



85-551  
MA 14542

ED HERSCHLER  
GOVERNOR

Department of Environmental Quality  
Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

October 8, 1985

Bridger Coal Company  
ATTN: Karen Christensen  
P.O. Box 2068  
Rock Springs, WY 82901

RE: As-Built Permit for FP-2 Pond #84-549R

85-551

Dear Ms. Christensen: 382-9741

The "as-built" plans for the sedimentation pond FP-2 have been reviewed. The modifications to the original design appear to meet the minimum design standards defined by the State of Wyoming. However, would you please provide us with two additional copies of these plans for processing.

Please retain this letter as verification that the modifications to FP-2 Pond have been accepted by the Wyoming Department of Environmental Quality.

Sincerely,

A handwritten signature in cursive script that reads "Bill Locke".

Bill Locke, P.E.  
Water Quality Engineer

BL/jw



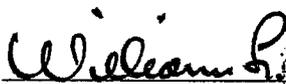
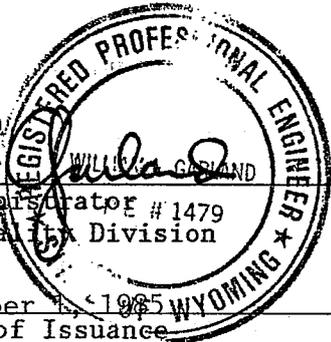
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

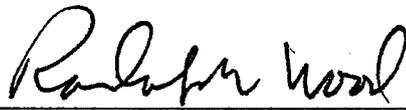
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Adminisrator #1479  
Water Quality Division  
  
\_\_\_\_\_  
November 1, 1985  
Date of Issuance

  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.



THE STATE OF WYOMING

MIKE SULLIVAN  
GOVERNOR

85-553



## Department of Environmental Quality

Administration  
(307) 777-7937

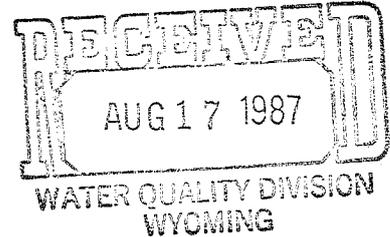
Air Quality Division  
(307) 777-7391

Land Quality Division  
(307) 777-7756

Solid Waste Management Program  
(307) 777-7752

Water Quality Division  
(307) 777-7781

August 14, 1987



Mountain Engineering  
ATTN: Robert L. Farnsworth  
P.O. Box 2722  
Jackson, WY 83001

RE: Smoot Water Improvement Project

Dear Mr. Farnsworth:

Your application is considered inactive and is being returned under the assumption that the applicant does not wish to proceed with the permit to construct process.

This project has not been permitted. Construction of this facility without a permit is a violation of the Environmental Quality Act and punishable with fines not to exceed \$10,000 per day of violation. If you wish to reconsider construction of this facility, then application procedures pursuant to Chapter III, Water Quality Rules and Regulations, must be followed.

Sincerely,

William L. Garland  
Administrator  
Water Quality Division

WLG/BL/jw  
cc: Norma Coulson, DEQ/WQD, Cheyenne

horma



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

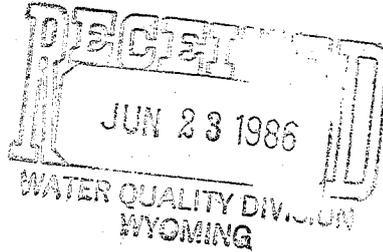
210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

June 17, 1986

Smoot Water & Sewer District  
ATTN: Dennis Walton  
c/o Walton General Store  
Smoot, WY 83126



Dear Mr. Walton:

Our records indicate your application for a permit to construct has not been resubmitted to this office for review and authorization. The specific information for this proposed project is:

Facility Name:	<u>Smoot Water System Improvements</u>
DEQ/WQD Reference Number:	<u>85-553R</u>
Engineering Consultant:	<u>Mountain Engineering-Bob Farnsworth</u>
DEQ/WQD Review Engineer:	<u>Bill Locke</u>
Date of DEQ/WQD Review:	<u>1-31-86</u>

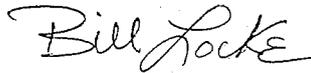
According to Chapter III of the Water Quality Rules and Regulations, Section 7 b. (2), "If an application is denied because of incompleteness necessitating a request for additional information, the applicant shall have a maximum of six months to comply with the request. If the applicant fails to provide the requested information within that period, the entire incomplete application shall be returned."

Please indicate below the status of this project and return this form to our office.

- The application will not be resubmitted as the proposed project has been cancelled.
- The application will be resubmitted within thirty (30) days.
- The facility has been constructed, or is under construction. As built construction plans and specifications will be submitted within thirty (30) days.
- Other Remarks: \_\_\_\_\_

You are reminded that the construction, installation, or modification of any sewage system, treatment works, disposal system, or other facility capable of causing or contributing to pollution, or public water supply system without a Permit to Construct is a violation of Wyoming State Statutes, and is punishable with a fine not to exceed \$10,000 for each day of violation. Unless the Water Quality Division review engineer receives information concerning the status of this project within fifteen (15) days of the receipt of this letter, follow-up action will be taken.

Sincerely,

A handwritten signature in cursive script that reads "Bill Locke".

Bill Locke, P.E.  
Water Quality Engineer

BL/jw

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-554R  
MA 14542

Fairfield Addition  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Ronald D. Olson

5404 Pilot Peak Road

Laramie, WY 82070

to construct, install, or modify a municipal wastewater collection and water distribution facility according to the procedures and conditions of the application No. 85-554R. The facility is located in Section 27, T16N, R73W in the County of Albany, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

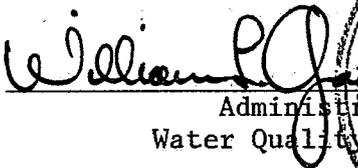
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

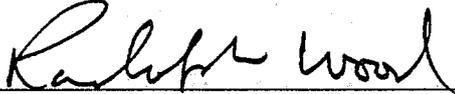
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator  
Water Quality Division  
November 7, 1985  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Phil Hoyt  
1076 Colina Dr.  
Laramie, WY 82070

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Fairfield Addition, Albany Co.

ARCHITECT OR ENGINEER: Phil Hoyt  
1076 Colina Dr., Laramie, WY 82070

APPLICANT: Ronald D. Olson  
5404 Pilot Peak Road, Laramie, WY 82070

WATER QUALITY DIVISION REFERENCE NUMBER: 85-554

REVIEWING ENGINEER: Thomas S. Norman *TSNorman*

DATE OF REVIEW: October 16, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. A letter from the City is necessary stating that they will furnish the water and accept the wastewater from this development.
2. The 1984 Wyoming Public Works Standard Specifications are not a complete set of specifications. The design engineer must make certain decisions and separately identify them. Please refer to the guide that accompanies the "standard specifications".
3. A manhole is required at the dead end of the sewer line.
4. A blow off is required at the dead end of the water line.

TSN/nc

10-22

PERMIT TO CONSTRUCT

- New  
 Renewal  
 Modified

Permit No. 85-555

MA 14542

Water Main Relocations for the East Lincolnway Drainage Plan  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Cheyenne Board of Public Utilities

2100 Pioneer Ave.

Cheyenne, WY 82001

to construct, install, or modify a water distribution/sewage collection facility according to the procedures and conditions of the application No. 85-555. The facility is located in Section 33, T14N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

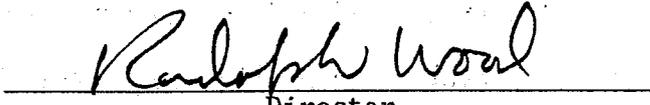
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

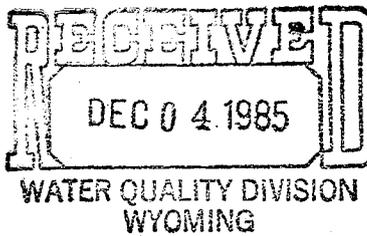
AUTHORIZED BY:

  
WILLIAM L. GARIAND  
Administrator # 1479  
Water Quality Division  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF WYOMING  
October 1, 1985  
Date of Issuance

  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Peter Abplanalp  
Intermountain Professional Services, Inc.  
2206 Pioneer Avenue  
Cheyenne, WY 82001



ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

85-556  
MA 14542

2161 COFFEEN AVENUE,  
SUITE 301

SHERIDAN, WYOMING 82801

TELEPHONE 307-672-6457

November 2, 1985

Kissack Water and Oil Service, Inc.  
P.O. Box 46  
Rozet, Wyoming 82727

RE: Permit for waste oil application to road leading  
to your disposal well in Weston County.

Dear Sirs:

Waste oil application occurred on your roadway on October 18, 1985, in accordance with permit application 85-556. It has been brought to my attention, however, that processing of the actual permit has been stopped in Cheyenne. This has been done because it is against Department policy to issue a permit after the work has been done.

This letter constitutes an "as-built approval" of the waste oil application. That is, the work was performed in accordance with the submitted information and meets our requirements. Keep this letter on file as a record of this Department's approval of the work performed.

Please call if you have any questions.

Sincerely,

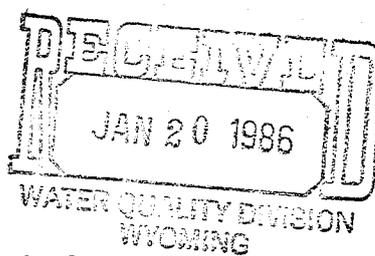
*Susan Fields*

Susan Fields  
Environmental Engineer

SF:ls

xc: Norma Coulson, DEQ Cheyenne  
Larry Robinson, DEQ Cheyenne

THE STATE OF WYOMING



*ca/pb*

*Norma*

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

January 16, 1986

Chevron Chemical Co.  
ATTN: Mr. J.P. Creagh  
P.O. Box 1928  
Rock Springs, WY 82902

RE: PO4 Pump Station Passive Pond Liner, WQD Reference No. 85-557R

Dear Mr. Creagh:

The plans and specifications for the above referenced facility have been received by this office and found to be in compliance with the minimum design standards for the State of Wyoming. Because this facility has already been constructed, a permit to construct cannot be issued. Therefore, would you please retain a copy of this letter as proof that this facility has been accepted by this department.

Should you have any questions, please contact Jack Bedessem or myself.

Sincerely,

A handwritten signature in cursive script that reads "Bill Locke".

Bill Locke, P.E.  
Water Quality Engineer

BL/jw

REVIEW OF PLANS AND SPECIFICATIONS

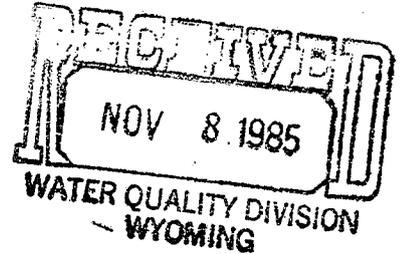
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: Phosphate Booster Pump Station Pond Liner

ENGINEER: D.K. Bhutra  
Chevron Chemical Co.  
P.O. Box 1928  
Rock Springs, WY 82902

OWNER: Chevron Chemical Co.  
P.O. Box 1928  
Rock Springs, WY 82902



WATER QUALITY DIVISION REFERENCE NUMBER: 85-557

REVIEWING ENGINEER: Bill Locke, P.E. *BL*

DATE OF REVIEW: November 5, 1985

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above plans and specifications has been completed. The following items must be addressed before a permit to construct will be issued:

1. The application form identifies the pond volume as 71,000 ft<sup>3</sup>. I believe the pond size was changed to 350,000 ft<sup>3</sup>. Please make this change on the application form.
2. The specifications call for 60, 80 and 100 mil liners. Which thickness liner was used here?
3. Two additional sets of plan sheets stamped by a professional engineer are required as well as three stamped sets of specifications.

BL/jw

*C*



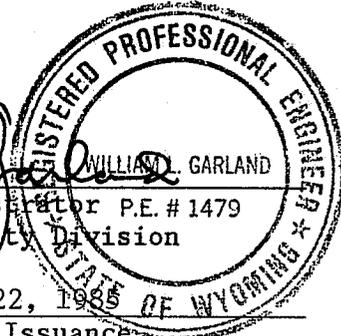
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
William L. Garland  
Administrator P.E. # 1479  
Water Quality Division  
November 22, 1985  
Date of Issuance

Robert Wood  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

\* CONDITIONS ON PERMIT \*

1. This pit is not to be used for disposal of any wastewater other than blowdown from the steam generator or emergency overflow from the raw and softened water tanks on site.
2. Should excessive erosion of the dikes occur at any time during the life of the pit, rip rapping will become necessary.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: Garland Field Pilot Steam Generator Blowdown Pit

ENGINEER: Marathon Oil Co.  
ATTN: Dan Snelling  
P.O. Box 2690  
Cody, WY 82414

OWNER: Marathon Oil Co.  
P.O. Box 2690  
Cody, WY 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 85-558

REVIEWING ENGINEER: Steven P. Gerber and Tom Williams

DATE OF REVIEW: November 13, 1985

ACTION: Not authorized.

COMMENTS:

A review of the above referenced project has been completed. The following items must be addressed and/or resolved before a permit can be issued:

1. Provide information on all existing water wells within a one-quarter mile radius of the proposed facility. This information should include well completion, yield, depth to first water bearing formation, water quality and other relevant data. For all domestic and public water supplies, the above information should be submitted for all wells within a one mile radius of the proposed facility.

2. Provide a berm around the pond to exclude surface water from entering.

3. A required freeboard of two feet is required.

4. A 1 to 1 interior slope is unacceptable. Besides being very difficult to construct the dike banks will be very susceptible to erosion by wave action. The regulations will allow a two to one slope with rip-rap. Therefore, a two to one slope will be allowed but if erosion becomes a problem the slopes will have to be protected with rip-rap. The permit will be conditioned with this stipulation.

5. Provide specification to identify the standards to which the facility will be constructed. The Wyoming Public Works standards can be utilized by stating on the plan sheet that they are the construction specifications, to be utilized.

Review of Plans & Specs.

Ref. No. 85-558

Page Two

6. Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

SG/jw

WATER QUALITY DIVISION  
GROUNDWATER SECTION  
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-558

DATE SUBMITTED FOR REVIEW 10/23/85

NAME AND LOCATION OF FACILITY MARATHON GARLAND FIELD PILOT STEAM  
GENERATOR BLOWDOWN PIT,  
BIG HORN COUNTY, WYOMING

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- Comments attached.

SIGNED Thomas R. Williams  
TITLE GROUNDWATER ENGINEERING ASSOCIATE E.I.T. # 2242  
DATE 11/1/85

ACCEPTED FOR RECORD 11/1/85  
(Date)

ajm  
Groundwater Control Supervisor



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Steve Gerber, Northwest District Supervisor

FROM: Thomas R. Williams, Groundwater Engineering Associate **TW**

DATE: November 1, 1985

SUBJECT: Groundwater Review of Permit to Construct Application Number 85-558 for the Marathon Garland Field Pilot Steam Generator Blowdown Pit in Big Horn County, Wyoming

I have reviewed permit to construct application number 85-558 for the Marathon Garland Field Pilot Steam Generator Blowdown Pit in Big Horn County, Wyoming for consistency with current groundwater protection procedures and requirements.

Please have the applicant provide information on all existing water wells within a one-quarter mile radius of the proposed facility. This information should include well completion, yield, depth to first water bearing formation, water quality and other relevant data. For all domestic and public water supplies, the above information should be submitted for all wells within a one mile radius of the proposed facility.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-559RRR  
See Special Conditions

Jim Bridger Power Plant B Scrubber Pond  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Pacific Power & Light Company

920 SW Sixth Avenue

Portland, OR 97204

to construct, install, or modify a pond to dispose of effluent from the "B" scrubbers at the Jim Bridger Power Plant facility according to the procedures and conditions of the application No. 85-559RRR. The facility is located in Section 22 and 27, T21N, R101W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of five (5) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

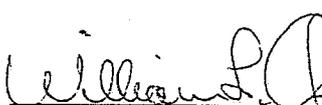
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

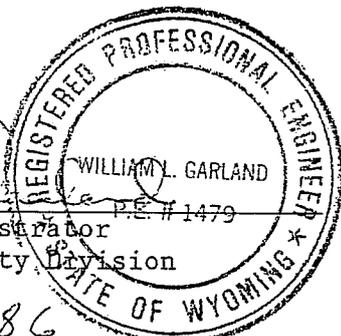
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator  
Water Quality Division  
8-26-86  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Robert L. Svendsen, P P & L  
Dave Craig, P P & L

SPECIAL CONDITIONS

1. The permittee is required to obtain surface control of all lands affected by the groundwater contaminant plume as identified in Addendum 3 of David L. Craig's letter to William Garland, dated January 20, 1986. Permittee must submit documentation to the Water Quality Division, Lander, prior to construction that surface control for this area has been obtained.
2. The permittee must document that the three town of Superior wells in place north of the proposed facility are properly abandoned prior to construction of the permitted facility. Should the permittee and/or the town of Superior elect not to abandon said wells, the permittee will be required to develop a water sampling program of said wells to ensure public health is protected. The sampling program must be approved by the Water Quality Division, Groundwater Section, Cheyenne, prior to construction of the facility.



THE STATE OF WYOMING



MIKE SULLIVAN  
GOVERNOR

# Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

Administration (307) 777-7937	Air Quality Division (307) 777-7391	Land Quality Division (307) 777-7756	Solid Waste Management Program (307) 777-7752	Water Quality Division (307) 777-7781
----------------------------------	----------------------------------------	-----------------------------------------	--------------------------------------------------	------------------------------------------

March 17, 1989

Pacific Power and Light  
ATTN: Mr. David L. Craig  
920 S. W. Sixth Avenue  
Portland, OR 97204

RE: Jim Bridger Power Plant B Scrubber Pond, WQD Reference No. 85-559RRR

Dear Mr. Craig:

This is in response to your letter dated January 23, 1989 requesting an alternate resolution for satisfying the special conditions for the above referenced permit to construct. Condition number one of said permit requires PP&L to submit documentation that surface control has been obtained for all lands affected by the groundwater contaminant plume from the pond. As indicated in your January 23, 1989 letter, all lands affected by the plume have been purchased by PP&L with the exception of a small parcel surrounding the wells owned by the Town of Superior. PP&L contends that an acceptable agreement with the Town of Superior cannot be obtained.

The second special permit condition required PP&L to properly abandon or develop a water sampling program for the three Town of Superior wells. Again, PP&L has not reached an acceptable agreement with the Town of Superior to allow for the completion of either option regarding these wells.

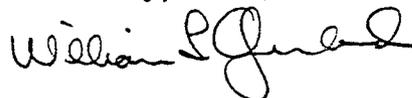
In lieu of obtaining the necessary agreements with the Town of Superior, PP&L proposes to monitor the groundwater in the Almond Sandstone Formation at existing well B-22-21. This well is located approximately one half of the distance between the proposed scrubber pond and the three Superior wells. If it is determined that the water quality of this well has been affected by scrubber effluent, PP&L will install a new monitoring well into the Erickson Formation as close to the Superior wells as possible. This new well, in addition to Well B-22-21 will be monitored for affects from the scrubber effluent. PP&L will then inform the Town of Superior of the possibility of contamination beneath the property surrounding their wells.

Mr. David L. Craig  
March 17, 1989  
Page 2

PP&L contends that this alternate proposal will serve the same purpose as the two conditions on the permit to construct. This Division feels that the proposed alternative will adequately meet the intention of the original permit conditions and agrees with PP&L's contention. The proposal is thereby found acceptable as meeting the special conditions of Permit to Construct No. 85-559RRR.

A sampling program for this alternative must be prepared and submitted to the Water Quality Division, Groundwater Section, Cheyenne for approval. Should you have any questions or comments regarding this issue, please contact Bill Locke in our Lander field office.

Sincerely,



William L. Garland  
Administrator  
Water Quality Division

WLG/BL/jt

cc: Town of Superior  
Bill Locke, DEQ/WQD, Lander  
Jake Strohman, DEQ/WQD, Cheyenne

STATEMENT OF BASIS

New Permit

APPLICANT NAME: Pacific Power and Light Company

MAILING ADDRESS: 920 SW Sixth Ave.  
Portland, OR 97204

FACILITY LOCATION: Jim Bridger Power Plant  
Section 22 and 27, T21N, R101W  
Sweetwater County, Wyoming

PERMIT NUMBER: 85-559RRR

Pacific Power and Light Company (PP&L) is authorized by permit number 85-559RRR to construct the Jim Bridger Power Plant B Scrubber Pond. The pond will occupy approximately 256 acres, have a maximum storage capacity of about 10,000 acre feet, and an expected life of about 35 years. The purpose of the pond is to store Flue Gas Desulfurization (FGD) effluent from the sulfur dioxide scrubbers from four generating units and to provide a large surface area for evaporation.

Utilizing a groundwater impact model, PP&L has demonstrated that a solute plume will develop in the Almond Sandstone aquifer even if the pond is constructed with a liner meeting the standards of Chapter XI, Part C, Section 29(f) of the Water Quality Division (WQD) Rules and Regulations. PP&L has predicted the groundwater impacts from both a lined and unlined pond. The permitted unlined pond will result in a plume approximately 30% larger in areal extent than that resulting from a lined pond.

To comply with Chapter VIII, Section 4.d.(6) of the Water Quality Division Rules and Regulations, PP&L has used the model results to define a maximum areal extent of adverse groundwater impact from the proposed pond (Figure 1). PP&L will limit impact to the Almond Sandstone to an area no greater than that shown in Figure 2.

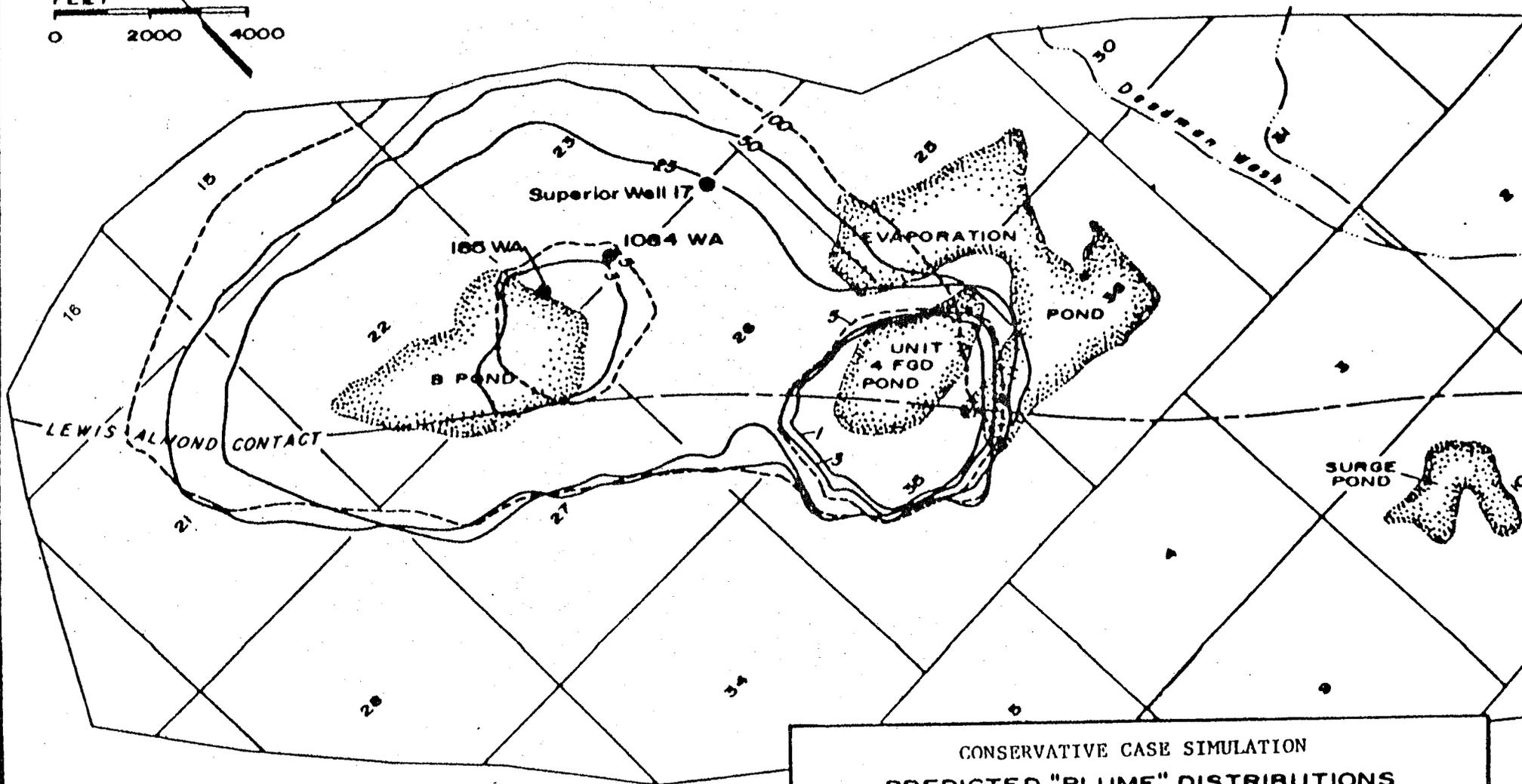
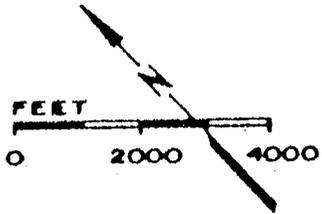
Condition 1 of permit to construct 85-559RRR states that "The permittee is required to obtain surface control of all lands affected by the groundwater contaminant plume . . . . Permittee must submit documentation to the Water Quality Division, Lander, prior to construction that surface control for this area has been obtained."

PP&L has agreed to commence remediation of the Almond Sandstone aquifer when one of the two following situations occur:

1. At pond closure and site abandonment.
2. If monitoring well concentrations at well 1084-WA exceed the predicted values shown in Table 1.

