

**NUCLEAR WASTE REPOSITORY PROJECT OFFICE**

P.O. BOX 1767 • TONOPAH, NEVADA 89049

(702) 482-8183 • FAX (702) 482-9289

November 2, 1993

Mr. B.J. Youngblood, Director  
 High-Level Waste Management Division  
 Office of Nuclear Material Safety and Safeguards  
 U.S. Nuclear Regulatory Commission  
 Washington, DC 20555-0001

RE: Proposed Workshop on Characterization of Pneumatic Pathways at the  
 Yucca Mountain Site

Dear Mr. Youngblood:

As you are aware, a recent series of correspondence between the State of Nevada, the NRC staff, the USGS and DOE involves a critical geologic characterization issue that is currently being widely discussed within the Yucca Mountain program. That issue is, of course, potential loss of critical data on the undisturbed pneumatic conditions at Yucca Mountain if the ESF penetrates the bedded tuff unit which overlies the Topopah Spring unit before those pneumatic conditions can be adequately characterized from the surface. Once that bedded tuff unit is penetrated by the tunnel boring machine, the opportunity to study and fully understand the pneumatic characteristics of the repository block may be lost due to venting which will occur through the tunnel portal.

This pneumatic pathways issue was, in part, a focus at the Technical Review Board Meeting in Las Vegas on October 19-20. Carl Johnson of the State of Nevada, who first highlighted this issue in his letter to you of February 4, 1993, made a presentation to the TRB. The discussion following that presentation fairly well crystallized the pneumatic pathways issue as one needing immediate attention. Fortunately, there is a small window of opportunity available, in view of the fact that the current DOE schedule does not call for resumption of ESF construction with the tunnel boring machine until August of 1994.

Nye County is suggesting that all interested program participants, including the DOE, the State of Nevada, affected units of local government, DOE contractors, the NRC, the CNWRA, the TRB, etc., participate in a roundtable workshop on this issue aimed at carefully examining DOE's approach to characterizing the pneumatic conditions at Yucca Mountain. We are particularly interested in gathering at such a roundtable workshop the working scientists who would also be directly involved in further investigations pertaining to

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pneumatic conditions.

We suggest Thursday and Friday, December 9-10, 1993, for such a workshop, to be held in the Las Vegas area. Our present thinking is that appropriate participants, in order to provide a full and useful discussion of the issue, should include, in addition to Nye County and other affected units of local government, DOE, the State of Nevada, staff representatives of the NWTRB, representatives from your staff and the CNWRA, the U.S. Geological Survey, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, the M&O contractor, and perhaps other scientists not necessarily connected with the Yucca Mountain project who might have relevant information or insights on this issue.

The objective of the workshop will be to (1) inform all the participants on this critical geologic issue, (2) come to some conclusion as to what sort of data will be necessary in order to fully understand the pneumatic conditions at Yucca Mountain, and (3) arrive at some agreement as to the appropriate timing, methodologies, tests, etc. that should be used in order to collect the necessary data. The workshop will not aim at "resolving" this issue in the licensing context.

We have already had informal discussions about such a workshop with Russ Dyer, the NRC on-site representative, and others. I am enclosing a copy of my recent letter to Mr. Dyer on this subject for your information and reference. I will send along a tentative agenda for the workshop in the next few days. The NRC staff's participation in such a workshop would be very important, of course, and I sincerely hope that you can make appropriate staff, as well as representatives from the CNWRA, available.

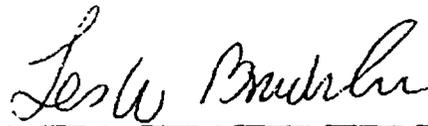
I would be pleased to discuss this matter with you at your convenience. I will also certainly keep you informed as we progress toward a firm workshop date and location.

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November 2, 1993

I look forward to hearing from you.

