

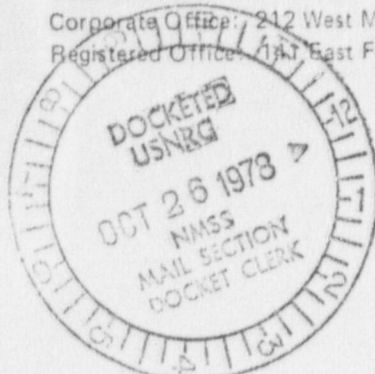


40-8698

General Office: 772 Horizon Drive, Grand Junction, CO 81501
Corporate Office: 212 West Michigan Avenue, Jackson, MI 49201
Registered Office: 1847 East First South, Salt Lake City, UT 84111

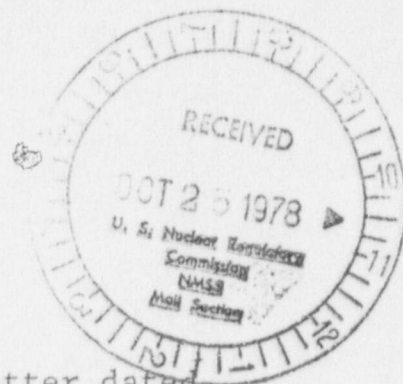
Jack Rothfleisch

(303) 245-5460
(517) 787-8415
(801) 534-0734



(NRG PUBLIC DOCUMENT ROOM)
October 17, 1978

Mr. Richard E. Cunningham
Acting Director
Division of Fuel Cycle and Material Safety
NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555



Dear Mr. Cunningham:

This letter is in response to comments per a letter dated September 18, 1978, from the U. S. Department of the Interior, Bureau of Mines, John L. Reuss, Acting Chief, regarding ER-78/176, Docket No. 40-8698.

I am transmitting attached a memo from U. K. Gupta, Metallurgical Superintendent, Plateau Resources Limited, relating to the feasibility of the extraction of vanadium as a by-product at our proposed Shootaring Canyon Uranium Mill Project.

As related in said memo, vanadium recovery at this date is not economically feasible. However, market conditions as well as extractive and recovery techniques will be periodically monitored and re-evaluated. If at some future date, market values and/or recovery techniques become available such that by-product vanadium recovery becomes economically feasible, the uranium tailings could be processed for the vanadium values.

If I can be of any further help, please let me know.

Sincerely,

J. R. Rookstool
J. R. Rookstool
Process Manager

JRR:sr
Enclosure: Attached
cc: John L. Reuss

11091

7810310282

To JRRookstool, GJ

FROM UKGupta, GJ

DATE October 13, 1978

SUBJECT FEASIBILITY OF BY-PRODUCT EXTRACTION
OF VANADIUM

plateau
resources
limited

INTERNAL CORRESPONDENCE

CC

sr

Evaluation of metallurgical test work done by Hazen Research Inc. and Mountain States Engineers indicates that with the present circuit designed for Shootaring Canyon, it is estimated that approximately 35% of the contained vanadium would be dissolved in the leaching circuit. The raffinate after uranium stripping could be further processed to recover vanadium in a separate circuit with an overall recovery of 26%. This separate vanadium extraction circuit would have to be constructed at an estimated capital cost of \$3.59 million. The plant would produce approximately 800 pounds of V_2O_5 per day. Operating cost for this facility, including capital amortization over 10 years period at 10%, is estimated at \$3.69 per ton of ore milled compared to recovered value of \$3.21 per ton of ore at present market value of V_2O_5 .

Analysis of the above preliminary results show that extraction of vanadium would not be economically viable at the present.