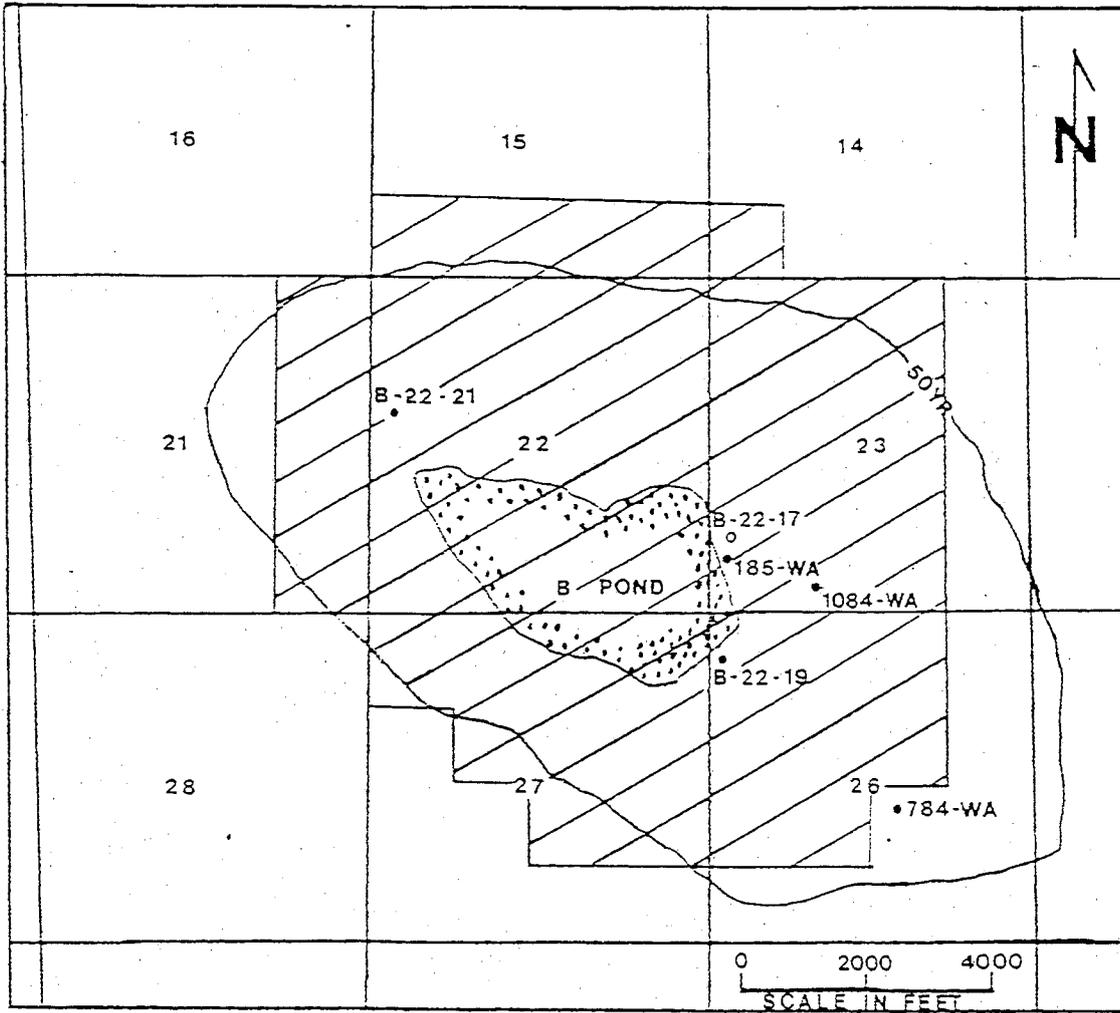
Within 180 days of either occurrence, PP&L will submit a proposed plan to remediate the adversely affected portions of the Almond Sandstone aquifer. The areal extent of the cleanup will be approved by the Water Quality Division when the proposed remediation plan is submitted.

cc: WQD, Lander



Contours = 5000 mg/l T.D.S.  
 Years from start of B Pond indicated on contours

CONSERVATIVE CASE SIMULATION  
 PREDICTED "PLUME" DISTRIBUTIONS  
 FOR THE PROPOSED B POND  
 AND UNIT 4 FGD POND  
 AT VARIOUS YEARS FROM START OF B POND  
 Almond Sandstone Aquifer  
**NO LINER**  
 POROSITY = 0.05    HORZ DISP = 100'    VERT DISP = 100'



• Almond Sandstone Monitor Well

○ Lewis Shale Monitor Well



Owned or Leased Surface

50YR

Leading Edge of Groundwater Impact After 50 Years [Conservative Case Model Assumptions].

FIGURE 2. Monitor Well Locations Relative to Predicted Pollutant Plume Extent and Proposed Property Control.

TABLE 1  
Predicted Values of TDS

TDS Concentrations (mg/l) with time at two  
Almond Sandstone monitor wells for the  
conservative simulation (Case B, HGC, October 1985).

-----  
CONSERVATIVE SIMULATION  
-----

<u>YEARS</u>	<u>185WA</u>	<u>1084WA</u>
0	1500	1500
2	4100	1600
4	7600	2800
6	11200	4800
8	15500	6900
10	18500	9300
12	19800	10300
14	20400	11200
16	21500	12000
18	22100	13900
20	22800	15400
22	23200	16300
24	23800	17200
26	23900	18000
28	23700	18600
30	22500	18800
32	21700	18900
34	20700	18400
36	19500	17900
38	17800	16700
40	16100	15900
42	15000	14900
44	14200	14000
46	13500	13200
48	13000	12500
50	12500	12000
55	11300	10700
60	10400	9500
65	9800	8400
70	9100	7800
75	8500	7400
80	7900	7000
85	7500	6500
90	7200	6100
95	6900	5900
100	6700	5700
105	6400	5400
110	6200	5200
115	6000	5000
120	5900	4900
125	5600	4700
130	5300	4500
135	5100	4300
140	5000	4200
145	4800	4100
150	4600	4000

horma

REVIEW OF PLANS AND SPECIFICATIONS.

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

210 LINCOLN

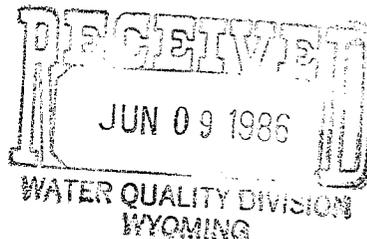
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: PP & L, Jim Bridger Power Plant, FGD Pond

ENGINEER: Robert L. Svendsen  
Pacific Power & Light Co.  
920 S.W. Sixth Avenue  
Portland, OR 97204

OWNER: Pacific Power & Light Co.  
920 S.W. Sixth Avenue  
Portland, OR 97204



WATER QUALITY DIVISION REFERENCE NUMBER: 85-559R R

REVIEWING ENGINEER: Bill Locke, P.E. BL

DATE OF REVIEW: June 3, 1986

ACTION: Not authorized.

COMMENTS:

A technical review of the above plans and specifications has been completed. The following items must be addressed before a permit to construct will be issued:

1. In T.M. Phillips cover letter dated April 21, 1986 reference is made to a report prepared by Camp, Dresser & McKee on the compatibility of the waste liquor with the embankment soils. This office has not yet received a copy of this document.

2. Please provide documentation that PP & L has long term control of the surface land for all areas to be impacted by the contaminant plume.

3. Please provide documentation that the water wells for the Town of Superior have been properly sealed, capped and abandoned in accordance with WQD and State Engineer's Office requirements.

4. Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

BL/jw

*Norma*

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: PP & L, Jim Bridger Power Plant, FGD Pond

ENGINEER: Robert L. Svendsen  
Pacific Power & Light Co.  
920 S.W. Sixth Avenue  
Portland, OR 97204

OWNER: Pacific Power & Light Co.  
920 S.W. Sixth Avenue  
Portland, OR 97204

WATER QUALITY DIVISION REFERENCE NUMBER: 85-559

REVIEWING ENGINEER: *BL* Bill Locke, P.E.; Kate Laudon

DATE OF REVIEW: November 21, 1985

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above plans and specifications has been completed. The following items must be addressed before a permit to construct will be issued:

1. Chapter XI, Part C, Section 25, states that the applicant shall demonstrate to the Administrator that any discharge or seepage from the wastewater facility will not cause a violation of the groundwaters of the State in accordance with Chapter VIII of the WQD Rules and Regulations. Figure 9.4 of the permit application indicates that seepage from the unlined pond will result in degradation of the groundwater in excess of Chapter VIII standards in a relatively short period of time. The application should include background information from the proposed monitor wells, so that the groundwater can be classified, and a discussion of the long term behavior of the plume to demonstrate that Chapter VIII will not be violated by degrading the aquifer below use suitability limits beyond the immediate vicinity of the pond.

2. The construction procedure calls for excavation of the alluvial soil and the weathered Lewis Shale to competent rock suitable for the embankment foundation. There is no discussion of what methods will be utilized to determine what constitutes competent rock or what quality control will be required to ensure structural stability. An earthwork specification should also be included in this package to address such things as clearing and grubbing, soil materials specifications, etc.

*BC*

3. Details of the cut-off trench toe drain collection system, pump station and influent piping including erosion control and/or energy dissipation are required. This should include sizing calculations and construction specifications.

4. Provide documentation of the study of the compatibility of the waste liquor with the embankment soils.

5. Support calculation on the sizing of the storage pond are required. This should include water balance calculations and 24 hr - 100 year storm run-off analysis.

6. There is an unidentified well located northwest of the proposed facility as shown on Exhibit 2. This well should be identified by ownership and useage.

7. Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

BL/jw

11-15-85

WATER QUALITY DIVISION  
GROUNDWATER SECTION  
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-559

DATE SUBMITTED FOR REVIEW 10-18-85

NAME AND LOCATION OF FACILITY B Scrubber Effluent Pond  
Jim Bridger Power Plant  
Sweetwater County

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- Comments attached.

SIGNED Kate Laudon  
TITLE Engineer Evaluator  
DATE 11-8-85

ACCEPTED FOR RECORD 11/8/85 ajm  
(Date) Groundwater Control Supervisor

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Bill Locke, Southwest District Engineering Evaluator

FROM: Kate Laudon, Groundwater Engineering Evaluator *KJL*

DATE: November 13, 1985

SUBJECT: Groundwater Review, Pacific Power and Light, B Scrubber Effluent Pond, Jim Bridger Power Plant, DEQ/WQD Ref. No. 85-559

Pacific Power and Light (PP&L) has applied to construct a second Flue Gas Desulfurization (FGD) Pond at the Jim Bridger Power Plant in Sweetwater County. The proposed pond will occupy approximately 265 acres, have a maximum storage capacity of about 10,000 acre feet, and an expected life of 35 years.

A final report on the groundwater investigation of the site included in the permit application includes a discussion of aquifer tests, and geophysical surveys that were conducted to evaluate the hydrologic characteristics of the Almond Sandstone and the Lewis Shale in the vicinity of the proposed pond. Results of the field investigations verified aquifer and confining bed parameters that were used in a numerical model to predict solute impacts to the Almond Sandstone for the proposed "B" pond. Numerical model simulations compared solute impacts from lined and unlined pond scenarios.

A preliminary report submitted in May 1984 and updated in December 1984 predicted impacts on aquifer water quality from an FGD pond with a three foot soil liner and a two foot soil liner. The reports conclude that a 1 foot reduction in liner thickness results in a 10% increase in the areal extent of the resulting plume at any time. Therefore, a pond with no liner will impact an area 30% larger than a 3 foot liner.

The reports essentially conclude that a significant solute plume characterized by increased concentrations of sulfates and total dissolved solids will develop in the underlying Almond Sandstone whether the pond is constructed with a soil liner meeting Chapter XI specifications or not.

I have the following review comments concerning the permit application:

1. Chapter XI, Part C, Section 25, states that the applicant shall demonstrate to the Administrator that any discharge or seepage from the wastewater facility will not cause a violation of the groundwaters of the State in accordance with Chapter VIII of the WQD Rules and Regulations. Figure 9.4 of the permit application indicates that seepage from the unlined pond will result in degradation

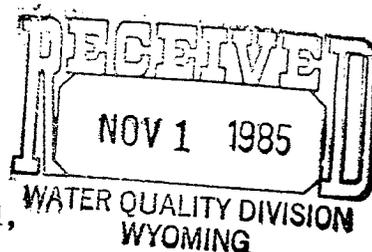
of the groundwater in excess of Chapter VIII standards in a relatively short period of time. The application should include background information from the proposed monitor wells, so that the groundwater can be classified, and a discussion of the long term behavior of the plume to demonstrate that Chapter VIII will not be violated by degrading the aquifer below use suitability limits beyond the immediate vicinity of the pond.

2. The geotechnical report specifies that the heavily fractured Lewis Shale will require grouting or removal beneath embankments. The groundwater protection discussion contained in Section 2 of the application, and Exhibit 1 of Section 3 indicate that a cutoff trench will be keyed into the lower Lewis Shale to prevent seepage through the upper fractured zone. Additional detail on the construction of the cutoff trench and pumpback system should be provided.
3. Provide documentation of the study of the compatibility of the waste liquor with the embankment soils.

cc: A. J. Mancini  
Jake Strohman  
Bill Garland

MEMORANDUM

TO: Kate Laudon  
FROM: Bill Locke *BL*  
SUBJECT: PP & L, Jim Bridger Power Plant FGD Pond,  
Permit Application No. 85-559  
DATED: October 31, 1985



As we discussed on the phone yesterday, I have several concerns with the proposed design of the above facility. My major concern is the possible contamination of groundwater in the area. The South Superior municipal well is located approximately 4,000 feet from the proposed pond site in the Erickson Formation. Hydro Geo Chem, Inc. predicts in their hydraulic evaluation that the travel time of the plume to the South Superior municipal well is greater than twenty years. They then state that this potential contamination should not be an important factor in the design life of the well.

I strongly disagree with their logic. The South Superior well might be in useful operation for considerably longer than 20 years. I wonder if the State would have any liability for permitting this facility should the South Superior well become contaminated in 25 years.

Another concern that I have involves the structural stability of embankment foundation at this site. The entire site is underlaid with alluvial soil, Lewis Shale and Almond Sandstone. The alluvial soils are intermixed with collapsible material that can lead to differential soil settlements. The Lewis Shale is very fractured which also is detrimental to the structural stability of the site, not to mention the increased permeability.

The construction procedure calls for excavation of the alluvial soil and the weathered Lewis Shale to competent rock suitable for the embankment foundation. There is no discussion of what methods will be utilized to determine what constitutes competent rock or what quality control will be required to ensure structural stability. An earthwork specification should also be included in this package to address such things as clearing and grubbing, soil materials specifications, etc.

Additional items of concern are as follows:

- A detail of the influent piping including erosion control and/or energy dissipation is required.
- Support calculation on the sizing of the storage pond are required. This should include water balance calculations and 24 hr - 100 year storm run-off analysis.

Memorandum

Page Two

- There is an unidentified well located northwest of the proposed facility as shown on Exhibit 2. This well should be identified by ownership and useage.

- A toe drain collection system and pump station is shown in Exhibit 1. Sizing calculations, construction specifications, piping and lift station details should be provided.

Once we have an opportunity to discuss each others comments, I will prepare a formal review for this project. I will also forward the two Anderson & Kelly report on the South Superior well as soon as I receive them.

BL/jw



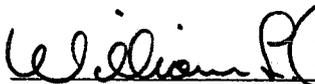
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

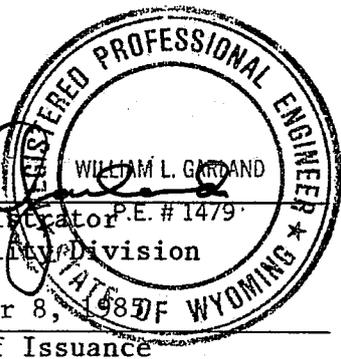
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 301, Sheridan, Wyoming 82801; telephone, 672-6457.

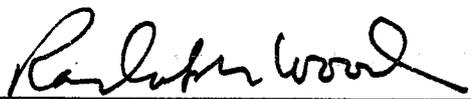
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
WILLIAM L. GARDAND  
Administrator P.E. #1479  
Water Quality Division  
November 8, 1988  
Date of Issuance



  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

NORMA

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
2161 COFFEEN AVE., SUITE 601  
SHERIDAN, WYOMING 82801

PROJECT: Black Thunder Mine  
16-BT-Pit 1M Reservoir Modification

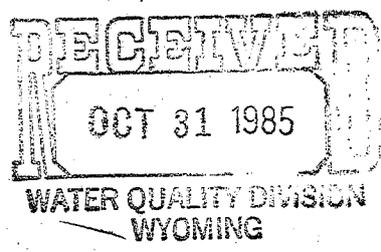
ARCHITECT OR ENGINEER: David E. Sinkbeil  
Thunder Basin Coal Company  
P.O. Box 406  
Wright, Wyoming 82732

WATER QUALITY DIVISION  
REFERENCE NUMBER: 85-560

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: October 28, 1985

ACTION: Not Authorized



COMMENTS:

- 1.) The application sheets were unsigned. I have enclosed them for your signature.
- 2.) A marker or staff gauge should be available in the reservoir to ensure that the necessary active capacity is maintained.
- 3.) If the existing 8" CMP pipe is to be used as a discharge point, how will the flow be measured? If it is not intended as a discharge point, the slide gate should be kept closed.
- 4.) According to the numbers given in the runoff design data (Table 1), the elevation change used in the sediment calculations (Table 2) should be 198.5 feet not 98.5 ft. This changes SYe to 0.52 ac-ft/yr. But, since you have provided for eight years of sediment storage, it is a moot point and no change in the reservoir capacity is required.

xc: Scott Raymond

5-15

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 85-561R  
SEE CONDITION ON BACK  
MA 14542

Dick's Trailer Park No. 1  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Jerry M. Dick

5205 Chaparral Dr.

Laramie, WY 82070

to construct, install, or modify a commercial subsurface wastewater treatment and disposal facility according to the procedures and conditions of the application No. 85-561R. The facility is located in Section 20, T15N, R73W in the County of Albany, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

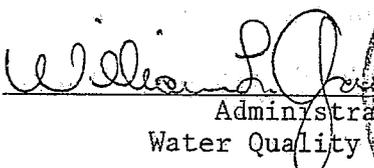
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

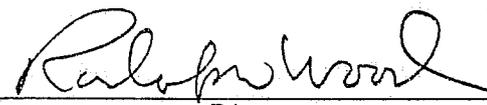
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
 Administrator  
 Water Quality Division  
 PE # 1479  
 November 15, 1985  
 Date of Issuance  


  
 Director  
 Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

Condition to Permit to Construct #85-561R

The permittee shall notify the Albany County Planning Office, 405 Grand Avenue, Laramie, Wyoming 82070, phone number 721-5288, of the estimated day construction will commence and the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling.

cc: Donald R. Lamb  
 Associated Engineers  
 609 South 2nd Street  
 Laramie, WY 82070

10-20-85



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

October 18, 1985

CERTIFIED

Mr. Jerry Dick  
Dick's Trailer Park  
5205 Chaparral Drive  
Laramie, WY 82070

RE: Application for Construction Permit - Wastewater System, DEQ/WQD Ref.  
No. 85-561

Dear Mr. Dick:

Your application for a permit to modify your wastewater system has been sent to the Water Quality Division as the county has not been delegated the wastewater program for mobile home parks. In addition, the Division has received a complaint of surfacing sewage from your septic system serving your mobile home park.

As evidenced by your concern of the failed drainfield and the complaint, the drainfield is obviously not treating and disposing of the wastewater properly. According to Section 7.c., Chapter III, Water Quality Division Rules and Regulations, an application for modification of existing facilities may be approved requiring only the modification to meet the minimum design standards if the existing facility is not in violation of applicable regulations. Therefore your application for a permit to construct is denied because the modifications do not meet the minimum standards (see the attached review letter).

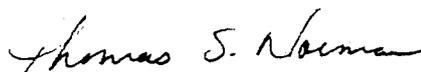
The surfacing sewage is a violation of the Wyoming Environmental Quality Act. Violations may be punished in accordance with W.S. 35-11-901 which states that fines may be sought in district court. The Wyoming Health Department also has the authority to close a mobile home park for inadequate wastewater facilities.

In order to avoid enforcement action, we request that you immediately stop the discharge of sewage and take steps to obtain a construction permit to bring your system into compliance before this winter.

Mr. Jerry Dick  
October 18, 1985  
Page 2

This letter is not an order but merely identifies the violation and possible solutions that could avoid enforcement action. We hope to hear from you within 10 days as to what you intend to do.

Sincerely,



Thomas S. Norman  
Water Quality Engineer

TSN/nc

cc: Don Forcum, City of Laramie Health Dept.

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Dick's Trailer Park, Albany Co.

ARCHITECT OR ENGINEER:

APPLICANT: Jerry Dick, 5205 Chaparral Dr.  
Laramie, WY 82070

WATER QUALITY DIVISION REFERENCE NUMBER: 85-561

REVIEWING ENGINEER: Thomas S. Norman TSN

DATE OF REVIEW: October 18, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. An application package was not submitted. The package must include, in triplicate, an application form, design information, plans, and specifications. Since this is a commercial system, a Wyoming professional engineer is required to sign/seal the plans. An application package is attached for your information.
2. The drainfield is greatly undersized by a factor of about 2 to 2.5 based on the information that was supplied.
3. What are the reasons for the failing system?
4. Distances to wells, property lines, seasonal high groundwater table, etc. must be shown on the plans.

TSN/nc

12-18-85

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-562RR

MA 14542

Wyoming Army National Guard Camp Guernsey Sanitary Sewer  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Wyoming Army National Guard

P.O. Box 1709

Cheyenne, WY 82003

to construct, install, or modify a public sewage collection facility according to the procedures and conditions of the application No. 85-562RR. The facility is located in Section 1, T26N, R66W in the County of Platte, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

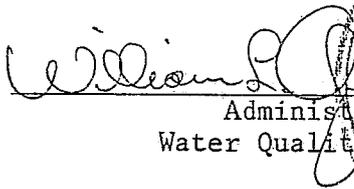
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

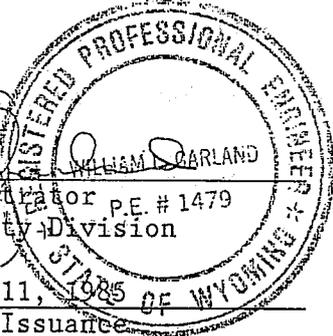
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

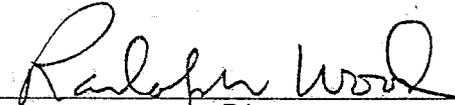
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator P.E. # 1479  
Water Quality Division  
December 11, 1985  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Jon Anderson  
AVI, p.c.  
1700 Westland Road  
Cheyenne, WY 82001

Review of Plans and Specifications

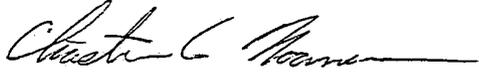
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Wyoming Army National Guard Camp Guernsey Sanitary Sewer, Platte Co.

ARCHITECT OR ENGINEER: Jon Anderson, AVI, p.c.  
1700 Westland Road, Cheyenne, WY 82001

APPLICANT: Wyoming Army National Guard  
P.O. Box 1709, Cheyenne, WY 82003

WATER QUALITY DIVISION REFERENCE NUMBER: 85-562

REVIEWING ENGINEER: Christian G. Norman 

DATE OF REVIEW: October 24, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Three copies of the plans and specifications are required. Only one copy was received.
2. The plans and specifications should be signed by a Wyoming registered professional engineer.
3. What are the specifications of the PVC pipe?
4. At STA 7+97, if a water main/sewer conflict exists, what will the construction procedure be? The contractor should locate the water line to verify its location.
5. The slope between STA 8+07 and STA 10-58 is 0.0098 ft/ft not 0.001 ft/ft. The slope between STA 3+83 and STA 5+95 is 0.1292 ft/ft not 0.1317 ft/ft.
6. Provide a manhole detail.
7. Provide a letter of acceptance of the additional waste from the Town of Guernsey.

CGN/nc

11-4

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-563  
SEE CONDITIONS ATTACHED

MA 14542

FE Warren Air Force Base Groundwater Monitoring Program  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

FE Warren Air Force Base

90 CES, Bldg. 320

FE Warren AFB, WY 82005

to construct, install, or modify a groundwater monitoring facility according to the procedures and conditions of the application No. 85-563. The facility is located in Sections 27, 34, and 35, T14N, R67W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of five (5) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

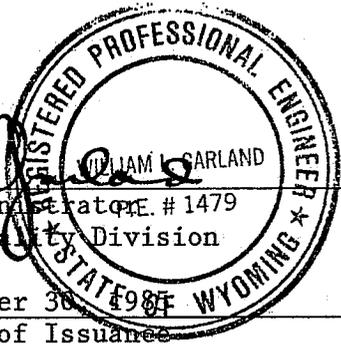
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
William L. Garland  
Administrator # 1479  
Water Quality Division  
October 30, 1981  
Date of Issuance

Ralph Wood  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies:

- cc: A. J. Mancini
- Jake Strohman
- Tom Williams

Conditions to Permit to Construct #85-563

1. The applicant is authorized to construct and install additional monitoring wells associated with the site investigation at FE Warren Air Force Base according to the procedures and conditions of application #85-563. As-built plans/specifications along with a site map showing the location of any additional wells shall be provided to the Groundwater Section, Department of Environmental Quality, Water Quality Division, 4th Floor West Herschler Building, Cheyenne, Wyoming 82002, within 30 days of the installation date.
2. Within 15 days of permit issuance, a plan for periodic sampling of the completed monitor wells should be submitted to the Water Quality Division. The plan should include a list of parameters, sample collection and analytical procedures as well as a timetable for implementing the plan.
3. Semi-annual monitoring/progress reports shall be submitted to the Groundwater Section beginning with the second half of 1985. The first report is due within 30 days of the end of 1985. Subsequent reports are due within 30 days of the end of the reporting period.
4. All reports should contain:
  - A. Final construction details, and a lithologic log of all monitor wells constructed during the reporting period.
  - B. All groundwater quality analyses conducted during the reporting period.
  - C. Updated potentiometric surface maps and iso-concentration maps of any indicator analytical parameters which show significant water quality impacts.
  - D. Statistical and graphical treatment of water quality data.
  - E. Proposed work for the upcoming reporting period.
5. Depending upon interpretation of the semi-annual monitoring data by the Water Quality Division, the applicant may be required to extend the site investigation. Additionally the list of monitoring parameters may be modified to reflect sampling results.



