

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 86-101

Arp Elementary School
(Name of Facility)

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

Laramie County School District

2810 House Avenue

Cheyenne, WY 82001

to construct, install, or modify a municipal wastewater collection line facility according to the procedures and conditions of the application No. 86-101. The facility is located in Section 9, T13N, 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.

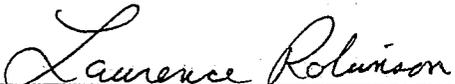
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

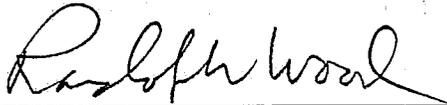
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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
for Water Quality Division



Director
Dept. of Environmental Quality

April 18, 1986
Date of Issuance

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

cc: John E. Parks
500 East 18th Street
Cheyenne, WY 82001

PERMIT TO CONSTRUCT

New

Permit No. 86-102R

Renewal

Modified

Fifteenth Street Watermain Replacement W85-3
(Name of Facility)

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

Casper Board of Public Utilities

200 North David

Casper, WY 82601

to construct, install, or modify a municipal water distribution lines facility according to the procedures and conditions of the application No. 86-102R. The facility is located in S9, 10, 15, 16, T33N, R79W in the County of Natrona, 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.

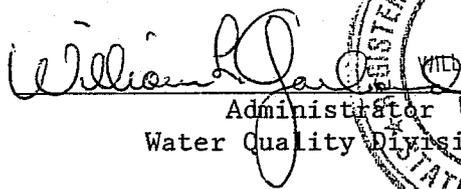
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

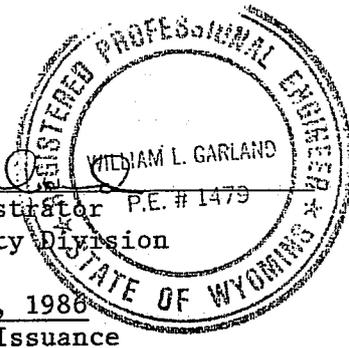
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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
May 5, 1986
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
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: 15th Street Watermain Replacement W86-3, Natrona Co.

ARCHITECT OR ENGINEER: Dave Hill, Casper Board of Public Utilities
200 North David, Casper, WY 82601

APPLICANT: Same

WATER QUALITY DIVISION REFERENCE NUMBER: 86-102

REVIEWING ENGINEER: Thomas S. Norman *TSN*

DATE OF REVIEW: April 17, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Valve spacing must not exceed 800 feet.
2. The large diameter PVC is not covered by our standards and therefore more documentation is necessary. The UNI-B-11-94 standard is intended for transmission lines. This application has services on it which would require surge pressures to be incorporated into the design as specified in the UNI standard. Please justify how the pressure class for the pipe was obtained.

TSN/nc

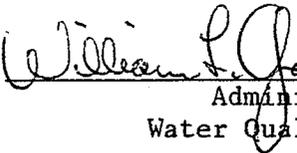
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

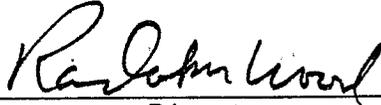
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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:


WILLIAM L. GARLAND
P.E. # 1479
Administrator
Water Quality Division
STATE OF WYOMING * REGISTERED PROFESSIONAL ENGINEER *
April 29, 1986
Date of Issuance


Director
Dept. of Environmental Quality

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

5-20-86

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 86-104R

Lovell Water Transmission Line
(Name of Facility)

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

Town of Lovell
336 Nevada Avenue
Lovell, WY 82431

to construct, install, or modify a new 14" DIP water transmission pipeline from
the existing pump station on the Shoshone River to the water treatment plant
facility according to the procedures and conditions of the
 application No. 86-104R. The facility is located in Sec. 9 and Lot 89, T56N R96W

in the County of Big Horn,
 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-

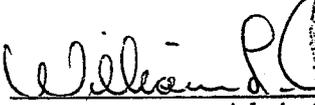
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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.

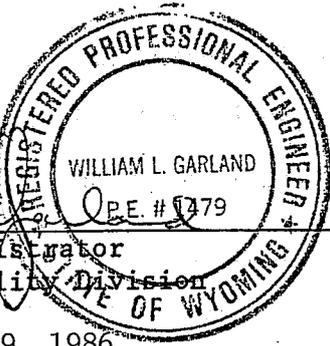
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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
MAY 9 1986
Date of Issuance





Director
Dept. of Environmental Quality

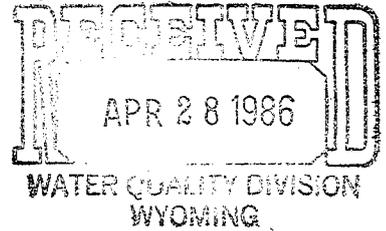
This permit does not supercede the requirements for obtaining any permit from local agencies.

Norma

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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



PROJECT: Lovell Water Transmission Line

ENGINEER: Engineering Associates
ATTN: Don Livingston
P.O. Box 1900
Cody, WY 82414

OWNER: Town of Lovell
336 Nevada Avenue
Lovell, WY 82431

WATER QUALITY DIVISION REFERENCE NUMBER: 86-104

REVIEWING ENGINEER: Steven P. Gerber, P.E. *SPG*

DATE OF REVIEW: April 21, 1986

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. An engineering design report shall be submitted with each application. The purpose of the report shall be to describe and provide technical justification for all aspects of the proposed construction, modifications and/or installations. The report should address existing conditions, known or suspected problems, proposed actions, and the reasoning used to arrive at those proposed actions. There is no minimum or maximum size for the report, provided it meets the purpose of this section. Include in the report, sizing criteria, operating pressures, etc.
2. Specifications shall contain the name, Wyoming registration number, and seal or signature of the engineer.
3. The use of asbestos-cement pipe has been banned by EPA. Reference to this pipe material should be removed from the specifications.
4. Specify granular material beneath air release valve vault to ensure adequate drainage of any water discharged through the valve.
5. Explain the purpose of the pipe extending to grade at station 22+36. It appears this line will be susceptible to freezing if used during the winter months. Discuss the need for a weep hole in elbow.
6. Discuss the need for an air release valve at station 22+13.

Review of Plans & Specs.

Ref. No. 86-104

Page Two

7. Vaults for automatic air relief valves must be designed to prevent submerging the valve with groundwater. It appears that this may be a problem at station 4+70. Explain how this requirement is to be satisfied.

8. Explain function of existing 12 inch transmission line. Is it to remain in service? Should a valve be installed on this line near the treatment plant so it can be totally isolated?

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

copy: Plans (3)

File (2)

PERMIT TO CONSTRUCT

Permit No. 86-105R
SEE CONDITION ON BACK

New
 Renewal
 Modified

Douglas Spring Water Transmission Line and Water System Improvements
(Name of Facility)

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

Town of Douglas

130 South Third

Douglas, WY 82633

to construct, install, or modify a municipal public water transmission line improvements facility according to the procedures and conditions of the application No. 86-105R. The facility is located in S2, 3, T32N, R74W; S36, T33N, R74W; S25-30, 31, T33N, R73W; S29, 30, 33, 34, 35, T33N, R72W; S 1, 2, 3, 12, T32N, R72W; S7, 8, T32N, R71W in the County of Converse, 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.

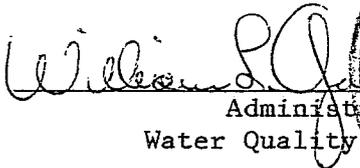
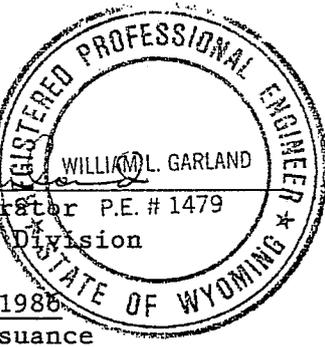
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

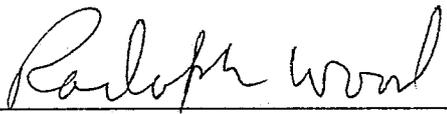
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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 P.E. # 1479
Water Quality Division
May 28, 1986
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 #86-105R

Automatic switchover of chlorine cylinders shall be provided.

cc: Darryl D. Alleman
ARIX
103 South 5th
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: Spring Water Transmission Line and Water System Improvements

ARCHITECT OR ENGINEER: Darryl D. Alleman, ARI
103 South 5th, Laramie, WY 82070

APPLICANT: Town of Douglas
130 South 3rd, Douglas, WY 82633

WATER QUALITY DIVISION REFERENCE NUMBER: 86-105

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

DATE OF REVIEW: April 30, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. An engineering design report was not submitted in accordance with the Water Quality Division Chapter XII, Section 6. Because of the importance of the design report in making a review, a complete review cannot be performed until a design report is received.
2. Please supply a profile of the water line. It can be at a smaller scale than the plans.
3. The chlorination building does not have sufficient piping detail to show how the chlorinator will be hooked-up or how it will work.
4. The water/sewer crossing detail does not meet the state's requirements. A separate casing pipe is required.

pjb

PERMIT TO CONSTRUCT

New

Permit No. 86-106R

Renewal

Modified

Pavillion Well #6 and Water System Improvements
(Name of Facility)

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

Town of Pavillion

322 North Cherry

Pavillion, WY 82523

to construct, install, or modify a pump in well, control house for controls and

chlorinator, 830 ft. of 6 inch PVC water main

facility according to the procedures and conditions of the

application No. 86-106R. The facility is located in

Sec. 7, T3N, R2E, WRM

in the County of Fremont,

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-

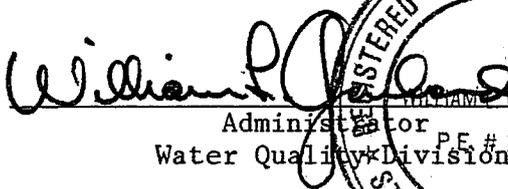
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

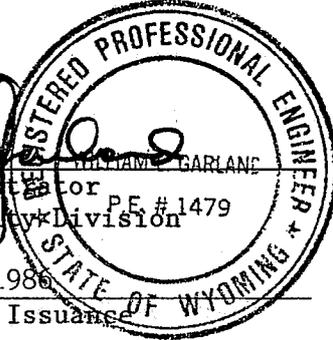
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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.

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AUTHORIZED BY:


Administator
Water Quality Division
P.E. # 1479
May 28, 1986
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: Pavillion Well No. 6 & Water System Improvements

ENGINEER: Apex Surveying, Inc.
P.O. Box 1751
Riverton, WY 82501

OWNER: Town of Pavillion
322 N. Cherry
Pavillion, WY 82523

WATER QUALITY DIVISION REFERENCE NUMBER: 86-106

REVIEWING EVALUATOR: Jeff Hermansky



DATE OF REVIEW: May 7, 1986

ACTION: Not authorized.

COMMENTS:

This office has completed a review of the proposed project. The following questions and comments need to be addressed before a permit to construct can be issued:

1. Is there a check valve on the well pump or in the riser pipe inside the well casing?
2. The piping must provide a means for the well to pump to waste.
3. Does the pitless unit meet all the requirements listed on page 27 of Chapter XII of the Rules and Regulations?
4. Is the well casing vented?

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 Steve Gerber or me.

JH/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.

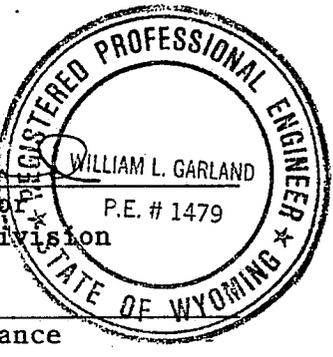
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:

William L. Garland
 Administrator
 Water Quality Division

6-18-86
 Date of Issuance



Robert Wood 6-18-86
 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
210 LINCOLN
LANDER, WYOMING 82520
PHONE: (307) 332-3144

PROJECT: Harvest Dance Lodges, Phase 3

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

OWNER: Spring Creek Ranch Co.
P.O. Box 3154
Jackson, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 86-107

REVIEWING ENGINEER: Steven P. Gerber, P.E. *SPG*

DATE OF REVIEW: May 2, 1986

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. Twelve inch water line was permitted under permit number 85-14R. It appears this line is now being revised under this application. In the future it would be helpful if your cover letter would point out these modifications to an earlier permit.
2. The PRV Station permitted under 85-14R is now listed as future construction. Please explain why it is not going to be built now. It appears that if the PRV Station is necessary it should be constructed at the same time the line is installed. Explain the function of the PRV Station.
3. It was stated in the application for Permit #85-14R that the sewer line between M.H. C-1 and C.O. C-2 would not be extended. The line is now extended to M.H. C-4 with an additional six units connected to the line. Provide additional verification that a 6 inch line is still adequate. Clean out C-2 should be removed.
4. The sewer line from M.H. A-4 to C.O. A-5 was permitted under number 85-14R and modified under permit number 85-509. The line between M.H. A-4 and C.O. A-5 (Permit #85-509 number system) is now being revised. The line is now labelled M.H. A-5 to M.H. A-6. Please insure the numbering is correct.
5. Compute the flows and velocities in the sewer lines to insure velocities do not exceed 10 fps.
6. The test pressure must be specified or operating pressure given so test pressure can be computed.

ABC

Review of Plans & Specs.

Ref. No. 86-107

Page Two

7. All residential water system connections shall be provided with a check valve at the meter or in the service line. Add this requirement to the specifications.

8. The application must be signed by the Applicant. Submit three copies signed by the applicant.

9. Provide a single site plan sheet that shows the construction completed to date and the permit number under which it has been permitted. This site plan will help clarify how the proposed construction ties into the remainder of the facility.

10. According to our records, Phase I was permitted under 85-14R and 85-117R. This phase is number III. What happened to Phase II? Please clarify for me.

11. 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

copy: Plans (3)

File (2)

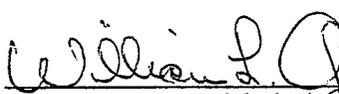
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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.

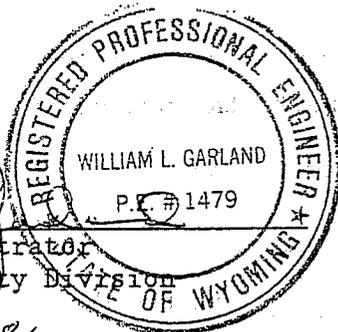
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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
STATE OF WYOMING



8-20-86

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. As-built drawings and well log completion reports for the three monitoring wells must be submitted to the Water Quality Division, Lander office. All wells shall be constructed according to the standards of Chapter XI, Part G of the Wyoming Water Quality Rules and Regulations.

