



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
URANIUM RECOVERY FIELD OFFICE  
BOX 25325  
DENVER, COLORADO 80225

JUN 02 1993

Docket No. 40-6659  
SUA-551, Amendment No. 37

Petrotomics Company  
ATTN: Ron Juday, Supervisor  
P.O. Box 8509  
Shirley Basin, Wyoming 82615

Dear Mr. Juday:

This letter is in response to your request to amend License Condition No. 47 of Source Material License SUA-551, originally submitted by letter dated January 30, 1992. The NRC's approval of this amendment would authorize Petrotomics Company to modify the ground-water corrective action program (CAP) for the Shirley Basin mill to allow implementation of a fresh water injection/recovery system. Details for the system design, operation, and monitoring are included in the January 30, 1992, submittal and additional correspondence dated May 7, 1992, and January 8 and 13, 1993.

Based on our review and evaluation of the referenced submittals, it is concluded that implementation of the proposed injection/recovery system will enhance the site ground-water CAP, and that there will be no harm to human health or the environment as a consequence of the system design which includes, in part, two additional evaporation ponds constructed on the partially reclaimed tailings pile. Details concerning the modification to the evaporation pond system are included in the previously referenced documents and the Memorandum to File dated June 18, 1992. The NRC received no comments in response to the draft Finding of No Significant Impact prepared for the proposed action and published March 4, 1993, in the Federal Register; a final Finding of No Significant Impact was published on May 7, 1993.

Therefore, pursuant to Title 10, Code of Federal Regulations, Part 40, and in accordance with your submittals referenced above, Source Material License SUA-551 is revised by amending License Condition No. 47 to read as follows:

47. The licensee shall implement a compliance monitoring program containing the following:
- A. Sample wells 7-DC, 1-SC, 3-SC, 4-SC, 5-SC, 29-SC, 40-SC, 41-SC, 42-SC, 43-SC, 44-SC, 45-SC, 49-SC, 50-SC, 51-SC, 52-SC, 53-SC, 54-SC, 55-SC, 56-SC, 57-SC, 58-SC, 66-SC, 67-SC, and the mine shop well on a quarterly frequency for chloride, nitrate, sulfate, pH, TDS, and water level, and on a semiannual frequency for arsenic, barium, cadmium, chromium, lead, nickel, radium-226, radium-228, combined radium-226 and 228, selenium, thorium-230, and uranium.

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- B. Comply with the following ground-water protection standards at point of compliance well Nos. 5-SC and 42-SC, with background being recognized as the average of well Nos. 39-SC and 41-SC:

arsenic = 0.05 mg/l, barium = 1.0 mg/l, cadmium = 0.014 mg/l, chromium = 0.05 mg/l, lead = 0.05 mg/l, nickel = 0.22 mg/l, radium-226 = 1.8 pCi/l, radium-228 = 1.7 pCi/l, combined radium-226 and 228 = 5.0 pCi/l, selenium = 0.01 mg/l, thorium = 3.94 pCi/l and uranium = 0.16 mg/l.

- C. Implement a corrective action program as described in the submittal dated July 6, 1988, and modified by submittals dated April 6, 1987, June 30, 1992, and May 7, 1992, including, in part, construction of the proposed additional evaporation pond system. The objective of the corrective action program is to return the concentrations of cadmium, chromium, lead, nickel, radium-226, radium-228, combined radium-226 and -228, thorium-230, and uranium to the concentration limits specified in Subsection (B).
- D. Submit, by June 15 of each year, a review of the corrective action program and its effect on the aquifer. In addition, submit in the form of a license modification, the results of any corrective action program modifications along with or prior to the next June 15 submittal.

[Applicable Amendments: 19, 22, 25, 26, 28, 30, 33, 33A, 36, 37]

Source Material License NUA-551 is being reissued to incorporate the above revisions. All other provisions of the license shall remain the same. The effect of this license amendment is to modify the Shirley Basin mill ground-water corrective action program by authorizing development of a fresh-water injection-recovery system including, in part, construction of two additional evaporation ponds. An environmental report from the licensee is not required by 10 CFR 51.60 (b)(2). Notwithstanding, an Environmental Assessment (EA) was prepared by our staff because of the NRC's concerns related to the proposed placement of two additional evaporation ponds on partially reclaimed tailings. Documents used to prepare the EA, dated February 23, 1993, include licensee submittals entitled "Corrective Action Modifications, Upper Wind River Sand" dated January 1992, and "Supplement to Applicant's Environmental Report for Expanded Evaporation System-Corrective Action Plan" dated November 1992. Other submittals referenced include the Environmental Report for the Shirley Basin mill dated April 1, 1981, the Environmental Assessment issued in 1984 by the NRC, and information forwarded to the NRC by letters dated May 7, 1992, and January 8 and 13, 1993.

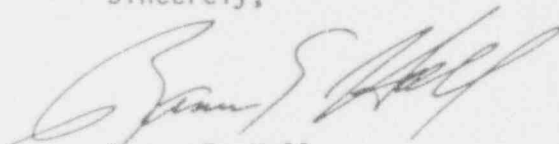
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This license amendment was discussed between Ron Juday of Petrotomics Company and Cynthia Miller-Corbett of my staff on May 27, 1993. Please call Ms. Miller-Corbett if you have any questions concerning this action.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Ramon E. Hall', written in a cursive style.

Ramon E. Hall  
Director

Enclosure:  
Source Material License SUA 551

cc:  
J. Hough, RCPD, WY  
WDEQ