Very truly yours,  
NYE COUNTY, NEVADA



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Les W. Bradshaw, Manager  
Nuclear Waste Repository Project Office

cc: Phillip A. Niedzielski-Eichner, Governmental Dynamics  
Malachy R. Murphy, Lane, Powell, Spears and Lubersky  
Martin D. Mifflin, Mifflin and Associates  
Nick Stellavato, Nye County On-Site Geotechnical Representative  
William L. Offutt, Nye County Manager  
Carl Johnson, State of NActing Project Manager, Yucca Mountain Project  
Larry Hayes, USGS  
Affected Units of Local Government

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October 22, 1993

Mr. Russ Dyer, Project Manager  
 U.S. Department of Energy  
 Yucca Mountain Project  
 P.O. Box 98608  
 Las Vegas, NV 89193-8608  
 FAX # 794-7907

RE: Proposed Critical Geologic Issue Workshop: Pneumatic Pathways Tunnel  
 Construction Issue

Dear Russ:

The Pneumatic Pathways issue is a critical geologic issue that is currently being widely discussed within the Repository community. At the Technical Review Board meeting on October 19-20, 1993, the Pneumatic Pathways issue was recognized to be a potentially critical issue bearing on licenseability which needs further discussion within the Repository community. The issue has been brought to the forefront by Carl Johnson of the Nevada Nuclear Project Office in consultation with Marty Mifflin. The State of Nevada made a 15-minute presentation at the Technical Review Board meeting on the Pneumatic Pathways issue. The discussion following the presentation fairly well crystallized the issue as one needing immediate attention in view of the impending penetration by the tunnel boring machine of the bedded tuff unit which overlies the Topopah Springs unit. Once the bedded tuff is penetrated by the tunnel boring machine, the opportunity to study the pneumatic characteristics of the Repository block may be lost due to venting which will occur through the tunnel aperture.

Nye County believes that this is a critical geologic issue which needs immediate attention and an immediate resolution. Therefore, Nye County is suggesting that DOE, the

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other Affected Units of Local Government, DOE contractors, and the national regulatory and oversight agencies participate in an informal workshop aimed at carefully examining DOE's approach to addressing the Pneumatic Pathways/Tunnel Construction issue. We suggest Thursday, December 9, 1993, for the workshop with a location in Las Vegas. Appropriate participants, in addition to the AULG's, would be the State of Nevada, representatives of the U.S. Nuclear Waste Technical Review Board, representatives of the U.S. Nuclear Regulatory Commission, the U.S. Geological Survey, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, the M&O contractor, and of course appropriate DOE staff.

I would anticipate that at least one full day would be needed to discuss the issues with the objective being to come to some conclusion as to what sort of data would be necessary in order to resolve the Pneumatic Pathways/Tunnel Construction issue, and, more importantly, the methods that would be used to collect the necessary data.

Because this issue is being "chased" by the scheduled arrival in the Spring of 1994 of the tunnel boring machine, we believe that an early date for the workshop would be desirable. That is why we are suggesting Thursday, December 9, 1993. If we let the issue go until after the holidays and try to reconvene the conversations that were started on October 19, 1993, at the Technical Review Board meeting, it will be difficult to sustain the momentum necessary to arrive at a successful resolution of this issue. We hope that DOE can urge its participants and those of its contractors to make this date available. I have had informal discussions with the State of Nevada and the On-Site Representative of the U.S. Nuclear Regulatory Commission who agree that an early date would be desirable.

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I look forward to reviewing this matter with you in the near future and firming up a date which would be acceptable to the largest number of people. I look forward to a successful workshop

Very truly yours,  
 NYE COUNTY, NEVADA

  
 Les W Bradshaw, Manager  
 Nuclear Waste Repository Project Office

- cc Nick Stellavato, Nye County On-Site Geotechnical Representative
- Marty Mifflin, Mifflin and Associates
- Phil Niedzielski-Eichner, Governmental Dynamics, Inc.
- Mal Murphy, Lane, Powell, Spears and Lubersky
- Affected Units of Local Government
- William L. Offutt, Nye County Manager
- Carl Johnson, State of Nevada Nuclear Projects Office
- Paul Seidler, DOE

LWB tp