2. Background water quality shall be established by sampling each well at least twice prior to November 1, 1986. The two sampling events must produce consistent results or additional sampling will be required until consistent results are obtained. Proper well evacuation, sampling and analytical techniques shall be followed. Background water samples shall be analyzed for the following list of parameters:

- | | | |
|--|-----------|------------------|
| static water level (taken prior to sampling or evacuation) | | |
| total dissolved solids | iron | chloride |
| sulfate | lead | fluoride |
| cadmium | manganese | nitrate nitrogen |
| chromium | mercury | arsenic |
| copper | selenium | pH |
| silver | zinc | ammonia nitrogen |
| barium | | |

3. Once background water quality has been determined, an operational monitoring schedule should be proposed by the permittee, or one will be established by the Division. A typical operating list of parameters would include:

static water level	nitrate nitrogen
total dissolved solids	ammonia nitrogen
chloride	pH
temperature	

These parameters should be monitored on a quarterly basis by the permittee.

Norma, please
return plans to
Lander.

Kate

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-108RRR R

DATE SUBMITTED FOR REVIEW by telephone 8-8-86

NAME AND LOCATION OF FACILITY Star Valley Ranch RV
Lagoon
Lincoln County

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

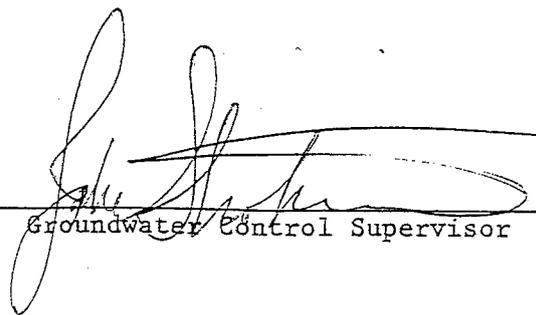
- () No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- (X) Comments attached.

SIGNED Kate Landon

TITLE Engineer Evaluator

DATE 8-8-86

ACCEPTED FOR RECORD 8-8-86
(Date)


Groundwater Control Supervisor



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

D R A F T

P O L I C Y M E M O R A N D U M

FROM: Kate Laudon and Phil Pucel, Engineer Evaluators
THROUGH: Jake Strohman, Groundwater Operation Supervisor
DATE: May 19, 1986
SUBJECT: Groundwater Monitoring Requirements for Sewage Lagoons

Groundwater monitoring wells are required when (Evaluation made by Groundwater Section) *same H*

There is a potential for the degradation of groundwater quality. Evaluation of this potential takes into consideration;

1. The ambient groundwater quality;
2. The proximity of the lagoon to a domestic, livestock or irrigation well;
3. The quality of the lagoon contents;
4. Estimated future quality of the lagoon contents;
5. Depth to groundwater, (SWL's);
6. Permeability of the soils underlying the lagoons;
7. The type of lagoon lining (see policy memo dated May 14, 1986);

8. The proximity of the lagoons to a surface stream or river;

*Monitoring
may be
required if* →

Sewage lagoons ~~which~~ are located immediately adjacent to a stream or river may need monitoring ^{when} if the groundwater flow direction indicates that seepage would impact groundwater moving parallel to the surface water, or adjacent property could be affected by mounding. If the lagoon is shown to be discharging directly through groundwater infiltration to the stream and there is no possibility of groundwater development in the zone between the lagoon and stream due to land limitations or property ownership, then monitoring would not be required. (This is a preferred alternative to a direct discharge to the stream. The district engineer should look at lining in the primary cells only from the standpoint of holding water for treatment);

9. The existence of an infiltration collection system used to collect all effluent from infiltration basins. If SWL's show that the collection system gathers all groundwater flow lines which pass beneath the lagoon system, then effluent from this collection system would be monitored under the NPDES program.

When groundwater monitoring wells are required to determine impacts from sewage lagoon systems, the location and construction of these wells should be approved by the Groundwater Section. All wells shall be constructed according to the standards of Chapter XI, Part G.

Background water quality shall be established by sampling each well at least twice prior to operation of the facility. The two sampling events must produce consistent results or additional sampling will be required until consistent results are obtained. Proper well evacuation, sampling and analytical techniques shall be followed. Background water samples shall be analyzed for the following list of parameters:

Note** Static water level in the well shall be taken prior to sampling or evacuation

- | | |
|------------------------|----------|
| | Cadmium |
| Total Dissolved Solids | Chromium |
| Sulfate | Copper |

Chloride

Fluoride

Nitrate Nitrogen

Ammonia Nitrogen

pH

Arsenic

Barium

Iron

Lead

Manganese

Mercury

Selenium

Silver

Zinc

Once background water quality has been determined, an operational monitoring schedule can be proposed by the applicant, or one will be established by the division. A typical Operating list of parameters would include:

Static Water Level

Total Dissolved Solids

Chloride

Nitrate Nitrogen

Ammonia Nitrogen

pH - Field & Lab

Temperature

Monitored on a quarterly or semi-annual basis.



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Bill Locke, Southwest District Engineer Evaluator
FROM: Kate Laudon, Groundwater Engineer Evaluator *KgZ*
DATE: June 16, 1986
SUBJECT: Groundwater Review, Star Valley Ranch R.V. Lagoon, Lincoln Co.,
DEQ/WQD Ref. No. 86-108RR

This memo will document my telephone review of June 16, 1986. In addition to the comments contained in your May 13, 1986 review, the applicant should address the following concerns:

1. Both monitor wells should be moved approximately 100 feet toward the north. There may be a component of groundwater flow toward the creek that flows north of the ponds. This is speculation at this time however. The direction of groundwater flow cannot be determined until the wells are installed, surveyed and static water levels measured.
2. A detailed specification should be provided showing the approximate depth and construction details for the monitor wells.

KL/nc

Norma, I will
keep plans

2

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-108 RR

DATE SUBMITTED FOR REVIEW 6-9-86

NAME AND LOCATION OF FACILITY Star Valley Ranch
RV Lagoon
Sec. 1 T34N R119W Lincoln

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 6-16-86

ACCEPTED FOR RECORD 6-17-86 [Signature]
(Date) Groundwater Control Supervisor

Wopna



THE STATE OF WYOMING

ED. HERSCHLER
GOVERNOR

*Department of Environmental Quality
Water Quality Division*

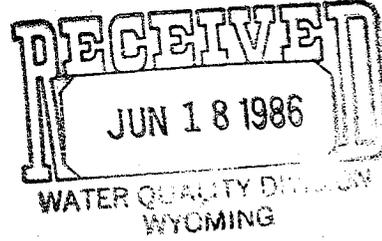
210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

June 16, 1986

Mr. Charles King
925 E. Executive Park Dr.
Salt Lake City, UT 84107



RE: Star Valley Ranch R.V. Park Lagoon
WQD Reference No. 86-108RR

Dear Mr. King:

I have reviewed your response letter dated May 19, 1986 regarding the above referenced project. The largest item of contention we had was the BOD5 loading of the lagoons. After reviewing the State of Wyoming Commentary on Design Standards for Sewerage Facilities I have discovered that the 14 lbs. BOD5/ac/day is an average annual loading rate. The allowable yearly BOD5 loading for the two (2) 3.2 acre cells is therefore 32,704 lbs. I calculate the yearly BOD5 loading rate for this seasonal facility to be something less than 25,000 lbs. Therefore, the two 3.2 acre cells proposed will be adequate.

In my review letter, I mentioned that a barrel test could be performed on the existing cells to determine in place seepage rates. I have attached a copy of a barrel test specification for your use.

In your letter of response, you requested that I forward a copy of the Wyoming Public Works Standard Specifications to Mr. Stewart. Unfortunately, these specifications are unavailable through our office. You can contact the Wyoming Public Works Council at P.O. Box 32, Cheyenne, WY, 82003 or call 307-634-9440 to obtain a copy.

As I stated in my review dated May 13, 1986, detail plans and specifications for the monitoring wells are required. The minimum design and construction standards for wells is outlined in the Wyoming Water Quality Rules and Regulations, Chapter XI, Part G. An estimate of the depth of these wells should also be included. Once the well has been completed, an as-built plan should be submitted to this office. We think that there might be some groundwater flow toward the creek on the north side of Cedar Creek Road. We therefore feel that the two down-gradient wells should be located at the mid-points of the north and west dike of Cell No. 1.

Mr. Charles King
June 16, 1986
Page Two

Should you have any questions or comments, 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
cc: Kate Laudon, DEQ/WQD, Cheyenne

herma

REVIEW OF PLANS AND SPECIFICATIONS

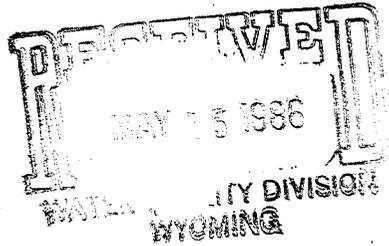
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Star Valley Ranch R.V. Park Lagoon
(Reference No. 82-528RR)

ENGINEER: Charles King
925 E. Executive Park Dr.
Salt Lake City, UT 84107

OWNER: Leisure Valley, Inc.
P.O. Box 127
Thayne, WY 83127



WATER QUALITY DIVISION REFERENCE NUMBER: 86-108R

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

DATE OF REVIEW: May 13, 1986

ACTION: Not authorized.

COMMENTS:

A second review of the above referenced as-built plans has been completed. The following items must be addressed before a letter of acceptance will be issued:

1. I believe the average daily BOD loading calculated in your letter dated April 28, 1986 is in error. I calculated a loading of 149 lbs/day given 350 sites, 2.5 people per site and 0.17 lbs BOD/person/day. This calculates to approximately 47 lbs. BOD/ac/day in your primary cell which far exceeds the 14 lbs. BOD/ac/day required. I agree that operational water depth is also a primary concern, especially with a seasonal operation. I therefore, recommend that an in-depth, monthly water balance calculated as depth of water in the pond(s) be prepared. This analysis should be run for various surface areas to determine what the optimum lagoon size would be. Before the water balance calculations can be performed, the seepage rate of all existing cells will have to be defined. A barrel test could be performed on existing Cell No. 2. Then the wastewater could be diverted to that cell and Cell No. 1 could be tested for leakage.

2. The thickness of the inlet pads is not defined. Also, please indicate if reinforcing steel is imbedded in the concrete.

3. Please provide materials specifications for the concrete and the rip-rap.

4. A minimum of one up-gradient and two down-gradient monitoring wells are required. Plans, specifications, and locations for these wells must be approved by WQD prior to construction. These wells must be completed to groundwater or to an impervious layer of soil that would tend to perch the groundwater. These wells must be sampled at least twice with consistent results to determine background water quality.

Proper well evacuation and sampling procedures should be followed. Background samples should be analyzed for the following primary and secondary drinking water standards:

Static Water Level	Cadmium
Total Dissolved Solids	Chromium
Sulfate	Copper
Chloride	Iron
Fluoride	Lead
Nitrate (nitrogen)	Manganese
Ammonia (nitrogen)	Mercury
pH	Selenium
Arsenic	Silver
Barium	Zinc

Once the results of these tests have been reviewed an operational monitoring program can be developed.

5. 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

cc: Kate Laudon, DEQ/WQD, Cheyenne



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Bill Locke, SW District Engineering Evaluator

FROM: Kate Laudon, Groundwater Engineering Evaluator *KJL*

DATE: May 13, 1986

SUBJECT: Groundwater review, Star Valley RV Lagoon, WQD reference number 86-108

An application has been made for "as built" approval for sewage lagoons for the Star Valley Ranch RV Park in Lincoln County. The plans do not provide for groundwater monitoring associated with the facility.

Groundwater in the area is Class I suitable for domestic use. The Lincoln County Planning Office has expressed their concern for impacts to drinking water supplies from the entire Star Valley Ranch development. Numbers provided with the permit application indicate that the cells have been constructed to seep.

Before the facility is approved, the following additional information must be provided:

1. Groundwater monitoring wells shall be installed to document the amount of seepage that may have already occurred, and that no impacts to the drinking water aquifer will result from the operation of the ponds.
2. One upgradient monitor well, and two downgradient monitor wells shall be constructed in the vicinity of the ponds. Groundwater generally flows from east to west in this area. The wells shall be constructed according to the standards of the Water Quality Division (WQD) Rules and Regulations Chapter XI, Part G. The location and design of the monitor wells shall be approved by WQD prior to construction.
3. The location and a description of all existing wells located within 1/2 mile of the facility shall be provided by the applicant.
4. To determine background water quality, all monitor wells must be sampled at least twice. The two sampling events must produce consistent results or additional sampling will be required until consistent results are obtained. Proper well evacuation, sampling and analytical techniques shall be followed.
5. The background water samples shall be analyzed for the following list of parameters.

Static water level in the well prior to sampling.

Total Dissolved Solids
Sulfate
Chloride
Fluoride
Nitrate Nitrogen
Ammonia Nitrogen
pH
Arsenic
Barium
Zinc

Cadmium
Chromium
Copper
Iron
Lead
Manganese
Mercury
Selenium
Silver

6. Once background water quality has been determined, an operational monitoring schedule will be established by the division.

pjb

Norma, I'll keep plans

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-108

DATE SUBMITTED FOR REVIEW 4-22-86

NAME AND LOCATION OF FACILITY Star Valley Ranch RV Lagoon
Star Valley Ranch
Sec. 6, T34N, R118W
Lincoln County

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

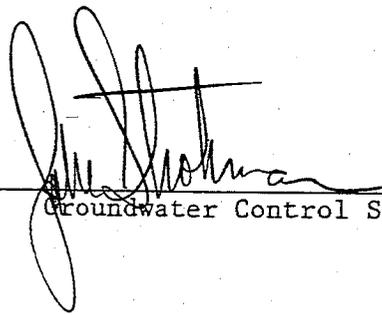
- No comment. The submittal is consistent with current groundwater protection procedures and requirements.
- Comments attached.

SIGNED Kate Laudon

TITLE Engineer Evaluator

DATE 5-12-86

ACCEPTED FOR RECORD _____
(Date)

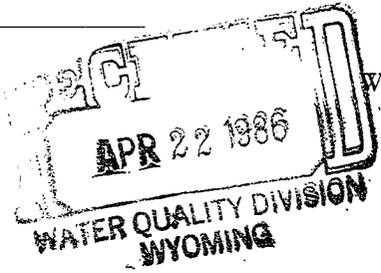


Groundwater Control Supervisor

norma
c

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY



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

PROJECT: Star Valley Ranch R.V. Park Lagoon
(Ref. No. 82-528RR)

ENGINEER: Charles King
925 E. Executive Park Drive
Salt Lake City, UT 84107

OWNER: Leisure Valley, Inc.
P.O. Box 127
Thayne, WY 83127

WATER QUALITY DIVISION REFERENCE NUMBER: 86-108

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

DATE OF REVIEW: April 18, 1986

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above referenced as-built plans has been completed. The following items must be addressed before a letter of acceptance will be issued:

1. The enclosed application form must be completed and accompany your resubmittal. Because the facility has already been constructed, the application should not be signed.
2. The Wyoming Water Quality Rules and Regulations (WWQR&R), Chapter XI, Part B, Section 18a require that BOD5 loading not exceed 14 lb/acre/day based on average annual BOD5. Please confirm this is the case.
3. WWQR&R, Chapter XI, Part B, Section 18a requires that the inlet lines should be located on the bottom of the lagoon with a 4 ft. by 4 ft. concrete apron around the pipe. The outlet pipe as located at the mid-point of the water depth is acceptable.
4. It is unclear if two diversion boxes are to be constructed. Please clarify.
5. WWQR&R, Chapter XI, Part B, Section 18d requires erosion control on interior embankments for cells one acre and larger. Please address this issue.
6. The cover letter states that 200 sites are presently developed. From your observation and experience of two seasons, you estimate a per site flow of 100 gpd. Do you have water meter data to support this?