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

October 30, 1985

Lt. Dennis R. Roote  
90 CES, Bldg. 320  
FE Warren AFB, WY 82005

RE: Permit to Construct No. 85-563, FE Warren Air Force Base Groundwater  
Monitoring Program

Dear Lt. Roote:

Enclosed is a copy of the referenced permit to construct monitor wells at FE Warren Air Force Base. Requirements for sampling and reporting on the site investigation have been incorporated as conditions to the permit.

Although your application complies with the requirements of Chapter XI of the Water Quality Division Rules and Regulations, I would like to offer the following suggestions for your consideration in the construction of the monitor wells.

1. The proposed perforations may be too large to prevent fine material associated with the formation from entering the monitor well during sampling. Also factory slotted casing is preferable to horizontal sawcuts as specified in the technical provisions.
2. The proposed gravel pack may be too coarse to filter fine material from the formation and prevent it from entering the monitoring well. This may prevent adequate development of the well, and lead to sampling interference in the future.
3. A bentonite seal placed above the perforations, and below the surface concrete seal would prevent possible reaction between the concrete and the groundwater.

I anticipate hearing from you concerning sampling of the wells once construction is completed. Thank you for your attention to this matter.

Sincerely,

*Katherine J. Laudon*

Katherine J. Laudon  
Groundwater Engineer Evaluator

KJL/nc



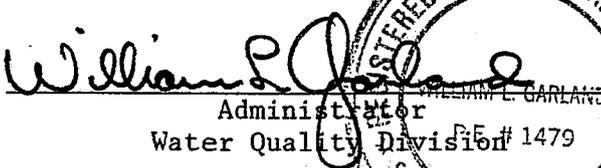
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

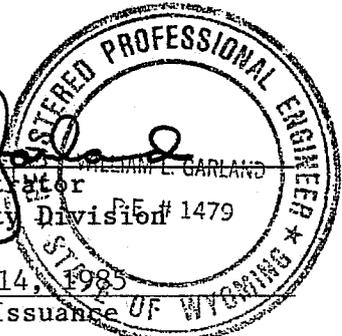
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
Administ<sup>or</sup> for  
Water Quality Division #1479  
November 14, 1985  
Date of Issuance

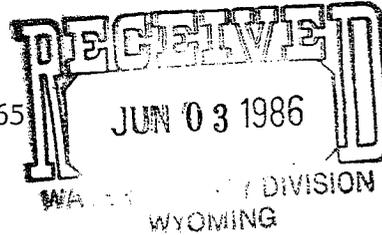


  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

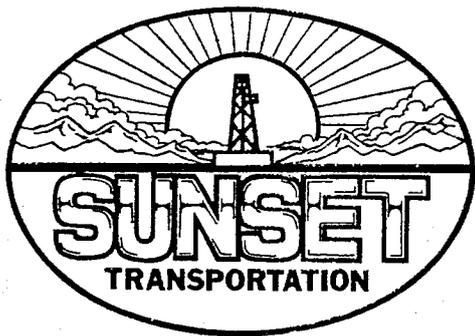
MEMORANDUM

TO: Norma Coulson  
FROM: Bill Locke *BL*  
SUBJECT: Sunset Transportation Shop Sump 85-565  
DATED: May 29, 1986



Attached is a letter from Sunset Transportation, Inc. regarding the above facility. The facility became inoperative February 28, 1986 and therefore should be removed from the enforcement list. A site visit has confirmed that the facility is not in operation.

BL/jw  
Enclosure



# SUNSET TRANSPORTATION, INC.

P.O. BOX 1635

EVANSTON, WYOMING 82930

PHONE 307-789-6015

March 10, 1986

State of Wyoming  
Dept. Environmental Quality  
210 Lincoln Street  
Lander, Wyoming 82520

Re: Wastewater Pit

Attn: Jeff Hermansky

Dear Mr. Hermansky:

Please be advised that we ceased our operation effective February 28, 1986.

Your request for improvements will not be completed by our company.

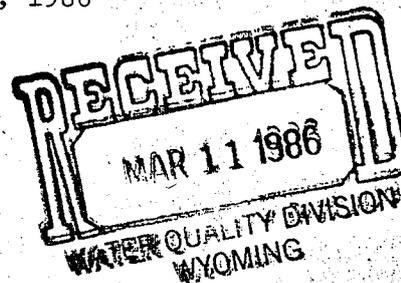
However, our building and land will be sold and the new owners will be advised of your requirements.

Regards,

*Michael L. Thompson*

Michael L. Thompson  
Vice President

MT/jt





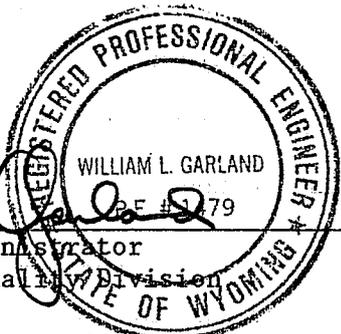
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

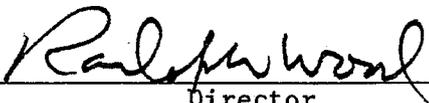
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
*William L. Garland*  
Administrator  
Water Quality Division  
STATE OF WYOMING

  
Director  
Dept. of Environmental Quality

November 5, 1985  
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.



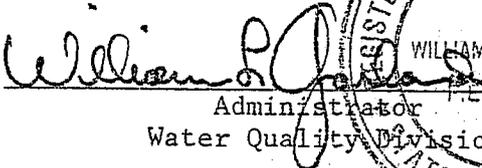
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

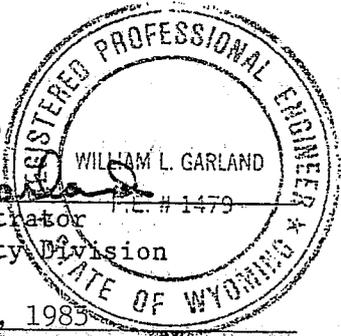
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

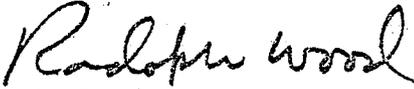
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
Administrator  
Water Quality Division  
November 19, 1985  
Date of Issuance



  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

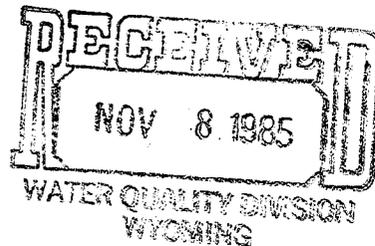
REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: Utah Power and Light Truck Garage

ENGINEER: Robert A. Harrower  
Rio Verde Engineering Ltd.  
P.O. Box 67  
Pinedale, WY 82941

OWNER: Pacific Power and Light Co.  
Big Piney, WY



WATER QUALITY DIVISION REFERENCE NUMBER: 85-566

REVIEWING ENGINEER: Bill Locke, P.E. *BL*

DATE OF REVIEW: November 5, 1985

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above project has been completed. The following items must be addressed before a permit to construct will be issued:

1. The applicant's name, address and phone number should be filled in on the application form.
2. Specifications for materials, construction methods and quality control should be included in this package.
3. A detail of the water line intersection at approximately STA 1+40 should be included to insure compliance with Water Quality Rules and Regulations, Chapter, XI, Section 9 F.
4. Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

BL/jw

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-567R  
 SEE CONDITIONS ON BACK  
 MA 14542

Palmer's Auto Service  
 (Name of Facility)

This permit hereby authorizes the applicant (name and address):

Bob Palmer

4218 Ridge Road

Cheyenne, WY 82001

to construct, install, or modify a subsurface wastewater treatment and disposal facility according to the procedures and conditions of the application No. 85-567R.

The facility is located in Section 27, T14N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

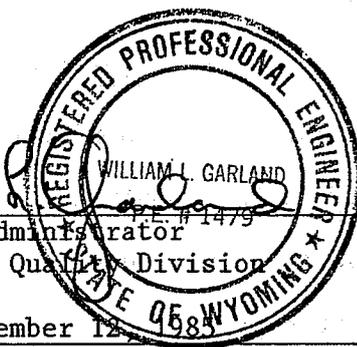
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
WILLIAM L. GARLAND  
Administrator #1479  
Water Quality Division  
November 12, 1984  
Date of Issuance



  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #85-567R

1. The intent of the construction authorized by this permit is to provide facilities for the interim treatment of wastewater until such time that treatment is available through a regional wastewater system. The 201 Facilities Plan Final Report: City of Cheyenne, South Cheyenne Water and Sewer District and Laramie County requires that treatment be provided through a regional system. The facilities authorized by this permit will be operated until services are available through the approved regional system. At that time these facilities will be abandoned or integrated into the regional system in accordance with the requirements of the facility plan.
  2. The permittee shall notify Don Pack, Laramie County Environmental Health, 1700 Snyder Avenue, Cheyenne, Wyoming 82001, phone number 638-8545, of the estimated day construction will commence and the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling.
- cc: Joseph E. Kub, 1780 Westland Road, Cheyenne, WY 82001  
Don Pack, Laramie County Environmental Health

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Palmer's Auto Service, Laramie Co.

ARCHITECT OR ENGINEER: Joseph E. Kub, 1780 Westland Road  
Cheyenne, WY 82001

APPLICANT: Bob Palmer, 4218 Ridge Road  
Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 85-567

REVIEWING ENGINEER: Christian G. Norman *Christian G. Norman*

DATE OF REVIEW: October 30, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

What is the seasonally high groundwater at the site? The narration states that the average water level is 30 feet. The seasonally high groundwater level must be reported.

CGN/nc

2-3-86

MA 14542



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

January 30, 1986

Mr. Ken Temme  
Chen and Associates  
605 North Warehouse Road  
Casper, WY 82601

RE: Permit to Construct Application No. 85-568, Modification to Groundwater  
Monitoring Well Locations Contained in Permit to Construct No. 85-349

Mr. Temme:

The Department of Environmental Quality, Water Quality Division, has reviewed your application (No. 85-568) for a permit to construct a modification of groundwater monitoring well locations contained in permit to construct No. 85-349 for your Mexican Flats Water Disposal Facility. The Water Quality Division has determined that the system meets the minimum design standards.

Nothing in this letter constitutes an endorsement of the construction or the design of the facility described herein. This letter indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this letter. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this letter, the state does not in any way waive its sovereign immunity.

Since your system has already been constructed, a permit to construct cannot be issued. This letter is your record that the Mexican Flats Water Disposal Facility groundwater monitoring well construction meets minimum state specifications and has been approved by the Wyoming Department of Environmental Quality, Water Quality Division.

Sincerely,

William L. Garland, P.E.  
Administrator

WLG/LCF/nc

cc: Snyder Oil Company, Soco Plaza, 7th Floor, 1800 Glenarm Place, Denver, CO 80202

85-568 7-10

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-349  
 SEE CONDITIONS ATTACHED TO THIS PERMIT  
 MA 14542

Mexican Flats Water Disposal Facility  
 (Name of Facility)

This permit hereby authorizes the applicant (name and address):

Snyder Oil Company  
1800 Glenarm Place, 7th Floor  
Denver, CO 80202

to construct, install, or modify a commercial oil field produced water evaporative/containment pond facility according to the procedures and conditions of the application No. 85-349. The facility is located in Section 17, T15N, R92W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

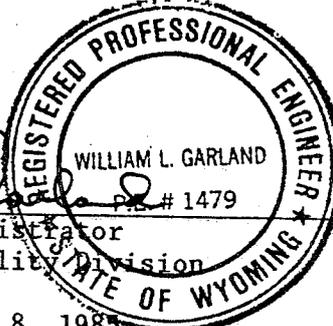
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

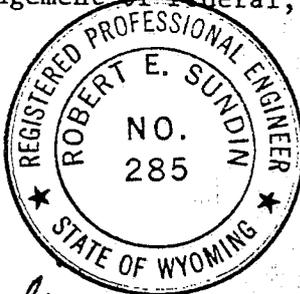
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
*William L. Garland*  
WILLIAM L. GARLAND  
# 1479  
Administrator  
Water Quality Division  
STATE OF WYOMING

  
*Robert E. Sundin*  
ROBERT E. SUNDIN  
NO.  
285  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF WYOMING  
Director  
Dept. of Environmental Quality

July 8, 1985  
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Kenneth Temme, Chen & Associates, Inc., 605 N. Warehouse Rd., Casper, WY 82601  
Penney Smalley, BLM/Rawlins, Box 670, Rawlins, WY 82301  
Phil Pucel, DEQ/WQD, Cheyenne  
Tom Williams, DEQ/WQD, Cheyenne

Conditions to Permit to Construct #85-349

1. Testhole 9 data indicate that a paleochannel or an eroded surface in the bedrock topography filled with a silty sand may exist. MW-4 shall be located in this apparent channel. Some extra boreholes may be necessary to confirm the optional location.
2. Testhole 10 appears to be located in a bedrock topography depression. The applicant shall move MW-6 location to the Testhole 10 position.
3. MW-1 shall be installed as a staggered well system. One well completion shall be accomplished at the indicated monitoring depth with a second well completed 15 feet below measured groundwater level.
4. No hazardous wastes, as defined by the US EPA or the State of Wyoming may be disposed in this facility. This pond is authorized to receive only produced water.
5. Subsurface Monitoring Program - Groundwater Present. Samples shall be collected and analyzed by the applicant on a quarterly basis. Samples shall be collected in a matter acceptable with the Wyoming Department of Environmental Quality and shall be analyzed for pH, total dissolved solids, chlorides, sulfates, oil and grease, sodium, and potassium. Reports shall be submitted to Tom Williams, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002, within 20 days following the sampling event.
6. Subsurface Monitoring Program - No Groundwater Present. The monitoring wells shall be checked once per month for the presence of fluid. If any fluid is discovered, the Department of Environmental Quality, Water Quality Division, Cheyenne Office (307-777-7781) shall be notified immediately. No notification is required for the deep staggered monitoring well in MW-1. Groundwater samples shall be collected by the applicant according to the above procedure and analyzed for the parameters listed in condition 5. If no groundwater is detected in the shallow MW-1, 2, 3, 4, 5 or 6, the deep staggered monitoring well does not require sampling. Submission of negative reports to the Water Quality Division is required at the above address.
7. When the deep staggered monitoring well in MW-1 has been completed and prior to this facility receiving any produced water, the applicant shall collect and analyze a groundwater sample for the parameters listed in condition 5 and submit the results to the address provided.

LF/nc

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-569  
 SEE CONDITION ON BACK  
 MA 14542

Diamond Horseshoe Wastewater Facility  
 (Name of Facility)

This permit hereby authorizes the applicant (name and address):

Curt Blount

P.O. Box 1008

Laramie, WY 82070

to construct, install, or modify a commercial wastewater collection facility according to the procedures and conditions of the application No. 85-569R. The facility is located in Section 16, 21, T16N, R73W in the County of Albany, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

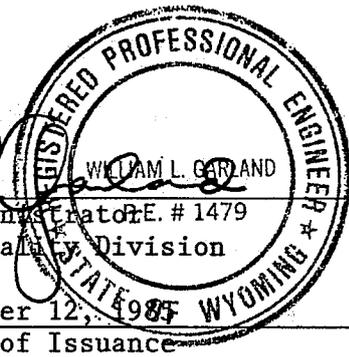
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
William L. Gerland  
Administrator E. # 1479  
Water Quality Division  
November 12, 1985  
Date of Issuance

Ralph Wood  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

Condition to Permit to Construct #85-569R

The intent of the construction authorized by this permit is to provide facilities for the interim treatment of wastewater until such time that treatment is available through a regional wastewater system. The Laramie Step I Wastewater Facility Plan requires that treatment be provided through a regional system. The facilities authorized by this permit will be operated until August 1, 1987 or until services are available through the approved regional system, whichever is sooner. These facilities will then be abandoned or integrated into the regional system in accordance with the requirements of the Facility Plan, unless the City of Laramie and Albany County jointly authorize an additional three year extension.

cc: Donald R. Lamb, Associated Engineers, 609 So. 2nd St., Laramie, WY 82070  
Albany County Planning Office, 405 Grand Ave., Laramie, WY 82070

11-1

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

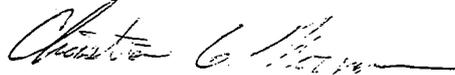
PROJECT: Diamond Horseshoe Wastewater Facility, Albany Co.

ARCHITECT OR ENGINEER: Donald R. Lamb, Associated Engineers  
609 South 2nd Street, Laramie, WY 82070

APPLICANT: Curt Blount, P.O. Box 1008  
Laramie, WY 82070

WATER QUALITY DIVISION REFERENCE NUMBER: 85-569 Ref. No. 84-323RR

REVIEWING ENGINEER: Christian G. Norman



DATE OF REVIEW: October 30, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Provide a septic tank detail.
2. OSHA and ANSI standards require that manhole step spacing be a maximum of 12 inches.
3. Show a detail of the casing under U.S. Highway 30.
4. The approximate location of the water line should be shown on the profile. The special conditions stated in the specifications should be noted on the plan/profile sheet.

CGN/nc

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-570  
SEE CONDITION ON BACK

MA 14542

Miller's Mobile Home Park  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Fred Miller

6414 N. College Dr.

Cheyenne, WY 82009

to construct, install, or modify a commercial subsurface wastewater treatment and disposal facility according to the procedures and conditions of the application No. 85-570. The facility is located in Section 15, T14N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

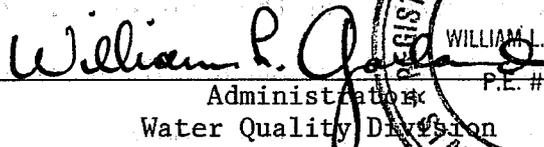
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

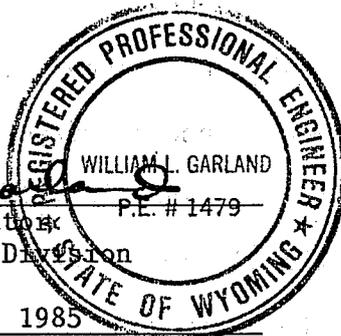
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

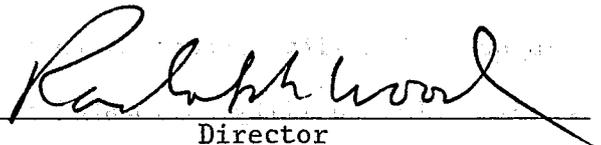
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator  
Water Quality Division



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

October 31, 1985  
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Condition to Permit to Construct #85-570

The permittee shall notify Don Pack, Laramie County Environmental Health, 1700 Snyder Avenue, Cheyenne, Wyoming 82001, phone 638-8545, of the estimated day construction will commence and the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling.

cc: Theodore D. Coyer  
Probit Engineering, p.c.  
1111 E. Lincolnway  
Cheyenne, WY 82001

11-25

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 85-571R

MA 14542

The Atrium Townhouses  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

City of Cheyenne Board of Public Utilities

2100 Pioneer Avenue

Cheyenne, WY 82001

to construct, install, or modify a water supply and wastewater collection facility according to the procedures and conditions of the application No. 85-571R. The facility is located in Section 24, T14N, R67W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

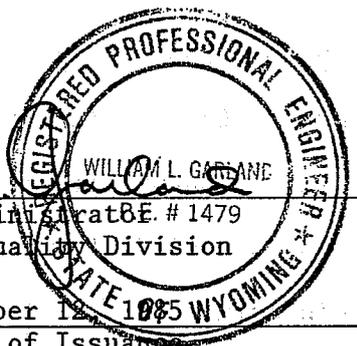
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

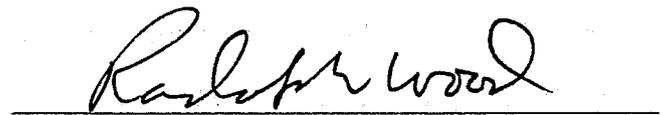
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Admin. at BE # 1479  
Water Quality Division  
November 12, 1985  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Joseph E. Kub  
1780 Westland Road  
Cheyenne, WY 82001

~~10-31~~ 11-1

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: The Atrium Townhouses, Laramie Co.

ARCHITECT OR ENGINEER: Joseph E. Kub, Engineering Consultant  
1780 Westland Road, Cheyenne, WY 82001

APPLICANT: City of Cheyenne, Board of Public Utilities  
2100 Pioneer Ave., Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 85-571

REVIEWING ENGINEER: Christian G. Norman



DATE OF REVIEW: October 31, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The plan sheet shows a cross connection between the sanitary sewer and the water main on the east connection.
2. Outline the disinfection method to be used for the water main.

CGN/nc

1-7-86

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-572RR  
MA 14542

Big Piney Mancamp Wastewater Treatment Plant Expansion  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Exxon Company, USA  
P.O. Box 1600  
Midland, TX 79702

to construct, install, or modify an existing wastewater treatment facility to  
treat 115,700 gpd

facility according to the procedures and conditions of the  
application No. 85-572RR. The facility is located in

Sec. 8, T29N, R111W  
in the County of Sublette,

in the State of Wyoming. This permit shall be effective for a period of two (2)  
years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and dur-

ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

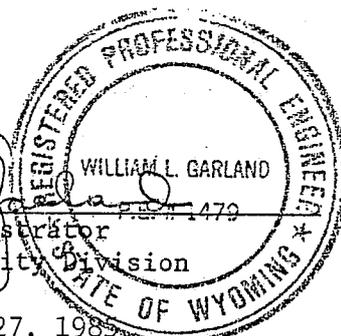
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator  
Water Quality Division  
December 27, 1989  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

REVIEW OF PLANS AND SPECIFICATIONS

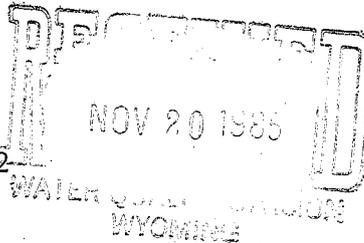
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: Exxon-Big Piney Mancamp  
Wastewater Treatment Plant Expansion

ENGINEER: Liang M. Chen  
H2O Engineering, Inc.  
4699 Nautilus Court South  
Boulder, CO 80301

OWNER: Exxon Company, USA  
P.O. Box 1600  
Midland, TX 79702



WATER QUALITY DIVISION REFERENCE NUMBER: 85-572

REVIEWING ENGINEER: Bill Locke, P.E. *BL*

DATE OF REVIEW: November 15, 1985

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above project has been completed. The following items must be addressed before a permit to construct will be issued:

1. The graph provided indicates an approximate average daily flow rate of 85 gpcd. Provide data supporting the decrease of this figure to 75 gpcd due to corrected infiltration. Perhaps October flow rates are now available.

2. Due to the temporary status of this facility, dual process units will not be required. However, spare pumps for all critical pumps within the plant should be kept on hand. A critical pump is defined as one which is required to maintain hydraulic flow through the plant.

3. The design of this facility is based on some innovative operational requirements, i.e., the use of 1 or 2 clarifiers, throttling pumps, etc. Is a full time, qualified operator going to be placed in charge of the operation of this facility?

4. Is the existing plant equipped with flow measurement equipment and standby or alternator power source?

5. The winterizing flow is established using 0.12 gpm/trailer. This appears quite low. Provide supporting data for this assumption.

C

6. A letter is required from Ball Disposal Pit that they will accept the quantity and quality of the sludge produced by this facility.

7. What provisions are made for scum removal in the primary clarifiers?

8. What is the slope of the sludge hopper in the clarifiers?

9. How are the clarifier sludge pumps controlled?

10. Can the various components of the aeration equipment be removed and repaired/replaced easily? How is the defuser manifold removed?

11. The information supplied by Neptune Microfloc sites various installations for removal of inorganic solids. There are no installations sited for organic solids removal, in particular in wastewater treatment. Can you site some specific examples?

12. What is the capacity of the existing aeration system and is it adequate for the added design loadings? Please provide support data. (295 lb O<sub>2</sub>/day and 2 mg/l D.O.)

13. How will they accomplish the batch operation of the secondary clarifier without flow equalization?

14. How is the chlorination application rate varied proportional to the plant discharge rate?

15. What portions of this plant will remain as a permanent treatment facility for the trailer court?

16. Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

BL/jw



L-21  
99

*Korawa*  
85-573R  
MA 14542  
ED HERSCHLER  
GOVERNOR

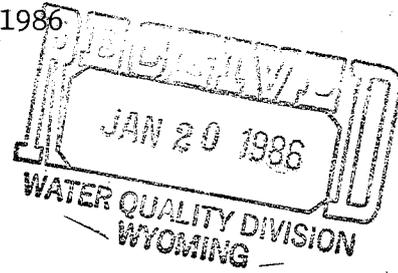
*Department of Environmental Quality*  
*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

January 15, 1986



Exxon Company, USA  
ATTN: Mr. T.J. Tibbitts  
P.O. Box 1600  
Midland, TX 79702

RE: LaBarge Project Dehydration Sedimentation Pond  
WQD Reference Nos. 85-573R, 84-309

Dear Mr. Tibbitts:

The plans and specifications for the above referenced facility have been reviewed by this office and found to be in compliance with the minimum design standards for the State of Wyoming. Because this facility has already been constructed, a permit to construct cannot be issued. Therefore, would you please retain a copy of this letter as proof that this facility has been accepted by this department.

Should you have any questions, please contact either Jack Bedessem or myself.

Sincerely,

*Bill Locke*

Bill Locke, P.E.  
Water Quality Engineer

BL/jw

*Norma*

STATE OF WYOMING



85-574RRR

ED HERSCHLER  
GOVERNOR

# Department of Environmental Quality

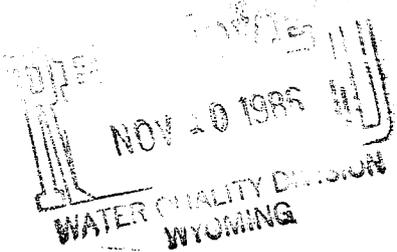
## Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

October 27, 1986



CERTIFIED P 399 271 472

Mike Sims  
565 Almy Road  
Evanston, WY 82930

RE: Meadow Park Village Wastewater Treatment Facility Inspection  
WY-0031348 *Unk Co*

Dear Mr. Sims:

On October 8, 1986 I conducted a routine operations and maintenance inspection of the Meadow Park Village wastewater treatment facility. The wastewater treatment plant appeared to be well operated - good effluent quality and color in aeration basins. Please refer to REMARKS section of the inspection report.

