

JUL 25 1990

URFO:GRK  
Docket No. 40-8904  
SUA-1472, Amendment No. 17  
04008904420E

Sohio Western Mining Company  
10 East South Temple  
P.O. Box 11248  
Salt Lake City, Utah 84147

Gentlemen:

Our office is in receipt of your L-Bar Ground-Water Corrective Action Program Addendum submitted by cover letter dated July 2, 1990. Within the body of this document, you have discussed four issues related to your corrective action program that was fully operational on or before July 1, 1990.

The time versus concentration hazardous constituent plots for thorium-230, nickel, radium-226 and 228, and to a lesser extent, uranium, show a considerable amount of variability. It is uncommon to see an order of magnitude change in a constituent concentration, within the same well, in consecutive sampling events. The selenium data is more characteristic of the fluctuation that one would expect to encounter with relatively immobile hazardous constituents. The data that is being collected at wells MW-1A and MW-17S, MW-29A, MW-69, and MW-81 is very useful information which must be accurate and complete. We would recommend that the variability of the data, as well as laboratory procedures and sample collection/preservation methods, be reviewed to determine if these factors are causes for the data variability.

Your proposal to install two additional seepage collection wells appears to be warranted. These two collection points should help to capture seepage that is now leaving the site. The installation of these wells does not require amendment of the license; however, incorporating them into your corrective action program does. Therefore, your license will be amended to recognize wells MW-81 and MW-101 as components of your corrective action program.

PM: *GRK*  
GKonwinski/lv  
07/25/90

PM: URFO  
*mbzales*  
07/25/90

DD: URFO  
*EA*  
EHawkins  
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The mass balance statement that you have supplied failed to provide any data. A more functional submittal would include brief records on the amount of seepage recovered over the period of record, as well as representative water quality for the various hazardous constituents and selected ions. To support a future finding that constituents have been reduced to levels as low as reasonably achievable, many considerations will be necessary. Data gathering to support these issues should begin now, document previous efforts, and become additive throughout subsequent reporting events.

Your discussion of long-term ground-water chemistry and the potential to affect hazardous constituent concentrations is an important consideration to support an as low as reasonable achievable conclusion. Data in this area should be continually collected to determine when and if alternate concentration limits would have application at the site.

In consideration of your amendment request dated July 2, 1990, and pursuant to Title 10, Code of Federal Regulations, Part 40, Source Material License SUA-1472 is hereby amended by revising License Condition No. 31 to read as follows:

31. The licensee shall implement a ground-water compliance monitoring program containing the following:
  - A. Sample wells 29A, 17B, 1A, 69 and 81 on a semiannual frequency for antimony, nickel, selenium, uranium, combined radium-226 and 228, thorium-230, nitrate, chloride, sulfate, pH, electrical conductivity and water level. Additionally, well 17B will be sampled for cyanide.

Sample wells 2A, 3A, 14, 50, 57, 58, 61, 72, 76, 77, 78 and 79 on a semiannual frequency for chloride, sulfate, pH, electrical conductivity and water level.

On a semiannual frequency, sample well 2A for nitrates and well 50 for nitrates, selenium and nickel.

Sample wells 12A, 17, 51, 52, 53, 55, 60, 68, 73, 74 and 75 on an annual frequency for chloride, sulfate, pH, electrical conductivity and water level.
  - B. Comply with the following ground-water protection standards in mg/l (unless otherwise noted) at point of compliance Wells 17B, 1A, 69 and 81 with background being recognized in Well 29A:

antimony = 0.2, arsenic = 0.05, barium = 1.0, cadmium = 0.01, nickel = 0.001, selenium = 0.01, uranium = 0.5, combined radium-226 and 228 = 5 pCi/l, thorium-230 = 0.13 pCi/l, and cyanide = 0.01.

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- C. Implement the corrective action program in accordance with the seepage collection system detailed in the March 31, June 23 and August 1, 1989 submittals, as well as pump wells MW-81 and MW-101 as described in the June 28, 1990, submittal, with the objective of returning the concentrations of antimony, arsenic, barium, cadmium, nickel, selenium, uranium, combined radium-226 and 228, thorium-230 and cyanide to the concentration limits specified in Subsection (B).

Additionally, the licensee shall on a semiannual frequency, submit a ground-water monitoring report as well as annually submit a corrective action program review, on or before February 15, that describes the progress towards attaining ground-water protection standards.

All other conditions of this license shall remain the same. The effect of this amendment is to include two additional seepage collection wells into your corrective action program. The license is being reissued to incorporate the above modifications.

The issuance of this amendment was discussed and agreed to between your Mr. Schurtz and Mr. Konwinski of my staff on July 25, 1990.

Sincerely,

Ramon F. Hall  
Director

Enclosure:  
Source Material License SUA-1472

Case Closed: 04008904420E

cc:  
Docket File 40-8904  
LFMB  
PDR/DCS  
URFO r/f  
ABBeach, RIV  
LLO Branch, LLWM  
OB:IMNS:NMSS  
GKonwinski  
RGonzales  
RCPD, UT