Review of Plans & Specs.

Ref. No. 86-108

Page Two

7. WWQR&R, Chapter XI, Part B, Section 18e states that seepage through the lagoon shall not cause a violation of the groundwater standards as described in Chapter VIII. Some type of groundwater monitoring system will be required to comply with this requirement. Please address this issue.

8. 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

4-28-86



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

*Department of Environmental Quality
Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 24, 1986

Town of Mills
P.O. Box 789
Mills, WY 82644

RE: DEQ/WQD Ref. No. 86-109

Gentlemen:

We have completed our review of the Water and Sanitary Sewer Design and Construction Specifications for the Town of Mills and find that they meet minimum State standards for water and sewer line construction. Any further additions or deletions to these construction standard specifications will require review by this Division to ensure continued compliance with State standards.

Future applications for sewer and water line extensions for the Town of Mills need only refer to the above specifications on the plan sheet.

Sincerely,

William L. Garland
Administrator

WLG/TSN/nc

PERMIT TO CONSTRUCT

New

Permit No. 86-110R

Renewal

Ref. No. EPA C560139

Modified

Cody Westside Interceptor Sewer - Sulphur Creek Crossing
(Name of Facility)

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

City of Cody

1338 Rumsey Avenue

Cody, WY 82414

to construct, install, or modify a approximately 915 feet of wastewater interceptor sewer including 315 feet of PVC pipe, 600' of welded steel pipe and a 600 foot cable suspension bridge over Sulphur Creek Canyon facility according to the procedures and conditions of the application No. 86-110R. The facility is located in S36, SE1/4, T53N, R102W 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.

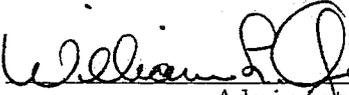
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

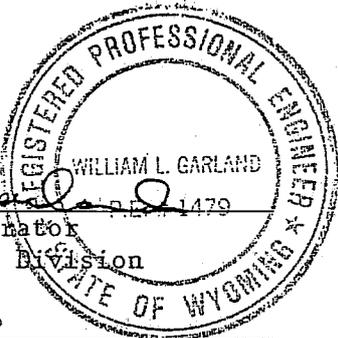
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

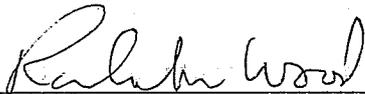
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:


Administnator
Water Quality Division
10-14-86
Date of Issuance




Director
Dept. of Environmental Quality

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

cc: Graham, Dietz & Associates
P. O. Box 338
Cody, WY 82414
Grant File



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality

Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

September 29, 1986

The Honorable Dorse Miller
Mayor, City of Cody
1338 Rumsey Avenue
Cody, WY 82414

RE: City of Cody, Wyoming C560144, DEQ/WQD Ref. No. 86-110R, Approval of Plans and Specifications

Dear Mayor Miller:

The plans and specifications for the construction of water pollution control facilities 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 approval of plans and specifications is not a commitment of federal funds for your Step 3 construction project, but does allow the grantee to request final payment for Step 2 work.

The procedure for submission and approval of modifications to the approved plans and specifications is the same as for the original set; i.e., five copies of any proposed modifications, together with an explanation for the reasons therefor should be forwarded to us. Unauthorized modifications of approved sets of plans and specifications may result in suspension of federal participation in the project.

We are sending the approved plans and specifications for the referenced project which must be kept available at all times so that personnel from this office may have access to them during inspection activities.

Sincerely,

William L. Garland
Administrator

WLG/JP/ad
Enclosures

cc: EPA, Region VIII
Darvin Dietz, Graham, Dietz & Assoc.
Loren Leichtnam, DEQ/WQD Sheridan
Grant File

TO

Bob Jossis
J.M. Montgomery Consultant Eng.
1301 Vista Avenue
Boise Idaho 83705

FROM

Jerry Placzek
WQD/DEW
4th Floor Herschler Bldg
Chey Wy 82002

SUBJECT

Sulphur Creek Crossing

DATE

26 June 86

AGE

- Dear Bob:

Enclosed you'll find review comments on the referenced project from OSHA and the district engineer. Please forward your response to these through me along with the application for a Permit to Construct

ORIGINATOR-DO NOT WRITE BELOW THIS LINE

REPLY TO

SIGNED:

Jerry Placzek

SIGNED

SEND PARTS 1 AND 3 INTACT - PART 1 WILL BE RETURNED WITH REPLY

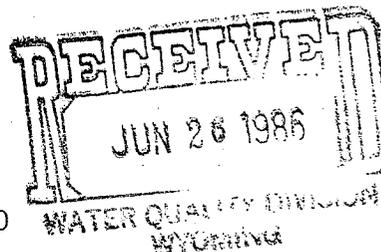
RM-87

ORIGINATOR DETACH AND FILE FOR FOLLOW UP

Norma

MEMORANDUM

TO: Jerry Placzek
 FROM: Jeff Hermansky *Jeff*
 SUBJECT: Review of Cody Sulphur Creek Crossing, 86-110
 DATED: June 23, 1986



I have reviewed the plans and specifications for the above referenced project and have the following questions and comments:

1. The engineer has not supplied any design information to me. I am specifically interested in:

- a. How the pipe was sized? What are the projected flows?
- b. How much deflection will there be in the pipeline between very low flows and maximum projected flow?
- c. How was the required thickness for the pipe insulation determined?
- d. What is the maximum expansion/contraction expected in the pipeline? How much can each expansion joint accomodate?

2. The leakage testing procedure specified is not an authorized Wyoming standard.

3. There is apparently no alarm system to indicate a failure in the heat cable system. I feel it is important for the operator to recognize a heating failure shortly after it occurs.

On June 20, 1986 I contacted Bob Jossis, the project manager for Montgomery Consulting Engineers, and notified him of questions and comments that were just listed. Bob said he would submit the necessary information.

JH/jw



Occupational Health and Safety

CHEYENNE, WYOMING 82002

JAMES ZANCANELLA, PH.D.,
CHAIRMAN
H.B. ANDERSON, M.D.
RON BAGBY
L. KEITH HENNING
FLOYD J. HENRY
JAMES D. NEIMAN, JR.
JENNIE PARKER

June 12, 1986

DONALD D. OWSLEY
HEALTH AND SAFETY ADMINISTRATOR
(307) 777-7786

Jerry Placzek
WQD/DEQ
Herschler Bldg.
Cheyenne, WY 82002

Dear Jerry:

I have reviewed the plans for the Cody, Sulphur Creek Crossing, Project Number C-560139-94 and my comments are as follows:

1. General Conditions, pg. GC-3 - add to section labeled "Safety" the following: "Contractors are to comply with the requirements of the Wyoming Occupational Health and Safety Department Rules and Regulations for Construction and in accordance with all local laws and regulations."
2. Page F42, (16)(b)(b) - change to read in line 1: "with the Wyoming Occupational Health and Safety Department Rules and Regulations for Construction, promulgated under the State of Wyoming Occupational Health and Safety Act, sections 27-11-101 et seq."
3. Page LXVI, section (16)(a) attachment to SGC-19: "Contractor subject to the Wyoming Occupational Health and Safety Act of 1969."
Change the following sections in paragraph 2:
 - (1) "William Steiger Act" to "Wyoming Occupational Health and Safety Act of 1969."
 - (2) Wyoming Occupational Health and Safety Rules and Regulations for General Industry.
 - (3) Wyoming Occupational Health and Safety Rules and Regulations for Construction.
4. Safety & Health Program.

Paragraph 1, line 2, change to read, "Wyoming Occupational Health and Safety Rules and Regulations for Construction as amended to date."

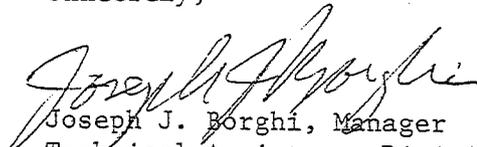
5. Paragraph 4, line 5, "Wyoming Occupational Health and Safety Act of 1969
6. Reference specs, pg. 01091-1-D, change to read: "References herein to OSHA regulations for construction shall mean Wyoming Occupational Health and Safety Rules and Regulations for Construction."
7. Reference specs, pg. 01091-2-E, change to read: "References herein to OSHA standards shall mean Wyoming Occupational Health and Safety Rules and Regulations for General Industry, including all changes and amendments thereto.
8. Temporary Utilities, pg. 01510-1-C, line 3, add after potable water the following: "and shall comply with Chapter IV, Section 2. of the Wyoming Occupational Health and Safety Rules and Regulations for Construction."
9. Temporary Utilities, pg. 01510-2, Section 1.04 A, line 3, change to read, "requirements of Chapter IV, Section 2.c. of the Wyoming Occupational Health and Safety Rules and Regulations for Construction."
10. There should be a section for Medical Service and First Aid. Add: 1.06 - "Medical Services and First Aid shall meet the requirements of Chapter IV, Section 1, of the Wyoming Occupational Health and Safety Rules and Regulations for Construction."
11. Temporary Environmental Controls section 1.03 A, line 8 - change to read, "Chapter XX, Section 3. of the Wyoming Occupational Health and Safety Rules and Regulations for Construction."
12. Earth Work, pg. 02200-3, Section 3.03 A, last line - change to read, "Wyoming Occupational Health and Safety Rules and Regulations for Construction, Chapter XVI, Sections 2. and 3."
13. Fabricated Specials, pg. 02653-3, Section E, Coating, line 2 - change to read, "Primer shall be held back 3 inches" to "4 inches" or require cleaning area to be welded at least 4 inches from area of heat application at time of fabrication, WOHS Rules and Regulations for Construction, Chapter X, Section 5.c.(1) pg. 80.
14. Protective Coatings, pg. 09800-9, Section 3.09 A, line 4 - change "3 inches" to "4 inches", WOHS Rules and Regulations for Construction, Chapter X, Section 5.c.(1).
15. Electrical Heat Tracing, pg 16650-1, Section 1.03 B, line 4, change OSHA (29CFR1910) and 29CFR1926, as applicable) to "WOHS Rules and Regulations for General Industry and the Construction Industry as applicable."
16. No specifications on sheet 5 of 17 for manhole steps. Specs book provides some information on pg. 02604-2, Section 2.03 E and 02604-5, Section 3.03 E.

Wyoming general rules require clearance of 7 inches behind rungs or steps to nearest permanent object. Minimum clear width of 16 inches and I/A/W a current interpretation of our general rules, a spacing of 16 inches on center between the steps or rungs.

No further comments.

Please call if I can be of further assistance.

Sincerely,


Joseph J. Borghi, Manager
Technical Assistance Division

JJB:ec



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 12, 1986

Bob Jossis
James M. Montgomery
Consulting Engineers, Inc
1301 Vista Avenue
Boise, ID 83705

RE: Review of plans and specifications of the Sulphur Creek Crossing - DEQ
Ref. No. 86-110

Dear Bob:

I have completed a review of the above referenced plans and specifications. My comments are as follows:

1. The federal requirements as listed in the specifications do not appear to meet the needs of this program. Please find enclosed the EPA boiler plates marked with the letter "A".
2. Also find enclosed the application for a permit to construct and pamphlet. The items, I believe, are self-explanatory. Please call if you have any questions.
3. The drawings were not signed by a registered engineer. Please do so when resubmitting. In addition, please enclose a design report as is required by Chapter XI.

Please be advised that I will forward review comments from the district engineer and OSHA representative as soon as I receive them. If I can be of any assistance to you, please call.

Sincerely,

A handwritten signature in cursive script that reads "Jerry Placzek".

Jerry Placzek
Engineering Evaluator

JP/pjb

cc: Grant file

Jeff Hermansky, Lander WQD

Rein File



THE STATE OF WYOMING



MIKE SULLIVAN
GOVERNOR

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
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January 20, 1987

City of Laramie
P O Box C
Laramie, WY 82070

RE: Permit to Construct Application Number 86-111RRR

Dear Sir:

The Department of Environmental Quality, Water Quality Division, has reviewed your application (#86-111RRR) for a permit to construct a municipal water distribution and wastewater collection for the Laramie Improvement District 1984-2 in the NE1/4, S28, T16N, R73W. 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 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 Laramie Improvement District 1984-2 installed meets minimum state specifications and has been approved by the Wyoming Department of Environmental Quality, Water Quality Division.

In the future if you are to build a wastewater system, you must apply for a permit to construct prior to construction to avoid enforcement action.

Sincerely,



William L. Garland
Administrator

WLG/TSN/can

cc: Lloyd H. Baker, Gertsch/Baker & Assoc.



OF WYOMING

86-111 *Run*

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

November 12, 1986

CERTIFIED

Peggy A. Deaver, Mayor
City of Laramie
P O Box C
Laramie, WY 82070

RE: Letter of Violation

Dear Mayor Deaver:

On April 18, 1986, the city of Laramie submitted water and sewer plans for the Local Improvement District No. 1984-2 to the Water Quality Division for a construction permit. On May 1, 1986, the Water Quality Division denied the permit and a review letter was sent to the city of Laramie and to its engineer (Gertsch/Baker & Assoc.). No response was received so a status letter was sent October 14, 1986. The engineer responded on October 29, 1986 that the construction has been completed.

Construction of water and sewer lines without a permit is a violation of the Environmental Quality Act, Section 25-11-301(a)(iii) and (v). This section states that no person, except when authorized by a permit, shall construct, install, or modify any sewerage system or public water system. Such violations can be enforced in court with fines not to exceed \$10,000 per day of violation. This is a serious violation for two reasons:

1. The city was aware of the permitting requirements because of past permits, because they submitted the initial application, and because a denial letter was sent to them.
2. This is the second such violation this year. Application number 85-606 (High Level Storage Tank project) was submitted, denied, and later modified by the city without a permit. This project was just recently resolved on September 16, 1986.

In order to abate the cited violation, we request that you:

2, 1986

1. Submit as-built drawings within 30 days of receipt of this letter. Any deficiencies identified by the department will have to be corrected immediately.
2. Submit an explanation within 30 days as to why the city has not been following through on the permitting process and what action will be taken to eliminate future problems.

This letter does not constitute an order but merely identifies the violation and a recommended solution. This letter also provides you the opportunity to show good faith effort towards resolving the violation and an opportunity to avoid enforcement action.

Sincerely,

Thomas S. Norman

Thomas S. Norman
Southeast District Supervisor

TSN/pjb

cc: Gertsch/Baker & Associates

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Laramie Improvement District 1984-2, Albany Co.

ARCHITECT OR ENGINEER: Lloyd H. Baker, Gertsch/Baker & Assoc.
307 Grand Avenue, Laramie, WY 82070

APPLICANT: City of Laramie, P O Box C, Laramie, WY 82070

WATER QUALITY DIVISION REFERENCE NUMBER: 86-111R

REVIEWING ENGINEER: Thomas S. Norman *TSN*

DATE OF REVIEW: December 22, 1986

ACTION: AS-BUILTS NOT APPROVED.

