PATHFINDER

A Cogema Resources Company

November 21, 2002

Mr. Dan Gillen, Branch Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, Maryland 20852

Ref. Docket No. 40-6622, Source Material License No. SUA-442
Revision to the Shirley Basin Mine Application for Alternate Concentration Limits

Dear Mr. Gillen:

Enclosed please find five copies of a two page revision to the referenced Application for Alternate Concentration Limits (ACLs). The revision consists of an expanded compliance monitoring program and a commitment to increase the frequency of POC well monitoring in the event of a routine measured ACL parameter at the POC exceeding its proposed ACL limit. This revision has been discussed with Elaine Brummett of your staff. We request the incorporation of the revised pages into the application document. If you have any questions concerning this submittal please let us know.

Sincerely,

Tom Hardgrove

T. W. Hardgrove
Operations Manager

Enclosure

Cc: C. Cain, USNRC Region IV
G. Beach, Wyoming DEQ/WQD
D. L. Wichers
B. G. Bonifas
Hydro-Engineering, LLC, w/o encl.

NMSS01

REPLACEMENT PAGES

The following pages have been revised and are included for replacement or addition to "Application For Alternate Concentration Limits, Pathfinder Mines Corporation, Shirley Basin Mine". The replacement of a double-sided sheet in Section 4 and the addition of Figure 4.2-1 also required substitution of a double-sided sheet in the Table of Contents.

Page No.	Action
Pgs. ix and x	Replace Pgs. ix and x (single sheet)
Pg. 4.2-1	Replace Pg. 4.2-1 with Pgs. 4.2-1 and 4.2-2 (single sheet)
Figure 4.2-1	Add Figure 4.2-1 (Pg. 4.2-3)

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(continued)

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4.2 PROPOSED IMPLEMENTATION MEASURES

The alternate concentrations will be met by completing the corrective action plan for the ground-water systems at the Shirley Basin site, which includes the continuation of Surficial collection/injection system operation and aggressive tailings dewatering until at least mid-2001. Surficial collection/injection programs will continue to contain seepage and will restore water quality in the immediate area of the Mine Creek collection wells. The Surficial collection/injection within the tailings area will provide some additional restoration of water quality in this area. The tailings dewatering will reduce the quantity of water remaining in the tailings, and consequently, the long-term seepage rate to the Surficial aquifer. The construction of the radon/infiltration barrier and surface drainage system after termination of dewatering efforts will reduce recharge to the tailings.

4.2.1 COMPLIANCE MONITORING

Quarterly monitoring will be done for the two POC wells (NP01 and RPI-19B) and wells MC-7, MC-10, MC-11, P-6, RPI-8A, RPI-10, RPI-16A, RPI-20A, and RPI-21B, to span the area of measurable ground-water impacts along Spring Creek. Quarterly samples will be taken from five locations along Spring Creek including the POE and locations SC-1, SC-2, SC-3, and SW1A (see Figure 4.2-1). The SW1A site is located in Spring Creek upstream of the tailings. Both surface and ground water samples will be analyzed for uranium, selenium, TDS, chloride, arsenic, barium, beryllium, cadmium, chromium, lead, molybdenum, nickel, nitrate and sulfate concentrations, and thorium-230, radium-226 + radium-288 and gross alpha activities. Field parameters of field pH, conductivity and water levels in wells will also be taken during sampling. The first sampling will occur within two months of cessation of the CAP operation.

The purposes of this monitoring are to assure that PMC remains in compliance with the ground water standards in the license, to adequately monitor ground water plume movement over time and distance, and to assure that ground water contamination does not present an unacceptable risk to human health or the environment. If a ground water standard at a point of compliance is exceeded, the licensee shall notify the NRC within 30 days and shall increase the sampling frequency to monthly, until it is

