EDO Principal Correspondence Control

FROM: Senator Harry Reid

DUE: 07/13/04

EDO CONTROL: G20040411
DOC DT: 06/01/04
FINAL REPLY:

TO:

Dennis Rathbun

FOR SIGNATURE OF : Reyes

** GRN **

CRC NO: 04-0379

DESC:

Risk Assessment for the Proposed Nuclear Waste Respository at Yucca Mountain

ROUTING:

Reyes
Virgilio
Kane
Norry
Collins
Dean
Burns/Cyr
Mallett, RIV

DATE: 06/18/04

ASSIGNED TO: NMSS

CONTACT: Strosnider

SPECIAL INSTRUCTIONS OR REMARKS:

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OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

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ACTION OFFICE:	EDO		
AUTHOR:	SEN Harry Reid		
AFFILIATION:	SEN		
ADDRESSEE:	Dennis Rathbun		
SUBJECT:	Risk assessment for the proposed nuclear waste respository at Yucca Mountain		
ACTION:	Signature of EDO		
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LETTER DATE:	06/01/2004		
ACKNOWLEDGED	No		
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NOTES:			
FILE LOCATION:	ADAMS		
DATE DUE:	07/13/2004	**DATE SIGNED:**	

EDO --G20040411

HARRY REID
NEVADA

United States Senate

WASHINGTON, DC 20510-2803

June 1, 2004

Mr. Dennis K. Rathbun
Director
Office of Congressional Affairs
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Rathbun:

Enclosed is a letter I have received from Dr. Jacob D. Paz.

I would appreciate your reviewing this situation and providing answers to my constituent's concern. Please send your reply directly to Dr. Paz, and send a copy of your response to me.

Thank you for your cooperation and assistance.

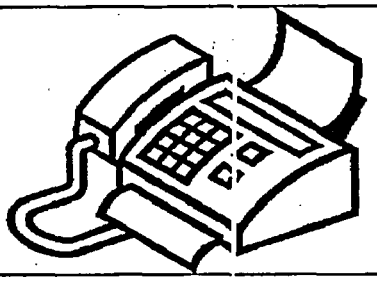
My best wishes to you.

Sincerely,

HARRY REID
United States Senator

HR:dm

Forward to NRC for response ASAP



A facsimile from

Dr. Jacob D Paz
702-309-3780
E-mail drjacobn@yahoo.com

To: Honorable Senator Reid
Cc: Dr. Jancko

Date: 5/14/2004

Regarding: NRC

Comments:

Dear Senator Reid:

I am requesting to contact the NRC and request scientific explanation how can they justified their position scientifically, and legally? I am enclosing my last correspondence to the NRC where I clearly showing that they are not in compliance with Clear Water At, and the Chlorine Ruling of the 10th Circuit of Appeal D.C. On Risk assessment and the use of Best available Science.

2503371

Dr. Jacob D. Paz
J&L Environmental Service Inc.
1200 S. Redwood St. # 89
Las Vegas, NV 89133
702-326-5857

The Honorable Chairmar Neil Diaz
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

May, 6, 2004,

Dear Chairman Diaz:

I am writing you and to bring to your attention a very serious scientific concerns. In the past year I have tried very hard to establish a dialog with the NRC on scientific uncertainties associated with risk assessment for the proposed High Nuclear Waste Repository at Yucca Mountain. The NRC to date has not addressed the issues which I have raised, in spite of a call in the professional literature to investigate the potential health hazard associated with low levels of radiation considering the bystander effect and complex mixtures.

While, the NRC has declined to review my concerns, the Environmental Protection Agency (EPA) have paid attention to this scientific concern, and is planning to review and to address them (see attached letter).

Second, in the March meeting of the Nuclear Technical Review Board, the Department of Energy (DOE) presented several studies on the behavior of the natural system, including radionuclide and migration. Furthermore, the DOE is planning to operate the repository at high temperatures induced during the 1,000 year thermal pulse that follows repository closure and will result in compaction of fractured and un-fractured rock surrounding the underground drifts. As the waste packages cool, the subsequent contraction of the surrounding rock may increase the size and density of fractures within the rock.

This will tend to accelerate the transport of heavy metals and **especially releases radionuclide ir to the environment through fracture flow and it may have a serious impact on radionuclide transport.** Since radionuclide release is contingent upon failure of the waste package, the heavy metals released by dissolution of the waste package material will enter the surrounding rock first, before any radionuclide release. This area also needs to be addressed by original research immediately!!!

