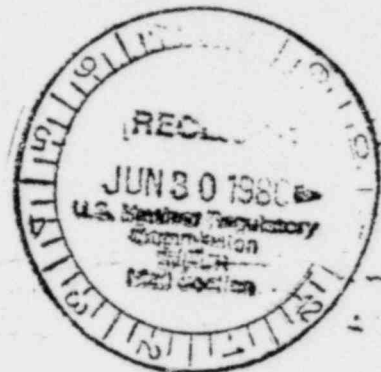




**ROCKY MOUNTAIN ENERGY COMPANY**

*J. Rothfleisch*  
**PDR 40-8380**

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



Dear Mr. Mueller:

Re: Nine Mile Lake, Reservoirs B and C

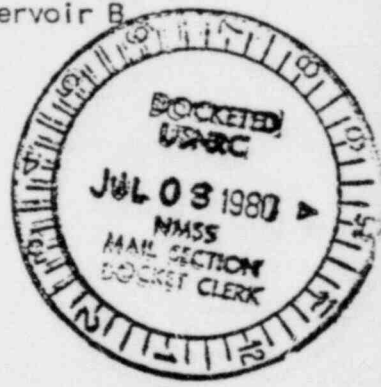
Enclosed is a completed Application for Permit to Construct a Wastewater Facility for the proposed reservoir C at Nine Mile Lake. This application is intended to accompany Drawing No. 086-01-C-023 which is the design drawing for the reservoir and was included in the recent R & D license application. As I mentioned last Friday, this drawing will also be submitted to the State Engineer for approval.

Also, as I mentioned in our phone conversation last Monday, Table 2 which was attached to my letter of June 12, 1980 incorrectly reported the vanadium level for the March sampling of reservoir B water as 33 mg/l. The correct figure is 11.2 mg/l.

Also in accordance with your request made during our meeting, listed below are the assay results for the sample taken from reservoir B monitor well number PM-3. (The well was sampled on June 9, 1980.)

Pond B Monitor Well PM-3\*

pH	7.72	Sodium	4686
EMF	+70	Potassium	21.2
Conductivity	15,200 (mmhos/cm)	Iron	0.18
Alkalinity	384	Sulfate	10,739
Carbonate	0	Chloride	97
Bicarbonate	468	Vanadium	0.17
Calcium	430	TDS	16,600
Magnesium	257		



\* All values mg/l except as noted

**FEE EXEMPT**

Comparing this data to the reservoir B water quality data clearly shows significant differences. Sulfate levels in well PM-3 are 3 to 4 times higher than reservoir B as are magnesium levels, while sodium is about 10 times higher in PM-3. Calcium and iron levels in PM-3 are roughly 1/2 to 1/3 of those in reservoir B and vanadium is on the order of 1/100 of reservoir B concentrations.

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*add'l info*

Mr. Tom Mueller  
June 23, 1980  
Page Two

Table VI-5 presents water quality data for well HS-5 which is the closest shallow monitor well to well PM-3. Note the similarity of conductivity, TDS, sulfate, calcium, sodium, magnesium, potassium, vanadium, and pH values for the two wells. The high TDS, conductivity, calcium, sulfate, and sodium levels are typical of the shallow ground water found at the Nine Mile site. The similarity of the water quality in wells PM-3 and HS-5 confirms that the source of the sample collected from well PM-3 is almost certainly ambient ground water.

Should you have any questions concerning this data, please let me know. By means of this letter, I also request your approval of the revised discharge levels for reservoir B as described in Table II-1 (revised) of my letter of June 12, 1980.

