

cc: Larry Winter



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SANTA FE, NEW MEXICO 87503

February 2, 2001

GARY E. JOHNSON
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Dr. Robert A. Eisenstein
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Dr. James F. Decker
Director of Science (Acting)
U.S. Department of Energy
Office of Science
Forrestal
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Dear Drs. Eisenstein and Decker:

The Great State of New Mexico has a long history of serving the nation's science and research interests. From the initial development of nuclear power during WWII through the present, New Mexico has given far more than its proportionate share of resources and energy. This commitment continues today with the outstanding capabilities of Sandia and Los Alamos National Laboratories, as well as other truly national resources, such as the Very Large Array of the National Radio Astronomy Observatory and the research portfolio of the White Sands Missile Range. We in New Mexico are proud of the contribution our sparsely populated state has made to the nation's progress and welfare.

Southern New Mexico has continued this commitment by providing the host disposal site for the nation's defense related nuclear waste. The U.S. Department of Energy (DOE) operates the Waste Isolation Pilot Plant (WIPP) in one of the world's largest evaporite salt deposits near Carlsbad, New Mexico. This deep geologic waste repository opened less than two years ago, but has already announced the availability of its underground and mine infrastructure to the particle astrophysics research community. The Great State of New Mexico applauds DOE for its willingness to make WIPP available for other purposes.

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I was delighted when the DOE sponsored a workshop in Carlsbad for the particle astrophysics community this past summer, and announced that it would actively support use of the WIPP for other purposes than waste disposal. That event brought wide interest and participation from non-accelerator physics researchers across the country. While National Science Foundation (NSF) was unable to attend, the consensus from the workshop was that an underground research facility at WIPP was desired and needed. For far too long, U.S. sponsored research requiring geologic shielding from cosmic rays has been performed at laboratories outside the U.S.

After the workshop, several collaborations made arrangements at WIPP to begin construction of experiments. Others have approached WIPP with long-range plans. WIPP continues to support these efforts by providing the mine infrastructure and support services already in place and earmarked for 35 years of continuous operation. However, in the past few months, a new possibility has emerged – the Homestake mine in South Dakota.

I understand that NSF has chartered a scientific committee specifically to evaluate the need for such an underground science facility and the requisite capabilities and attributes it should provide. I further understand that WIPP and the Homestake mine will be evaluated. It should come as no surprise that I have a personal interest in the fairness and scientific defensibility of such an evaluation.

WIPP's primary attributes are that its host rock (salt) contains very little background radiation, unlike virtually all hard-rock mines, and that its waste disposal mission already pays for the high cost of providing an underground environment. On the other hand, WIPP's current horizon is not as deep as some experimenters might prefer. I believe that the savings realized by association with an existing program that provides mine operations support is very important. As your scientific committee proceeds in evaluating WIPP and the Homestake mine, do not ignore the real cost of mine operations over the life of the facility. In addition, the broad interest in WIPP by the scientists who are actively proceeding with plans for experiments there tells me that the "preference" to be deeper may not be based on hard scientific constraints. Indeed, the cost savings realized by creating an underground laboratory at WIPP may allow those few experiments that require additional depth to be conducted at other existing facilities.

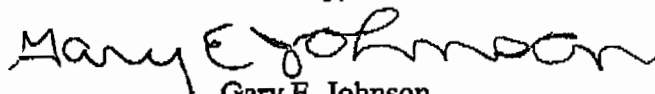
The citizens of New Mexico truly believe that WIPP can be an important chapter in the story of modern physics. Every encyclopedia or textbook will tell you where and how the great modern discoveries in science were made. Extraordinary science requires extraordinary tools. With its unique characteristics for doing particle astrophysics, the WIPP underground can be an extraordinary tool. We in New Mexico are committed to

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persevere and nurture the expansion of WIPP's role in serving humankind with the same dedication and enthusiasm as the scientists, as they experimentally unveil what may be the final chapter in our understanding of the universe. It is up to us to ensure history records that the WIPP project and Carlsbad, New Mexico played a not insignificant role.

I look forward to the NSF and DOE evaluation and will support subsequent funding requests for underground science at WIPP.

Sincerely,



Gary E. Johnson
Governor

cc: Senator Pete Domenici
Senator Jeff Bingaman
Representative Joe Skeen

John Bahcall
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