COMMENTS:

1. The application form must be signed by the owner.

nc

10-15-86



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality

Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

October 14, 1986

City of Laramie
P.O. Box C
Laramie, WY 82070

Gentlemen:

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 your proposed project is:

Facility name:	Laramie Improvement District 1984-2
DEQ/WQD Reference Number:	86-111
Engineering Consultant:	Lloyd Baker
DEQ/WQD Reviewing Engineer:	Thomas S. Norman
Date of DEQ/WQD Review:	May 1, 1986

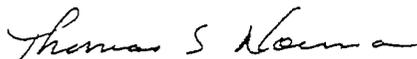
According to Chapter III of the Water Quality Rules and Regulations, Section 7 b. (2), "If an application is denied because of incompleteness necessitating a request for additional information, the applicant shall have a maximum of six months to comply with the request. If the applicant fails to provide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

Please indicate below the status of your application 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 30 days.
- The facility has been constructed, or is under construction. As built construction plans and specifications will be submitted within 30 days.
- Other remarks _____

You are reminded that the construction, installation, or modification of any sewerage 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. Unless the Water Quality Division reviewing engineer receives this information within 15 days of the receipt of this letter, follow-up action will be taken.

Sincerely,



Thomas S. Norman
Southeast District Supervisor
Water Quality Division

TSN/nc

cc: Lloyd Baker
P.O. Box 880
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: Laramie Improvement District 1984-2

ARCHITECT OR ENGINEER: Lloyd Baker
P O Box 880, Laramie, WY 82070

APPLICANT: City of Laramie
P O Box C, Laramie, WY 82070

WATER QUALITY DIVISION REFERENCE NUMBER: 86-111

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

DATE OF REVIEW: May 1, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. An application form was not submitted.
2. Plans.
 - a. Sheet 2, the sewer manhole is not labeled as being new.
 - b. Sheet 3, a blowoff is required at the north end of the water main in 7th Street. This is not only necessary for maintenance, but also necessary to flush, disinfect, and pressure test.
3. Specifications. The Wyoming Public Works Standard specifications are not a complete set of specifications. This is why the Public Works Council attaches a guide with each set of specifications. Certain items are left to be specified for each particular project. Please refer to the guide and address those open items on the water and sewer lines.

Enclosure

pjb

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 86-112
Reference No. 85-113R

Rochelle Mine Reservoir SP-9A
(Name of Facility)

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

Rochelle Coal Company

Caller Box 3034

Gillette, Wyoming 82716

to construct, install, or modify a sedimentation pond facility according to the procedures and conditions of the application No. 86-112. The facility is located in Section 15, T.41N., R.70W., in the County of Campbell, 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.

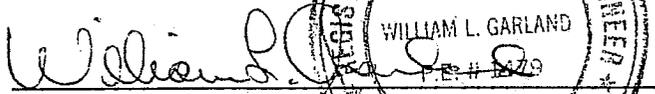
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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, 2161 Coffeen Avenue, Suite 601, 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:


Administrator
Water Quality Division




Director
Department of Environmental Quality

May 19, 1986
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. 86-113R

BLACK THUNDER MINE SEDIMENT CONTROL STRUCTURES
(Name of Facility)

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

Thunder Basin Coal Company

P.O. Box 406

Wright, Wyoming 82732

to construct, install, or modify a sediment control structures facility according to the procedures and conditions of the application No. 86-113R. The facility is located in Sections 17, 19, 20, 29, 30 and 32, T.43N., R.70W., in the County of Campbell, 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.

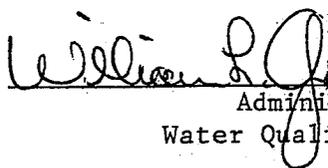
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

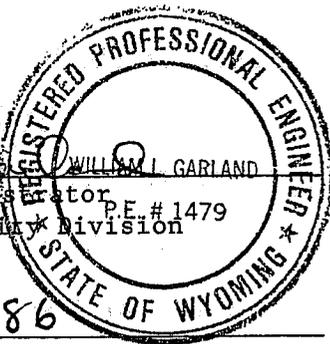
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 601, 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.

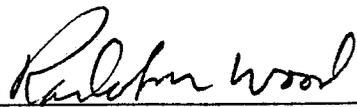
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Adminisrator
Water Quality Division
P.E. # 1479

7-24-86

Date of Issuance



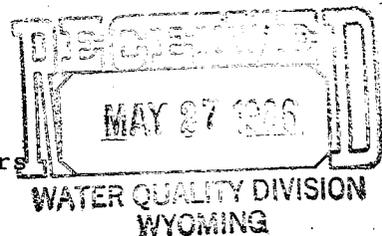
Director
Department of Environmental Quality

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

NORMA
(we sent this to
LQD only)

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
Stockpile Containment Reservoirs

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

WATER QUALITY DIVISION
REFERENCE NUMBER: 86-113

REVIEWING ENGINEER: Rich Ruyle

DATE OF REVIEW: May 20, 1986

ACTION: Not Authorized

COMMENTS:

- 1.) The NPDES discharge permit for Black Thunder Mine defines the 10 year, 24 hour precipitation event as 2.8 inches, not 2.2 inches which was used to design the ponds. The higher number should be used or the discrepancy explained.
- 2.) A construction specification for the containment berms is needed. This can be a note on the plans which describes acceptable berm material and compaction requirements.
- 3.) The applicant must document that sufficient pumping capability is available to dewater the ponds in 10 days as required by the NPDES permit.
- 4.) Some explanation should be provided as to how the LS factors were determined. Considering the typical percent slopes and lengths of stockpiles, the given values seem very low.

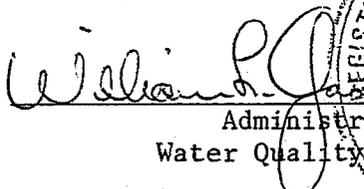
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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
P.E. # 1479
Administrator
Water Quality Division
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING *
April 29, 1986
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. 86-115
SEE CONDITIONS ATTACHED

H & H Orin Service Station
(Name of Facility)

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

Twin City Testing Corporation

662 Cromwell Ave.

St. Paul, MN 55110

to construct, install, or modify a groundwater monitoring well network facility according to the procedures and conditions of the application No. 86-115. The facility is located in Section 13, T13N, R70W in the County of Converse, 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.

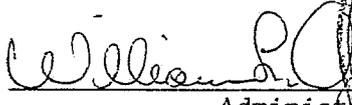
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

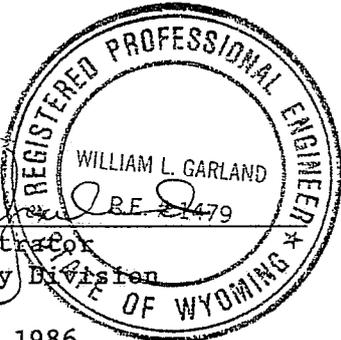
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

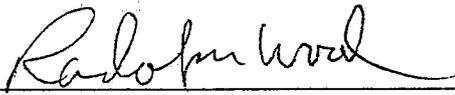
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administ~~er~~
Water Quality Division





Director
Dept. of Environmental Quality

May 19, 1986
Date of Issuance

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

cc: Rick Gaines
Federated Service Insurance Company
P.O. Box 328
Owatonna, MN 55060

CONDITIONS TO PERMIT TO CONSTRUCT NO. 86-115

1. The groundwater monitoring wells shall be installed in accordance with the plans and specifications submitted in permit to construct application number 86-115.
2. Pursuant to Wyoming Water Quality Rules and Regulations, Chapter XI, Section 63(A), 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 Chapter XI, Part G. However, a sufficient seal should be installed according to normal engineering practice.
3. In addition to the well construction information submitted with the permit application, the following items relating to well construction must be addressed when the wells are installed:
 - a. There must be a bottom cap on each monitoring well;
 - b. After the bentonite has been placed in the annular space, it should be hydrated to insure a proper seal;
 - c. The well screen for each well must extend several feet above the yearly high groundwater level. Petroleum products float on the capillary fringe above the groundwater table. Failure to install the well screen above the capillary fringe may make the well unsuitable as a monitoring point during some times of the year;
 - d. The drilling equipment needs to be decontaminated between wells.
4. Proper well evacuation, sample collection, preservation, transportation and chemical analytical procedures should be completed in accordance with Water Quality Division standard procedures.
5. If subsurface contamination is found during this investigation, the lateral and vertical extent of this contamination must be documented. Whether your proposal for completing a minimum of three soil borings as monitoring wells will accomplish the goal of documenting the extent of contamination is questionable. Additional monitoring wells may need to be installed.
6. Depending on the results of the subsurface hydrocarbon contamination investigation, additional site investigations or remedial measures may be required by the Water Quality Division.

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 86-116
SEE CONDITIONS ON BACK

Park Meadows Holding Tank
(Name of Facility)

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

Park Meadows Landowners Association

708 Baldwin

Cheyenne, WY 82001

to construct, install, or modify a commercial wastewater holding tank facility according to the procedures and conditions of the application No. 86-116. The facility is located in SW, NE, Section 6, T13N, R71W 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.

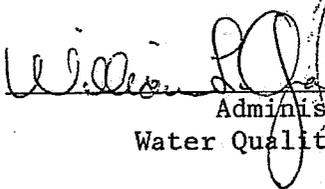
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

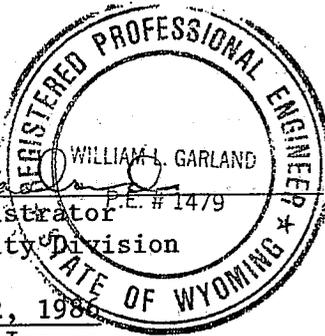
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

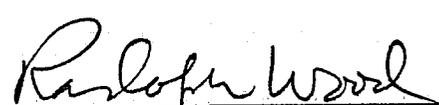
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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. GARLAND
P.E. # 1479
Administrator
Water Quality Division
May 2, 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 Construct #86-116

1. The permittee shall notify the Albany County Planning Office, 405 Grand Avenue, Laramie, Wyoming 82070, phone number 721-5288, of the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling.
2. A log shall be kept noting the depth of the sewage in the holding tank due to the lack of ability to install alarms. The depth shall be measured every 2 weeks from May through September and monthly from October through April. When the sewage reaches the four foot depth in the holding tank, the tank shall be pumped and the sewage disposed at an authorized facility.

cc: Kim Lobdell, Jack Noblitt & Assoc, 1920 Thomes Ave Suite 620, Cheyenne, WY 82001
Albany Co. Planning Office, 405 Grand Ave., Laramie, WY 82070

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 86-117R
Reference No. 81-961RR

See Condition

Kissack Disposal Pits
 (Name of Facility)

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

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

to construct, install, or modify a disposal pits (cells 4 and 5) and holding tank for oil field produced water, reserve pit water, and drilling fluids facility according to the procedures and conditions of the application No. 86-117R. The facility is located in Section 4, T.50N., R.69W., in the County of Campbell, 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.

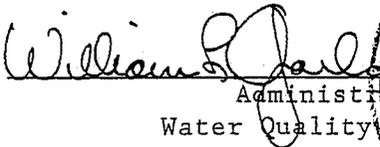
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

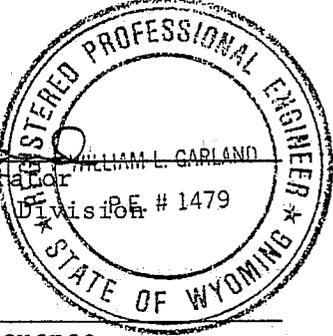
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 601, Sheridan, Wyoming 82801; telephone, 672-6457.

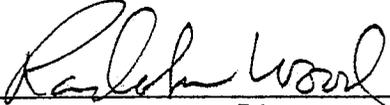
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:


Administrator
Water Quality Division
BE # 1479




Director
Department of Environmental Quality

8-15-86
Date of Issuance

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

CONDITION

Monitoring of the existing wells is required on a monthly basis. The monitoring will be for appearance of fluids in the wells. If fluid is present, a sample shall be taken from the well and the pits. The following analyses shall be done:

TDS	Chlorides
Sulfates	pH
Conductivity	Sodium
Potassium	

The applicant shall submit a quarterly report to the Department of Environmental Quality. If no water is present during a quarter then it shall be reported as such.

xc: Mr. Tom Barker
Centennial Engineering
237 North Main
Sheridan, Wyoming 82801

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-11712

DATE SUBMITTED FOR REVIEW 7-14-86

NAME AND LOCATION OF FACILITY Kissack Disposal Pit
S4 T 50N R69W Campbell Co

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 *Christi G. [Signature]*
 TITLE Engineering Evaluation
 DATE 7/21/86

ACCEPTED FOR RECORD 7/24/86
 (Date)

Jake Strohman [Signature]
 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: Rich Ruyle

FROM: Chris Norman *Chris Norman*

DATE: July 21, 1986

SUBJECT: 86-117R

Monitoring of the existing wells will be required on a monthly basis. The monitoring will be for appearance of fluids in the wells. If fluid is present, a sample shall be taken from the well and the pits. The following analyses shall be done:

TDS
Chlorides
Sulfates
pH
Conductivity
Sodium
Potassium

The applicant shall submit a quarterly report to the Department of Environmental Quality. If no water is present during a quarter then it shall be reported as such.

CN/nc

REVIEW OF PLANS AND SPECIFICATIONS

NORMA

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

PROJECT: Kissack Disposal Pit

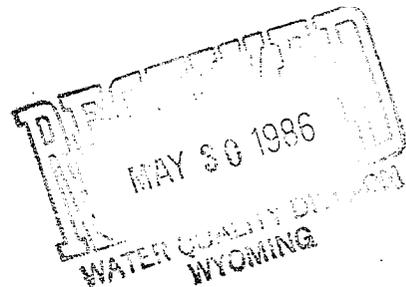
ARCHITECT OR ENGINEER: Tom Barker
Centennial Engineering
237 North Main
Sheridan, Wyoming 82801

WATER QUALITY DIVISION
REFERENCE NUMBER: 86-117

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: May 27, 1986

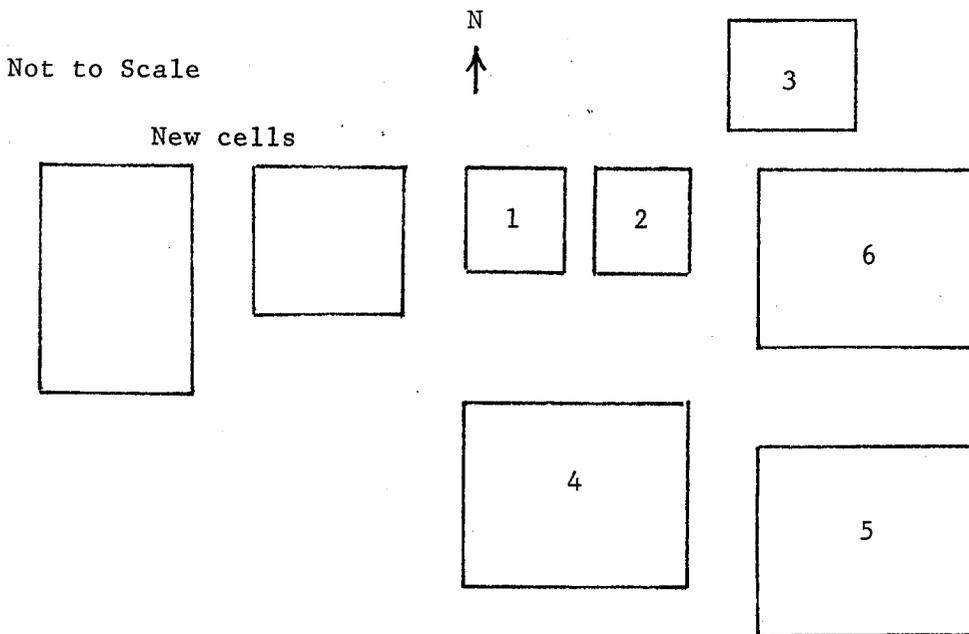
ACTION: Not Authorized



COMMENTS:

Chris Norman of our Groundwater Section in Cheyenne has reviewed your submittal. His comments are included with mine.