The items mentioned in my June 6, 1986 letter have not been satisfactorily addressed. Note that the construction of water and sewer extensions for Plat C will not be authorized until these items have been adequately resolved. I will reiterate these items.

1. The chlorine contact chamber still needs to be raised and feeder box sealed to prevent the inflow of subwater. The installation of a valve in the effluent pump station will not prevent subwater from encroaching the chamber.

If the chlorine unit cannot be raised it is recommended that the sides of the chamber be extended at least one foot. It should be possible to seal the feeder box with silicon caulking.

2. The daily monitoring data indicates that the influent flow rates were extremely high this past spring. I realize that this is conflict with the engineering report submitted with 85-574RR.

An inflow/infiltration survey needs to be performed on the entire wastewater collection system to determine rates and problem areas. Some manholes and lines may need to be rehabilitated.

Mike Sims  
October 24, 1986  
Page Two

Submit a response to this letter and inspection report to this office by November 15, 1986. The response should include a plan of action and time schedule.

If you have any questions please contact me.

Sincerely,



Jack Bedessem  
Southwest District Supervisor

JB/jw

cc: Larry Robinson, DEQ/WQD, Cheyenne  
John Wagner, DEQ/WQD, Cheyenne  
Kevin Jones  
File (2)





JUN 12 1986  
WYOMING

*Department of Environmental Quality*  
*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

June 6, 1986

CERTIFIED P 399 271 429

Meadow Park Village  
ATTN: Michael J. Sims  
565 County Road No. 107  
Evanston, WY 82930

RE: Wastewater Collection and Treatment System, Uinta County (85-574RR)

Dear Mr. Sims:

As you know this department has accepted the proposed construction schedule (upgrade) and operating plan for this "as built" system. Final acceptance of the water and wastewater systems will be issued when construction/upgrading measures have been satisfactorily completed.

On May 29, 1986, Mike Young from this department sampled the discharge from your wastewater treatment plant. Preliminary results from that sample indicates a fecal coliform concentration in excess of 42,000 per 100 ml. This discharge is in noncompliance with your NPDES permit limitations.

Documentation provided by Young indicates that the entire chlorine contact chamber has been submerged by groundwater/surface water. Young also indicated that groundwater/surface water was infiltrating the effluent pump station. The chlorine unit and pump station need to be sealed and secured against encroaching waters.

It has also been brought to my attention that in-flow and infiltration to the collection system, dictated by flow rates, was excessive this past spring. Water Quality Rules and Regulations stipulate a maximum infiltration rate of 200 gallons per inch per diameter . . . Information will need to be provided which documents that the collection system complies with this requirement.

Submit a written response and schedule to this office within 15 days following receipt of this letter. The response should include a detailed plan of action and schedule which conforms to your October 1, 1986 deadline.

. Michael J. Sims  
June 6, 1986  
Page Two

If you have any questions, please contact me.

Sincerely,



Jack Bedessem  
Area III Supervisor

JB/jw

cc: John Wagner, DEQ/WQD, Cheyenne  
Mike Young, DEQ/WQD, Lander  
Kevin Jones  
File (6)



Norma  
85-574ERP

ED HERSCHLER  
GOVERNOR

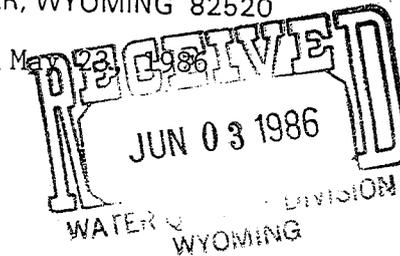
# Department of Environmental Quality

## Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144



Karen Field  
Preferred Realty  
1936 W. Hwy. 30, Suite 1000  
Evanston, WY 82930

RE: Meadow Park Village Water and Sewer Systems, Uinta County, Wyoming

Dear Ms. Field:

The water and sewer systems serving Meadow Park Village (Plats A and B) were constructed in 1982 prior to obtaining the required DEQ/Water Quality "Permit to Construct". Based on our review of the "as-built" system, Meadow Park Village proposed to upgrade the systems and committed to a construction compliance schedule.

The construction schedule stipulates that all upgrades will be completed so that the system is in compliance with applicable Water Quality Rules and Regulations by October 1, 1986. As I mentioned during our telephone conversation, Chapter XII, Section 8 stipulates that groundwater supplies provide disinfection equipment and connections as a minimum level of treatment.

The groundwater quality data provided to this office indicates that is suitable/safe for human consumption. The decision to continuously operate the chlorination equipment is dependent on the owner or homeowners association. Regardless, the equipment will be available if a bacteriological problem arises.

If you have any additional questions, please feel free to contact me.

Sincerely,

for Jack Bedessem  
Area III Supervisor

JB/jw  
cc: DEQ/WQD, Cheyenne  
Kevin Jones  
Mike Sims  
File (2)

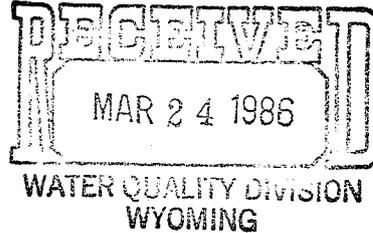
REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: Meadow Park Village "As Built" Water and Sewer

ENGINEER: Kevin D. Jones  
516 Sage Street  
Evanston, WY 82930



OWNER: Meadow Park Village  
c/o Michael J. Sims  
565 County Road No. 107  
Evanston, WY 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 85-574RR

REVIEWING EVALUATOR: Jack Bedessem *JB*

DATE OF REVIEW: March 21, 1986

ACTION: Not authorized.

COMMENTS:

The water and wastewater systems serving Meadow Park Village (Plats A and B) were constructed in 1982, prior to obtaining a DEQ/Water Quality Division "Permit to Construct". "As Built" plans, specifications and engineering design information were requested and subsequently submitted.

The original applications were identified by DEQ/Water Quality Division Nos. 82-404 (Plats A and B) and 85-4 (Plat C). On July 10, 1985 Meadow Park Village requested that the above referenced submittals be cancelled in order to consolidate and simplify the project evaluation.

The revised "as built" and design information (Plats A and B) are currently identified with DEQ/Water Quality Division No. 85-574R. Application for "Permit to Construct" future expansions or modifications will be made as necessary.

The last response dated March 12, 1986 has been reviewed and evaluated for compliance with Water Quality Rules and Regulations, Chapters XI and XII. This department concurs with the proposed construction (upgrade) schedule and operating plan. If the systems are upgraded and operated as specified, they should reasonably comply with applicable Water Quality Rules and Regulations.

A letter accepting Meadow Park Village "as built" water and wastewater systems will be issued when the construction/upgrading measures have been satisfactorily completed. In brief, final acceptance is contingent on the following:

1. Installation of chlorination equipment, and modification of the two water supply wells.

Review of Plans & Specs.

Ref. No. 85-574RR

Page Two

2. Reconstruction of specified deficient sewer lines. Reconstruct and regrade wastewater treatment plant and effluent pump station.

3. Serious infiltration to the collection system was recently identified by the wastewater flow rates. Inspect, test and mitigate sources of infiltration. In order to alleviate future problems, it is recommended that a plan to mitigate infiltration be submitted to this office.

4. Extend and terminate the specified water and sewer lines.

5. Clean and flush the wastewater collection system. Operate the wastewater treatment plant at maximum efficiency.

Submit the additional drawings and information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

JB/jw

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: Meadow Park Village "As Built" Water and Sewer

ENGINEER: Kevin D. Jones  
516 Sage Street  
Evanston, WY 82930

OWNER: Meadow Park Village, c/o Michael J. Sims  
565 County Road No. 107  
Evanston, WY 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 85-574R

REVIEWING EVALUATOR: Jack Bedessem *JB*

DATE OF REVIEW: February 6, 1986

ACTION: Not authorized.

COMMENTS:

This office agrees that the referenced project should be in its final stages of review. Your January 8 and 14, 1986 submittal has been reviewed. As previously mentioned, the review was based on determining compliance with current Water Quality Rules and Regulations (WQRR), Chapters XI and XII. The essential compliance/corrective measures have been evaluated with (reasonable) consideration of operation and more importantly public health.

General

1. Protection from 25 and 100 year flood. OK.
2. An itemized plan of action should be provided with the final response. It was decided during our January 8, 1986 meeting that all compliance work will be completed by October 1, 1986.
3. Water and Wastewater Systems Certified Operator(s). OK.

Public Water Supply

1. The water supply system currently consists of two wells (45 gpm and 28 gpm) and a 69,000 gallon storage reservoir. The capacity of the system should be more than adequate to supply water to the existing lots. OK.
2. Disinfection equipment and connections will be installed to each groundwater source. Details and specifications are to be submitted. OK.

*ABC*

a. The situation in which a new groundwater source is added to an existing system was discussed with the DEQ/WQD Engineering Supervisor. As per Chapter XII chlorination equipment and connections will be required on all new groundwater sources.

WQRR do not provide the authority for requiring chlorination equipment and connections to be installed on previously permitted (or grandfathered) groundwater sources unless modifications are to be made or problems exist. When a new groundwater source is to be added to an existing system DEQ/WQD will strongly recommend that chlorination equipment and connections be added to all sources.

b. The Meadow Park Village Water (and sewer) system was constructed without prior authorization from this department and therefore in violation of the Environmental Quality Act. Before the system(s) can be accepted by this department they must be brought into compliance with current applicable WQRR. The addition of chlorination equipment is not considered to be an unjustified expenditure when public health is the major concern.

3. Both water supply wells are located closer to a sewer line than the minimum WQRR requirements of 50 feet. If the wells and adjacent sewer lines are to remain in their existing locations, the critical segments shall be performance tested (exfiltration or pressure) or cased to provide adequate protection.

4. Protection from 100 year flood. OK.

5. The Ron Sims No. 2 well casing terminates in a valve pit approximately 6 feet below grade. The proposal to install a drain line in the valve pit has been reconsidered. The requirement that a well casing terminate above final grade has been an industry standard for quite some time.

Ten State Standards required that the well casing be terminated above final ground surface long before WQRR Chapter XII were adopted. Compliance with WQRR Chapter XII, Section 9 will be required because of the public health concern (and modifications for chlorination equipment).

6. Water supply system capacity. OK.

7. Water supply pressure analysis. OK.

8. Water supply pressure. OK.

9. Documentation of water line integrity. OK.

10. Existing water pipe and specifications. OK.

Wastewater Collection and Treatment System

1. Wastewater collection system integrity. OK.
2. The "as built" plans indicate that at least 6 segments of wastewater collection system were constructed at slopes less than the minimum requirements. Documentation has been provided which indicates reconstruction of these lines would be unjustified for this small system, except as proposed in the Engineering Report.
3. Based on the documentation provided this office agrees that complete reconstruction of the collection system would be unfeasible. It is recommended that cleaning or flushing of the lines be specified as a routine (at least annually) maintenance procedure. OK.
4. Bedding and backfill methods documented. OK.
5. Acceptable alarm system provided. OK.
6. An outline addressing measures and methods for operating the treatment plant should be provided with the final response.
7. Sludge wasting procedures for process control to be documented. See item 6.  
OK.
8. Ecolo-Chief shop drawings and information provided. OK.
9. Effluent pump station operation. OK.

The evaluation of unauthorized "as built" systems is an agonizing process for all parties involved. It is a relief to realize that we are near the resolution of this project. Thank you for your cooperation.

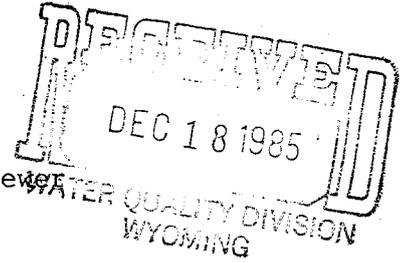
Submit the required drawings and information to this office in triplicate. Be sure to include the Water Quality Reference Number on your response. If you have any questions, please feel free to contact me.

JB/jw

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144



PROJECT: Meadow Park Village "As Built" Water and Sewer  
Plats A and B

ENGINEER: Kevin D. Jones  
516 Sage Street  
Evanston, WY 82930

OWNER: Meadow Park Village, c/o Michael J. Sims  
565 County Road No. 107  
Evanston, WY 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 85-574

REVIEWING ENGINEER: Jack Bedessem *JB*

DATE OF REVIEW: December 13, 1985

ACTION: Not authorized.

COMMENTS:

An initial review of the engineering report, plans and specifications has been completed. The review was based on determining compliance with current Water Quality Rules and Regulations (WQRR) Chapters XI and XII. Before the facility can be accepted "as built" the following items need to be resolved and/or addressed:

General

1. Address protection of the water and sewerage facilities from the 25 and 100 year flood. A map indicating the 25 and 100 year flood elevations should be submitted.
2. Provide a plan of action and compliance schedule for bringing each inadequate item into compliance with the plans and specification. A condition of acceptance for this "as built" facility will be diligent compliance with the plans and specifications.
3. Please note that if and when the Home Owners Association takes over the water and sewerage systems, they will be considered public facilities. WQRR Chapter V require that the operators of public water or sewerage system be certified (wastewater treatment and collection, water treatment and distribution). Address and clarify.

Public Water Supply

1. WQRR stipulate that where water use records are not available, the per capita maximum daily demand shall be at least 340 gpd and for average daily demand at least 125 gpd. As a general design rule 3.5 persons occupy each residential unit (89) yielding a design maximum daily demand of 105,900 gallons and an average daily demand of 38,940 gallons.

The Engineering Report uses a 350 gpd/unit design value for average daily demand. Address available records and verify water use and storage design values.

2. Groundwater supply facilities shall provide disinfection equipment and connections as minimum of treatment. Disinfection equipment and connections will be required as a condition for acceptance of this "as built" facility. Refer to WQRR, Chapter XII, Section 10.

3. WQRR stipulate that the minimum distance between a sewer and water well shall be 50 feet. The water wells within this subdivision appear to be located less than 25 feet from a sewer line. Address protection of the wells from contamination.

4. Address protection of the water wells from the maximum recorded or 100 year flood, whichever is greater.

5. WQRR stipulate that the top of a well casing or opening shall not terminate in a pit that is below the natural ground surface. The Ron Sims No. 2 well detail indicates the casing terminates below grade with a vented seal. Compliance with WQRR will be required prior to acceptance of this "as built" facility. Well modifications - refer to WQRR, Chapter XII, Section 9.

6. According to the Insurance Service Office the minimum design fire flow demand should be 500 gpm for a duration of 4 hours. However, WQRR stipulate that water systems serving less than 50,000 gallons average daily demand provide only system storage equal to at least the average daily demand. Water system demand calculations should be revised to reflect the total number of lots which can be served by this system.

7. WQRR stipulate that system shall maintain a minimum pressure of 20 psi at ground level at all points within the distribution system under all flow conditions. Provide documentation that the system can maintain a pressure of 20 psi using revised demand values.

8. It appears that there may be areas within the subdivision where working pressures will exceed 100 psi, especially during the initial low occupancy. Address measures for pressure reduction and maintenance (i.e., pressure sustaining devices).

9. Provide documentation the water mains have been pressure and leakage tested in accordance with AWWA C600. If the pipes have not been performance tested it should be performed and documentation provided.

10. The supplementary specifications stipulate that water mains will meet or exceed ASTM D2241 PVC pipe (SDR-PR). WQRR do not recognize ASTM D2241 PVC pipe larger than 4 inches diameter. If ASTM D2241 PVC pipe is to be considered, an acceptable SDR should be specified (i.e., 26 or 21).

#### Wastewater Collection and Treatment System

1. Provide documentation that the collection has been performance tested for leakage (infiltration, exfiltration or air tests). If the pipes have not been tested, it should be performed and documentation provided.

2. Chapter III of the Engineering Report indicates a proposed development of 89 units which produces an average daily flow of 22 gpm (assumption: 3.5 persons/unit, 100 gpcpd). Using a peaking factor of 4, this yields an anticipated peak flow of 88 gpm.

However, the sewer analysis described in Table I utilizes an anticipated peak flow of 145 gpm (assumption: maximum 150 units). This flow condition seems extremely optimistic, therefore provide an evaluation of the sewage collection system using a more realistic flow condition (i.e., average daily flow rate of 22 gpm).

3. The proposed reconstruction on sewer lines B, C and D will not bring the grades or velocities into compliance with WQRR. In conjunction with the probable low flows, adequate scouring velocities may not be obtainable. Sewers which do not allow adequate velocities, not only create maintenance problems but also create a safety hazard with the production of hydrogen sulfide gas.

From the profile drawings, it has also been noted that cover in several areas is less than 2 feet. It is therefore recommended that segments of sewer lines A, B, C and D be reconstructed to provide adequate cover and improve velocities. A lift station will probably be necessary to raise the wastewater into the treatment plant.

4. Address whether proper bedding and backfilling methods were used when installing the sewage collection lines.

5. Address an alternate source of power for the Ecolo-Chief wastewater treatment facilities. Address whether sufficient alarm systems exist at the treatment plant.

6. The wastewater treatment plant shall be operated as efficiently as possible in order to obtain the best quality effluent. Address measures and methods for process control and available equipment (D.O. meter, settleometer, sludge finder, etc.). also address the operators daily routine including process control.

7. Sludge wasting facilities (WAS and clarifier sludge) are required to efficiently operate an activated sludge type wastewater treatment plant. Address sludge wasting measures, facilities and disposal methods.

Review of Plans & Specs.

Ref. No. 85-574

Page Four

8. From the previous submittal this office has on file three complete sets of shop drawings for the Ecolo-Chief. These drawings will be considered supplemental to this application.

9. Address how the emergency effluent pump station will operate if the optional valve on the discharge pipe is not installed. Detail drawings of the emergency and normal discharge points should be included on the plans (erosion control).

Submit the revised drawings and required information in triplicate to this office as soon as possible. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. If you have any questions please feel free to contact me.

JB/jw



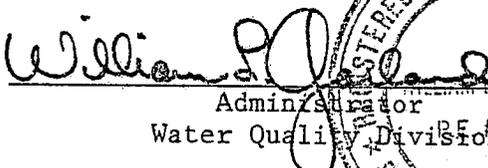
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

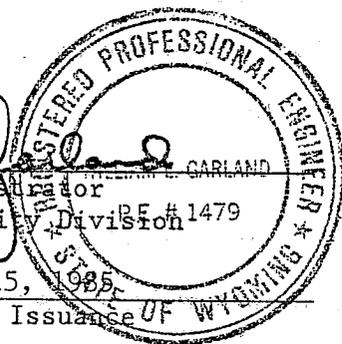
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

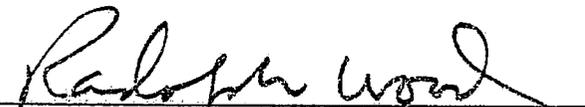
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator  
Water Quality Division  
November 15, 1985  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.



# Department of Environmental Quality

## Water Quality Division

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

33-MAIN

### CONSTRUCTION INSPECTION REPORT

Date August 6, 1986

Wyoming Permit Number: 85-576 RR

Name of Facility: Raintree Estates Water System Impro.

Location of Facility: Sec. 30, T1N, R4E WRM Fremont Co.  
west of Reventon

Facility Description:  New Construction  Modification

Design Engineer: Tom Axthelm of  
Inberg-Miller Engr.

Contractor: unknown - work  
complete

Construction in Compliance with Issued Permit to Construct:

Yes  No

Infraction(s) that need(s) to be Corrected and/or Comments:

The work appeared to be completed. I was  
unable to get into well house no. 2 since it  
was locked up. However, I did look at the  
modifications in well house no. 1. All items  
required to improve the system to meet standards  
appeared to have been completed.

The workmanship of all the visible portions  
of the water system appeared to be very good.

Accompanied by:

Jeff Hermansky  
Signature of Inspecting Engineer



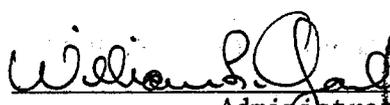
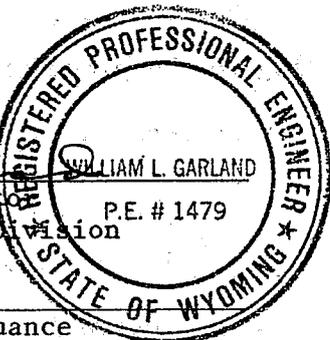
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
Administrative  
Water Quality Division  
  
07-09-86  
Date of Issuance

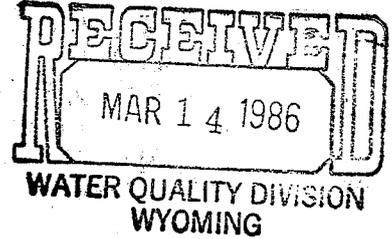
  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144



PROJECT: Raintree Estates Water System As-Builts

ENGINEER: Thomas E. Axthelm, P.E.  
Inberg-Miller Engineers  
124 E. Main Street  
Riverton, WY 82501

OWNER: Porter Chopping, President  
Raintree Estates Home Owners Association  
1555 North Federal  
Riverton, WY 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 85-576R

REVIEWING ENGINEER: Jeff Hermansky

A handwritten signature in cursive script, appearing to read "JH", written over the printed name "Jeff Hermansky".

DATE OF REVIEW: March 13, 1986

ACTION: Not authorized.

COMMENTS:

This office has completed our review of your response to our initial review of the as-built plans of the water system installed at the Raintree Estates Subdivision. The following items must be addressed before this office can grant authorization of the as-built construction:

1. Since there is a possibility that the septic tank/leachfield that serves the residence on Lot 10, Block 4 could be within 100 feet of Raintree Well No. 2, the system location must be verified by on-site investigation. Please show your findings on the plans.

2. The storage tank does not have sufficient capacity to permit the system to have only one well. Using two wells is acceptable if the sources are capable of equalling or exceeding the design average daily demand with the largest producing well out of service. Please address how this requirement can be met or substantiated by testing the wells.

3. The hydropneumatic tank at well no. 2 must be located above grade and be properly housed if it is to be part of the system. Please see the appropriate sections of Chapter XII for the requirements for hydropneumatic tanks.

4. The following items must be constructed in accordance with Chapter XII before the as-built construction can be authorized:

a. A reservoir cover must be constructed in accordance with the current Chapter XII regulations or as shown on the plans originally authorized for Raintree Estates.

b. The storage tank must have an overflow pipe installed in accordance with the regulations.

c. The wells must be equipped with alarm systems in accordance with the regulations.

Please submit the necessary designs and information in a timely manner. Resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, contact either Steve Gerber or me.

JH/jw

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

210 LINCOLN

LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Raintree Estates Water System

ENGINEER: Thomas E. Axthelm, P.E.  
Inberg-Miller Engineers  
124 E. Main Street  
Riverton, WY 82501

OWNER: Porter Chopping, President  
Raintree Estates Home Owners Association  
1555 North Federal  
Riverton, WY 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 85-576

REVIEWING ENGINEER: Jeff Hermansky

DATE OF REVIEW: December 3, 1985

ACTION: **Not authorized.**

COMMENTS:

This office has completed a review of the as-built plans of the water system installed at Raintree Estates subdivision. The as-built construction differs greatly from the plans that were permitted (No. 79-737R) for the project. The as-builts were however, reviewed to determine if the facility constructed meets the current regulations. This review has left us with the following questions and comments:

1. How far are the wells from any nearby leachfields and sewer lines?
2. We are unable to determine if the system installed is capable of meeting the regulations regarding storage and well pump capacity. Please submit the pumping rates and any well development data that is available.
3. How is the system designed to operate? When is each well used? Could there be excessive well pump cycling in well number 2?
4. Can the pressure tank for well number 2 be removed?
5. Both the current regulations and the regulations in effect when Raintree Estates water system was permitted in 1979, state that "hydropneumatic (pressure) tanks shall be located above normal ground surface and be completely housed." The tank for well number 2 is below ground.
6. Is there any groundwater near the well number 2 vault?
7. The regulations require that all finished water storage structures shall have suitable watertight roofs which exclude birds, animals, insects, and excessive dust. Do you feel that the structure that houses the concrete reservoir meets the intent of this regulation?

c

8. All water storage structures must be provided with an overflow. The concrete reservoir serving well number 1 does not appear to have an overflow.

9. Automatic booster pump stations must have alarm systems. Does well number 1 have an alarm?

Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Please feel free to contact either Steve Gerber or me if you have any questions.

JH/jw



*Herma*  
85-577R  
MA 14542

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*

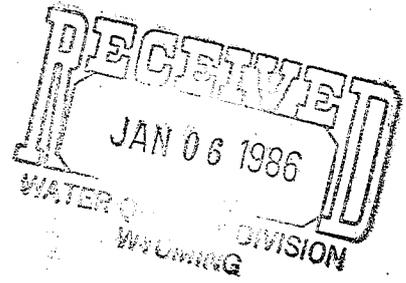
*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

December 13, 1985



Bridger Coal Company  
ATTN: Mr. Fred E. Parady, III  
P.O. Box 2068  
Rock Springs, WY 82902

RE: Sedimentation Pond JB-27, WQD Reference No. 85-577R

Dear Mr. Parady:

The plans and specifications for the above referenced facility have been reviewed by this office and found to be in compliance with the minimum design standards for the State of Wyoming. Because this facility has already been constructed, a permit to construct can not be issued. Therefore, would you please retain a copy of this letter as proof that this facility has been accepted by this department.

Should you have any questions, please contact either Jack Bedessem or myself.

Sincerely,

Bill Locke, P.E.  
Water Quality Engineer

BL/jw

*aba*



*Department of Environmental Quality*  
*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

November 12, 1985

85-577

Bridger Coal Co.  
ATTN: Mr. Fred E. Parady III  
P.O. Box 2068  
Rock Springs, WY 82901

RE: Sediment Pond JB-27 (Permit No. 81-237R)

Dear Mr. Parady:

I am in receipt of your letter dated October 30, 1985 regarding the increase in the size of the above facility. I thoroughly understand the need for this enlargement, but am in the dark as to how the increase to 3.72 ac-ft will eliminate your problem. Please provide additional information and data supporting this decision. This information should include, but not be limited to the following:

- run-off calculations supporting this pond size
- calculations supporting sediment volume storage

Hopefully, this exercise will ensure the elimination of future discharge violations. Should you have any questions concerning this request, please call me at 332-3144.

