

40-8905

# QUIVIRA MINING COMPANY

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RETURN ORIGINAL TO PDR, HQ.

September 27, 1989

Mr. Edward F. Hawkins  
Branch Chief  
Uranium Recovery Field Office  
U.S. Nuclear Regulatory Commission  
Region IV  
Box 25325  
Denver, Colorado 80225

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Re: License SUA-1473, Docket No. 40-8905  
NRC Inspection Report No. 40-8905/89-01  
Response To Open Items

Dear Mr. Hawkins:

Quivira Mining Company has completed its review of the open items in NRC's May 22-23, 1989 radiation safety inspection of the Ambrosia Lake, New Mexico facility as documented in NRC's report dated June 6, 1989.

Based on this review, Quivira submits the following responses to each of the open items. Each of these open items are indexed from your inspection report followed by Quivira's response. Quivira believes the actions taken will close the concerns raised during the inspection.

If you have any questions or need additional information, please call me at (505) 287-8851, extension 246.

Quivira Mining Company

*Bill Ferdinand*

Bill Ferdinand  
Manager, Radiation Safety and  
Environmental Affairs

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PDR ADDCK 04008905  
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Certified By *Mary C. Hood*

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90-0007

QUIVIRA MINING COMPANY

Response To NRC Inspection Open Items  
May 22-23, 1989

Open Items

1. 40-8905/8901-01 - The licensee utilized protection factors for disposable half-mask respirators which do not meet the criterion specified in Footnote g of Appendix A to 30 CFR 20.

Response:

Quivira realizes NRC concerns pertaining to half-mask respirators. However, Quivira also notes that the respirator in question, 3M #9940 respirator, has been approved and certified by both MSHA/NIOSH in accordance with 10 CFR 20.103(b)(3). Its approval number is TC-21C-239.

Quivira also wishes to point out that before any respiratory protection credit is taken for the wearing of half-mask respirators, each individual is smoke tested with an irritant smoke each time the respirator is donned. If the respirator was ill fitted and not providing the necessary protection, the irritant smoke test would positively identify the problem. As such, Quivira does not question that the respirators were properly fitted thereby providing the necessary protection in which they were certified and approved by MSHA/NIOSH.

As such, Quivira believes the taking of respiratory protection credit was appropriate. It should also be noted that these respirators are mainly worn as a precautionary measure on those jobs where insignificant exposures are expected. This is in keeping with the ALARA principal.

Quivira also believes the 3M respirators are equivalent in performance to any other half-mask respirator when it is properly fitted and smoke tested each time it is donned. It also provides the user a choice in the preference from different types of respirators they wish to wear.

It is Quivira's understanding from information received from Mr. Jim Kvikstad, 3M's Respirator Engineer, that a meeting with Mr. Scott Pennington, NRC Health Physic Department, Washington D.C., is being arranged to discuss the interpretation of "under the chin" type of respirator. Thus, to allay NRC concerns, Quivira will not take respiratory credit when using the 3M disposable respirators until the results of this meeting are ascertained.

2. 40-8905/8901-02 - The licensee has not maintained adequate documentation regarding the annual certification by a physician that workers are physically able to use respirators.

Response:

Each year a lung function test (spirometer test) is given to all employees to determine the employee's adequacy to wear respirators. This test is either given at the Grants Health Clinic for those employees given company physicals as determined by the employees age or at the Ambrosia Lake facility. All tests results are reviewed by Doctor Alfonso Valdevia, a physician at the Grants Health Clinic.

To document the annual certification by a physician, Quivira has sent Doctor Valdevia a letter requesting the names of its employees who are not physically able to use respirators. All correspondence from Doctor Valdevia documenting those individuals unable to don respirators will be maintained on file for future reference and inspection.

3. 40-8905/8901-03 - The licensee has not adequately documented the results of respirator fit testing.

Response:

During the annual radiation safety training course and respirator fit tests, the individual fit test certification document will be updated to include the size of respirator. The size of respirator acceptable for the employee will be denoted on the form.