1.) There are a total of eight cells currently at the disposal site. Six were apparently built initially when Permit No. 81-961RR was obtained even though only four cells were authorized under that permit. Two cells were built more recently on the west side of the disposal site. The cells are oriented as below. The numbers are those of the existing signs next to the cells.



Cells 1, 2, 4 and 5 were authorized under Permit No. 81-961RR. Cell 5, however, was permitted in a different location. These four cells contained a synthetic liner.

- a.) Cells 3, 6 and the western most new cell are not included in this as-built submittal. Will they be abandoned? If so, please describe how.
 - b.) Cell 4 (cell 3 in your submittal) has a synthetic liner that is ripped. Will this be repaired or will the cell be earth lined like cell 5 (your cell 4)? What is the reasoning for not continuing to use synthetic liners?
 - c.) Since cells 4 and 5 in your submittal are already constructed, please describe why the work detailed in Article 5 is necessary.
 - d.) Is there a transfer pipe between cells 3 and 4? Details of it should be shown on the plans, including seepage control and erosion control.
- 2.) Manufacturer's specifications are needed for the steel tank.
 - 3.) Provide the methodology for the triaxial permeability tests.
 - 4.) The submittal contains two sets of permeability values. One set of values given is 9.5×10^{-8} cm/sec and 8.4×10^{-8} cm/sec. The other set is 1.5×10^{-7} cm/sec and 1.63×10^{-7} cm/sec. Which is correct?
 - 5.) What is the depth to the shallow water bearing strata?
 - 6.) Please provide a well log of the existing monitor well. Any monitoring data obtained from this well would also be useful.
 - 7.) The location and identification of each underground water use within at least 1/4 mile of the pits is needed. This information should include the completion depth and the depth of the water bearing stratas.
 - 8.) The geologic data submitted is inconclusive. From the test borings 1 and 2, it appears that the underlying geology is incontiguous. More information regarding the underlying geology is needed.

Questions on geology or groundwater can be referred directly to Chris Norman of the Groundwater Section in Cheyenne, 777-6133.

xc: Chris Norman

5-12-86

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-117

DATE SUBMITTED FOR REVIEW ~~5-2-86~~ 4-29-86

NAME AND LOCATION OF FACILITY Kissack Disposal Pits #4 & #5
Campbell 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 Charles G. [Signature]

TITLE Engineering Evaluator

DATE _____

ACCEPTED FOR RECORD _____
(Date)

[Signature]
Groundwater Control Supervisor



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Rich Ruyle, District Engineering Evaluator

FROM: Chris Norman, Groundwater Engineering Evaluator *Chris C. Norman*

DATE: May 8, 1986

SUBJECT: Permit to construct application 86-117

1. Provide the methodology for the triaxial permeability tests.
2. The submittal contains two sets of permeability valves. One set of valves given is 9.5×10^{-8} cm/sec and 8.4×10^{-8} cm/sec. The other set is 1.5×10^{-7} cm/sec and 1.63×10^{-7} cm/sec. Which is correct?
3. What is the depth to the shallow water bearing strata?
4. Monitor wells will be required to monitor pond seepage. Chapter VIII Section 3 (c) states that protection shall be afforded all underground water bodies (including the vadose zone). Please provide location of proposed monitoring wells, and well construction for review. A monitoring program will be established and will be added as a permit condition.
5. Why isn't pond 4 to be lined? The other three ponds were lined with a hypalon liner.
6. Please provide a well log of the existing monitor well. Any monitoring data obtained from this well would also be useful.
7. The location and identification of each underground water use within at least 1/4 mile of the pits is needed. This information should include the completion depth and the depth of the water bearing stratas.
8. The geologic data submitted is inconclusive. From the test borings 1 and 2, it appears that the underlying geology is incontiguous. More information regarding the underlying geology is needed.

pjb

PERMIT TO CONSTRUCT

New

Permit No. 86-118R

Renewal

Modified

West Side Water Transmission Line
(Name of Facility)

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

Town of Sundance

213 Main Street

Sundance, Wyoming 82729

to construct, install, or modify a water transmission line facility according to the procedures and conditions of the application No. 86-118R. The facility is located in Sections 22 and 23, T.51N., R.63W., in the County of Crook, 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.

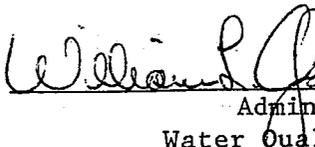
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

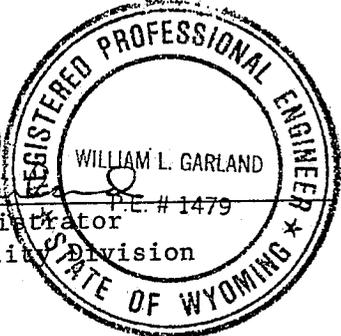
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 601, 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:


Admin. Director
Water Quality Division



REGISTERED PROFESSIONAL ENGINEER
WILLIAM L. GARLAND
P.E. # 1479
STATE OF WYOMING


Director
Department of Environmental Quality

May 29, 1986
Date of Issuance

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

xc: Ralph Goodson
Bearlodge Engineering
P.O. Box 130
Sundance, Wyoming 82729

NORMA

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: West Side Water Transmission Line
Town of Sundance, Wyoming

ARCHITECT OR ENGINEER: Ralph Goodson
Bearlodge Engineering
P.O. Box 130
Sundance, Wyoming 82729

WATER QUALITY DIVISION
REFERENCE NUMBER: 86-118

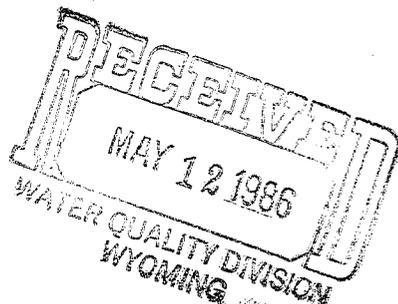
REVIEWING ENGINEER: Susan Fields *SY*

DATE OF REVIEW: May 9, 1986

ACTION: Not Authorized

COMMENTS:

- 1) Because of the water line's proximity to Sundance Creek, I am concerned about large dewatering requirements and possible adverse affects to the creek. An addendum to the specifications should be written to require the contractor to apply for a discharge permit for dewatering operations. The appropriate form is attached. The application should be submitted to John Wagner in Cheyenne prior to any activity on site. The addendum should include requirements for maintaining water quality in the stream, particularly at the crossing at Sta. 15 + 00. The crossings at 55 + 17 and 77 + 00 should also be addressed. Please submit the addendum to this office.



PERMIT TO CONSTRUCT

New

Permit No. 86-119R

Renewal

Modified

HOY MOBILE HOME PARK WASTEWATER TREATMENT PLANT EXPANSION

(Name of Facility)

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

Mr. Philip Hoy

P.O. Box 1656

Gillette, Wyoming 82716

to construct, install, or modify a seasonal wastewater treatment facility according to the procedures and conditions of the application No. 86-119R. The facility is located in Section 4, T.50N., R.72W., in the County of Campbell, 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.

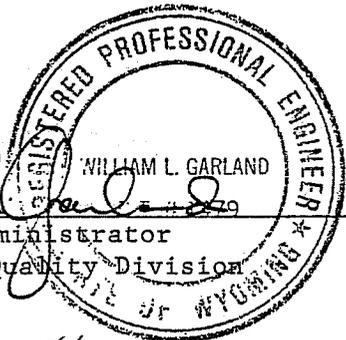
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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, 2161 Coffeen Avenue, Suite 601, 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. Garland
Administrator
Water Quality Division

Russell Wood
Director
Department of Environmental Quality

7-11-86
Date of Issuance

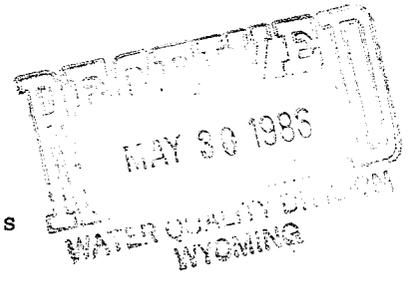
This permit does not supercede the requirements for obtaining any permit from local agencies.

xc: Michael G. McDill
400 W. Boxelder Road
Gillette, WY 82716

NORMA

REVIEW OF PLANS AND SPECIFICATIONS

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



PROJECT: Hoy Mobile Home Park
Wastewater Treatment Improvements

ARCHITECT OR ENGINEER: Mike McDill
400 West Boxelder Road
Gillette, Wyoming 82716

WATER QUALITY DIVISION
REFERENCE NUMBER: 86-119

REVIEWING ENGINEER: Susan Fields *SA*

DATE OF REVIEW: May 28, 1986

ACTION: Not Authorized

COMMENTS:

- 1) The loading rates and design flows used in the calculations differ from those specified in Chapter XI of the Water Quality Rules and Regulations. Are the values used based on actual test results?
- 2) Since the facility will discharge, a method of flow measurement must be provided. Is this planned to be done at the discharge weir?
- 3) The plant piping should be arranged and valved so that any unit in the series can be taken out of service without disrupting the treatment process. It does not appear that individual units can be isolated as the piping is currently arranged.
- 4) It may be a good idea to valve the air lines as they branch off to the diffusers to allow for refined regulation of air flow.
- 5) A detail and specifications are required for the trench and backfill for the force main installations.
- 6) No elevations are given to dictate proper installation of treatment units, piping, blower building, etc. As a minimum, relative elevations within the facility should be shown.

PERMIT TO CONSTRUCT

Permit No. 86-120RR
SEE CONDITIONS ON BACK

- New
- Renewal
- Modified

Anadrill Schlumberger Gray Water Disposal System
(Name of Facility)

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

Anadrill Schlumberger
P.O. Box 3008
Mills, WY 82644

to construct, install, or modify a commercial subsurface wastewater treatment and disposal system facility according to the procedures and conditions of the application No. 86-120RR. The facility is located in Lot 15, Coleman Industrial Center, Section 32, T34N, R79W in the County of Natrona, 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.

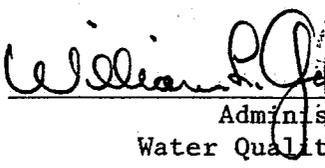
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

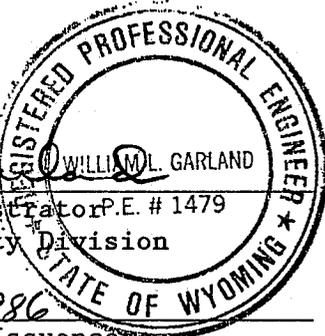
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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.

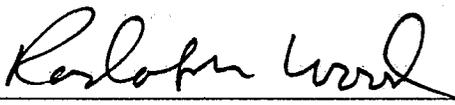
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



WILLIAM L. GARLAND
Administrator P.E. # 1479
Water Quality Division


June 12, 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 Construct #86-12ORR

1. The permittee shall notify Ken Hoff, Natrona County Health Department, 1200 East 3rd, Casper, Wyoming 82601-2990, telephone 235-9316, of the estimated day of completion of this project. Inspection of the installed system is required prior to backfilling. At least one working day (24 hours) notice is required prior to backfilling.
2. 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 Casper Urban Water Quality Management Plan 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 Casper Urban Water Quality Management Plan and the Final 201 Facility Plan.
3. Twelve inches of washed stone shall be placed under the distribution pipe.
4. The replacement drainfield area shall be directly east of the proposed drainfield.

cc: John H. Hibsman, P.E. & L.S., 2510 East 15th Street, Casper, WY 82609
Ken Hoff

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Anadrill Schlumberger Gray Water Disposal System

ARCHITECT OR ENGINEER: John Hibsman
2510 East 15th Street
Casper, WY 82609

APPLICANT: Anadrill Schlumberger
P. O. Box 3008
Mills, WY 82644

WATER QUALITY DIVISION REFERENCE NUMBER: 86-120

REVIEWING ENGINEER: Thomas S. Norman *TSN*

DATE OF REVIEW: May 5, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. This facility is within the Casper regional wastewater service area. Prior to DEQ issuing a permit, you will need to obtain a temporary exemption from connecting to the regional wastewater system. Please contact the Regional Oversight Committee (% Dave Engels).
2. The on site information is inadequate, the regulations require that the percolation tests be performed in the area of the absorption system. Information from lots in the area is not adequate.

Also there is no information on depth to bedrock or seasonal high groundwater levels. An exploration hole is required.
3. The size of the drainfield is calculated incorrectly. Assuming a 15 min/inch percolation rate, the regulations only allow a 0.57 gpd/s.f. application rate. With a 1200 gpd flow, 2100 s.f. of infiltrative surface is required.
4. A replacement area for the drainfield was not shown.
5. Wells and water lines were not shown (including neighbors).
6. The drainfield stone cannot be smaller than 1/2 inch. The stone must also be covered with straw, filter cloth, or building paper.

-
7. The septic tank is undersized. One and a half days detention time is required. Therefore an 1800 gallon septic tank is needed.

Details on the septic tank were not provided showing dimension, baffles, inlets, outlets, etc.

8. The need sump/oil trap is undersized. Section 39 of the regulations require a 1200 gallon trap.

cc: Nelson E. Frissell, M.D.
Natrona County Health Dept.
1200 East 3rd.
Casper, WY 82601-2990

5-20
✓

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 86-121
SEE CONDITIONS ATTACHED

Emigrant Gap Fed. 9-12
(Name of Facility)

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

Bruce D. Brooks

1545 River Park Drive #500

Sacramento, CA 95815

to construct, install, or modify a drilling fluid reserve pit facility according to the procedures and conditions of the application No. 86-121. The facility is located in Section 9, T33N, R81W in the County of Natrona, 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.

