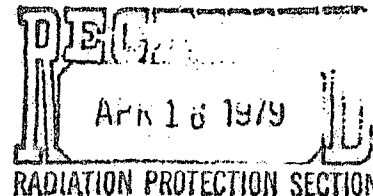


RANCHERS EXPLORATION AND DEVELOPMENT CORPORATION

Box 6217 / 1776 Montano Road, N.W. / Albuquerque, New Mexico 87197 / Telephone (505) 344-3542

April 11, 1979

Mr. Gerald W. Stewart
Environmental Scientist III
State of New Mexico
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87503



Re: Radioactive Material License No. NM-RED-MB-04

Dear Mr. Stewart:

In reference to your letter to me of March 5, 1979, and my letter to you of March 16, 1979, we are now in a position to respond to the concerns you have with Ranchers' compliance with license conditions, radiation protection of employees and sampling and measurement techniques.

Our mine personnel, specifically, James F. Swendseid, Chief Engineer, investigated the problems identified in paragraphs a through e of your letter and we wish to respond in that order to your statements.

With regard to your paragraph a, we do not feel you are correctly applying the language of condition 9-a of our license. That provision places no limit on the amount of tailings actually used by the mine in any one month for backfill operations. That license condition speaks only to the amount of tailings that may be transferred each month from the Kerr-McGee facility. This phrasing of the license makes sense as that, in effect, puts a cap on our use of tailings, yet it allows the flexibility we must have in our backfill schedule. For instance, in July 1978 only 3,500 tons of tailings were used for backfill, with the balance of the 8,000 tons being stock-piled. In August only 5,300 tons was used as fill, and, similarly, in October only 2,390 tons were used as fill. In September over 10,000 tons were used as fill and in November and December over 9,000 tons were used in each month as fill. By the nature of our operations, we certainly cannot guarantee that our actual use of tailings will always be 8,000 tons per month. In some months it will be lower and in some months it will be higher, but in the past, the 8,000 ton per month transfer rate has been adequate for our operations. In fact, our average use of tailings for the period of July through December, 1978 was only on the order of 6,400 tons per month. We fail to see how this is a violation of Condition 9-a as we have not exceeded a transfer from Kerr-McGee of 8,000 tons per month and our actual use of tailings has been well under 8,000 tons per month.

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With regard to your paragraph b, we, of course, agree that license Condition 13-a requires radon measurements at the north (VH9) and south (VH10) vents and at the tailings unloading storage area. We feel we have made a significant and continued effort to comply with the radon measurement requirements at these three areas, though, admittedly, we have discovered some gaps in the data which has been submitted to your organization. As you relate, at the outset of the sampling procedure we had problems with equipment, most of which were completely beyond our control and which we cannot do anything about at this time. We certainly did not intend to have problems with equipment, we don't enjoy having such problems and we hope that we do not have them again. We have also had several personnel changes at the mine and the individual responsible for compliance with the radioactive materials license (namely the chief engineer) has changed three times in the brief period of time we have been licensed. The latest change was in February of 1979 when Mr. Jim Swendseid filled the position after Mr. Ron Guill left on somewhat short notice. Jim has made sure that since he has occupied the position of chief engineer there are no data gaps, and I am confident that this will continue to be the case.

Regarding the specifics of your paragraph b, we hope you understand and trust that it will become clear to you as you examine our data, that we have endeavored to provide you with test results that would allow meaningful comparisons. That is, we have kept utmost the thought of providing data that shows the results during actual operations as compared with results during non-backfill operations. For instance, you point out that for May of 1978 we had an active backfilling operation for stope 800, but no data was reported to you. We cannot refute that, however, we did sample the north vent hole on April 21, when we were backfilling the 800-3 stope. This stope is adjacent to and virtually identical with the 800-2 stope. Therefore, the April figures should reasonably suffice for both April and May.

You also point out that we have two samples of the north vent hole in June. We actually have three. On June 7 we sampled, at the high point of our backfilling cycle. Again, on June 21, we sampled as on this date no backfilling operations were being carried out. We again sampled on June 26, while backfilling operations were being carried out in the 1,400-1 stope. (This information was erroneously reported to you as relating to VH10, the south vent hole, which misreporting we only recently discovered). Again, this sampling scenario should provide you with meaningful information since it relates to fill and non-fill periods.

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You correctly state that for the period of September to November we have supplied no data with respect to the north vent hole. This lack of data is not for lack of trying! We attempted to sample on September 17 to obtain another non-backfill comparative sample for the 1,400 stope. Our collection device did not operate properly, so we were unable to obtain lab results. Again, on October 12, we attempted to sample the 1,400-1 stope while backfilling was proceeding. On this occasion our sample bag was damaged during shipment to the lab, so no results were forthcoming. Still again on November 15, we attempted to sample the 1,400 area while backfilling, however, we once again had problems with our sampling equipment and we were unable to obtain results. We dislike having these sampling problems as much as you do, and our sampling procedures have been strengthened so that they are less likely to occur in the future.