Sincerely,

*Michael R. Neumann*

M. R. Neumann

MRN/je

cc: Tony Mancini (DEQ)  
Margery Hulburt (DEQ)  
Dennis Morrow (DEQ)  
Jack Rothfleisch (NRC)  
Kent Loest  
Rick Iwanicki

TABLE VI - 5  
GROUNDWATER QUALITY<sup>1</sup>

Well Number - HS - 5

Depth - 73 feet

Parameter	Concentration mg/l	Parameter	Concentration mg/l
Al	.02 - .2	Hg	> .0005
Alkalinity	520 - 774	Nitrate	.02 - .1
Ammonia	.5 - 1.87	nitrite	.01 - .1
As	.01 - .16	pH	7.5 - 8.1
Ba	.02 - .03	Phosphate	.1
Bicarbonate	630 - 944	K	16 - 21
B	.5 - .65	Se	.01 - .06
Cd	.002 - .012	SiO <sub>2</sub>	11.1 - 12.5
Ca	407 - 461	Ag	.01
Chloride	210 - 363	SO <sub>4</sub>	9650 - 12852
Cr	.01 - .19	Na	4010 - 6040
Conductivity	mhos/cm 17940 - 21212	Ti	0.5
Cu	.01 - .04	TDS	17259 - 20700
Fl	.3 - .65	V	.02 - .34
Hardness	2080 - 2300	Zn	.01 - .07
Fe	.17 - 1.9	U <sub>3</sub> O <sub>8</sub>	.01 - .022
Pb	.01 - .08	Pb <sup>210</sup>	.3 - 3.2*
Mg	240 - 281	Po <sup>210</sup>	.3 - 1.2*
Mo	.04 - .1	RA <sup>226</sup>	.3 - 1.2*
Ni	.02 - .49	Th <sup>230</sup>	.5 - 1.8*
Mn	1.23 - 3.7		

All values given as mg/l except as noted

\* - Picocuries/l

1 - Data represents two samplings

APPLICATION FOR  
 PERMIT TO CONSTRUCT, INSTALL, OR MODIFY  
 PUBLIC WATER SUPPLIES AND WASTEWATER FACILITIES  
 IN WYOMING

- \*1. Name of Facility Evaporation Reservoir "C"  
 2. Location of Facility: Sec. 27 T. 35 N R. 79 W Co. Natrona  
 3. Facility Description:  New Construction  Modification

- Public Water Supply  
 Municipal \_\_\_\_\_  
 Other Legal Entity \_\_\_\_\_  
 Commercial  
 Industrial

Type of Facility:

- Source Development  
 Treatment Plant  
 Distribution System

Source: Groundwater \_\_\_\_\_  
 Surfacewater \_\_\_\_\_  
 Capacity, or Demand \_\_\_\_\_ gpm

List State Engineer permit number(s) for water sources: \_\_\_\_\_  
 \_\_\_\_\_

- Wastewater Treatment Facility  
 Municipal \_\_\_\_\_  
 Other Legal Entity \_\_\_\_\_  
 Commercial  
 Industrial  
 Small

\* Type of Facility:

- Subsurface Disposal  
 Stabilization Pond  
 Evaporative  
 Mechanical Treatment  
 Collection System

\* Volume of Wastewater 15 gpm (22.87 AC  
Ft/Yr)

The State Engineer has reviewed this project and has determined that it will not interfere with existing water rights.

- Yes  No

List State Engineer permit number(s) on the water source(s) related to this project:  
Wells have been filed; permit numbers pending

- \*4. Briefly describe facilities proposed to be constructed: An evaporation reservoir sized with a surface area of 15.44 acres to impound and evaporate plant effluent. Evaporation and inflow will be in equilibrium at about 15 gpm on an annual basis.

5. Does the proposed water supply/wastewater treatment/facility discharge? No  
 If yes, NPDES Permit Application No. \_\_\_\_\_  
 Name of receiving waters \_\_\_\_\_

Name of Applicant Rocky Mountain  
Energy Company

Mailing Address: 4704 Harlan Street  
 (Street or P.O. Box)

Denver CO 80211  
 (City) (State) (Zip)

Business Phone (303) 422-8816

Home Phone \_\_\_\_\_

\*Name of Engineer Robert J. Coppin

Wyoming P.E.# 2953

Engineering Firm RMEC

Mailing Address 4704 Harlan Street  
 (Street or P.O. Box)

Denver CO 80211  
 (City) (State) (Zip)

Phone (303) 422-8816

I certify that the above described facility has been submitted in accordance with local, county and state statutes, as required, and that said facility shall be constructed as authorized under the provisions specified in Wyoming Water Quality Rules and Regulations, Chapter III, 1976.

Michael R. Neumann  
 Signature of Applicant

June 23, 1980  
 Date