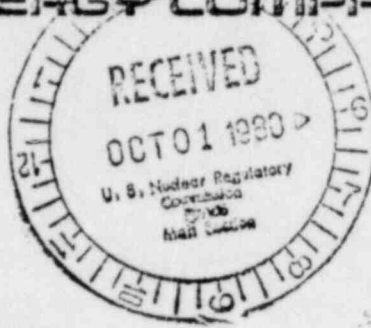




ROCKY MOUNTAIN ENERGY COMPANY



September 8, 1980



Mr. Tom Mueller
WYOMING DEQ
Water Quality Division, Dist. IV
30 East Grinnell
Sheridan, WY 82801

Dear Mr. Mueller:

RE: Your letter of August 18, 1980

Sorry to take so long to acknowledge receipt of your letter approving the sampling procedures and discharge limits for Reservoir B (Permit No. 79-713) which we have discussed. Our procedures will be modified accordingly, and future notification of excessive constituent levels in the discharge reported on the basis of the limits stated in Revised Table II-1.

Thank you for your letter of approval.

Sincerely,

Michael R. Neumann

M. R. Neumann
Field Environmental Coordinator

MRE/ph

- cc: Tony Mancini (DEQ)
- Margery Hulburt (DEQ)
- Jack E. Rothfleisch (NRC) w/attachments
- Kent W. Loest

17473



Department of Environmental Quality
Water Quality Division

30 EAST GRINNELL

SHERIDAN, WYOMING 82801

TELEPHONE 307-672-6488

August 18, 1980

Mr. Mike Neumann
Rocky Mountain Energy Company
190 Pronghorn
Casper, Wyoming 82601

Dear Mr. Neumann:

This is in response to your letters of June 12 and June 23, 1980. I concur with your request for revised sampling schedules and reporting criteria for reservoir B (Permit to Construct 79-713), specifically:

- a) Daily TDS analysis of the lime overflow may be eliminated;
- b) Reservoir B monitoring may be reduced from weekly to monthly frequency;
- c) In the future, notification of the WQD Administrator, as required in the Permit to Construct, shall be in accordance with the revised Table II-1 submitted in your letter of June 12.

I apologize for the delay in getting this to you. If you have any questions, let me know.

Yours truly,

A handwritten signature in cursive script that reads "Tom Mueller".

Tom Mueller
District Supervisor

TM/lis

**ROCKY MOUNTAIN
ENERGY COMPANY**

POOR ORIGINAL

June 12, 1980

Mr. Tom Mueller
Department of Environmental Quality
District IV, Water Quality Division
30 East Grinnell Street
Sheridan, WY 82801

Dear Mr. Mueller:

Re: Nine Mile Lake, Treated Water Reservoir
(Reservoir "B")

Enclosed are results of sample analyses for the lime overflow circuit, reservoir "B" grab samples and reservoir "A" grab samples. The reservoir "A" analyses (Table 3) are provided for comparison purposes.

As I mentioned in my letter of June 3, 1980 to Dennis, we have finally received radiochem analysis for the April sampling of reservoir "B" water and the lime overflow circuit which confirm that the lime treatment--barium chloride circuit is operating very effectively. As you can see on the COM Analysis Report sheet (enclosed), Ra-226 levels were 7.0 pCi/l for the April lime overflow composite and 16 pCi/l for the "Pond B" (treated water reservoir) grab sample. Also enclosed are graphs showing pH, uranium and vanadium levels in the lime overflow discharge for the period April 28 through June 9, 1980. Uranium levels have been consistently below 3 mg/l during this period while vanadium content has leveled off at less than 12 mg/l. These data demonstrate that the present water treatment circuit is working quite well.

Also enclosed are Tables 1 and 2 which present assay results for monthly composites of the lime overflow discharge and reservoir "B" grab samples. These tables were used to develop the self-imposed discharge criteria presented in Revised Table II-1. Table II-1 was originally developed from bench test data as part of the treated water reservoir application which was submitted to the DEQ on December 3, 1979. The table has been revised to realistically describe discharge limits for key parameters, based upon operational experience.

We would also request that the sampling procedures described in the original application be modified to eliminate meaningless samples. Specifically, we propose that daily analysis of the shift samples for TDS be eliminated, as it requires a time-consuming analysis which contributes little to interpretation of discharge water quality. Also, we request that samples of reservoir "B" water be collected and analyzed on a monthly basis rather than a weekly basis. The lime overflow samples are analyzed on a

Mr. Tom Mueller
June 12, 1980
Page Two

daily basis which provides a good indication of the characteristics of the water being discharged. Weekly samples are relatively meaningless as water quality in the pond does not vary significantly from week to week. A monthly sample will provide a better indication of long term changes in water quality in the reservoir. The remainder of the sampling program will be maintained as described in the application.

To date, only one sample has been collected from the pond monitor wells as all previous attempts found the wells to be dry. A sample was collected this month from well PM-3 which is located to the southeast and down-dip from the pond. Initial analysis shows pH, conductivity, TDS, sulfate, and vanadium levels typical of the shallow perched water table. It is very likely that the water in the well was due to groundwater movement and not reservoir seepage.

By means of this letter, Rocky Mountain Energy Company (RMEC) requests DEQ approval of the proposed modifications to the monitoring program as described herein as well as concurrence as to the suitability of the revised discharge standards.

If you have any questions, please give me a call.

Sincerely,

Michael R. Neumann

M. R. Neumann
Field Environmental Coordinator

cc: Tony Mancini (DEQ)
Margery Hulburt (DEQ)
Dennis Morrow (DEQ)
Kent Loest
Pat Spieles
Rick Iwanicki

REVISED TABLE 11-1

<u>Constituent</u>	<u>A</u> <u>(PPM)</u>	<u>B</u> <u>(PPM)</u>
TDS	7,000 - 8,000	4,200 - 5,600
pH	1.5 - 1.9	7.0 - 8.0
SO ₄	6,000 - 6,400	2,500 - 4,000
V ⁺	400 - 450	< 15
Ca ⁺⁺	350 - 400	750 - 1,100
Mg ⁺⁺	150 - 175	50 - 110
Na ⁺	450 - 525	400 - 525
Fe ⁺⁺	40 - 90	10
SiO ₂ ⁼	100 - 150	50
Zn ⁺⁺	20 - 30	5.0
Al ⁺⁺⁺	40 - 80	0.3
U ₃ O ₈	< 10	< 5.0
As	0.2	.02
Se	0.8	0.36
Ra ²²⁶	≈ 50 - 500 pci/l	15 pci/l
Th ²³⁰	≈ 9000	10 pci/l