Sincerely,

A handwritten signature in cursive script that reads "Bill Locke".

Bill Locke, P.E.  
Water Quality Engineer

BL/jw

IN THE DISTRICT COURT OF THE NINTH JUDICIAL DISTRICT

IN AND FOR FREMONT COUNTY, STATE OF WYOMING

Docket No. 23541

PEOPLE OF THE STATE OF	)
WYOMING,	)
	)
Plaintiff,	)
	)
vs.	)
	)
BOYD WATHEN,	)
	)
Defendant.	)

CONSENT DECREE

This matter is a civil action wherein the People of Wyoming have demanded that defendant, Boyd Wathen, pay a penalty for violations of the Wyoming Environmental Quality Act pursuant to the provisions of W.S. 35-11-301 and W.S. 35-11-901.

The Plaintiff's Complaint was filed with the Clerk of the District Court on June 18, 1985. Proper service of process on the Defendant was accomplished on June 20, 1985 and the Defendant filed his Answer on July 18, 1985.

The Plaintiffs and Defendant entered into a Stipulation concerning this matter and have presented it to this Court. The Stipulation sets forth an agreement by the parties concerning the facts in this case, as well as an indication of an appropriate penalty. Based upon the facts set forth in the Stipulation of the parties;

THE COURT HEREBY FINDS AS FOLLOWS:

1. This Court has jurisdiction of the subject matter of this action and all parties hereto. The Complaint herein states a claim against the Defendant under W.S. 35-11-301 and W.S. 35-11-901.

ii) Five thousand dollars (\$5,000.00) paid within thirty days after the entry of this Consent Decree.

iii) Five thousand dollars (\$5,000.00) to be paid within sixty days after the entry of this Consent Decree.

iv) Five thousand dollars (\$5,000.00) to be paid within ninety days after the entry of this Consent Decree.

B. Full and timely payment of the penalty will constitute full satisfaction by the Defendant for the violations referenced in the Complaint. Remedial work at the minesite (Diana Mine) will be conducted by the State of Wyoming.

C. The provisions of the Consent Decree shall apply and be binding upon the Defendant, his successors and assigns, and upon the State of Wyoming.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 1985.

\_\_\_\_\_  
DISTRICT COURT JUDGE

2. The Defendant has violated W.S. 35-11-301(a) (1) by threatening the discharge of pollution or wastes into the waters of this State. The Defendant has also violated W.S. 35-11-301(a)(iii) by modifying containment ponds at his mine site without obtaining prior approval from the Wyoming Department of Environmental Quality, Water Quality Division. The Defendant has violated the terms of his Water Quality Division permit for the aforementioned containment ponds by removing earth or water spoils without obtaining prior approval from the Wyoming Department of Environmental Quality, Solid Waste Management. The Defendant also failed to conduct monitoring as required by his Water Quality Division permit.

3. W.S. 35-11-901(a) authorizes this Court to assess penalties of up to ten thousand dollars (\$10,000.00) per day for violations of the Wyoming Environmental Quality Act and rules and regulations promulgated thereunder.

4. The sum of twenty thousand dollars (\$20,000.00) is a fair and just penalty to be paid to the People of Wyoming for the violations committed by the Defendant.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED that:

A. The Defendant shall pay the sum of twenty thousand dollars (\$20,000.00) to the State of Wyoming, Department of Environmental Quality, as a penalty in full satisfaction for his violations of the Wyoming Environmental Quality Act charged in this matter. Both parties shall bear their own costs of this litigation. The penalty shall be paid no later than in accordance with the following schedule.

i) Five thousand dollars (\$5,000.00) paid upon the entry of this Consent Decree.

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



FOR USE BY DEQ/WQD ONLY	
APPLICATION NO.	85-578
DATE REC'D	

- Name of Facility Diana Mine Monitor Well LLC
- Owner, Company, or Corp. Name Boyd WATSON
- Location of Facility: Sec. 14-12 T. 29 N. R. 10 W. Co. Fremont
- Facility Description:
  - New Construction (1)       As Built (3)       Renewal (4)
  - Expansion or Modification of an Existing Water or Wastewater Facility (2)
 Previous Construction Permit No(s): \_\_\_\_\_

Public Water Supply: NA

Publicly-owned (G) (name: \_\_\_\_\_)

Privately-owned (H) (name: \_\_\_\_\_)

Type of facility:

Source Development (I)

Treatment Plant (J)

Distribution System (K)

Source: Groundwater \_\_\_\_\_

Surfacewater \_\_\_\_\_

Capacity or Demand \_\_\_\_\_ gpm

Wastewater Facility: NA

Publicly-owned (L) (name: \_\_\_\_\_)

Commercial/Industrial (M)

Small (N) (single unit, domestic waste, less than 2000 gpd)

Type of facility:

Septic System (O)

Stabilization Pond (P)

Sedimentation Facility (Q)

Evaporative/Containment Pond (R)

Treatment Plant (S)

Collection System (T)

Injection or Recovery Well (U)

Other (V)

Volume of Wastewater \_\_\_\_\_

- 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: \_\_\_\_\_

- Briefly describe facilities proposed to be constructed: 3 Monitor Wells 4" or more to check water quality

- Will the proposed water supply/wastewater treatment facility discharge to the surface? (W) No
- If yes, NPDES Permit Application No. \_\_\_\_\_
- Name of receiving waters \_\_\_\_\_

Name of Applicant Boyd Watson

Mailing Address: 825 W 7th N  
(Street or P. O. Box)  
Henrieville Park, Utah  
(City, State, Zip) 84003

Business Phone \_\_\_\_\_

Home Phone 801-756-2249

Name of Engineer NA

Wyoming P.E.# \_\_\_\_\_

Engineering Firm \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
(Street or P. O. Box)

(City, State, Zip) \_\_\_\_\_

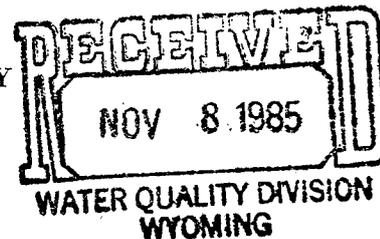
Phone \_\_\_\_\_

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, 1983.

*Handwritten signature/initials*

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144



PROJECT: A & K Trailer Court "As Built" Water and Sewer

ENGINEER: Wayne Johnson  
Johnson-Fermelia and Crank, Inc.  
1515 Ninth Street  
Rock Springs, WY 82501

OWNER: Avelino Gutierrez  
226 Dickson  
Rock Springs, WY 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 85-579

REVIEWING EVALUATOR: Jack Bedessem *JB*

DATE OF REVIEW: November 7, 1985

ACTION: Not authorized.

COMMENTS:

The "As Built" plans received on September 11, 1985 are unchanged from the initial set of plans received August 9, 1984. A written response to my July 31, 1985 review comments was not included with this latest "most up to date" set of plans.

The "as built" plans consist only of plan views. No profiles, details or construction/material specifications were included. The following comments are a reiteration of my July 31, 1985 review and a summary of the system's deficiencies:

1. Existing pipe material and classifications should be identified. Acceptable pipe materials are referenced in Wyoming Water Quality Rules and Regulations (WWQRR) Chapters XI and XII.

2. The integrity of the existing water and sewer lines should be evaluated. As the systems currently exist, performance testing (pressure, infiltration/exfiltration) may not be feasible. However, if and when the systems get upgraded, performance testing should be conducted.

a. The installation of valves, curb stops and/or water service shut off valves should allow for pressure/leakage tests to be conducted (AWWA C600).

b. The installation of manholes and clean outs should allow for exfiltration tests (maximum 200 gallons/inch diameter/mile/day) to be conducted. A TV survey of sewer lines, where high groundwater conditions do not exist (infiltration) may be unnecessary.

3. No profiles or slopes have been provided therefore grades and protection can not be evaluated. Water and sewer lines shall be buried at a sufficient depth to protect from freezing and frost heave. Personnel from this department and Sweetwater County Health Department, have no record of complaints about frozen water or sewer lines.
4. All sewer lines, except one, are identified as 6 inch. One 4 inch sewer line is indicated on the plans. WWQRR stipulate sanitary sewers for mobile home parks shall not be smaller than 6 inches and installed at slopes equal to or greater than 0.6%.
5. Manholes need to be located at all changes in pipe size, vertical and horizontal alignment, pipe intersections and the end of lines. At least 6 manholes and numerous cleanouts need to be installed.
6. The separation distances between water and sewer lines cannot be thoroughly evaluated since no profiles or details have been provided. From the plans it appears that the horizontal distance between one set of water and sewer lines is less than 5 feet.
7. The water and sewer risers should terminate at least four inches above grade, be protected and located at least 5 feet apart.
8. All water distribution and sewage collection lines are laid directly under the individual trailer spaces. This layout is not recommended because of accessibility and maintenance problems. However, the systems are existing and have functioned adequately for a number of years. Any expansions to the systems could result in serious maintenance problems if the lines are left "as built".
9. WWQRR stipulate that not more than two mobile homes shall be served by a sanitary sewer service connection of at least 4 inches, provided a clean out is installed on the main service pipe. Also, only one mobile home shall be served by a sanitary sewer service riser. Documentation should be provided which clarifies these requirements.
10. The mobile home park is supplied by three water wells which serve three separate distribution systems. For each system the pumps must be capable of meeting the maximum day demand with the largest pump out of service.
  - The south well system serves approximately 10 connections.
  - The north well system serves approximately 30 connections.
  - The northeast well system serves approximately 3 connections.

According to the Wyoming State Engineer's office, Avelino Gutierrez has two filings in good standing. Well #2 (UW 20634) was completed in 1974 with a total depth of 220 feet and static water level of 190 feet (4 inch PVC

casing). Well #3 (US 20635) was also completed in 1974 with a total depth of 245 feet and a static water level of 200 feet (4 inch PVC casing).

11. The water supply source(s) shall be capable of supplying the peak demand or storage facilities will need to be provided. The plans do not indicate any water storage facilities or details. The appropriate demand/capacity criteria is needed to evaluate the water system.

12. All water lines throughout this mobile home park appear to be 2 inches in diameter. The distribution system(s) should be of sufficient size to supply the required volume of water at a minimum pressure of 20 psi under all flow conditions.

a. An analysis of water pressures for this mobile home park should be provided.

b. Deadends may need to be eliminated by looping water lines in order to improve pressures. Where deadends do occur blow-offs should be provided.

13. Water wells and treatment facility details are not included with the "as built" plans. Treatment for groundwater supplies as a minimum, should provide disinfection equipment and connections.

According to the Sweetwater County Health Department and USEPA past water quality monitoring reports have indicated satisfactory results. However, if disinfection capabilities do not exist it should be provided.

14. Existing valves and appurtenances (i.e. blow offs) need to be included on the "as built" plans and details. Valves should be located to minimize inconvenience and sanitary hazards.

15. The "as built" plans indicate that wastewater flows to two separate single cell lagoons. The northeast lagoon which services approximately 10 connections could not be located during an on site inspection, August 1, 1985, by personnel from this department.

A reclamation plan for abandoning these two lagoon systems needs to be submitted to this office for review. The plan should include a compliance schedule, wastewater disposal method, sludge handling/disposal method, safety considerations.

If you have any questions, concerning the above review, please feel free to contact me.

JB/jw

copy: Jake Strohman, DEQ/WQD, Cheyenne  
Weldon Caldbeck, AG's office, Cheyenne  
File (5)

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-580  
 SEE CONDITIONS ON BACK  
 MA 14542

Cody Conoco  
 (Name of Facility)

This permit hereby authorizes the applicant (name and address):

Energy Distributing Co.

P.O. Box 1340

Casper, WY 82602

to construct, install, or modify a groundwater monitor network facility according to the procedures and conditions of the application No. 85-580. The facility is located in Section 32, T53N, R101W in the County of Park, in the State of Wyoming. This permit shall be effective for a period of one (1) year (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

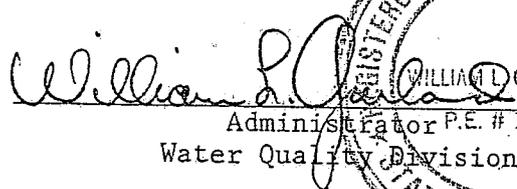
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

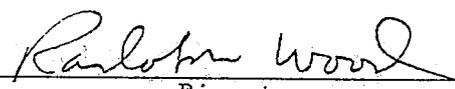
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
WILLIAM L. GARLAND  
Administrator P.E. # 1479  
Water Quality Division  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF WYOMING

  
Director  
Dept. of Environmental Quality

December 23, 1985  
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #85-580

1. The following submittals are due within 90 days of the issuance of this permit:
  - a. Logs of boreholes and well completion information.
  - b. A description of all samples and analytical results.
  - c. A report on the extent of contamination and recommended remedial measures.
2. Additional work may be required as shown to be necessary by the volume and extent of contamination.
3. Plugging and abandonment should follow the procedures of Wyoming Department of Environmental Quality, Water Quality Division Rules and Regulations, Chapter XI.

cc: Steve Gerber



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

May 16, 1986

Champlin Petroleum Co.  
7600 Orchard Ave., Suite 300N  
Englewood, CO 80111

To whom it may concern:

Your statewide permit number 85-581R, for small wastewater facilities, contains a condition requiring the notification of the appropriate county or state agency prior to the installation or abandonment of facilities authorized by the permit.

A review of state and county records indicates that very few of these facilities are being reported. It is important that these facilities be reported on a regular basis. County governments have agreed to the use of statewide permits on the condition that they be properly notified. If the statewide permitting system is not responsive to the needs of the counties, the state will not be able to issue statewide permits and it will be necessary to obtain permits for such facilities with the individual counties.

In order to address this problem you are requested to do the following:

1. Provide this office a list and location of all facilities constructed under your statewide permit.
2. Indicate the present status of each facility, i.e., operational or abandoned.
3. Indicate whether or not you wish to maintain the statewide permit in an active status.
4. Provide the required notification to both the appropriate county and state agency for all future facilities.

Sincerely yours,

A handwritten signature in cursive script that reads "Lawrence Robinson".

Lawrence Robinson  
Engineering Supervisor

LR/nc



ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

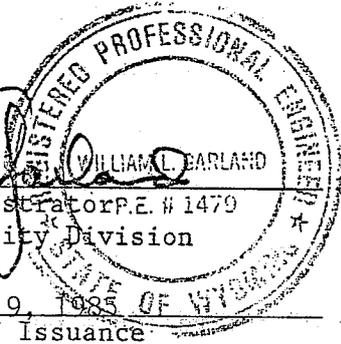
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
 Administrator P.E. # 1479  
 Water Quality Division  
 November 19, 1985  
 Date of Issuance



  
 Director  
 Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

\* CONDITIONS ON PERMIT \*

1. This permit is valid for temporary sanitary wastewater disposal facilities only. Temporary being defined as one (1) year or less. If the proposed facility is to be operated for more than one year, the permittee must obtain authorization from this department.

The permittee shall notify the appropriate county or state agency prior to the installation, removal or abandonment of any facility authorized by this permit. The appropriate agency for each county is indicated in the attached list. Notification shall be by phone with a follow-up written notice. Upon abandoning the site, the facility will be removed, disposed of, or left in place in a condition rendering the site safe for the public. Any waste from the facility shall be disposed of only in areas and in a manner approved by the appropriate agency. Upon request, the permittee shall allow authorized representatives of the local agency or the State to have access to the authorized facility for the purpose of conducting an inspection to determine compliance with the provisions of this permit.

AGENCIES RESPONSIBLE FOR SMALL WASTEWATER PERMITS

1. Albany County  
Albany County Planning Office  
405 Grand Avenue  
Laramie, WY 82070  
Phone: (307) 721-5188
2. Big Horn County  
Big Horn County Engineer  
P.O. Box 31  
County Courthouse  
Basin, WY 82410  
Phone: (307) 568-2358
3. Campbell County  
Campbell County Engineer  
500 South Gillette Avenue  
Gillette, WY 82716  
Phone: (307) 682-1970
4. Carbon County  
District Supervisor  
Water Quality Division  
Department of Environmental Quality  
Herschler Bldg. - 4th West  
Cheyenne, WY 82002  
Phone: (307) 777-7781
5. Converse County  
Converse County Sanitarian  
County Health Department  
530 Oak  
Douglas, WY 82633  
Phone: (307) 358-2536
6. Crook County  
District Supervisor  
Water Quality Division  
Department of Environmental Quality  
2161 Coffeen Avenue  
Sheridan, WY 82801  
Phone: (307) 672-6457
7. Fremont County  
Fremont County Planner  
Room 200, County Courthouse  
Lander, WY 82520  
Phone: (307) 332-5371
8. Goshen County  
Goshen County Sanitarian  
P.O. Box 1132  
County Courthouse  
Torrington, WY 82240  
Phone: (307) 532-5002
9. Hot Springs County  
Hot Springs County Planner  
County Courthouse  
Thermopolis, WY 82443  
Phone: (307) 864-2732
10. Johnson County  
Johnson County Sanitarian  
County Courthouse  
Buffalo, WY 82834  
Phone: (307) 684-7555
11. Laramie County  
Laramie County Environmental Health  
1700 Snyder Avenue  
Cheyenne, WY 82001  
Phone: (307) 638-8545
12. Lincoln County  
Office of Planning and Development  
P.O. Box 414  
Afton, WY 83110  
Phone: (307) 886-3825
13. Natrona County  
Environmental Health Division  
Natrona County Health Department  
1200 East 3rd  
Casper, WY 82601-2990  
Phone: (307) 235-9316
14. Niobrara County  
District Supervisor  
Water Quality Division  
Department of Environmental Quality  
2161 Coffeen Avenue  
Sheridan, WY 82801  
Phone: (307) 672-6457

15. Park County  
Park County Planning Coordinator  
P.O. Box 160  
Cody, WY 82414  
Phone: (307) 587-2204
16. Platte County  
Platte County Sanitarian  
P.O. Box 55  
Wheatland, WY 82210  
Phone: (307) 322-9571
17. Sheridan County  
Sheridan County Engineer  
P.O. Box 612  
Sheridan, WY 82801  
Phone: (307) 672-3426
18. Sublette County  
Sublette County Planner  
P.O. Box 506  
Pinedale, WY 82941  
Phone: (307) 367-4375
19. Sweetwater County  
Sweetwater County Sanitarian  
205 East Railroad Ave.  
Green River, WY 82935  
Phone: (307) 875-2611 Ext. 278
20. Teton County  
Teton County Sanitarian  
P.O. Box 1727  
Jackson, WY 83001  
Phone: (307) 733-3959
21. Uinta County  
Uinta County Engineer  
225 9th Street  
Evanston, WY 82930  
Phone: (307) 789-1780 ext. 318
22. Washakie County  
Washakie County Planner  
County Courthouse  
Worland, WY 82401  
Phone: (307) 347-2741
23. Weston County  
District Supervisor  
Water Quality Division  
Department of Environmental Quality  
2161 Coffeen Avenue  
Sheridan, WY 82801  
Phone: (307) 672-6457



ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
William L. Garcia  
Administrator # E # 1479  
Water Quality Division  
November 27, 198  
Date of Issuance

Roderic Wool  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
210 LINCOLN  
LANDER, WYOMING 82520  
PHONE: (307) 332-3144

PROJECT: Westside Water System Improvements

ENGINEER: Forsgren-Perkins Engineering, P.A.  
75 Yellow Creek Rd., Suite 302  
Evanston, WY 82930  
ATTN: Brian Honey

OWNER: City of Evanston  
1200 Main Street  
Evanston, WY 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 85-582

REVIEWING ENGINEER: Bill Locke, P.E. *BL*

DATE OF REVIEW: November 15, 1985

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above project has been completed. The following items must be addressed before a permit to construct will be issued.

1. Where required vertical and/or horizontal separation between sewer and water lines cannot be maintained, the sewer or water line shall be placed in a separate conduit. Please address this in the specifications or on the plans.

2. Three sets of plans and specifications stamped by a Wyoming Professional Engineer are required. An application form is attached, which also must be filled out and submitted with the package.

BL/jw

C



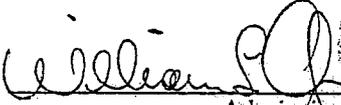
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
WILLIAM L. GARLAND  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF WYOMING  
No. 1479  
Administrator  
Water Quality Division  
November 26, 1985  
Date of Issuance

  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.



85-583  
Norma  
ED HERSCHLER  
GOVERNOR

# Department of Environmental Quality

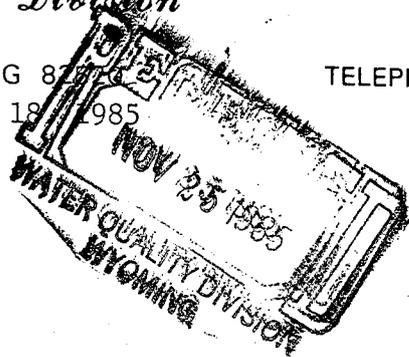
## Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82502

TELEPHONE 307-332-3144

November 18, 1985



City of Kemmerer  
ATTN: Mr. James D. White  
P.O. Box 312  
Kemmerer, WY 83101

RE: Kemmerer Animal Shelter Wastewater Disposal System

Dear Mr. White:

I am receipt of your application for permit to construct for the above facility. You apparently based your design on a reference book (Water Supply and Pollution Control) which varies significantly from our Water Quality Rules and Regulations.

I have enclosed the Water Quality Rules and Regulations, Chapter XI, Part D for your reference. This part deals specifically with small wastewater disposal systems. Please pay specific attention to the requirements for determining percolation rates and the method of determining absorption system loading rates. These are the two items for which your design basis differed most from our regulations.

Additionally, it has been our experience that evapotranspiration beds do not operate effectively in this climate. I would like to discourage you from considering it a viable alternative. The seven months of extreme winter temperatures and snow cover we experience here reduce evaporation and transpiration to near zero.

Once you have altered your design in accordance with the attached regulations, please resubmit the package and we will review it at our earliest convenience. If you have any questions or comments, please call me at 332-3144.

Sincerely,

Bill Locke, P.E.  
Water Quality Engineer

BL/jw

C



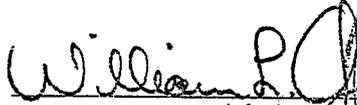
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

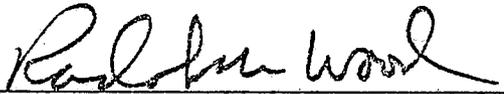
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
REGISTERED PROFESSIONAL ENGINEER  
WILLIAM GARLAND  
Administrator P.E. # 1479  
Water Quality Division  
STATE OF WYOMING  
November 19, 1985  
Date of Issuance

  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.



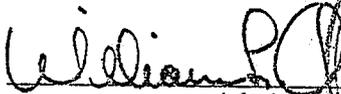
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

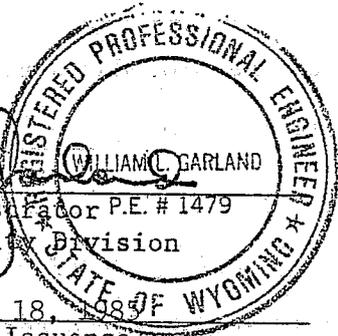
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

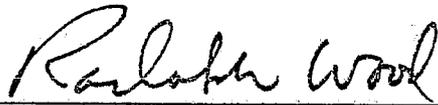
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
Adminisrator P.E. # 1479  
Water Quality Division  
November 18, 1989  
Date of Issuance



  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-586  
MA 14542

Black Butte Coal SP-F8A  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Black Butte Coal Company

P.O. Box 98

Point of Rocks, WY 82942

to construct, install, or modify a sedimentation control pond facility according to the procedures and conditions of the application No. 85-586. The facility is located in Section 3, T18N, R100W in the County of Sweetwater, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

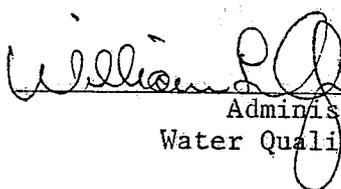
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

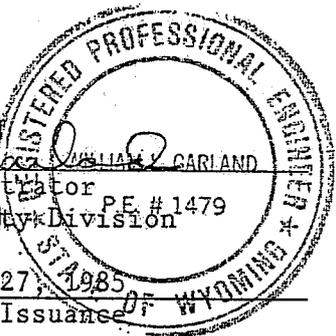
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

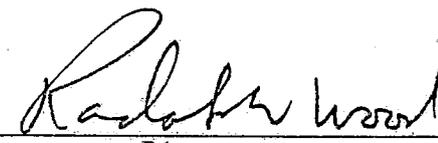
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administator  
Water Quality Division  
November 27, 1985  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

12-6-85

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-587  
SEE CONDITIONS ON BACK

MA 14542

Former Tie Treating Plant Monitoring Wells  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Burlington Northern Railroad  
2718 Montana Avenue  
Billings, MT 59101

to construct, install, or modify a network of 5 or more monitor wells facility according to the procedures and conditions of the application No. 85-587. The facility is located in Section 23, T56N, R84W in the County of Sheridan, in the State of Wyoming. This permit shall be effective for a period of one (1) year (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

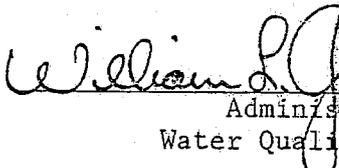
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

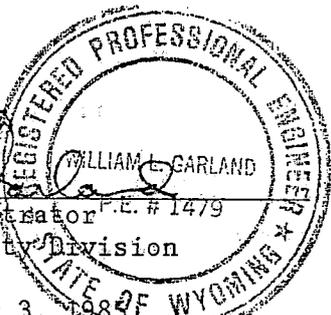
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

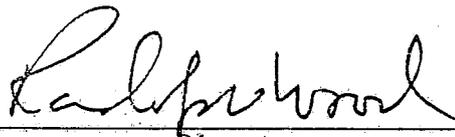
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
Administrator P.E. # 1479  
Water Quality Division  
December 3, 1989  
Date of Issuance



  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

Conditions to Permit to Construct #85-587

1. This permit allows only the construction and abandonment of the monitoring wells and does not address the locations for the wells.
2. All wells will be abandoned according to procedures specified in Chapter XI, Part G, Section 70, of the Wyoming Department of Environmental Quality, Water Quality Division, Rules and Regulations.
3. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.
4. A deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Wyoming Water Quality Division Rules and Regulations, Chapter XI, Section 65. However, a sufficient seal should be installed according to normal engineering practice.
5. The permittee shall submit, within 60 days after construction is complete, "as built" drawings of the monitoring wells including the exact locations, shown on a site map and elevations for water level measuring points.