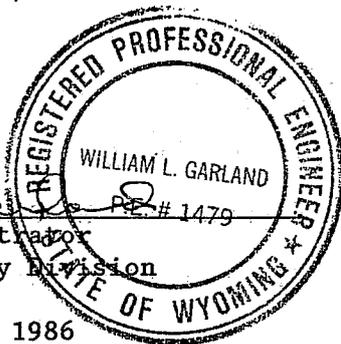
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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.

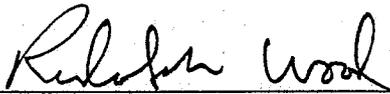
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division



REGISTERED PROFESSIONAL ENGINEER
WILLIAM L. GARLAND
PE # 1479
STATE OF WYOMING


Director
Dept. of Environmental Quality

May 12, 1986
Date of Issuance

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

This permit authorizes you to dispose of 840,000 gallons of drilling fluids wastewater on the adjoining 3.5 miles of road, a total liquid application of 3.6 inches.

CONDITIONS TO PERMIT TO CONSTRUCT NO. 86-121

1. Wastewater shall be applied at a rate which will not produce runoff or ponding. Application shall not be initiated during the spring runoff period or other periods where saturated soil conditions exist.
2. The application site slope shall not exceed 8% for vehicular application or 15% for spray irrigation or irrigation by gated pipe on the contour. Vegetated areas of the site shall not be spray-irrigated where possible plant leaf injury may result from salt residue.
3. Wastewater application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Engineer, Herschler Building, 4th Floor West, Cheyenne, Wyoming 82002, phone number 777-7088, to arrange a field inspection prior to initiation of work. The District engineer should be notified at least 48 hours in advance of discharges and must be informed how much wastewater will be applied (number of truckloads), the specific site of application (to the nearest 1/4 section) and time of application.

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.

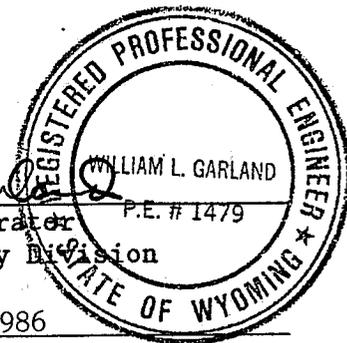
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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.

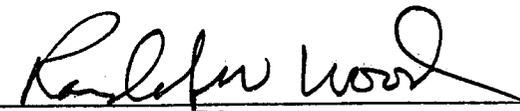
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division



June 6, 1986
Date of Issuance


Director
Dept. of Environmental Quality

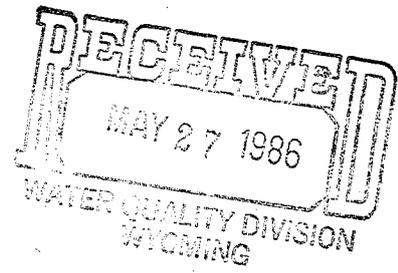
This permit does not supercede the requirements for obtaining any permit from local agencies.

noana

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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



PROJECT: West Diamondville Addition Water & Sewer

ENGINEER: Dale Crank
Crank Companies, Inc.
P.O. Box 631
Kemmerer, WY 83101

OWNER: Four Way Investments
P.O. Box 631
Kemmerer, WY 83101

WATER QUALITY DIVISION REFERENCE NUMBER: 86-122

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

DATE OF REVIEW: May 20, 1986

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. An engineering report must accompany the plans and specifications. The report should address the following items:
 - hydraulic analysis of system to justify pipe sizing including domestic and fire flow
 - water pressure analysis indicating a working pressure of 35 - 100 psi, not to drop below 20 psi under any flow conditions
 - project wastewater flow volume
2. Sewer service topping saddles are unacceptable for new construction. A tee or wye fitting should be specified.
3. All domestic and commercial water services must have a check valve at the meter or in the service line.
4. On sheet 11 of 11, Section "Installation", 1c, the last sentence refers to the "Water or Sewer Crossing Detail". I was unable to locate such a detail on the plans.
5. Confirm that the air test for sewer pipe conforms to ASTM C-828-80.
6. Confirm that the pipe bedding conforms to ASTM D2321-74, Type I, II or III.
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.

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 86-123R
* CONDITIONS ON PERMIT *

Chevron Gypsum Storage Synthetic Liner
(Name of Facility)

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

Chevron Chemical Company
505 Broadway
Rock Springs, WY 82901

to construct, install, or modify a 60 mil synthetic liner and pipe distribution
system for Gypsum Storage Pond permitted under 85-75R

facility according to the procedures and conditions of the
application No. 86-123R. The facility is located in Sec. 15, T18N, R104W

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 dur-

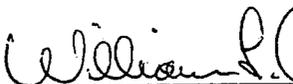
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

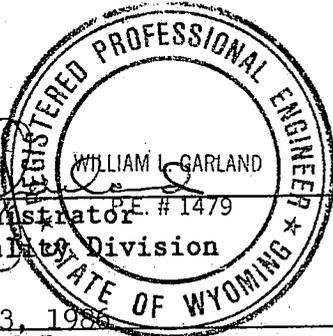
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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.

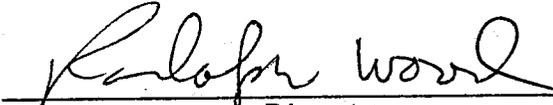
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator PE # 1479
Water Quality Division


May 13, 1986
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. All conditions of Permit No. 85-75R shall remain in full effect.

Norma, I reviewed this in a meeting w/ Chevron 5-7-86

5-12-86

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-123 ref. 85-75R

DATE SUBMITTED FOR REVIEW 5-2-86

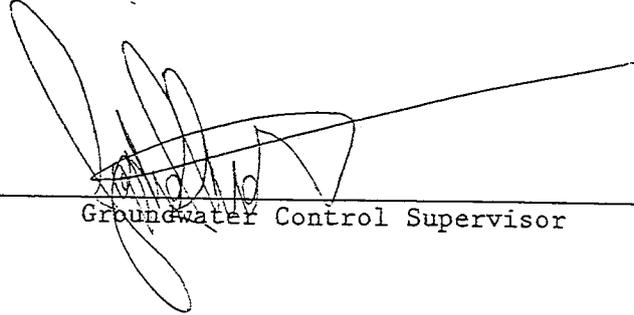
NAME AND LOCATION OF FACILITY Chevron Gypsum Storage
Facility
Sec 16, 17 T18N R104W Sweetwater County

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 5-9-86

ACCEPTED FOR RECORD 5-9-86
(Date)


Groundwater Control Supervisor

PERMIT TO CONSTRUCT

New

Permit No. 86-124

Renewal

Modified

Casper Storm Sewer System #DE 86-1
(Name of Facility)

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

City of Casper

200 North David Street

Casper, WY 82601

to construct, install, or modify a municipal water distribution and wastewater collection facility according to the procedures and conditions of the application No. 86-124. The facility is located in Section 3, 9, 10, T33N, R79W in the County of Natrona, 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.

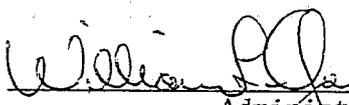
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

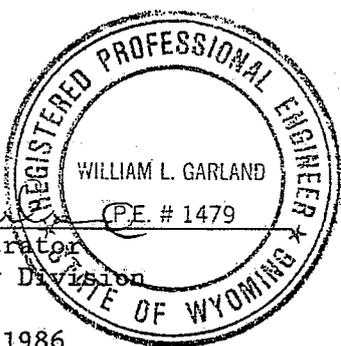
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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

May 8, 1986
Date of Issuance

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

cc: John E. Donmyer
HNTB
907 N. Poplar, Suite 250
Casper, WY 82601

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 86-125
SEE CONDITIONS ON BACK

Dowell Schlumberger
(Name of Facility)

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

Geroge Leach

Dowell Schlumberger

P. O. Box 5818

Denver, CO 80217

to construct, install, or modify a network of six monitoring wells facility according to the procedures and conditions of the application No. 86-125. The facility is located in Section 25, T47N, R93W in the County of Washakie, 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.

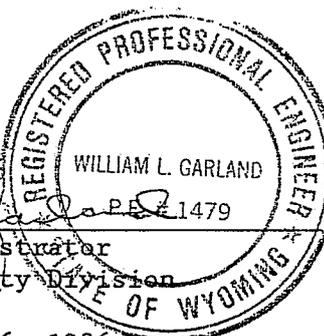
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Groundwater Section,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

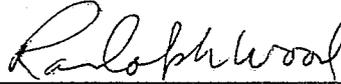
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:


Administrator
Water Quality Division
STATE OF WYOMING




Director
Dept. of Environmental Quality

March 26, 1986
Date of Issuance

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

Conditions to Permit to Construct 86-047

1. Additional wells may be installed if prior approval is received from the Water Quality Division.
2. Once the wells have been completed, the owner will provide the Wyoming Department of Environmental Quality, Water Quality Division with a report that details the logs, locations, installation and construction specifications, of the completed wells.
3. The results of any analyses conducted on soil or water removed from these wells shall be provided to the department within a reasonable time frame.
4. All wells will be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of the Water Quality Division Rules and Regulations.
5. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with the Water Quality Division.

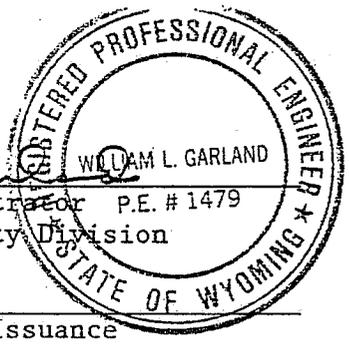
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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:



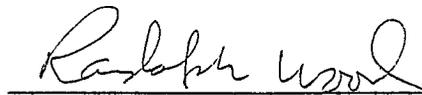
William L. Garland

 Administrator P.E. # 1479

 Water Quality Division

06-20-86

 Date of Issuance



 Director

 Dept. of Environmental Quality

6-13

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

CONDITIONS

- 1) 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.
- 2) The monitoring wells should not be removed or abandoned without concurrence from the Department of Environmental Quality, Water Quality Division Administrator.
- 3) Groundwater should be sampled on a quarterly basis and shall be analyzed for pH, TDS, chlorides, sulfates, oil and grease, and static water level. All sampling results shall be submitted to the Groundwater Section, Water Quality Division within 20 days of the end of the quarter. Bi-annual (twice yearly) samples shall also be taken of the pond contents, and analyzed for the same constituents as the groundwater.

M-6-3-86

WATER QUALITY DIVISION
GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-126

DATE SUBMITTED FOR REVIEW 5-21-86

NAME AND LOCATION OF FACILITY Jims Water Service Pond A,
Blakes Pit, Campbell Co.

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 Christie L. Boyd
TITLE Engineering Evaluation
DATE 5/27/86

ACCEPTED FOR RECORD 5-30-86
(Date)

[Signature]
Groundwater Control Supervisor



Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Rich Ruyle

FROM: Chris Norman *Chris G. Norman*

DATE: May 27, 1986

SUBJECT: Jim's Water Service Pond A, Blake's Pit, Campbell Co., 86-126

1. A background monitor well is recommended. In a document dated December 4, 1984 (Jim's Water Service Blake's Pit Groundwater Investigation Program), it was indicated that an upgradient monitor well was to be installed if groundwater was found during drilling of monitor well 1 (Part 1, C). The upgradient well should be included with this application. The monitor well between ponds A and B is not considered upgradient.
2. Reports of the underlying geology are inconsistent. Two reports were used as reference:
 - a. "Subsurface Investigation of Natural Pond, Jim's Water Service, Blake's Pit Site, Campbell County, Wyoming"; by Chen & Associates.
 - b. "Report on Groundwater Investigations - Pond A, Blake's Pit Site, Jim's Water Service, Gillette, Wyoming"; by Baccari and Associates.

The report by Chen & Associates indicates that the area is underlain by at least nine feet of plastic clay. Baccari and Associates reports on the drilling of monitor well 1. The following was reported:

"A monitor well was completed at the location prescribed for the first location. At the hole location there is about 3 feet of topsoil, then 46 feet of scoria, then 3 feet of sand, and then the top of the shale formation material."

Once the additional monitor wells are installed, more data will be available. It would be useful to provide further analysis of the underlying geology.

3. The following permit conditions will be required:
 - a. 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.

- b. The monitoring wells should not be removed or abandoned without concurrence from the Department of Environmental Quality, Water Quality Division Administrator.
 - c. Groundwater should be sampled on a quarterly basis and shall be analyzed for pH, TDS, chlorides, sulfates, oil and grease, and static water level. All sampling results shall be submitted to the Groundwater Section, Water Quality Division within 20 days of the end of the quarter. Bi-annual (twice yearly) samples shall also be taken of the pond contents, and analyzed for the same constituents as the groundwater.
4. Please provide the Water Quality Division with the requirements set forth by RCRA. This should include monitoring requirements, analysis required, etc.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 86-127
SEE CONDITIONS ATTACHED

Steege #1
(Name of Facility)

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

C. C. "Todd" Gross, Jr.

Box 645

Pine Bluffs, WY 82082

to construct, install, or modify a drilling fluids reserve pit facility according to the procedures and conditions of the application No. 86-127. The facility is located in SW1/4 NE1/4 Section 28, T15N, R62W in the County of Laramie, 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.

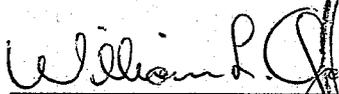
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

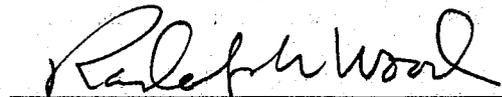
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM L. GARLAND
P.E. # 1479
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING

Administrator
Water Quality Division

May 12, 1986
Date of Issuance


Director
Dept. of Environmental Quality

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

This permit authorizes you to dispose of 35,000 gallons of drilling fluids wastewater on the surrounding adjoining 1 acre, a total liquid application of 1.28 inches.

CONDITIONS TO PERMIT TO CONSTRUCT NO. 86-127

1. Wastewater shall be applied at a rate which will not produce runoff or ponding. Application shall not be initiated during the spring runoff period or other periods where saturated soil conditions exist.
2. The application site slope shall not exceed 8% for vehicular application or 15% for spray irrigation or irrigation by gated pipe on the contour. Vegetated areas of the site shall not be spray-irrigated where possible plant leaf injury may result from salt residue.
3. Wastewater application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Engineer, Herschler Building, 4th Floor West, Cheyenne, Wyoming 82002, phone number 777-7088, to arrange a field inspection prior to initiation of work. The District engineer should be notified at least 48 hours in advance of discharges and must be informed how much wastewater will be applied (number of truckloads), the specific site of application (to the nearest 1/4 section) and time of application.

DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE OF WYOMING
GROUNDWATER POLLUTION CONTROL PERMIT
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS
(Permit to Inject)

(X) New (Existing Well)

Permit Number:

() Modified

86-128
UIC CLASS I

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),

Everest Minerals Corporation
P O Box 1210
Glenrock, WY 82637

ATTN: Stephen P Morzenti

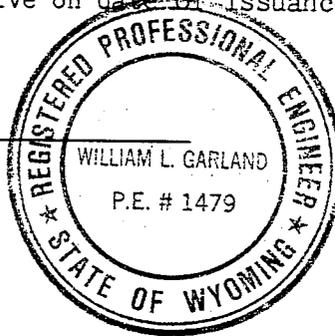
is authorized to operate

the Morton 1-20 injection well, NW NW S20, T36N, R72W, Converse County, for the disposal of brine from a commercial in situ solution uranium mining project process plant

according to procedures and conditions of the application 86-128 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



May 21, 1987
Date

Ralph Wood
Director
Department of Environmental Quality
Herschler Building, 122 W. 25th
Cheyenne, WY 82002

May 21-87
Date

A. Discharge (Injection) Zone and Area of Review

The injection zone consists of the interval 8630-9000 feet below the surface in the Teapot sandstone at the top of the Mesaverde Formation of Cretaceous age, and the interval 9015-9141 feet below the surface in the Parkman sandstone in the basal part of the Mesaverde Formation.

The permittee has investigated an area within a five-mile radius of the injection well and reviewed records of all wells within this area of review (AOR). Permittee has reported no wells in need of corrective action within the AOR. For purposes of notification, permittee will use an area within 1½ miles radius of the injection well.

B. Groundwater Classification

Based on available information, the permittee reports the Teapot Formation has a concentration of 16,482 mg/l TDS, and the Parkman has a concentration of 15,650 mg/l. The reported concentration of sodium is 5974-6200 mg/l, and that of chloride is 8700-8976 mg/l in the Parkman and Teapot receivers. Because of these concentrations and the depths of the receivers (8630-9000 feet and 9015-9141 feet below the surface), groundwaters in the receivers are considered to be Class VI.

C. Authorized Operations

The permittee is authorized to inject into the Teapot sandstone through perforations at 8630 to 9000 feet, and into the Parkman sandstone through perforations at 9015 to 9141 feet, industrial wastes generated by the in situ solution mining and processing of uranium. The injection waste stream contains radio-nuclides and is considered untreatable by the permittee due to the high concentration of total dissolved solids. The final waste stream is estimated to be 33-50 gallons per minute (gpm) and is composed of:

1. an estimated average 18 gpm bleed stream from the precipitation tank recycle to the eluant makeup tank;
2. an estimated average 5 gpm wash water for the removal of soluble salts (primarily chlorides) from the yellowcake;
3. an estimated average 10 gpm composed of laboratory wastes, rainfall which falls on curbed process areas, process slab wash down, and miscellaneous leaks from process pumps and piping within the resin process facility.

In the Specific Industrial Waste Characterizations scheme, these wastes are derived from the mining of miscellaneous metal ores and are designated SIC 109.

The estimated composition of the final waste stream is given as an expected average (annual) and a conservative design waste stream:

<u>Parameter</u>	<u>Expected Average</u>	<u>Conservative Design Waste Stream</u>
Rate/volume, GPM	33	50
Calcium, mg/l	50	50
Sodium, mg/l	8,000	31,700
Potassium, mg/l	50	50
Magnesium, mg/l	25	25
Sulfate, mg/l	4,000	5,797
Carbonate, mg/l	0	0
Bicarbonate, mg/l	0	0
Chloride, mg/l	35,000	53,440*
TDS, mg/l	50,000	93,300
Radium, pCi/l	100	314
Uranium, mg/l	5	5.51
pH (units)	6	6

*Instantaneous concentration may reach 60,000 mg/l

Composite waste stream samples will be collected at least monthly for analyses. Samples will be collected before the high pressure injection pump and will be representative of the waste being injected.

The injection rate shall not exceed 50 gpm without approval of the administrator.

The maximum injection pressure at the surface shall not exceed 2000 psi without approval of the administrator.

Permittee shall install a system for continuous monitoring of the injection rate and pressure and the annulus pressure, before waste injection commences. The device for monitoring the pressure in the annulus shall be capable of recording negative pressure readings.

Permittee shall obtain fluid from both proposed receivers and analyze these fluids prior to the beginning of injection, and report this information to the Water Quality Division, as specified in Section F.4.

Permittee shall notify the administrator of the Water Quality Division, or his representative, 48 hours before injection is to start. Permittee shall provide written notification within seven days after injection commences, of the date and time of commencement.

Whenever the injection pressure or rate is exceeded, permittee shall report this to the Water Quality Division as specified in Section I.6. of this permit.

This permit does not authorize the disposal of wastes by any means other than the permitted injection well.

Permittee is authorized to inject wastes as described in the application, with small amounts of low level radioactivity. The application states that the proposed waste stream will contain small quantities of radium 226, with an estimated range of 57-174 pCi/l and an expected average of 100 pCi/l. Uranium concentrations will range from 3 to 9 mg/l with an expected average of 5 mg/l.

Permittee has reported the following: an individual would receive a dose of approximately 3 microrems per hour per 1,000 gallons of fluid if he were at a one-meter distance. This compares to average gamma background at the site of 15 microrems per hour. If exposed to all the gamma radiation from a 10,000 gallon tank, 8 hours per day, 250 days per year, an individual would receive a total dose of 60 millirems, or 0.06 rems per year, versus the proposed limits of 5.0 rems per year occupational exposure and 0.5 rems per year to the general public (10 CFR 20). Therefore, according to the permittee, the radiation exposure hazards from this waste stream are well below the current and proposed standards.

To further verify the very low levels of radioactivity in the waste fluid, permittee has submitted the following information:

Case 1 - An individual is immersed in the fluid for 12 hours, such as a rig worker who is continuously wetted by the fluid. This individual would be exposed to 0.02 millirems in 12 hours. This may be compared to the dose to an individual which should not exceed 500 millirems per year. The 0.02 millirem exposure represents 0.004% of the permissible annual exposure in 0.137% of the year.

Case 2 - An individual drinks one gallon of the fluid. This is an extreme case, as 2 liters (about one-half gallon) is generally considered the maximum consumable amount, and because the fluid is far too salty to drink. Nonetheless, drinking one gallon would result in an exposure of 5.5 millirem per year. Again, this exposure can be compared to the 500 millirem per year permissible exposure.

Case 3 - A 50 gpm flow of the injection fluid (as a flowing oil well test) flows into the pit for one day. The resulting 72,000 gallons is left to evaporate. An individual then lives on the floor of the pit for one year. The resulting exposure would be 0.54 millirem per year, which again can be compared to the 500 millirem per year exposure limit.

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:

Before injection commences, permittee shall obtain samples of formation waters from the proposed receivers and have these fluids analyzed for the parameters listed in Table I of the Water Quality Division Rules and Regulations Chapter VIII. Results of the analyses shall be furnished the Water Quality Division as soon as results are available for distribution.

G. Requirements for Monitoring the Discharge

Discharge (injection) volume and/or pressure shall be controlled and monitored to prevent fracturing of confining strata.

Permittee shall monitor and record continuously the injection rate and pressure (wellhead) and pressure in the annulus between the tubing and long string. A record shall be kept of the daily maximum injection rate and pressure; this information shall be reported monthly. Permittee shall also report monthly the results of chemical analyses of the composite waste stream and the specific EPA methods used by the laboratory making the analyses. Samples shall be analyzed monthly for:

Radium-226 (pCi/l)	pH (units)
Uranium, natural (mg/l)	Sulfate (mg/l)
Calcium (mg/l)	Carbonate (mg/l)
Potassium (mg/l)	Bicarbonate (mg/l)
Sodium (mg/l)	Chloride (mg/l)
Magnesium (mg/l)	Silica (mg/l)
Conductivity (micromhos/cm)	

The report shall include the information specified in Section F.3 of this permit.

Permittee shall provide an estimate of the total dissolved solids (TDS) concentration (mg/l) based on an accurate correlation between TDS and conductivity, or shall include TDS in the reported analytical results.

All information and data shall be reported within 30 days after the end of the reporting period to the Groundwater Section of the Water Quality Division.

After the first year of operation (or shorter period if operations are terminated prior to one year) the permittee shall provide a report which includes an analysis of the annulus pressure changes under the varying operating conditions such as start-up, steady state, etc. This report will utilize data to recommend general criteria for determining when pressure changes are significant enough to evaluate for possible operational problems. This report

will be submitted with the appropriate monthly report or as otherwise specified by the Water Quality Division.

At a minimum of once per year during injection operations, the well will be shut in and the wellhead pressure allowed to stabilize, and the bottomhole pressure calculated. The calculated pressure will be compared to the formation fracture pressure of the receiver(s) to ensure that the latter value is not exceeded. This information will be submitted with the appropriate monthly report or as otherwise specified by the Water Quality Division.

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.
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.

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:

At a minimum of once every 5 years and more frequently if required by the Department of Environmental Quality, Water Quality Division, the permittee shall demonstrate the continued sound and unimpaired condition of all components of the injection well by mechanical integrity testing. An injection well has mechanical integrity if there is no significant leak in the casing, tubing or packer; and there is no significant movement of injected fluid into an underground source of usable water through vertical channels adjacent to the injection well bore. The absence of leaks will be determined by an acceptable pressure test. Permittee shall provide Water Quality Division sufficient advance notice so that a Water Quality Division representative may witness the test if desired by the Water Quality Division. Written results shall be provided to the Water Quality Division as soon as results are available.

The absence of significant fluid movement will be determined by the results and interpretation of appropriate geophysical log(s), such as a cement-bond, temperature, noise or other log, or combination of logs and/or appropriate test procedures.

The procedures for this well are:

1. a pressure test of the casing-tubing-packer; and
2. a radioactive tracer survey to verify cement integrity.

The pressure test will be performed during recompletion of the Morton 1-20 to make it a suitable waste disposal well.

The pressure test will be run during the well recompletion, as part of the following sequence of events (from the recompletion summary in the application):

The following steps are proposed to convert the Morton 1-20 to an acceptable disposal well utilizing the Teapot and Parkman sands:

1. move on a workover rig with circulating head, mud tank, mud pump, 2-7/8" tubing, drill collars, and BOP and clean oilfield brine for pressuring casing;
2. weld on 8-5/8" casing stub with flange at ground level;
3. drill out surface cement plug;
4. spear 5½" casing and set on casing slips;
5. pressurize 5½" casing to verify casing integrity;
6. drill out cement and cast iron bridge plug from 8765 to 8800 feet and run casing scraper from 8765 to 8800;
7. perforate 8630 to 9000 and 9015 to 9141 with 4 shot per foot, 90 degree phasing;
8. run 5½" casing caliper survey to verify casing and joint integrity to 8800 feet;
9. clean hole and run baseline temperature survey;
10. run packer (Baker 45A4 Lock Set or equivalent) in on 2-7/8" 6.4# J-55 EUE 8RD tubing, pressure testing tubing, joints, and tubing to packer connections as the tubing is run into the hole;
11. fill annulus with inhibited brine and circulate past packer, set packer, pressurize with nitrogen to test annulus, tubing, and packer integrity;
12. release workover rig.

After recompletion of the well, the receiver will be stimulated with hydrochloric and mud acids, and a radioactive tracer survey will be run.

The radioactive tracer survey will be performed to verify cement integrity, as described herein:

1. a temperature survey will be run prior to the tracer survey;

2. the well will be logged prior to injection of the radioactive tracer to obtain a baseline natural gamma log;
3. the tracer tool will be run through the tubing, and a temperature recording device will be run along with the tracer tool;
4. the injection of the tracer slug and the logging to track the movement of the slug will be done using maximum proposed operating pressure (2000 psi surface) and injection volume (50 gpm);
5. as pressure is maintained, the radioactive slug emitted by the tracer tool will be repeatedly logged by raising and lowering the logging (tracer) tool through the perforated (injection) zone; the tracer tool will be run above the perforations to verify that none of the slug is moving up-hole behind the casing;
6. the logging speed will be such that the movement of radioactive material out of the injection zone can be detected; speed will be based on:
 - a. the estimated permeability of the injection zone,
 - b. the injection rate, and
 - c. the injection pressure;
7. after the survey is run, temperature results will be compared with the initial temperature survey.

If a faulty cement bond is indicated, corrective action will be required before injection of any kind commences. A plan for such action shall be submitted to the Water Quality Division and approved before corrective action is implemented.

Permittee shall submit in triplicate copies of all logs and surveys performed and results, to demonstrate mechanical integrity of the well or components, including but not limited to casing tests, tubing tests, pressure tests, cement bond log, caliper log, injectivity analysis and radioactive tracer tests; with a narrative report covering these and like activities and evaluating the results. This documentation shall be submitted within 30 days following conclusion of the mechanical integrity testing.

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.

Permittee proposes to recomplete the Morton 1-20 to convert it to an

acceptable disposal well, using the steps detailed in the application. The injection well is an existing well having:

16 inch surface conductor set at 68 feet;

8-5/8 inch, 24#/ft K-55 surface casing set at 1000 feet in 12 1/4 inch drill hole, cemented from bottom to top;

5 1/2 inch, 17#/ft and 15.5#/ft K-55 protection casing to 9206 feet in 7-7/8 inch hole, cemented back to 7615 feet (reportedly with good cement bond 7834-9127 feet).

Permittee reported the hole TD as 9141 feet, and that the well will be recompleted with:

perforations 8630 to 9000 and 9015 to 9141 feet, four shots per foot;

2-7/8 inch injection tubing, 6.4#/ft J-55 EUE 8RD, extending from the surface to just above the top of the perforations;

tubing-casing packer, Baker 45A4 Lok-Set or equivalent, set at approximately 8625 feet.

A potassium chloride buffer solution will be injected after well integrity testing but before waste stream injection. Approximately 10,000 gallons of 2-5% KCl solution will be injected at a pressure not to exceed 80% of the fracture gradient pressure. The fracture gradient pressure is reported as approximately 2150 psi.

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.

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:

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 well be permanently secured against the injection or disposal of anything after abandonment.

Abandonment procedures shall conform to regulatory provisions in effect at the time of abandonment.

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.

The required Certification of Financial Responsibility has been submitted by the permittee.

O. Special Measures the Director Finds Necessary:

This permit neither replaces nor negates any requirements of other agencies or authorities or permits.

The permitted activity must commence within two years of the issuance date of this permit, or the permit will be 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

July 1, 1986

Mr. Stephen P. Morzenti, Project Manager
Everest Minerals Corporation
P. O. Box 1210
Glenrock, WY 82637

RE: Application for permit to inject mineral
(in situ uranium) process waste, Highland Uranium Project,
Converse County, Wyoming, GPC 86-128

Dear Mr. Morzenti:

This letter contains comments on the subject application. The subject of these comments is only the application for a permit to inject wastes into the subsurface and not the proposed in situ mining operation.

The proposed injection well would be included in a discharge of commercial, municipal and industrial waste of Water Quality Rules and Regulations Chapter IX (Section 3.C.(1)), equivalent to a UIC class I injection well. The groundwater in the receiver for the wastes described in the application must be a class VI Groundwater of the state as described in Water Quality Rules and Regulations Chapter VIII. Chapter VIII includes standards for the disposal of wastes in below-surface receivers (Section 6).