Still regarding your paragraph b, but concentrating upon the south vent hole (VH10), we did not undertake backfilling operations in the southern area of the mine from the period of April through August, 1978. However, we obtained samples on April 14, June 12 and ~~June 26~~ from this vent hole. These numbers should provide you with a basis of radon gas levels while no backfilling is being carried out. In August, backfill operations were carried out in stope-012. We sampled the stope at this time, and you have those results. Again, in September while backfill operations were being carried out, we sampled the south vent. Later, in November, when no sandfilling operations were being carried out, we again sampled the south vent. We feel these samples, though perhaps not strictly in accordance with our license commitments, provide you with the type of information you need - the filling versus nonfilling information.

As a footnote, our examination of the sample analyses leads us to one conclusion about radon gas levels and backfilling operations. They are unrelated! We feel the only trend you will discover is that as temperature increases due to seasons of the year, radon levels increase. High temperatures mean high readings and low temperatures mean low readings, regardless of our backfill operations.

Regarding our sampling of point VH11, the tailings unloading - storage area, you raised the question of the October, 1978 test result. Jim Swendseid has investigated this matter and in his opinion a sample was likely mislabeled as being from VH11, when it actually was from the ~~North~~ or south vent hole, thus, the unusually high reading. Additionally, our October 5 sample was collected over a 96-hour period, whereas, our normal collection time is 48 hours, thus, leading to a high reading for that sample.

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With regard to your paragraph c, and license condition 13-b regarding air particulate samples at Vhll and backfill areas, we simply cannot find records for the period of July 24 to July 27 during which time we were backfilling the 1,400-1 stope. You also mention that we have no data for the period of October 1 through 5, 1978. We have found that this is likely not accurate. We reported on or about October 30, and it appears that this sample was actually taken on or about October 1, 1978 for we were at that time experiencing approximately a thirty day turnaround time for air filter results to be analyzed and returned. This sample should cover your concern about the 1,400 stope area for the October 1-5 period. Unfortunately, we can locate no data for the 1,400 stope for the period of January 1-5, 1979.

You raise concerns about the 1,400-2 stope during the period of September 21-20. The 1,400-2 stope is adjacent to and virtually identical with the 1,400-1 stope, so the result should be capable of application from one stope to the other. Therefore, the September data on 1,400-1 and November data on 1,400-1 should cover the same periods for 1,400-2.

As you state, we do not have data for stope 1,200-1 for the period of May 10 to June 13 which was during backfill operations. Jim has made a search for particulate results for this period and he can find none. Unfortunately, during this period we were again undergoing a shift in personnel and this probably explains the lack of data.

You raised a question about stope 014. Please be advised that stope 004 was being filled from September 4 through September 20. Filling of this area required a retreat through stope 014, so stope 004 was filled via 014 and the sample was taken at 014. The results of the laboratory do appear high in this area, however, we believe the lab made a mistake in their paperwork, which we compounded. The lab results were returned with the th230, ra226 and pb210 values reported in the PCI/g instead of PCI/M3 fashion. Our personnel did not notice this deviation when transcribing the data and our results were consequently unusual. We believe they were incorrectly reported and, therefore, should not be relied upon.

With reference to your paragraph d, and license condition 13-c, we have taken consistent readings both at Vhll and underground for working level measurements of radon daughters. This information was either unavailable or inadvertently omitted from the last report Mr. Swendseid sent you, and it is now enclosed with this letter.

With respect to your paragraph 3, our comments above should answer your concerns about keying samples to completion of backfilling.

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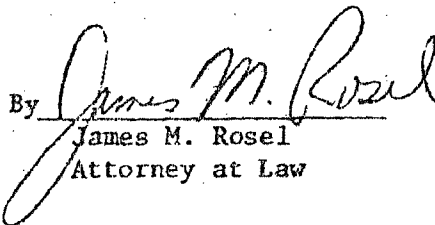
April 11, 1979

That completes our response to the specifics of your paragraphs a through e. We are currently reviewing and evaluating our sampling program, particularly with regard to the techniques mentioned in your letter. We are as anxious as you are to eliminate the mechanical problems we have had.

In closing, please let me know if you have any questions about our responses. Also, we would appreciate your feelings on whether we can increase the 8,000 ton per month rate of transfer of tailings from Kerr-McCree to Ranchers, as we may in the future require a larger amount of tailings.

Very truly yours,

RANCHERS EXPLORATION AND
DEVELOPMENT CORPORATION

By 
James M. Rosel
Attorney at Law

cc: Jim Swendseid
Arnold Buchanan

JMR:eam