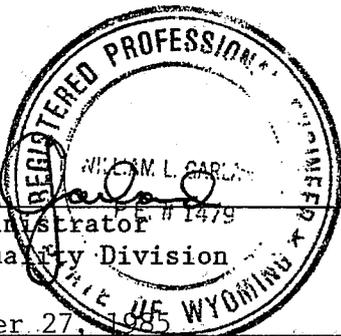
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

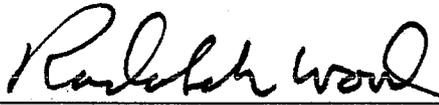
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator # 1479  
Water Quality Division  
  
\_\_\_\_\_  
November 27, 1985  
Date of Issuance

  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

12-19

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-589  
MA 14542

Mtn. View Water Loading Station  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Town of Mountain View

P.O. Box 249

Mtn. View, WY 82939

to construct, install, or modify a water loading station for commercial  
tanker trucks

facility according to the procedures and conditions of the  
application No. 85-589. The facility is located in

Sec. 14, T15N, R115W  
in the County of Uinta,

in the State of Wyoming. This permit shall be effective for a period of two (2)  
years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has  
evaluated and determined that the application meets minimum applicable construction  
and design standards. The compliance with construction standards and the operation  
and maintenance of the facility to meet the applicant's engineer's design are the  
responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the  
Wyoming Department of Environmental Quality guarantees or insures that the permitted  
facility, when constructed, will meet applicable discharge permit conditions or other  
effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design  
of the facility described herein. This permit indicates only that standards of  
design and construction required by the Environmental Quality Act have been met. The  
State assumes no liability for, and does not in any way guarantee the performance of,  
the permittee in the exercise of its activities allowed under this permit. The Per-  
mittee understands that it is solely responsible to any third parties for any liabil-  
ity arising from the construction or operation of the facility described herein. By  
the issuance of this permit, the State does not in any way waive its sovereign immu-  
nity.

The permittee shall allow authorized representatives from the Department of Environ-  
mental Quality, Water Quality Division, upon the presentation of credentials and dur-

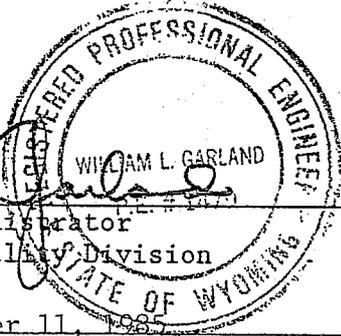
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

The seal is circular with the text "REGISTERED PROFESSIONAL ENGINEER" around the top and "STATE OF WYOMING" around the bottom. In the center, it says "WILLIAM L. GARLAND".  
William L. Garland  
Administrator  
Water Quality Division  
December 11, 1985  
Date of Issuance

Robert Wood  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.



*Norma*  
85-590R  
MA 14542

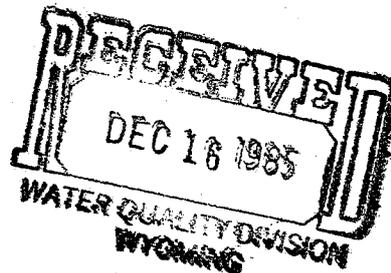
*Department of Environmental Quality*  
*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

December 12, 1985



Mr. Dale Peterson  
P.O. Box 249  
Mountain View, WY 82939

RE: Brookside Acres Water & Sewer  
WQD Reference No. 85-590R

Dear Mr. Peterson:

The as-built plans and specifications for the above project have been reviewed by this office and found to be in accordance with the minimum design standards for the State of Wyoming. Because this facility has already been constructed, a permit to construct will not be issued. Therefore, please retain a copy of this letter as proof that this facility has been accepted by this department.

Sincerely,

A handwritten signature in cursive script that reads "Bill Locke".

Bill Locke, P.E.  
Water Quality Engineer

BL/jw  
Enclosure



*Norma*

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

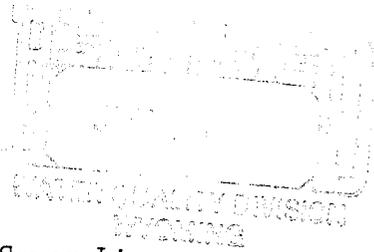
210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

June 11, 1986

Glenn Sugano  
City of Rock Springs  
P.O. Box 698  
Rock Springs, WY 82902



RE: "As Built" Realignment of White Mountain Bypass Sewer Line  
(85-591R, Ref. No. 84-527R)

Dear Glenn:

The plans and construction information for the above referenced project have been reviewed. The project appears to meet the minimum design standards for the State of Wyoming, Water Quality Rules and Regulations, Chapter XI.

A "Permit to Construct" cannot be issued owing to the fact that the sewer lines have already been constructed. Please retain this letter as verification that the project has been accepted by the Wyoming Department of Environmental Quality/Water Quality Division.

Sincerely,

*Jack Bedessem*  
Jack Bedessem  
Area III Supervisor

JB/jw  
cc: Plans  
File (2)

horma

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

210 LINCOLN

LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Rock Springs "As Constructed"  
White Mountain WWTF Bypass Sewer Line

ENGINEER:

OWNER: City of Rock Springs  
ATTN: Glenn Sugano  
P.O. Box 698  
Rock Springs, WY 82901

WATER QUALITY DIVISION REFERENCE NUMBER: 85-591 (Ref. No. 84-527R)

REVIEWING ENGINEER: Jack Bedessem *JB*

DATE OF REVIEW: December 4, 1985

ACTION: Not authorized.

COMMENTS:

The "as built" plan/profile drawing has been reviewed. Before the "as built" line can be accepted by this department, the following items need to be addressed or submitted:

1. The attached application forms must be completed and submitted. Do not sign the application forms but write "As Built" in place of the signature.
2. Three sets of drawings (plan, profile, detail) signed by a registered Wyoming Professional Engineer need to be submitted with the application. Find enclosed, two of the three unsigned drawings which were originally submitted.
3. Applicable material and construction specifications need to be addressed, noted or included with this application. If Wyoming Public Works Standards were used, note this on the drawings.
4. Details of the appurtenances should be included with the drawings (manholes, highway crossing, etc.).
5. Provide documentation and the results of the performance testing (infiltration, exfiltration, air) for this sanitary sewer line.
6. Address the separation distances between the sanitary sewer line and any water lines in the vicinity. Crossings and parallel installations within ten feet of the sewer line must be shown and detailed on the drawings.

Submit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. If you have any questions, please feel free to contact me.

JB/jw

ABC

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Bldg., 4 West  
Cheyenne, Wyoming 82002

PROJECT: Cheyenne Wells - Tax #2 and Elkar #5, Laramie Co.

ARCHITECT OR ENGINEER: Herman Noe, Cheyenne BPU,  
P O Box 1469, Cheyenne, WY 82003-1469  
and  
Donald Kramer, Eagle Consultants,  
2811 Central Ave., Cheyenne, WY 82001

APPLICANT: Steve Rowan, Cheyenne BPU,  
P O BOX 1468, Cheyenne, WY 82003-1469

WATER QUALITY DIVISION REFERENCE NUMBER: 85-592RRRRR  
85-593RRRRR

REVIEWING ENGINEER: Thomas S. Norman *TBN*

DATE OF REVIEW: December 1, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION.

COMMENTS:

1. The applicant did not follow the proper procedures for permitting these wells. The Water Quality Division's letter of May 6, 1986 granted permission only to drill the test wells and gather the design information. The letter did not grant permission to install the permanent screens and casing. This is going to be an obvious problem because the wells do not meet the state's minimum requirements in certain areas. Construction of the permanent well without a permit is a violation of the Environmental Quality Act. Steps must be taken to bring the system into compliance in order to avoid enforcement action.

Please identify which portions of the project are already built and what is proposed.

2. Engineering Design Report (Section 6 of Regulations):

a. The specific yield was not identified.

b. The water quality data is not sufficient. Elkar No. 5 was not tested for the EPA primary drinking water standards (inorganic compound, synthetic organic compounds, and radionuclides). The Water Quality Division has not received any data on Tax No. 2.

c. How was the total pumping head determined?

3. Specifications (Section 7 of Regulations). The specifications did not address the following items:
  - a. Plumbness and alignment requirements.
  - b. AWWA or ASTM standard for the casing.
  - c. Placement procedure for gravel pack.
  - d. Performance criteria for well development.
  - e. Packer requirements.
  - f. Cement surface seal.
  - g. Pumping curve characteristics.
  - h. Percent opening for well screen.
  - i. Gravel pack (other than size).
4. General Design Considerations (Section 8 of Regulations)
  - a. Groundwater supplies shall provide disinfection equipment and connections.
5. Source Development (Section 9 of Regulations)
  - a. The wells were not tested at 1.5 times the design capacity.
  - b. The wells were not tested for plumbness and alignment in accordance with AWWA A-100.
  - c. The design of the gravel pack was not submitted. It must be designed to block the movement of natural materials.
  - d. The entrance velocity to the screen shall not exceed 0.1 feet per second.
  - e. The screen shall be installed so that the pumping water level remains above the screen under all operating conditions.
  - f. A check valve is required after the air release valve in the well house.
  - g. There shall be a method of pumping to waste.
  - h. The air release valve must have the exhaust/relief piping terminate in a downward position at least 18 inches above the floor and covered with 24 mesh screen.
  - i. The pump must be located above the top of the well screen.
6. Three copies of the plans and specifications are required.



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

May 6, 1986

Steve Rowan  
Cheyenne Board of Public Utilities  
2406 Snyder Avenue  
Cheyenne, WY 82003-1469

RE: Cheyenne Municipal Wells Tax #2, and Elkar #5, construction applica-  
tions 85-592RRRR and 85-593RRRR

Dear Steve:

Based on our telephone conversation, this letter is the necessary authorization for the Cheyenne Board of Public Utilities to go ahead and drill your test wells. Based on the information from the test wells, the review comments in my April 30, 1986 letter must be addressed prior to authorizing the permanent well.

If you have any questions, please call.

Sincerely,

A handwritten signature in cursive script that reads "Thomas S. Norman".

Thomas S. Norman  
Engineering Evaluator

TSN/pjb

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Cheyenne Municipal Wells Tax #2, Elkar #5

ARCHITECT OR ENGINEER: Herman Noe, BPU  
P O Box 1469, Cheyenne, WY 82003

APPLICANT: Same as above

WATER QUALITY DIVISION REFERENCE NUMBER: 85-592RRRR and 85-593RRRR

REVIEWING ENGINEER: Thomas S. Norman *T.S. Norman*

DATE OF REVIEW: April 30, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. I believe there was never a response to Mr. Noe's letter of November 26, 1985 concerning a permit to construct. Although you have applied for a permit for Tax #2 and Elkar #5, the modifications to the other five wells will also have to be permitted. The 8000 feet of water lines also needs a permit.
2. The recent submittals are incomplete and a complete review in accordance with Water Quality Division regulations cannot be accomplished. To assist you, I suggest you review the requirements in the Water Quality Rules and Regulations, Chapter XII. The following comments are only some of the major problem areas.

It appears that complete design information may not be available until the test wells are drilled and tested. It might be an appropriate first step for the Water Quality Division to just approve the test well procedure. Then once more information is available, then proper design of the screen, gravel pack, well, etc. can be achieved.

AWWA standards should be cited where appropriate.

3. A design report was not submitted. A copy of the "Groundwater system Modeling Optimization of Pumping Patterns for the Cheyenne Municipal Well Field" would be a good background document. The items in Section 6, Water Quality Division Chapter XII must be addressed. In addition, how was the gravel pack and screen size and length determined?
4. A complete water quality analysis is necessary in accordance with the SDWA parameters. Specific parameters for inorganics, volatile organics, radiological, etc. must be identified and tested.
5. Plan and profile drawings of the wells were not submitted in accordance with Section 7, Water Quality Division Chapter XII.
6. Plans and specifications on a pump building, meters, valves, gauges, etc., were not submitted.

.. The specifications did not contain:

- plumbness and alignment requirements for the well (AWWA);
- strength standard for the casing (AWWA or ASTM);
- depth of pump setting;
- placement procedure for gravel pack;
- performance criteria for well development;
- packer requirements;
- grouting requirements;
- upper terminal well construction;
- capping requirements;
- type of pump and pump characteristics;

8. The size of the gravel pack will not retain the formation.

9. What is the percent opening for the well screen?

10. The logging during the well testing appears to only last for 2.5 hours. A 24-hour test is needed. Why is the discharge quantity being changed during testing? It should be constant.

11. The information under "miscellaneous work" must also be submitted to the Water Quality Division.

12. It is not appropriate to run the gravel pack much higher than the screen.

pjb

Review of Plans and Specifications

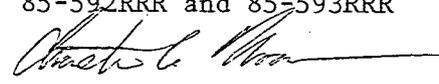
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Cheyenne Municipal Wells Tax #2, Elkar #5, Laramie Co.

ARCHITECT OR ENGINEER: Herman Noe, P.O. Box 1469  
Cheyenne, WY 82002-1469

APPLICANT: Cheyenne Board of Public Utilities  
P.O. Box 1469, Cheyenne, WY 82002-1469

WATER QUALITY DIVISION REFERENCE NUMBER: 85-592RRR and 85-593RRR

REVIEWING ENGINEER: Christian G. Norman 

DATE OF REVIEW: March 31, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

The yield and drawdown testing is not in accordance with Chapter XII, Section 9 b(ii) which states:

Yield and drawdown tests. Yield and drawdown tests shall be performed on every production well after construction or subsequent treatment and prior to placement of the permanent pump. The test methods shall be clearly indicated in the specifications. The test pump capacity, at maximum anticipated drawdown, shall be at least 1.5 times the design rate anticipated. The test shall provide for continuous pumping for at least 24 hours or until stabilized drawdown has continued for at least 6 hours when test pumped at 1.5 times the design pumping rate.

CGN/nc

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Cheyenne Municipal Wells Tax #2, Elkar 5

ARCHITECT OR ENGINEER: Herman Noe  
P. O. Box 1469, Cheyenne, WY 82002-1469

APPLICANT: Cheyenne Board of Public Utilities  
P. O. Box 1469, Cheyenne, WY 82003-1469

WATER QUALITY DIVISION REFERENCE NUMBER: <sup>85-</sup>~~86-~~592RR and <sup>85-</sup>~~86-~~593RR

REVIEWING ENGINEER: Christian G. Norman



DATE OF REVIEW: March 4, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. How will well disinfection be accomplished?
2. How will the yield and drawdown tests be performed?
3. How far will the unperforated casing extend above the ground surface?
4. What type of geology is expected? The depth of grout/cement seal and depth of permanent casing depends on geologic conditions.
5. Is the pipeline, which as proposed in earlier submittals, still to be constructed? If so, detailed plans and specifications are required.

pjb

WATER QUALITY DIVISION  
GROUNDWATER SECTION  
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-592 RR, 85-593 RR

DATE SUBMITTED FOR REVIEW 2/20/86

NAME AND LOCATION OF FACILITY ELKAR S, TAX 5  
CONSTRUCTION OF REPLACEMENT WELLS  
S 8, T15N, R 69W, LARAMIE COUNTY, WY  
S 4, T13N, R 69W, LARAMIE COUNTY, WY

I have reviewed the plans and specifications with regard to all aspects of groundwater quality and find the following:

- No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- Comments attached.

SIGNED Thomas R. Williams  
TITLE GROUNDWATER ENGINEERING ASSOCIATE E.I.T. # 2242  
DATE 3/3/86

ACCEPTED FOR RECORD 3/4/86  
(Date)

gjm  
Groundwater Control Supervisor

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Cheyenne Municipal Well Tax #2 and Pipeline, Laramie County

ARCHITECT OR ENGINEER: Herman Noe  
P O Box 1469, Cheyenne, WY 82003-1469

APPLICANT: Cheyenne Board of Public Utilities  
P O Box 1469, Cheyenne, WY 82003-1469

WATER QUALITY DIVISION REFERENCE NUMBER: 85-592R *85-593R*

REVIEWING ENGINEER: Christian G. Norman, Engineering Evaluator *Christian G. Norman*

DATE OF REVIEW: January 31, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

The application is incomplete. Please provide plans detailing the well construction. Detailed plans and specifications are also required for the pipeline.

pjb

J F

PERMIT TO CONSTRUCT

PERMIT NO. 85-592RRRRRRR  
SEE SPECIAL CONDITION

X New  
Renewal  
Modified

Cheyenne Municipal Well Tax #2

This permit hereby authorizes the applicant:

Cheyenne Board of Public Utilities  
P O Box 1469  
Cheyenne, WY 82003-1469

to construct, install or modify municipal water well according to the procedures and conditions of the application number 85-592RRRRRRR. The facility is located in S8, T15N, R69W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

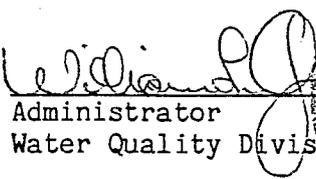
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

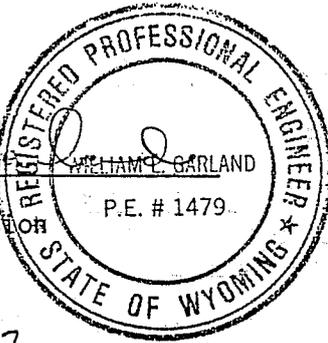
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

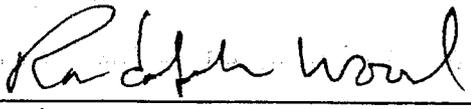
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

AUTHORIZED BY:

  
Administrator  
Water Quality Division



  
Director  
Department of Environmental Quality

8-5-87  
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

CONDITION TO PERMIT TO CONSTRUCT #85-592RRRRRRR

A complete water analysis in accordance with the Federal Safe Drinking Water Act shall be submitted prior to using the well for potable purposes.

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Cheyenne Municipal Well Tax #2 and Pipeline, Laramie Co.

ARCHITECT OR ENGINEER: Herman Noe, P.O. Box 1469  
Cheyenne, WY 82003-1469

APPLICANT: Cheyenne Board of Public Utilities  
P.O. Box 1469, Cheyenne, WY 82003-1469

WATER QUALITY DIVISION REFERENCE NUMBER: 85-592

REVIEWING ENGINEER: Christian G. Norman 

DATE OF REVIEW: December 2, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Provide three copies of plans and specifications detailing the well construction and pipeline construction. These plans and specifications should be signed/sealed by an engineer registered in the State of Wyoming. Once these are received the application can be completely reviewed.

CGN/nc

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, Wyoming 82002

PROJECT: Cheyenne Municipal Well Elkar #5, Laramie Co.

ARCHITECT OR ENGINEER: Herman Noe, P.O. Box 1469  
Cheyenne, WY 82003-1469

APPLICANT: Cheyenne Board of Public Utilities  
P.O. Box 1469, Cheyenne, WY 82003-1469

WATER QUALITY DIVISION REFERENCE NUMBER: 85-593

REVIEWING ENGINEER: Christian G. Norman 

DATE OF REVIEW: December 2, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Provide three copies of plans and specifications detailing the well construction. These plans and specifications should be signed/sealed by an engineer registered in the State of Wyoming. Once these are received the application can be completely reviewed.

CGN/nc

PERMIT TO CONSTRUCT

PERMIT NO. 85-593

X New  
Renewal  
Modified

Chevenne Municipal Well Elkar #5

This permit hereby authorizes the applicant:

Chevenne Board of Public Utilities  
P. O. Box 1469  
Chevenne, WY 82003-1469

to construct, install or modify municipal water well according to the procedures and conditions of the application number 85-593. The facility is located in S4, T13N, R68W in the county of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (5 years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or ensures that the permitted facility, when constructed will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes ~~an endorsement of the construction or the design of the facility described herein.~~ This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the state does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 4th Floor West, 122 West 25th, Cheyenne, Wyoming 82002; telephone (307) 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Ralph W. Wood  
Director  
Department of Environmental Quality

April 22, 1987  
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-594RRRR  
C560232

Baggs Wastewater System  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Town of Baggs

P O Box 300

Baggs, WY 82321

to construct, install, or modify a municipal wastewater treatment (aerated lagoon) system facility according to the procedures and conditions of the application No. 85-594RRRR. The facility is located in S 1/2, SW 1/4, S5 and SE 1/4, SE 1/4, S6, T12N, R91W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

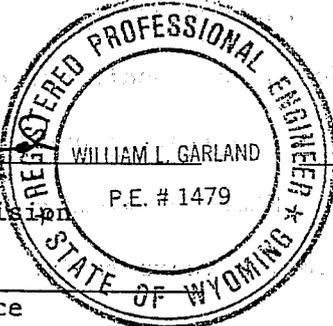
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
*William L. Garland*  
Administrator  
Water Quality Division  
P.E. # 1479  
*Rudolf W. Wood*  
Director  
Dept. of Environmental Quality  
11-10-86  
Date of Issuance

This permit does not supercede the requirements for obtaining any permit from local agencies.

cc: Charles E. Bartlett  
Robert Jack Smith & Associates, Inc.  
P O Box 1104  
Rawlins, WY 82301



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

PLANS AND SPECIFICATIONS APPROVAL AND  
AUTHORIZATION TO ADVERTISE

November 5, 1986

Lynn Updike, Mayor  
Town of Baggs  
P O Box 300  
Baggs, WY 82321

RE: Town of Baggs, Wyoming, C560123, Plans and  
Specifications Authorization to Advertise

Dear Mayor Updike:

The plans and specifications for the construction of a wastewater treatment facility (aerated primary pond and two facultative secondary ponds) for the referenced project have been reviewed by the State of Wyoming Department of Environmental Quality. This office hereby approves the plans and specifications and is enclosing a permit to construct.

This is confirmation of our verbal authorization for the project to be advertised and bids opened. You are requested to furnish this office with the date this project is advertised and the date on which bids will be opened as soon as possible. You are reminded to complete the enclosed checklist and associated documentation when bids are opened.

The following points should be brought to your attention at this time:

1. Contracts may not be awarded until authorization has been given by the Department of Environmental Quality.
2. Prior DEQ approval is required for rejection of bids on any contract on this project.
3. Current wage rates must be in the specifications prior to bid opening.
4. Bidders must submit with their bid a signed statement as to whether they have previously performed work subject to the President's Executive Order Number 11245.

November 5, 1986

Page 2

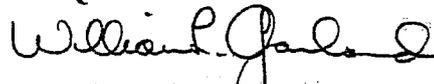
5. Contact EPA if any questions arise concerning MBE/WBE utilization on this project.

The procedure for submission and approval of modifications to the approved plans and specifications is the same as for the original set; i.e., four copies of any proposed modifications, together with an explanation of the reasons, therefore, should be forwarded to us. Unauthorized modifications of approved set of plans and specifications may result in suspension of federal participation in the project.

Following approval of the enclosed checklist and associated documentation by the State of Wyoming Department of Environmental Quality, you will be notified the construction contract may be awarded.

We are sending the approved plans and specifications for the referenced project which must be kept available at all times so that personnel from our office may have access to them during inspection activities.

Sincerely,



William L. Garland, PE  
Administrator

WLG/WK/pjb  
Enclosures

cc: EPA, Region VIII  
Robert Jack Smith & Associates (w/enc)  
Tom Norman, WQD (w/enc)  
Grant file (w/enc)



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

December 31, 1986

Mr. Lynn Updike, Mayor  
Town of Baggs  
P O Box 300  
Baggs, WY 82321

RE: Town of Baggs, Wyoming C560123-94  
Addenda Nos. 1 and 2  
Wastewater Treatment Facilities

*85-594RRRR*

Dear Mayor Updike:

We have completed our review of the above referenced addenda. These documents are approved under the authority granted to the Department of Environmental Quality by the U. S. Environmental Protection Agency.

A copy of each addendum is enclosed, stamped with our approval. Please incorporate the changes in the appropriate set of plans, specifications or contract documents.

Approval of contract modifications by the Department of Environmental Quality should not be interpreted as approval for additional federal grant funds.

Sincerely,

Wally Koch, P.E.  
Engineering Evaluator

WK/nc

Enclosure

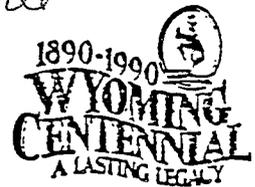
cc: Chuck Bartlett, RJS (w/encl)  
Tom Norman, DEQ/WQD (w/encl)  
Archives (w/encl)  
Grant File (w/encl)

THE STATE OF WYOMING



MIKE SULLIVAN  
GOVERNOR

*Running File*



## Department of Environmental Quality

Administration (307) 777-7937	Air Quality Division (307) 777-7391	Land Quality Division (307) 777-7756	Solid Waste Management Program (307) 777-7752	Water Quality Division (307) 777-7781
----------------------------------	----------------------------------------	-----------------------------------------	--------------------------------------------------	------------------------------------------

January 6, 1987

*85-594RRRR*

Mr. Lynn Updike, Mayor  
Town of Baggs  
P O Box 300  
Baggs, WY 82321

RE: Town of Baggs, Wyoming C560123-94  
Addenda Nos. 3 and 4  
Wastewater Treatment Facilities

Dear Mayor Updike:

We have completed our review of the above referenced addenda. These documents are approved under the authority granted to the Department of Environmental Quality by the U. S. Environmental Protection Agency.

A copy of each addendum is enclosed, stamped with our approval. Please incorporate the changes in the appropriate set of plans, specifications or contract documents.

Approval of contract modifications by the Department of Environmental Quality should not be interpreted as approval for additional federal grant funds.