Finally, recently information has been reported in the media concerning exposures to elevated evels of silica, erionite and radon during tunneling operation at YMP. This raises many health concerns among the public and employees. Especially, when several reports in the professional literature have stated that, for example, **"high levels of silica dust exposure may be a**

surrogate for the exposure to radon," Hnizdo et al. (1). Does, the NRC have the authority to request an investigation at YMP to estimate the health risk to employees who were exposed or are being exposed to the combined effects of *silica and radon during tunnel construction?*

If you have any questions please feel free to communicate with me at the above address or by phone at 702-326-5857.

References:

1. Hnizdo-Eva; Murray-Jill; and Klempman-Sarah Lung cancer in relation to exposure to silica dust, silicosis and uranium production in South African gold miners. Thorax. 1997; 52 (3) 271-275.

Yours truly,

Dr. Jacob D Paz

Cc: The Honorable Senator Reid
Nevada Congressional Delegation
State of Nevada Mr. S. Frishman

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 23 2004

OFFICE OF
AIR AND RADIATION

Dr. Jacob Paz
1200 S. Redwood St. #89
Las Vegas, NV 89146

Dear Dr. Paz:

Thank you for your letter of December 6, 2003, to Senator I Harry Reid, in which you suggest that the Environmental Protection Agency (EPA) "take a second look" at its standard for the Yucca Mountain repository in light of recent research. I understand your concern that the Yucca Mountain standard be based on up-to-date scientific information.

EPA is actively tracking the literature on radiation-induced bystander studies, which includes the study discussed in the article you provided, as well as on other low-dose phenomena. In addition, EPA continues to review the potential impacts the results from these studies may have on the Agency's radiation risk estimates and standards. EPA is a co-sponsor of a study by a committee of the National Research Council (NRC), which will review all the data relevant to estimation of risks at low doses, and will publish recommendations within the next year. Once the NRC completes its study, we will review our radiation risk assessment methodologies and make appropriate modifications as warranted.

If you would like to discuss the scientific basis of the standards for the Yucca Mountain repository further, including the work by Dr. Julian Preston, head of the environmental carcinogenesis division of EPA's National Health and Environmental Effects Laboratory, which you referenced, please contact Dr. Lowell Ralston in the Office of Radiation and Indoor Air. He can be reached at (202) 343-9831 or at ralston.lowell@epa.gov.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact Diann Frantz, in EPA's Office of Congressional and Intergovernmental Relations, at (202) 564-3668.

Sincerely,

Jeffrey R. Holmstead
Assistant Administrator

Lung cancer in relation to exposure to **silica** dust, silicosis and uranium production in South African gold miners. **Inventor**
Hnizdo-Eva {a}; Murray-Jill; Klempman-Sarah
Thorax-.1997; 52 (3) 271-275.

Abstract

Background: A nested case-control study for lung cancer was performed on a cohort of 2260 South African gold miners in whom an association between exposure to **silica** dust and risk of lung cancer was previously reported. The objective was to investigate an expanded set of risk factors and also cancer cell type. Methods: The 78 cases of lung cancer found during the follow up period from 1970 to 1986 were matched with 386 controls. Risk of lung cancer was related to smoking, exposure to **silica** dust, incidence of silicosis, and uranium production and the uranium content of the mine ore. Results: The risk of lung cancer was associated with tobacco smoking, cumulative dust exposure, duration of underground mining, and with silicosis. The best predictive model included pack years of cigarette consumption (adjusted relative risk (RR) = 1.0 for lt 6.5 pack years, 3.5 (95% confidence interval (CI) 0.7 to 16.8) for 6.5-20 pack years, 5.7 (95% CI 1.3 to 25.8) for 21-30 pack years, and 13.2 (95% CI 3.1 to 56.2) for more than 30 pack years) and silicosis (RR= 2.45 (95% CI 1.2 to 5.2)). No association was found with uranium production. The lung tumour cell type distribution was 40.3% small cell carcinoma, 38.8% squamous cell, 16.4% adenocarcinoma, and 4.5% large cell carcinoma. Small and large cell cancer combined were associated with exposure to dust. Conclusions: The results cannot be interpreted definitively in terms of causal association. Possible interpretations are: (1) subjects with high dust exposure who develop silicosis are at increased risk of lung cancer; (2) high levels of exposure to **silica** dust on its own is important in the pathogenesis of lung cancer and silicosis is coincidental; and (3) **high levels of silica dust exposure may be a surrogate for the exposure to radon daughters.**