

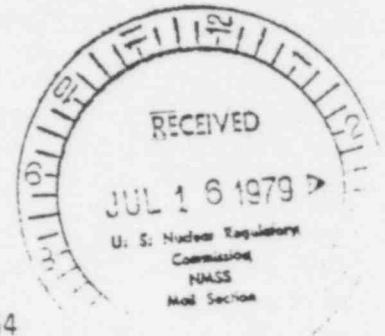
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40-8064

EXON MINERALS COMPANY, U.S.A.
POST OFFICE BOX 2180 · HOUSTON, TEXAS 77001

OPERATIONS DEPARTMENT

July 6, 1979



Re: Docket No. 40-8064
Request for Amendment
License No. SUA-1064
(Solution Mine R&D)

Dr. Ray Cooperstein
Fuel Processing and Fabrication Branch
Division of Fuel Cycle & Material Safety
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Dr. Cooperstein:

The differences in the monitor well excursion parameters we discussed the other day are due to the different methods specified by NRC and Wyoming DEQ for calculating these parameters. The NRC limit is calculated by adding a specified percentage to the baseline value whereas the DEQ value is calculated by adding a specified ppm to the baseline value. As shown in the data submitted, approval of a common method for calculating the values would result in some of the NRC values increasing while others would decrease; however, the changes are not very significant and would not reduce the effectiveness of the monitoring program.

An alternate program would be to specify a single value for each excursion parameter as long as this value is based on the wells with the higher baseline values. If this method were implemented, the excursion parameters for the R&D Project would be as follows: bicarbonate = 252 mg/l, carbonate = 68 mg/l, chloride = 128 mg/l, and uranium = 5 mg/l.

The table of Excursion Parameters for Monitor Wells, Table 1.17, which we were discussing was prepared for the DEQ. This table was revised in April and a copy of the new table is attached for your use.

If you have any questions on the attached or would like to discuss it in more detail, please call me.

Sincerely,

Marvin D. Freeman
Marvin D. Freeman

FEE EXEMPT
info only

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MDF:dh
Attachment

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TABLE 1.17
 EXCURSION PARAMETERS FOR MONITOR WELLS
 HIGHLAND SOLUTION MINE R&D PROGRAM

Well #	Bicarbonate-mg/l		Carbonate-mg/l		Chloride-mg/l		Uranium-mg/l	
	Range	UCL	Range	UCL	Range	UCL	Range	UCL
0-1	183-201	221	18-24	44	6-14	24	.009-.028	5
0-2 ⁽³⁾	195-220	240	1-12	32	8-30	40	.006-.024	5
0-3	73-204 ⁽⁴⁾	224	1-24	44	12-16	26	.002-.030	5
0-4	195-201	221	6-18	38	8	18	.006-.008	5
0-5	122-171	191	9-36	56	12-20	30	.058-8.10 ⁽⁵⁾	5
0-6	183-207	227	1-24	44	12-18	28	.025-.084	5
0-7	165-220	240	12-24	44	18-80	90	.001-.017	5
0-8	195-232	252	1-24	44	6-10	20	.010-.050	5
0-9	122-218 ⁽⁴⁾	238	24-48	68	32-118 ⁽⁴⁾	128	.008-.030	5
M-1	171-207	227	1-24	44	10-12	22	.001-.068	5
M-2	122-170	190	1-36	56	18-26	36	.001-7.00 ⁽⁵⁾	5

The conductivity and pH data have been dropped from this table as they are recorded for information purposes but are not excursion parameters.

- (1) Upper Control Limit to be used to identify potential excursions.
- (2) If not detected, the detection limit value of .001 is used.
- (3) This data based on tests conducted after the old well was plugged and the new monitor well 0-2 was completed.
- (4) Based on the average March 1979 values as discussed in the report for the 1st Quarter 1979.
- (5) The single high value reported appears to be an anomaly and was not used.

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