Sincerely,

*Wally Koch*  
Wally Koch, P.E.  
Engineering Evaluator

WK/nc

Enclosure

cc: Chuck Bartlett, RJS (w/encl)  
Tom Norman, DEQ/WQD (w/encl)  
Archives (w/encl)  
Grant File (w/encl)



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

September 9, 1986

Mr. Charles E. Bartlett, P.E.  
Robert Jack Smith & Associates, Inc.  
P.O. Box 1104  
Rawlins, WY 82301

RE: Baggs, Wyoming, EPA Grant No. C560123-94  
DEQ/WQD Ref. No. 85-594R  
Review of Plans and Specifications

Dear Chuck:

As per our phone conversation of September 8, 1986, I am enclosing the review comments from the Wyoming Occupational Health and Safety Department. You need to incorporate these comments into your final plans and specifications.

I am presently awaiting the review comments for the electrical portion of the project. I should have those comments to you by next week.

Sincerely,

*Wally Koch*

Wally Koch, P.E.  
Engineering Evaluator

WK/nc  
Enclosures

cc: Mayor Lynn Updike (w/enclosures)  
Tom Norman (w/enclosures)  
Grant File (w/enclosures)



# Occupational Health and Safety

CHEYENNE, WYOMING 82002

September 8, 1986

JAMES ZANCANELLA, PH.D.,  
CHAIRMAN  
H.B. ANDERSON, M.D.  
RON BAGBY  
L. KEITH HENNING  
FLOYD J. HENRY  
JAMES D. NEIMAN, JR.  
JENNIE PARKER

DONALD D. OWSLEY  
HEALTH AND SAFETY ADMINISTRATOR  
(307) 777-7786

Wally Koch  
DEQ/WQD  
Herschler Bldg.  
Cheyenne, WY 82002

Dear Wally:

Per your request, the references to federal standards as opposed to state rules was not addressed due to upcoming changes in the boiler plate.

Attached are our comments on plan review of the Baggs wastewater treatment facilities, 85-594R, EPA C560123-94:

1. Section 201, page 2 of 12, paragraph 2, line 3 - Excavated material shall be no closer than 2 feet from the edge of the excavation, WOHS Rules for Construction, Chapter XII, Section 2.i.(1).
2. Section 201, page 2 of 12, B, line 4 - Change OSHA regulations as shown in Table P-1, Section 1926.652 to read: Table XVI-1 of WOHS Rules for Construction, Chapter XVI, page 151.
3. Section 201, page 2 of 12, C, line 3 - Change "as shown on Table P-2, Section 1926.652" to read, "Table XVI-2 of WOHS Rules for Construction, Chapter XVI, page 152.
4. Section 401, page 2-11 (2), Asbestos cement pipe - Add note: "Cutting and/or grinding asbestos impregnated pipe requires the use of personal protective equipment adequate for exposure to asbestos." Reference Occupational Exposure to Asbestos, HSM 72-10267.

For your information, the reference material indicates that cutting and grinding asbestos impregnated cement pipe has under test conditions caused exposures of up to 20.5 fibers per M<sup>3</sup>.

5. Section 401, page 3 of 11, (4)(e) - Add note: "Chemical welding of ABS pipe must be done with adequate ventilation due to the nature of the solvents; manufacturer's recommendations must be adhered to.

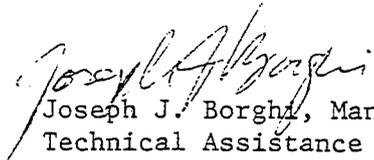
Wally Koch  
Page (2)

Sept. 8, 1986

6. Sheet 10 of 16, Floor inlet detail - No specs on what appears to be an individual rung ladder for the inlet structure.
7. Detail standard drawing 401-01 & 401-02, Note 2, add: "Clearance from back of rung to nearest permanent object in back of ladder shall be no less than 7 inches (depth of tread). WOHS General Rules, Chapter IV, Section 7.c.(4), page 9.

I have no other comments. Please contact me if I can be of further assistance.

Sincerely,

  
Joseph J. Borghi, Manager  
Technical Assistance Division

JJB:ec



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

August 28, 1986

Charles E. Bartlett, P.E.  
Robert Jack Smith & Associates, Inc.  
P.O. Box 1104  
Rawlins, WY 82301

RE: Baggs, Wyoming, EPA Grant No. C560123-94, DEQ/WQD Ref. No. 85-594R,  
Review of Plans and Specifications

Dear Chuck:

The preliminary review comments on the above referenced project were presented to you in a letter from Alan Edwards dated January 22, 1986. You responded with a letter dated February 24, 1986 in which you addressed the comments raised in Alan's letter. In a letter dated April 23, 1986, you presented additional data to support the argument that a facultative lagoon system was not a feasible treatment alternative. In a letter dated May 23, 1986, Alan Edwards summarized the results of numerous meetings, letters, and phone calls and presented what needed to be resolved in order to have the plans and specifications approved. You in turn submitted revised plans and specifications on July 21, 1986.

In a phone conversation of August 12, 1986, I discussed with you a number of comments which were the result of my review of the revised plans and specifications. My review procedure consisted of taking your letter of February 24, 1986 and comparing it to the revised plans and specifications. Consequentially, my comments in the August 12th phone conversation were on the inconsistencies between the changes proposed in your letter of February 24, 1986 and the actual changes presented in the revised plans and specifications.

At this time I want to present three separate items which I feel may not be eligible for EPA funding.

1. Influent Flow Monitoring

In a letter dated May 3, 1985, Tom Conrardy presented his comments on the Design Memorandum. Comment No. 5 states that influent monitoring is not required and would not be eligible for federal participation unless it will be useful in the operation of the treatment system. In your letter of February 24, 1986 you responded to Tom's comment No. 5 with a simple N/A.

Alan's letter of January 22, 1986 in comment No. 60 raises the question as to whether there are to be two or one flow monitoring systems. Your response in the February 24, 1986 letter was "It was decided during the

meeting to discuss the design memorandum that two measuring stations and one flow recording system would be adequate to meet the needs of the proposed system." I have raised the question of the need for the influent flow monitoring system in phone conversations between you and me. You have stated that the influent monitoring system was proposed, then eliminated, and then appearing again.

After reviewing the proposed treatment system I must conclude that the influent flow measuring system is not an integral part of the treatment process, therefore, the cost of this item would not be eligible for EPA participation. The items which would not be eligible would include the following:

- a. Manhole No. 5 - Flow Recording Structure
- b. The 12" Palmer-Bowlus Flume
- c. The ultrasonic flow measuring and recording system which is to be used to measure the influent flow.

If you feel that the influent flow monitoring system is an integral part of the operation of the wastewater treatment plant and, therefore, eligible for EPA participation, please provide me with your comments on this issue.

2. Replacement of 625 LF of 12" Sewer Pipe

Alan's letter of January 22, 1986 in comment No. 65 requests documentation of the necessity to replace the portion of 12" sewer line. Your February 24th letter states that the pipe invert at the lagoon entrance is higher than at the upstream manhole and causes chronic plugging problems.

With the piping arrangement as now proposed, a new MH No. 2 and a new MH No. 4 will be constructed and 37 L.F. of new 12" pipe will be installed between MH No. 2 and MH No. 4. A sluice gate will be installed at MH No. 2 so as to allow flow between MH No. 2 and MH No. 4 only during those limited time periods when flow must be diverted from the lift station, such as during power loss or pump repair. The SE invert of MH No. 2 could be set so as to provide positive drainage of the existing 12" sewer, and with the sluice gate normally in a closed position, there would be no back-up effect due to the water level in the existing lagoon.

It would seem that the present chronic plugging problems are attributable to the operating level of the existing lagoon being 6230.50 which causes water to back up into the 12" sewer and thus causes deposition of solids in the sewer line.

Would the proper construction of MH No. 2 correct the present plugging problems? If it would not, then we must write an amendment to the FONSI which would include replacing the 625 L.F. of 12" sewer within the scope of the project. Only by amending the FONSI can this portion of the project be eligible for EPA funding. If we submit an amendment to the FONSI, there must be documentation of the need. A one sentence statement that there is

chronic plugging is not sufficient documentation. Without proper documentation of the situation the FONSI will not be approved.

3. Sizing of the Treatment Plant

The question on the sizing of the plant seems to have been discussed from the very beginning of this project with the present treatment configuration having changed substantially from what was initially proposed. The initial Design Memorandum and also Mickey Yamashiro's letter of January 10, 1986 presented substantial and specific data which was used to design the two cell aerated plant, but there is no such data for the latest proposed treatment plant.

My calculations indicate that the required effluent limitations can be obtained with Cells 1, 2, and 3, and therefore, there is no justification for EPA participation on the construction of Cell 4. If Cell 4 is not eligible, certain items associated with Cell 4 such as interpond piping, the 3 arch culverts, some fencing and portions of the riprap would also not be eligible.

Since my calculations include various assumptions which can affect the ultimate treatment plant size, I must have the design data which you used to size the plant in order to make an adequate analysis of the plant. In your design data please indicate how you sized the aeration system. More specifically, is the critical design factor the oxygen demand requirement or is it the circulation requirement?

In our latest phone conversation, I informed you that I would provide you with the latest federal requirements which needed to be included in the boiler-plate portion of your specifications.

1. Enclosed is page 2 of the federal insert package. Please note that paragraph d(1) has been filled in to describe the "covered area". The covered area is the State of Wyoming, Carbon County, Town of Baggs.
2. Page 2 paragraph d(2) has been filled in to show the goals for minorities and women.
3. Page 10 is enclosed and has been filled in to show the timetable and goals for minority and female participation.
4. Enclosed are pages 13 and 13A. On page 13 the paragraph concerning overtime compensation has been crossed out and page 13A provides the latest federal requirements on overtime compensation.

Please be aware that State of Wyoming law on payment of overtime is more stringent than federal law, therefore, we recommend that your Instructions to Bidders specifically point out that bidders be familiar with the state law requirements.

5. Enclosed is page 19 of the federal inserts. This page shows that the Wyoming Occupational Health and Safety Act of 1969 has replaced the Williams-Steiger Occupational Safety and Health Act of 1970.

Charles E. Bartlett, P.E.  
August 28, 1986  
Page 4

6. Enclosed is General Wage Decision No. Wy-86-1 which should be inserted in your specs.
7. Enclosed is an instructions sheet provided to our office by EPA in Denver. Please note that the Advertisement for Bid and also the Invitation for Bid section of your specifications must include paragraphs 1, 2(a), and 2(b). These paragraphs must be inserted verbatim.

Also paragraph (3), concerning the statement just above the bidder's signature must be inserted verbatim.

8. Paragraph 16.5 of the Instructions to Bidders section must be modified to state that "the contract will be awarded to the lowest, responsive, responsible bidder."

We await your response to the questions raised here.

Sincerely,



Wally Koch, P.E.  
Engineering Evaluator

WK/nc

Enclosures

cc: Mayor Lynn Updike  
Mickey Yamashiro, Nelson Engineering  
Tom Norman  
Grant File



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

May 23, 1986

Charles E. Bartlett, P.E.  
Robert Jack Smith and Associates, Inc.  
P. O. Box 1104  
Rawlins, Wyoming 82301

Re: Baggs, Wyoming - EPA Grant No. C560123-94  
Wyoming Reference No. 85-594, Plan & Specification Review

Dear Mr. Bartlett:

The wastewater improvements proposed for Baggs, Wyoming have been reviewed by the Water Quality Division. As you know, there have been several meetings to consider the different aspects of the project. This letter is intended to address those points and provide you with information on resolving the remaining concerns. The topics considered and addressed are identified below with our comments:

1. NPDES Discharge Permit - At one time, the point was raised that there could be a concern with ammonia restrictions for the effluent. The existing permit does not include ammonia limitations, and there is no intent to modify the permit at this time to include such limitations. Therefore, the lagoon should be designed based upon the current permit limits.

The discharge from the new system will be monitored for a couple of years after it is put into operation. This will be done to determine the effects of the treated wastewater discharge on the receiving stream. A review will be made at the end of the monitoring period to determine if the permit needs to be modified to include ammonia limitations. If it is determined that ammonia limitations are necessary, this agency will support the town in obtaining funding for any needed upgrade.

2. It is understood that the existing cell will be drained and cleaned after the new wastewater treatment cells are completed and put into service. This will allow this cell to be utilized for standby storage and treatment in cases of electrical outages at the lift station and when the water level in the new systems must be lowered for work on the aeration equipment.

3. The groundwater samples tested by Wyoming Analytical Laboratories Inc. indicated high metals concentrations in the groundwater. It is unclear why this would be found in only one site of groundwater samples. It is possible this represents an error in sampling or testing. Two more sets of groundwater samples will need to be collected and testing 30 days apart. These would be for all four wells and one sample of the effluent from the existing cell. The appropriate sampling procedures should be followed regarding bailing of the wells and filtering. One well sample should be a replicate sample and consideration should be given to providing one split sample for quality control testing. The groundwater at the site is classified as Class III because of the TDS levels. Lining of the treatment cells is therefore not considered necessary unless exfiltration is high and lining required to maintain a sufficient water depth in the aeration cell to maintain treatment. Please contact Phil Pucel (777-6183) if you have questions regarding the sampling.
4. There have been some discussions previously concerning the design population. If a population different from that in the approved facility plan is considered more appropriate, information supporting the population should be furnished for review and inclusion in an amendment to the Finding of No Significant Impact (FNSI). If no changes are requested, we will continue to use the facility plan population of 750.
5. The Corps of Engineers 404 permit application was discussed on numerous occasions because of what the corps considered as pertinent wetlands issues. This was discussed at a recent meeting with the EPA, U.S. Fish and Wildlife Service, Fish and Game and DEQ. The federal agencies determined that providing two islands in the south seepage pond would provide mitigation for the loss of the manmade wetlands. These islands could be provided simply by leaving two of the small rises that currently exist in that cell. Leaving the islands would not cost the project money since they are already existing. In truth, there could be a minor cost savings because the islands would not be removed to level the pond bottom. EPA does not pay for wetlands mitigation costs. This is not a factor here, however, because there is no cost as a result of this mitigation. It should be noted that if there is a change in the proposed construction from what has been proposed, the COE and Mike Carnevale of the Water Quality Division should be consulted.
6. EPA participation is limited to flow capacity of 120 gallons per capita per day. The incremental cost of treatment capacity over and above the 120 gpcd is not eligible for EPA construction grant funding. The average wet weather flow to be used for design is identified at 170,000 gallons per day. The per capita flow at a design population of 750 would then be 227 gpcd. Initially, it would appear that this would exceed the EPA eligible flows. Mickey Yamashiro has indicated that the plant sizing to treat the lower winter time flows is about the same as that required to meet the detention time at the higher spring and early summer flows. The lower flows occurs during the winter period when low temperatures require a longer detention time to meet treatment requirements. On the other

6. Continued

hand, the higher flows in the summer require a certain lagoon volume to meet detention and treatment requirements. The higher flows are offset by warmer temperatures and increased treatment efficiencies. The lagoon volume may be the same for either case. Information regarding this needs to be submitted to allow a reasonable assessment of eligible costs.

7. The project identifies 1278 lineal feet of 12-inch interceptor sewer to be replaced as part of this project. This would replace a section of the existing interceptor sewer system that has a significant sag and sewer slopes that are less than recommended for sewer systems. The sewer must be replaced to eliminate infiltration and plugging problems. The interceptor was not identified in the facility plan as part of the proposed improvements. A FNSI amendment will be prepared to identify the interceptor as part of the improvements.
8. With the additional lagoon volume available with the seepage cells, could the amount of aeration be reduced if additional volume was used as part of the treatment process?
9. Please submit a revised cost estimate with the final plans and specifications. The EPA currently imposes a 5% limit on increases for construction. Clear and accurate bidding documents and estimates are therefore very important.
10. Further consideration should be given regarding ventilation requirements for the compressor building. Some compressor units associated with aeration experience significant head gain during operation. This could become an operational concern. Some communities, such as Pinedale, have experienced some problems in this regard.

Please contact Wally Koch (777-7073) or myself if you have any questions on the above.

Sincerely,

*Alan Edwards*

Alan Edwards  
Engineering/Grants Evaluator

AE/jn

cc: Mickey Yamashiro, Nelson Engineering  
Lynn Updike, Mayor, Town of Baggs  
Tom Norman, DEQ/WQD  
John Wagner, DEQ/WQD  
Mike Carnevale, DEQ/WQD  
Phil Pucel, DEQ/WQD  
Wally Koch, DEQ/WQD  
Grant File

1-29-86



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: File

FROM: Thomas R. Williams, Groundwater Engineering Associate *TRW*

DATE: January 23, 1986

SUBJECT: Groundwater Pollution Control Permit Application Number GPC 85-595 for Slurry Backfill Project 7A in Hanna, Wyoming

On Wednesday, December 18, 1985, I met with Jim Murphy from the Land Quality Division Abandoned Mines Program to discuss Groundwater Pollution Control Permit application number GPC 85-595 for Slurry Backfill Project 7A in Hanna, Wyoming. Jim provided clarification on the following points:

1. The applicant provided a table on groundwater rights in the Hanna area as part of the permit application. The table did not specify if any of the listed wells were completed within the proposed receiver, the Hanna No. 2 Coal Seam. Jim Murphy stated that the only well completed within the proposed receiver within the area of review was the Palm Livestock Company well. This well is registered with the Wyoming State Engineer as permit number P11523P.
2. I had questions regarding the aquifer pump test conducted on the Palm Livestock Company well. Jim provided me with a report on hydrologic investigations conducted by Midwest Mining Company for the Hanna project that included a description of the pump test.
3. I was considering requiring periodic groundwater quality monitoring of the Palm well as part of the Groundwater Pollution Control Permit. Jim provided me with a copy of the operational and demobilization contract costs for the project. These contract costs included an estimation of how many water quality tests would be required by DEQ permits. I used this information in determining a groundwater monitoring schedule.
4. Jim also gave me an accurate legal location description of the Palm well to use in the Groundwater Pollution Control Permit.

TW/nc

1-13-86



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

January 9, 1986

Mr. William R. Eby  
Vice President  
Eby Mine Services, Inc.  
P.O. Box 470  
Brighton, CO 80601

RE: Permit GPC 85-595, Backfilling of Abandoned Underground Mine Voids in  
Hanna, Carbon County, Wyoming

Dear Mr. Eby:

Enclosed are two copies of permit GPC 85-595, authorization to commence injection of backfill material related to the Land Quality Division Abandoned Mine Lands Slurry Backfill Project 7A in Hanna, Wyoming. Please note that you are to notify the Water Quality Division Administrator or his representative 48 hours before injection is to start and shall provide written notification within 7 days after injection commences of the date and time of commencement (see item C., Authorized Operations).

Also enclosed are 3 copies of Form GPC 7. A copy of the form must accompany any written report required by the permit. You may reproduce the form if you wish.

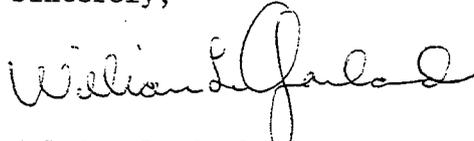
Note Item F.4., Environmental Monitoring Program for Groundwaters of the State. During the period of injection, monthly water samples shall be collected from the Palm Well in Hanna, Wyoming. The analytical results from these samplings shall be submitted to the Water Quality Division quarterly. Upon completion of the project, two confirmation water samples shall be collected semi-annually from the Palm Well. These analytical results shall be submitted to the Water Quality Division as soon as they are available.

Note Item I. 12., Records and Reports. A written report shall be submitted to the Water Quality Division within 30 days of completion of the project.

Mr. William R. Eby  
January 9, 1986  
Page 2

Please contact this office if you have any questions concerning the permit or this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "William L. Garland".

William L. Garland  
Administrator

WLG/TW/nc  
Enclosures

cc: A. J. Mancini, Groundwater Control Supervisor  
Jim Murphy, LQD, AML  
LeRoy Feusner, Southeast District Engineering Supervisor

1-13-86

MA 14542

DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE OF WYOMING  
GROUNDWATER POLLUTION CONTROL PERMIT  
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS  
(Permit to Inject)

(X) New  
( ) Modified

Permit Number:  
GPC 85-595  
UIC Class V

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter IX (September 4, 1980),

Eby Mine Services, Inc.  
William R. Eby, Vice President  
P.O. Box 470  
Brighton, CO 80601

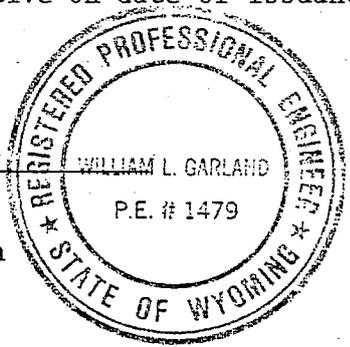
is authorized to operate

injection wells for the purpose of backfilling abandoned underground mine voids in Hanna, Wyoming. The backfilling is associated with Wyoming Department of Environmental Quality Land Quality Division abandoned mine lands slurry backfill project 7A. Project is in Sections 18 and 19, T22N, R81W, in Carbon County, Wyoming

according to procedures and conditions of the application GPC 85-595 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

William L. Garland  
Administrator  
Water Quality Division  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002  
Phone: (307) 777-7781



January 8, 1986  
Date

Ralph Wood  
Director  
Department of Environmental Quality  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002

1-10-86  
Date

A. Discharge (Injection) Zone and Area of Review

Injection is authorized into mine voids of the Hanna No. 2 Coal Seam within the Hanna No. 4 Mine. The Hanna No. 2 Coal Seam is a part of the Paleocene-Eocene Hanna Formation. The dip of the receiver is 14 degrees southeast and the depth of the injection zone will range between 30 and 450 feet below the ground surface.

The area of review encompasses the S1/2 of Section 18 and the N1/2 of Section 19, T22W, R81W in Carbon County, Wyoming.

B. Groundwater Classification

Groundwater in the injection zone is Class III. This classification is based on water quality analyses submitted with the application under the state classification system contained in Water Quality Division Rules and Regulations, Chapter VIII.

C. Authorized Operations

The permittee is authorized to backfill abandoned underground mine voids in Hanna, Wyoming, as described in application number GPC 85-595. The backfill slurry will consist of recirculated mine water mixed with inert sand. The backfill material will be free of toxic and hazardous substances and will not contain any other constituents which will result in degradation of the water quality. Injection will be through open well casings with no perforations and the wells will be completed within the area of review in the Hanna Formation mine voids.

Approximately 110 injection boreholes and 30 monitoring holes will be completed in the mine voids. The proposed injection rate is anticipated to be 200 tons of inert sand per hour. At this injection rate, approximately 4400 gallons of recirculated mine water will be used per minute. The approximate volume of backfill to be placed is 450,000 cubic yards.

Injection pressures entering the mine voids will be less than atmospheric due to the sudden drop into the mine, however, injection pressure will be monitored so that when positive pressure begins to increase the slurry will be transferred to a new injection hole. This should preclude excessive positive pressure buildup and eliminate the potential for fracturing.

Permittee shall notify the Administrator or his representative 48 hours before injection is to start and shall provide written notification within 7 days after injection commences of the date and time of commencement.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The state assumes no liability

for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit.

This permit does not authorize the discharge of any wastes into the wells. No other use for or by the injection or monitoring wells is authorized by this permit.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the Administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.

E. Entry and Inspection

The permittee shall allow the Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least 3 years after closure of the facility.
3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The name(s) of individual(s) who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. Names of individuals who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
4. The prescribed program for this permitted activity is as follows:

During the period of injection, water samples shall be collected monthly from the Palm Well located in the NE1/4 NW1/4 of Section 19, T22N, R81W at the intersection of Front and Clark Street in downtown Hanna, Wyoming. These water samples shall be analyzed for the following list of parameters:

Total Dissolved Solids	Aluminum
Sulfate	Arsenic
Chloride	Barium
Calcium	Beryllium
Sodium	Cadmium
Potassium	Chromium
Magnesium	Cobalt
Boron	Copper
Fluoride	Iron
Carbonate	Lead
Bicarbonate	Lithium
Ammonia as Nitrogen	Manganese
Nitrate + Nitrite as Nitrogen	Mercury
Oil and Grease	Nickel
Phenol	Selenium
	Silver
	Zinc

The results of this water quality monitoring shall be submitted to the Water Quality Division on a quarterly basis. Upon completion of the project, two semi-annual confirmation water quality samples shall be collected from the Palm Well for the above list of parameters. Analytical results from these two samplings shall be submitted to the Water Quality Division as soon as they are available.

G. Requirements for Monitoring the Discharge

Discharge (injection) volume and/or pressure shall be controlled and monitored to prevent fracturing of confining strata.

Injection pressure shall be monitored continuously to determine when positive pressure buildup is occurring in the injected slurry.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

I. Records and Reports

1. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the report or application.
2. The permittee shall give notice to the Administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. The permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
4. Monitoring results shall be reported at intervals specified elsewhere in the permit.
5. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:
  - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable Groundwater of the State.
  - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable Groundwaters of the State.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandonment procedures. The Administrator may require the owner/operator to deliver the records to the Administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a Groundwater Pollution Control Permit has been issued by the Department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the Administrator, and
  - b. The Administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the Administrator of intent to inspect or otherwise review the facility within 13 days of the notice of a. above, in which case prior inspection or review is waived, and
  - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the Administrator.

Item I. 10 is not applicable to this permit.

11. Annual reports shall be submitted to the Administrator within 30 days following the anniversary date of the permit.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the Administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

A final report on this project shall be submitted to the Water Quality Division within 30 days of completion of the projection. This report shall include:

- a. A tabulation of all injection and monitoring holes completed including:
  - (1) A location map.
  - (2) Total depths of each borehole.

(3) Abandonment procedures.

- b. Note the "signatories requirement" of Section Q of this permit.
- c. All water quality monitoring reports and the final report shall be addressed to:

Department of Environmental Quality  
Water Quality Division  
Groundwater Section  
Herschler Building, 4th Floor West  
122 West 25th Street  
Cheyenne, WY 82002

- d. All reports shall be accompanied by a completed Form GPC 7.

J. Permit Actions

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:

- 1. Violation of the permit;
- 2. Obtaining a permit by misrepresentation or failure of the discharge well or system.

Each permit is reviewed at least once every 5 years, and may be reviewed more frequently.

A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the Council.

This operation (permit) can be terminated by authority of the Administrator for one or more permit violations.

Public notice of the permit review and request for public comment will be made every 10 years by the Administrator.

Not applicable.

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

This section is not applicable for permit issuance for this discharge.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the Administrator.

