews, including the DOE-arranged review. Because views on this subject are strongly held, I have decided to take the extraordinary step of publishing the reviews of Dr. Dublyansky's draft report, his detailed reply to the DOE-arranged review, and his entire interchange with Dr. Diamond, which, in my view, is a model of how scientific discussion should be conducted in what is admittedly a difficult and complex area. It is a refreshing contrast to the *ad hominem* tone of the DOE-arranged review.

I urge you to postpone the issuance of the Viability Assessment, which, as you know, is due out in a few weeks, until the vital issues raised by Dr. Dublyansky's research can be definitively resolved by joint sampling and studies. It would be contrary to sound science to issue a judgment on viability first and then to conduct research about past upwelling of water into the repository area.

Thank you again for your commitment to sound science and for your consideration of this request. Please let me know if you have any questions about this report, or the research that underlies it.

Yours sincerely,

Arjun Makhijani, Ph.D.
President