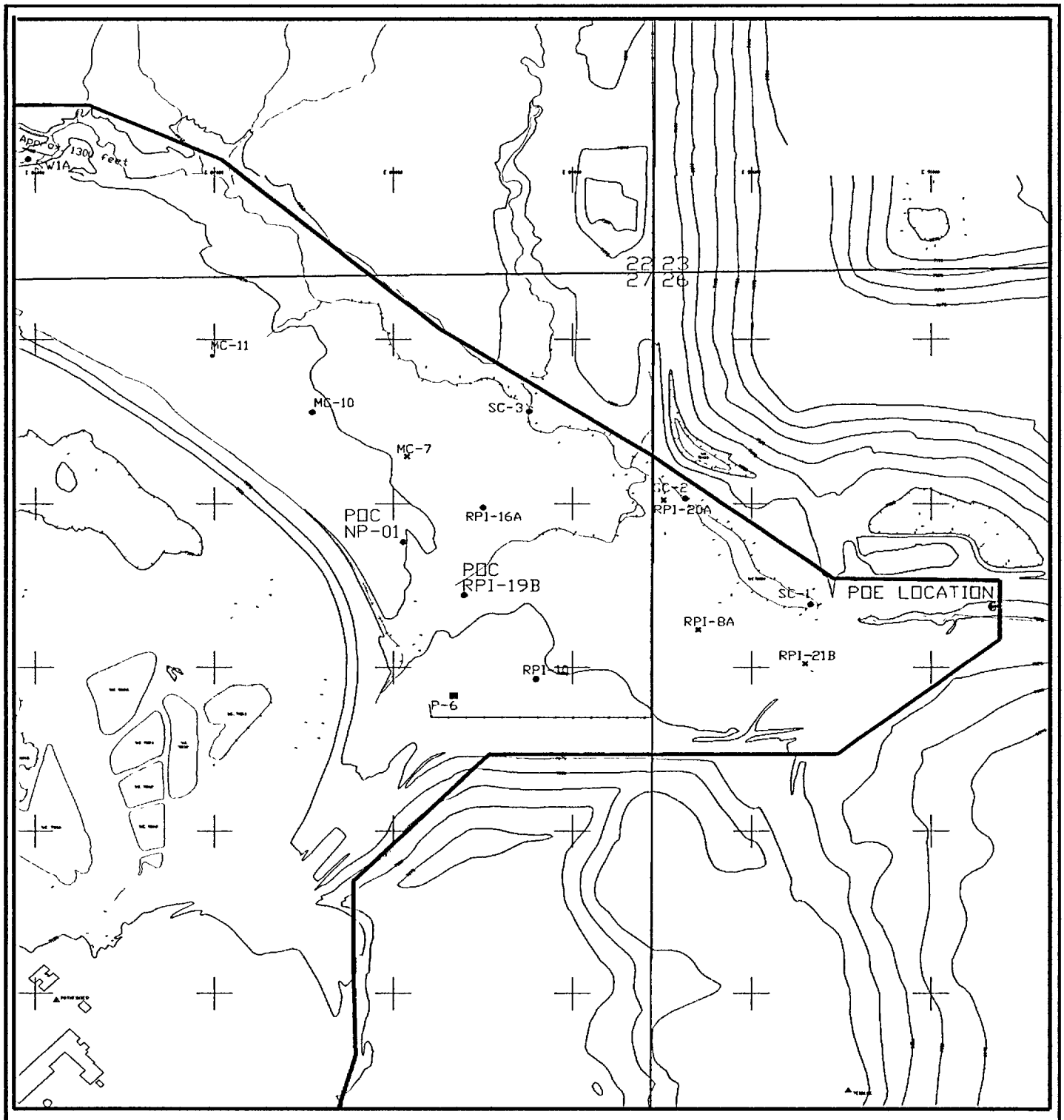
determined by the NRC staff, that a true exceedance has occurred. If it is determined that a true exceedance has occurred, the licensee shall comply with the requirements per 10 CFR Part 40, Appendix A, Criterion 5D. If the NRC determines that it is not a true exceedance, the licensee will revert back to quarterly monitoring as described above.

The DOE will propose a ground water monitoring plan as part of the Long-Term Surveillance Plan, to be approved by the NRC. As custodian of the tailings after termination of the Shirley Basin license, DOE will be responsible for continued monitoring and any needed corrective action under an NRC general license.

The Wyoming State Engineers' Office (SEO) records will be reviewed every 3 years to determine if new surface water or ground water users are defined. This information will be furnished to the NRC to determine if a significant change in use of the water is occurring.

PMC will request permission for off-tailings well closures from the NRC prior to closing any of the existing wells. Closure of the majority of the wells is expected to occur after the DOE determines which wells they desire to be left at the site.

The final step in the ACL process will be turning over the site to the DOE. The results of the monitoring program will be summarized and provided to the NRC and DOE in a report prior to site transfer.



PATHFINDER
PATHFINDER MINES CORPORATION
SHIRLEY BASIN WYOMING
T28N, R78W

FIGURE 4 2-1 PLANNED ACL SAMPLE LOCATIONS

DRAWN BY TGM	DATE: 10-2002	SCALE 1"=800'
		SAMPFIG DWG
REVIS NO	HYDRO-ENGINEERING L L C	