L. Abandonment

The permittee shall notify the Administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge or related activity, or where a well has not been completed, the applicant/permittee shall notify the Director and follow the procedures prescribed by the Director for plugging and abandonment or the discontinuance of related activities:

The Water Quality Division requires at a minimum that the injection zone be permanently isolated from overlying and underlying aquifers; that interaquifer communication be permanently prohibited; and that the wells be permanently secured against the injection or disposal of anything after abandonment.

All wells will be plugged and abandoned upon completion of the project according to standards included in Chapter XI, Part G of the Water Quality Division Rules and Regulations. A final report documenting plugging and abandonment will be submitted within 30 days of completion of the project. This report shall include all information listed in Section I. 12., paragraph 1.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to the Administrator within a reasonable time, any information which the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit; and furnish to the Administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in form approved by the Director, to close, plug and abandon the discharge operation in a manner prescribed by the Director.

Not applicable.

O. Special measures the Director finds necessary:

The operations authorized by this permit must commence within one year of permit issuance date, or the permit is invalid.

P. Special permit conditions:

Pollution or waste which migrates into an aquifer containing a usable groundwater of the State is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

All reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;

For a municipality, State, Federal or other public agency -- by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the Department Director.

T. Responsibilities

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

U. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

V. Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

12-13

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 85-596  
SEE CONDITIONS ATTACHED

MA 14542

Little America Service Station  
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Holdings Little America

P.O. Box 1529

Cheyenne, WY 82003-1529

to construct, install, or modify a groundwater and surface hydrocarbon monitoring network facility according to the procedures and conditions of the application No. 85-596. The facility is located in Section 2, T13N, R67W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of one (1) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

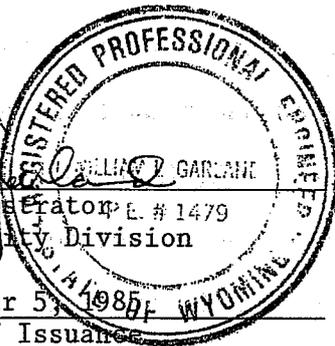
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
William V. Garland  
Admin. Station # 1479  
Water Quality Division  
December 5, 1985  
Date of Issuance

Roderic Wood  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

CONDITIONS TO PERMIT TO CONSTRUCT NO. 85-596

1. The monitoring wells should be installed in accordance with the plans and specifications submitted in the permit application pursuant to Chapter XI, Part G of the Wyoming Water Quality Rules and Regulations.
2. Drilling logs, sampling results, as-built construction drawings including ground elevations of each well top, and other hydrogeological information should be submitted to the Department of Environmental Quality, Water Quality Division Groundwater Section, in a timely manner for our comment prior to the completion of the groundwater contamination investigation.
3. Prior to sampling, the applicant shall provide to the Water Quality Division a detailed outline of the sampling and analysis procedures. This outline should include:
  - a. Parameters to be sampled including depth to groundwater.
  - b. Sample collection methods:
    - (1) Well evacuation
    - (2) Method of sample withdrawal
  - c. Method of decontamination between sampling events.
  - d. Sample containers and sample preservation.
  - e. Sample transfer.
  - f. Chain of custody procedures.
  - g. Analytical methods.
4. The well screen shall be 2 feet above the seasonal high water table and at least 5 feet below the lowest water level.
5. The top of the well shall be protected from vehicular traffic and the well cap shall be secured and protected from vandalism.
6. A deviation is hereby granted for those wells prevented by physical limitations to adherence to the requirements on minimum depths of seal below ground surface as detailed in Wyoming Water Quality Division Rules and Regulations, Chapter XI, Section 65. However, a sufficient seal should be installed according to normal engineering practice.
7. After the groundwater investigation has been completed, a report should be submitted to the Department of Environmental Quality, Water Quality Division, documenting the amount and extent of subsurface hydrocarbon contamination. This report should also address remedial measures for groundwater clean-up.
8. The monitoring wells should not be removed or abandoned without concurrence from the Department of Environmental Quality, Water Quality Division Administrator.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-597R  
 SEE CONDITIONS ATTACHED TO THIS PERMIT  
 MA 14542

Halliburton Services - Powell Service Center  
 (Name of Facility)

This permit hereby authorizes the applicant (name and address):

Halliburton Services

Drawer 1431

Duncan, OK 73536-0100

to construct, install, or modify a groundwater monitor well facility according to the procedures and conditions of the application No. 85-597R. The facility is located in Section 14, T55N, R99W in the County of Park, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The Permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

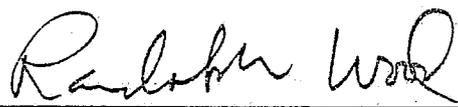
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Section, State of Wyoming, Department of Environmental Quality, Water Quality Division, Herschler Building, 122 W. 25th, Cheyenne, Wyoming 82002; telephone, 777-7781.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
William L. Garland  
Administrator P.E. # 1473  
Water Quality Division  
January 16, 1986  
Date of Issuance

  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

CONDITIONS TO PERMIT TO CONSTRUCTION #85-597R

1. The applicant is authorized to construct and install a groundwater monitor well associated with the Halliburton Services - Powell Service Center, as indicated in the application.
2. The monitor wells will be located approximately 70 feet to the northeast and constructed as specified in application 85-597R. Construction shall meet the minimum standards as specified in Chapter XI, Part G of Wyoming's Water Quality Rules and Regulations.
3. When the monitor well is no longer useful, Halliburton shall abandon the well as specified in Chapter XI, Part G, Section 70 of the Wyoming Water Quality Rules and Regulations.
4. Prior to construction of the monitor well, the department shall be give sufficient notice so that a representative of the department may observe the drilling and installation if deemed necessary.
5. Any additional monitor wells will require an additional permit to construct.
6. Maintenance of the monitor wells will be the responsibility of the owner and operator of the Halliburton Services. Improperly constructed or damaged wells shall be renovated to meet the minimum standards as specified in Chapter XI, Part G of Wyoming's Water Quality Rules and Regulations.
7. Upon completion of the monitor well, a map will be provided to the Department of Environmental Quality, Water Quality Division, showing the location of this well in relationship to the bulk plant, the hydrochloric acid tank, and the existing monitor wells.
8. Also upon completion, the tops of the casings need to be surveyed and static water levels taken, including the two monitor wells installed earlier and the results sent to the Department of Environmental Quality, Water Quality Division.
9. As soon as possible after installation, the monitor well shall be sampled for organic and inorganic parameters as were monitor wells #1 and #2 in August 1985. Samples will be split between the state of Wyoming and Halliburton. Sufficient notice will be given to the Water Quality Division prior to sampling.



THE STATE OF WYOMING

12-18  
ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

December 16, 1985

Mr. Steve Burford  
Halliburton Services  
Drawer 1431  
Duncan, OK 73536-0100

RE: Application for Monitor Wells, #85-597

Dear Mr. Burford:

Additional information is necessary prior to the issuance of a permit to construct a monitor well as follows:

1. The highest and lowest expected groundwater levels in the vicinity of the proposed monitor well, i.e., 10-14 feet below the surface.
2. Actual methods for protecting the monitor well from vehicular traffic, i.e., 8 inch steel casing with a locking lid cemented around the PVC pipe.
3. Compatibility of the gravel pack to the 1/2 inch diameter perforations. If the gravel is smaller than the diameter of the perforations, the well will silt in potentially rendering the well useless. Natural material may cause problems due to the lack of uniform size and amount of material smaller than the perforations.
4. Will the "end cap" be glued on or pushed on?

The Water Quality Division prefers that no portion of the monitor well casing string be glued together. Organics from the glue can dissolve into the water consequently contaminating the well. Any organic analyses may therefore indicate contamination due to the use of the PVC glue. To avoid the use of glue and subsequent contamination, straight pipe or threaded pipe can be used with push on caps on both ends.

In a meeting of November 15, 1985 between the DEQ/WQD and Halliburton representatives, it was agreed that the third monitor well would be sampled, upon completion, for inorganics and organics as were monitor wells #1 and #2 in August, 1985. Samples will be split between the State of Wyoming and Halliburton. Also a summary of waste disposal practices within the plant and measures taken to prevent any reoccurrence of spills are to be provided to the Water Quality Division.

In response to your letter dated November 21, 1985, removal of the concrete conduit within the dike, removal of any contaminated soil determined by soil analysis to

Mr. Steve Burford  
December 16, 1985  
Page 2

be contaminated, and pouring a new concrete floor is acceptable. Results of the analysis should be provided to the Water Quality Division and Solid Waste Management should be notified prior to disposal of any contaminated soil and the placement of a new concrete floor, preferably a concrete pad would be placed over the abandoned borehole as agreed to in our meeting of November 15, 1985.

If you have any questions, please feel free to call me at (307) 777-7084.

Sincerely,



Matthew M. Langenfeld  
Groundwater Compliance Specialist

MML/nc

cc: A. J. Mancini  
Steve Gerber, DEQ/WQD, Lander



ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

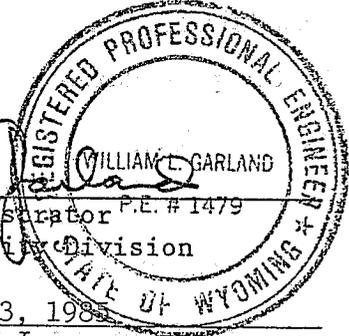
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

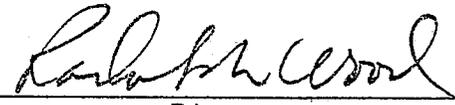
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
Administrator P.E. # 1479  
Water Quality Division  
December 13, 1982  
Date of Issuance



  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.



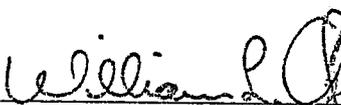
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

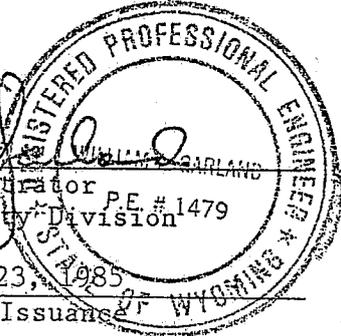
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 210 Lincoln, Lander, Wyoming 82520; telephone, 332-3144.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

  
\_\_\_\_\_  
Administrator P.E. #1479  
Water Quality Division  
December 23, 1985  
Date of Issuance



  
\_\_\_\_\_  
Director  
Dept. of Environmental Quality

This permit does not supercede the requirements for obtaining any permit from local agencies.

*Norma*



ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

February 27, 1986

Parris J. Baker, President  
P C Exploration  
P. O. Box 1109  
Roseville, CA 95661

RE: Modification to permit GPC 85-600

Dear Mr. Baker:

This letter is authorization of P C Exploration to utilize "Mad Dog Cement" for the purpose of grouting underground mine voids in the city of Rock Springs in Sweet-water County, Wyoming, pursuant to provisions of the subject permit, and as described in the letters from P C Exploration (Utah) dated February 18, 1986, and from Goodson & Associates (Denver, CO) dated February 3, 1986. Modification of the subject permit is accomplished by this letter and attachments, which become a part of the permit.

Sincerely,

A handwritten signature in cursive script that reads "William L. Garland".

William L. Garland, P.E.  
Administrator

WLG/AJM/pjb

cc: Stan Barnard, LQD  
Edwin C. Fleming, PC Exploration  
Al Amundson, Goodson & Assoc.

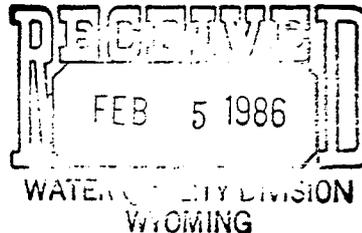


**Goodson & Associates, Inc.**

Consulting Engineers

February 3, 1986

Mr. Anthony Mancini  
Department of Water Quality  
Hershler, Building, 3 rd Floor  
122 west 25 th  
Cheyenne, Wyoming, 82002



Subject: Modification of Underground Injection Permit number 85-600  
for P. C. Exploration in Sweetwater County, Wyoming.

Dear Mr. Mancini:

As we discussed on Wednesday, we are assisting P. C. Exploration in modifying their UIC permit. I am writing to explain this modification we are requesting. The modification to the permit would allow P. C. to inject "Mad Dog Cement", a swelling concrete, into a large underground coal mine void near the surface in Rock Springs, Wyoming. The proposed additive which transforms normal concrete into swelling concrete consists of two components; Amonium Ether Sulphate, and Vinyl Acetate Polymer.

The first component, Amonium Ether Sulphate, is commonly diluted using Isopropyl Alcohol, and water. The Amonium Ether Sulphate is a harmless component found in hair shampoos, in dishwashing detergents, and it is also used in drilling fluids. It is understood to be entirely biodegradable into inert components. This compound has a NOEL (no observable effect level) rating of 0.5% after two years of dietary exposure, and is not known to be carcinogenic or mutogenic.

The second component, vinyl acetate polymer, is commonly diluted using water. This material is used in the packaging industry in glue, in the storage and packaging of food products. It is used as a component in vermiculite, and as a glue in mulch, to hold grass seed down. It is quite stable, and as an additive to concrete, it will be extremely immobile.

The two components are to be used in the following proportions or less;

	Grams/liter	concentration per cubic yard
Amonium ether sulphate	6 grams	0.03%
Vinyl acetate polymer	12 grams	0.06%

In addition to the harmless nature of the additive, and the small quantities to be used, together with the fact that when mixed with the concrete, the mixture will be virtually trapped, the mixture is to be used in an area of the mine which is dry, and approximately 60' above the mine floor.

February 3, 1986  
Mr. Mancini  
Page 2

For the reasons explained above, we feel that a modification to P. C. Exploration's UIC permit should be granted for the use of "mad dog cement", and we ask your expeditious review of the above information. If there is further information required, or you desire a meeting, we will be available to meet at your convenience.

Please contact me at 303-233-2244 for any additional information.

Sincerely,

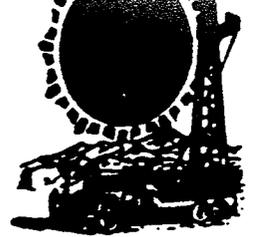


Al Amundson  
Project Manager

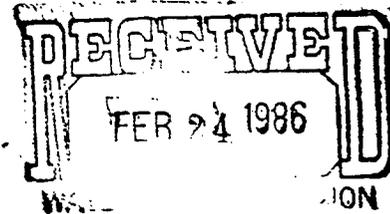
1388  
D4 UIC.MOD

# P C Exploration, Inc.

P.O. BOX 96  
WOODS CROSS, UTAH 84087  
PHONE (801) 295-4238



February 18, 1986



Department of Water Quality  
Hershler, Building, 3rd Floor  
122 West 25th  
Cheyenne, Wyoming 82002

Subject: Modification of Underground Injection Permit number  
*GPC* 85-600 for P C Exploration, Inc in Sweetwater County,  
Wyoming.

Attention: Mr. Anthony Mancini

I am writing to explain the modification we are requesting to our UIC permit. This modification to the permit would allow P C Exploration to inject "Mad Dog Cement", an expanded concrete, into a large underground coal mine void near the surface in Rock Springs, Wyoming. The proposed additive which transforms normal concrete into expanded concrete, which was developed by the Colorado School Of Mines Research Institute, consists of two components; Amonium Ether Sulphate, and Vinyl Acetate Polymer.

The first component, Amonium Ether Sulphate, is commonly diluted using Isopropyl Alcohol, and water. The Amonium Ether Sulphate is a harmless component found in hair shampoos, in dishwashing detergents, and it is also used in drilling fluids. It is understood to be entirely biodegradable into inert components. This compound has a NOEL (no observable effect level) rating of 0.5% after two years of dietary exposure, and is not known to be carcinogenic or mutagenic.

The second component, vinyl acetate polymer, is commonly diluted using water. This material is used in the packaging industry in glue, in the storage and packaging of food products. It is used as a component in vermiculite, and as a glue in mulch, to hold grass seed down. It is quite stable, and as an additive to concrete, it will be extremely immobile.

The two components are to be used in the following proportions or less;

	Grams/Liter	Concentration per cubic yard
Amonium Ether Sulphate	6 grams	0.03%
Vinyl Acetate Polymer	12 grams	0.06%

February 18, 1986

Mr. Mancini

Page 2

In addition to the harmless nature of the additive, and the small quantities to be used, together with the fact that when mixed with the concrete, the mixture will be virtually trapped, the mixture is to be used in an area of the mine which is dry, and approximately sixty feet above the mine floor.

For the reasons explained above, we feel that a modification to P C Exploration's UIC permit should be granted for the use of "Mad Dog Cement", and we ask your expeditious review of the above information. If there is further information required, or you desire a meeting, we will be available to meet at your convenience.

Please feel free to contact me at 801-295-4238 for any additional information.

Sincerely,

*Edwin C. Fleming*

Edwin C. Fleming  
District Manager

cc: Gary Beach  
Al Amundson

1-15-86



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

January 13, 1986

Mr. Parris J. Baker, President  
P C Exploration  
P.O. Box 1109  
Roseville, CA 95661

RE: Permit GPC 85-600 Grouting of Abandoned Mine Voids in Rock Springs,  
Sweetwater County, Wyoming

Dear Mr. Baker:

Enclosed are two copies of permit GPC 85-600, authorization to commence injection of grout related to the Rock Springs Subsidence Control Project 6A. Please note that you are to notify this office 48 hours before injection is to commence (see item C., Authorized Operations).

Also enclosed are copies of Form GPC 7. A copy of the form should accompany any written report required by this permit. You may reproduce the form if you wish.

Note Item G., Requirements for Monitoring the Discharge. A written report should be submitted to this office within 30 days of completion of the project. To satisfy Item I., an annual report may be consolidated with the final report due to the short term nature of this project.

Please contact this office if you have any questions concerning the permit or this letter.

Sincerely,

A handwritten signature in cursive script that reads "William L. Garland".

William L. Garland  
Administrator

WLG/TH/nc  
Enclosures

cc: A. J. Mancini, Groundwater Control Supervisor  
Stan Barnard, LQD, AML  
Jack Bedessem, WQD, Lander

MA 14542

DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE OF WYOMING  
GROUNDWATER POLLUTION CONTROL PERMIT  
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS  
(Permit to Inject)

(X ) New

Permit Number:

( ) Modified

GPC 85-600  
CLASS V

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter IX (September 4, 1980),

P C Exploration, Inc.  
Parris J. Baker, President  
P.O. Box 1109  
Roseville, CA 95661

is authorized to operate

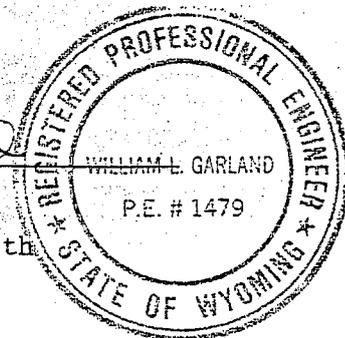
injection wells for the purpose of grouting of underground mine voids in the City of Rock Springs, Sweetwater County, Wyoming. The back-filling is associated with Wyoming Department of Environmental Quality Land Quality Division Abandoned Mine Lands, Rock Springs Subsidence Control Project 6A.

according to procedures and conditions of the application GPC 85-352 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

*William L. Garland*

Administrator  
Water Quality Division  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002  
Phone: (307) 777-7781



*Jan 14, 1986*  
Date

*Randolph Wood*

Director  
Department of Environmental Quality  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002

*1-14-86*  
Date

A. Discharge (Injection) Zone and Area of Review

Injection is authorized into mine voids in the No. 1, 3, and 7 coal seams of the Rock Springs Formation through cased injection wells (15-120 feet deep depending on surface topography and the configuration of the mine voids encountered). Injection of grout into any other formation is prohibited.

This permit does not authorize the discharge of any waste into the wells or to the surface or in violation of any other issued or required permit.

The area of review encompasses the portions of the City of Rock Springs described by Figure 1 in the permit application, in Sweetwater County and includes portions of Sections 26 and 35, T19N, R105W.

B. Groundwater Classification

Groundwater in the injection zone is Class IV. This classification is based on a water quality analysis submitted with the application under the state classification system contained in Water Quality Division Rules and Regulations, Chapter VIII.

C. Authorized Operations

The permittee is authorized to inject two different types of grout mixtures, depending on site conditions encountered within the area of review in the Rock Springs Formation. Injection will be through boreholes cased with mild steel or PVC, with no perforations. The wells will be completed in the Rock Springs Formation mine voids. Grouting will extend to within two feet of the surface. The surface two feet will be filled with preexisting material.

Type I grout will consist of 5 sacks of type 11 cement, 2 sacks flyash, 2150 pounds of sand, and enough water to produce 6 inches slump. Type I grout will be used where mine voids are not large.

Type II grout, consists of three parts cement, one part flyash, mixed 1 to 1 with water. For larger mine voids, pea gravel will be poured down the casing into the mine void, forming a cone at the bottom of the hole. This cone will then be injected with Type II grout to form a solid "concrete" structure in place.

The proposed injection rate is to be 65 cubic yards per hour. Injection will take place at a maximum of 100 homes, with up to 6 holes per residence. Grout will be introduced into the injection hole under the influence of gravity and under no positive pressure. Pressure will be monitored to ensure that no excessive positive pressures are applied, and to provide an indication of the onset of complete filling.

The permittee shall consult with the Department of Environmental Quality, Land Quality Division, site engineer(s) to control and monitor quality of grout mixtures. When using Type II grout, the injection

rate or pressure shall not cause channeling or blow outs in the pea gravel cone.

No other use for or by the injection wells is authorized by this permit.

Permittee shall notify the Administrator or his representative 48 hours before injection is to start. Written notification shall be provided within 7 days after injection commences of the date and time of commencement.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. The permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the Administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.

E. Entry and Inspection

The permittee shall allow the Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least 3 years after closure of the facility.
3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The name(s) of individual(s) who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. Names of individuals who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
4. The prescribed program for this permitted activity is as follows:

The grout pump system will have gauges to monitor injection pressure at the fill hole. There will be two pump lines laid to two separate boreholes with a diverter valve between the lines. As one borehole is topped off with grout, the grout will be diverted to the next borehole. The grouting procedure will commence directly behind the drilling procedure. Some of the boreholes will be used as access for an underground video inspection camera to monitor the extent of migration of the grout.

G. Requirements for Monitoring the Discharge

Discharge (injection) volume and/or pressure shall be controlled and monitored to prevent fracturing of confining strata.

Injection pressure shall be monitored continuously to determine if positive pressure buildup is occurring in the injected slurry.

A final report on the project shall be submitted to the Water Quality Division within 30 days of completion of the project. This report should include:

1. A tabulation of all boreholes completed, including total depth and abandonment procedures.

2. The total volume of grout injected.
3. Any unanticipated conditions encountered.

Note the "Signatories Requirement" of Section Q of this permit.

The report should be addressed to:

Department of Environmental Quality  
Water Quality Division  
Groundwater Section  
Herschler Building, 4 West, 122 West 25th Street  
Cheyenne, WY 82001

The report shall be accompanied by a completed Form GPC 7.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

I. Records and Reports

1. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the report or application.
2. The permittee shall give notice to the Administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. The permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
4. Monitoring results shall be reported at intervals specified elsewhere in the permit.
5. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:
  - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable Groundwater of the State.
  - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable Groundwaters of the State.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandonment procedures. The Administrator may require the owner/operator to deliver the records to the Administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a Groundwater Pollution Control Permit has been issued by the Department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the Administrator, and
  - b. The Administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the Administrator of intent to inspect or otherwise review the facility within 13 days of the notice of a. above, in which case prior inspection or review is waived, and
  - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the Administrator.

Item I.10 is not applicable to this permit.

11. Annual reports shall be submitted to the Administrator within 30 days following the anniversary date of the permit.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the Administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

J. Permit Actions

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:

1. Violation of the permit;
2. Obtaining a permit by misrepresentation or failure of the discharge well or system.

Each permit is reviewed at least once every 5 years, and may be reviewed more frequently.

A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the Council.

This operation (permit) can be terminated by authority of the Administrator for one or more permit violations.

Public notice of the permit review and request for public comment will be made every 10 years by the Administrator.

Public notice prior to issuance of this permit is not required.

Existing regulations do not require public notice of the permit review and request for public comment every 10 years for this discharge.

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

This section is not applicable for permit issuance for this discharge.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the Administrator.

L. Abandonment

The permittee shall notify the Administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge

or related activity, or where a well has not been completed, the applicant/permittee shall notify the Director and follow the procedures prescribed by the Director for plugging and abandonment or the discontinuance of related activities:

Notification of the Administrator at least 180 days before well abandonment is not required for this project.

The Water Quality Division requires at a minimum that the injection zone be permanently isolated from overlying and underlying aquifers; that interaquifer communication be permanently prohibited; and that the wells be permanently secured against the injection or disposal of anything after abandonment.

All wells and monitoring holes will be plugged and abandoned either as the project proceeds or upon completion of the project according to standards included in Chapter XI, Part G of the Water Quality Division Rules and Regulations. A final report documenting plugging and abandonment will be submitted within 30 days of finishing all abandonment procedures.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to the Administrator within a reasonable time, any information which the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit; and furnish to the Administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in form approved by the Director, to close, plug and abandon the discharge operation in a manner prescribed by the Director.

Not applicable since Land Quality Division holds a performance bond on the permittee.

O. Special measures the Director finds necessary:

The operations authorized by this permit must commence within one year of permit issuance date, or the permit is invalid.

P. Special permit conditions:

Pollution or waste which migrates into an aquifer containing a usable groundwater of the State is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

All reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;

For a municipality, State, Federal or other public agency -- by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the Department Director.

T. Responsibilities

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

U. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

V. Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

December 10, 1985

Parris J. Baker, President  
PC Exploration, Inc.  
1574 Booth Road  
P. O. Box 1109  
Roseville, CA 95661

Dear Mr. Baker:

We have received three copies of the application (GPC 85-600) for the Rock Springs Subsidence Control Project 6A. The cover letter accompanying the application stated that additional information would have to come from other sources.

Until this additional information is submitted, your application will be considered incomplete. A permit cannot be issued unless a complete application has been submitted and found to be adequate.

Sincerely,

A handwritten signature in cursive script that reads "A. J. Mancini".

A. J. Mancini  
Groundwater Control Supervisor

AJM/sk