The following comments have resulted from reviews of the subject application by personnel of the Department of Environmental Quality Water Quality Division (WQD), the State Engineer's Office (SEO), the Oil and Gas Conservation Commission (OGCC) and the U.S. EPA Region VIII staff (EPA). Please address all comments in your response to this office.

Comments

1. Provide the name, address and telephone number of the person or entity that owns the proposed disposal well. Describe the arrangement between the owner and Everest Minerals for use of the well. A copy of lease and /or other relevant agreement(s) should be provided as part of your response. (WQD)
2. The applicant must submit three completed copies of Form GPC 8, Certification of Financial Responsibility. The facility should be identified as the

Mr. Stephen P. Morzenti, Project Manager
July 1, 1986
Page 2

waste injection well or system, and its location given. "Owner" may not be appropriate in this case. If Everest Minerals will be the operator but not the owner, attach a letter of explanation to the form. Copies of Form GPC 8 are enclosed with this letter. (WQD)

3. On page 1 the applicant states that Everest Minerals "has both surface and mineral rights in the area surrounding the disposal well." Are these mineral rights for all formations and do they include oil rights as well? Actual ownership should be specified at least within what has been determined as "the maximum estimated radius of pressurization" and these parties should be given notice by certified mail, by Everest Minerals, of the proposal. (OGCC)
4. The application does not include maximum and average estimated injection pressures. This information should be provided. (OGCC)
5. What is the proposed pressure range for fluid in the annulus? (WQD)
6. Pages 26 and 27 discuss effects of consuming these wastes, however, the effects of handling the waste stream or being in close proximity to it are not addressed. Even though the estimated transport radius discounts the likelihood that this disposal operation will affect the quality of the produced water from the oil wells in the Scott Field area, geologic and hydrologic data do not eliminate concern completely. As there is no data respective to lease ownership, we cannot evaluate the danger should there be a possibility of additional drilling for oil and gas in the immediate area of the disposal well. (OGCC)
7. The applicant on page 103 makes the statement that the Teapot and Parkman are "located stratigraphically below the lowermost formation that is a source of underground drinking water" . . . The accuracy of this statement is questioned. (OGCC)
8. The proposed plugging and abandonment procedure should be considered tentative; the final procedure will require further approval before actual abandonment. (WQD)
9. The estimates of radii of injection assume that the formation permeability is uniform throughout the injection interval. Actual radii of injection will be much larger in strata with above average permeabilities. Is information available which would provide better estimates? (WQD)
10. Deviations between withdrawal flowmeter volumes and injection flowmeter volumes should be recorded. A threshold accumulative value should be established for indicating that repair of the system would be required. Justify the 3% daily deviation allowance as an indicator of system malfunction. (WQD)
11. Provide details concerning the potassium chloride buffer: actual composi-

Mr. Stephen P. Morzenti, Project Manager

July 1, 1986

Page 3

- tion; rate, volume, total amount, pressure used; how put in place and monitored. (WQD)
12. If chemicals to be used for pH control and to inhibit corrosion and scaling are known, these should be identified; basic information on each should be provided. (WQD)
 13. At what point(s) in the system will monthly waste stream samples be taken? Because of the high concentrations of TDS expected, will conductivity measurements (not TDS) be adequate? Can an accurate estimate of TDS be obtained from conductivity values? (WQD)
 14. What will the formation fluid in the receiver be analyzed for? (Parameters should include uranium and radium). (WQD)
 15. What will be the setting depth of the packer in the disposal well? (WQD)
 16. Applicant must obtain all required permits for the disposal of solid waste. (WQD)
 17. Was the hydrogeologic analysis done in house by Everest or by a consultant? (SEO)
 18. How is the "process bleed" water (to be used for irrigation) separated from water with uranyl still in solution? Don't they originate from the same source? What criteria will be used to determine what part of the water is suitable for irrigation? (SEO)
 19. Although water contained in the Parkman and Teapot sandstones is classified by the EPA as "unusable or unsuitable" for use, its quality (approx. 15,000 mg/L, total dissolved solids) is still relatively good compared to the wastewater to be injected (over 93,000 mg/L, TDS). (SEO)
 20. How much bentonite is contained in the Teapot and Parkman sandstones? What would be the chemical effect of pumping Na-rich solution (approx. 32,000 mg/L Na) into a bentonite-rich rock? WATEQ predicts that both the Teapot and the Parkman water/wastewater mixes are nearly saturated with respect to CaCO₃ (p 41); if injection of Na-rich brine causes bentonite to give up Ca in exchange for Na could this result in supersaturation of the pore water with respect to Ca and the precipitation of CaCO₃? (SEO)
 21. It is stated that "no faults or prominent fracture systems have been identified in the area." Has geologic and structural mapping been done on a scale sufficient to delineate even the minor fracture zones that would allow vertical movement of the uranyl-contaminated wastewater between aquifers? (SEO)
 22. Does WATEQ have any input parameters that reflect host rock composition? Does it model rock/water interaction (solution of rock or chemical

- exchange)? (See question on bentonite above.) (SEO)
23. Is it really appropriate to consider the effects of this injection well for only 20 years? Everest may no longer be interested in environmental impacts after this period, but how long will the injected brine solution remain "hot?" How far will this pollution front migrate before brine radioactivity is at background levels? (SEO)
 24. There are several public-domain ground-water models available to simulate pollutant migration from a point source. Chances are good that such a model would more accurately predict the distance of plume movement than a simple volumetric calculation. (SEO)
 25. What is in the annular space of the abandoned Morton 2-18 well? Could the brine move within the annulus between cement plugs (especially above 8400 ft.)? (SEO)
 26. There are general concerns about abandoned oil and gas wells. How can anyone be sure that what is stated on abandonment reports is what is actually in place in an abandoned well? Can anyone verify that abandonment was carried out in accordance with standards to prohibit bore-hole communication between aquifers? If oil and gas tests were hydraulically fractured before abandonment (as the proposed injection well was), would this make it easier for fluids to move through supposedly impermeable layers? (SEO)
 27. Might future oil and gas exploration approach the injection well site? What might happen to land ownership in the proximity of the injection well? In the next 20 to 50 years, could adjacent lands be leased for exploration test wells that would penetrate the brine plume? Who would be responsible for notifying prospective oil and gas exploration companies? (SEO)
 28. The applicant's proposed mechanical integrity testing procedure does not include a pressure test of the casing/tubing annulus after installation of the tubing and packer. The annulus should be pressured up to the maximum injection pressure for at least 30 minutes. (EPA)
 29. In the monitoring of the casing/tubing annulus pressure, the presence of the nitrogen pressure cap will provide some assurance that pressure fluctuations due to temperature changes are generally in the positive range. Depending on the temperatures of the injected fluid, there could be large pressure drops which could cause a negative annular pressure during well start ups. The operator should install a monitoring device that is capable of recording negative pressure readings. (EPA)
 30. The proposed injectivity test should be modified slightly to include the following items:
 - a) the well should be logged prior to injection of the radioactive tracer to obtain a baseline natural gamma log;

- b) the injection of the tracer slug and the logging to track the movement of the slug should be undertaken using full operating pressure and injection volume;
 - c) the tracer tool should be run up above the perforations to insure that none of the slug is moving up hole behind the casing; and
 - d) the logging speed should be such that the movement of radioactive material out of the injection zone can be detected; speed should be based on:
 - 1) the estimated permeability of that zone;
 - 2) the injection rate proposed for the test; and
 - 3) the injection pressure. (EPA)
31. To improve interpretation of the radioactive tracer log, a temperature recording device should be run along with the RATS tool. A temperature survey should be run after the 24 hour shut-in period immediately prior to starting the radioactive tracer survey. The results should be compared with the initial temperature survey. (EPA)
32. Section 7.2.4 indicates that a leak in the casing would cause a significant drop in annulus pressure. What is a definition of significant? The injection of cold water during start-up could cause a significant change in annular pressure. Operator should provide a report after one year of monitoring which includes an analysis of the annular pressure changes under various operating conditions, such as start-up, steady state, etc. This report should utilize the data to recommend a general criteria for determining when pressure changes are significant enough to run a check to determine if operational problems exist. (EPA)
33. The application indicates that the water to be injected is compatible with reservoir waters. This was based on calculation of saturation indices. No actual studies using reservoir and simulated waste water were undertaken. An autoclave compatibility test should be run once a sample of actual formation water has been obtained. The applicant should also provide an analysis of the effect of temperature changes (increases) on compatibility, such as the potential for precipitation near the well bore. (EPA)

Mr. Stephen P. Morzenti, Project Manager
July 1, 1986
Page 6

34. The application does not provide a very clear picture of the nature of the confining zone for the injection reservoir. The immediate overlying unit is the Teckla Sandstone. Will the siltstone in the lower Teckla prevent upward migration of the injected water? (EPA)

Sincerely yours,



A. J. Mancini
Groundwater Control Supervisor

AJ/ad
Enclosures

cc: Oil & Gas Conservation Commission
State Engineer's Office
US EPA Region VIII

R7



THE STATE OF WYOMING



MIKE SULLIVAN
GOVERNOR

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

May 20, 1987

Mr. Stephen P. Morzenti
Project Manager
Everest Minerals Corporation
P O Box 1210
Glenrock, WY 82637

RE: Permit 86-128, Morton 1-20 injection well, Converse County, Wyoming

Dear Mr. Morzenti:

Enclosed are two signed copies of the subject permit. The issued permit allows construction/conversion and testing of the well and associated activities; injection cannot commence until, following permit issuance, injection is authorized by the Water Quality Division Administrator.

Permit requirements which were described in the letter of transmittal that accompanied the draft permit are still relevant, and are repeated here. Everest Minerals is required to:

- obtain samples of fluids from both proposed receivers for analyses and report the results, before injection commences;
- demonstrate mechanical integrity of the converted well before injection commences, and submit documentation (in triplicate);
- install a device, for monitoring the pressure in the annulus, capable of recording negative pressure readings;
- after injection begins, submit monthly reports which include injection pressures and rates and chemical analysis of the composite waste stream;
- submit routine annual reports consisting of injection information (Water Quality Division Form 10) and a brief narrative description of overall operations, problems, modifications and/or other facts of significance;
- after the first year of operation, submit a report which includes an analysis of annulus pressure changes;
- comply with all permit provisions and conditions.

Mr. Stephen P. Morzenti
May 20, 1987
Page 2

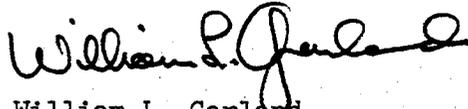
Enclosed are two copies of Form 10, which should be used for the annual report submittal (one copy per report); one copy of Form 9, which should be submitted when well construction/conversion is complete; and a supply of copies of Form 7, one each of which should accompany any report or submittal required by the permit.

Note that once you have notified the Water Quality Division administrator that well construction/conversion is complete, the administrator may notify you of intent to inspect or otherwise review the facility. We also request that you provide timely notice of your intent to conduct mechanical integrity testing so that a Water Quality Division representative might have an opportunity to witness the testing if so desired.

We have received written notification that the project manager of the Highland Uranium Project is authorized to sign reports and other requested information.

We have also received a notebook with certified mail return receipts from the notification of required owners of record within a 1.5 mile radius of the injection well.

Sincerely,



William L. Garland
Administrator
Water Quality Division

WLG/AJM/nc

Enclosure

cc: Paul Osborne, EPA, Denver (w/permit)
Thomas T. Olsen, NRC, Denver (w/permit)
Janie Nelson, OGCC, Casper (w/permit)
Richard Stockdale, SEO, Cheyenne (w/permit)
Susan Hogg, DEQ/LQD, Cheyenne (w/permit)
Susan Fields, DEQ/WQD, Sheridan (w/permit)
Jake Strohman, DEQ/WQD, Cheyenne

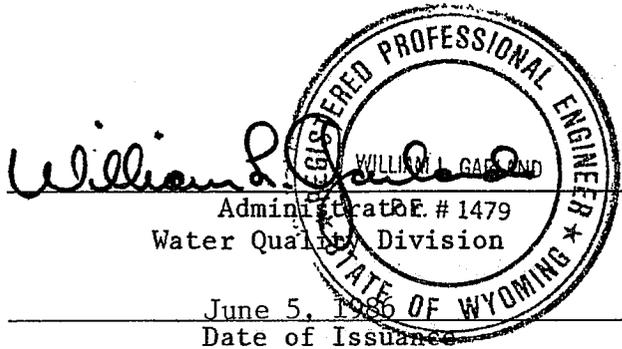
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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. GABE
Administrative # 1479
Water Quality Division
June 5, 1986
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

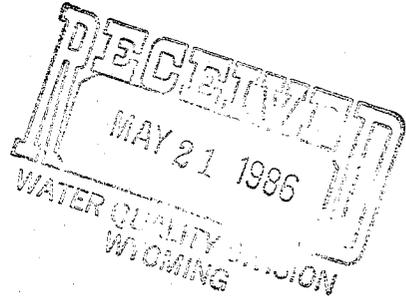
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Far View Water System - 1986 Water Improvements

ENGINEER: Cardinal Design Group
2334 Rose Lane
Riverton, WY 82501

OWNER: Far View Water & Sewer District
P.O. Box 1641
Riverton, WY 82501



WATER QUALITY DIVISION REFERENCE NUMBER: 86-130

REVIEWING EVALUATOR: Jeff Hermansky

Jeff Hermansky

DATE OF REVIEW: May 19, 1986

ACTION: Not authorized.

COMMENTS:

This office has completed our review of the proposed water system improvements. The following questions and comments need to be addressed before a permit to construct can be issued:

1. There is no engineering design report submitted with this application. The design report, must address the appropriate sections of Chapter XII, Section 6 of the Water Quality Division Rules and Regulations.
2. The plans do not have profile views for the main water line that runs throughout the subdivision.
3. The size of the water main is not shown on the plan sheet. There is reference to size on the bid schedule but the schedule was not submitted with your plans and specifications.
4. Please provide a typical water service connection detail.
5. As in the plans for Far View Well No. 1, the pitless adaptor and well cap must be installed in accordance with the regulations, not just as per the manufacturers recommendations.
6. You have left the depth of bury dimension for the discharge pipe off of the detail of the homeowner no. 2 well.
7. Is a check valve provided within the well casing for the discharge piping in well no. 2?

Review of Plans & Specs.

Ref. No. 86-130

Page Two

8. All wells must have a means of pumping to waste. Have means been provided for the Far View wells?

9. The overflow pipe must be brought down to between 12 and 24 inches above the drainage inlet structure.

10. Does the proposed tank coating materials and installation procedures meet the requirements of AWWA D102?

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 Steve Gerber or me.

JH/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.

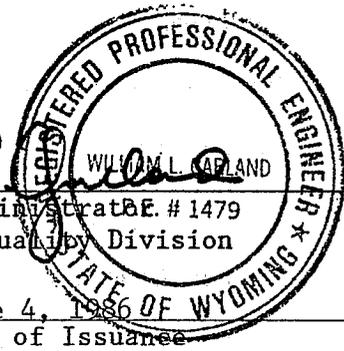
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:



Admin. Strat. # 1479
Water Quality Division
June 4, 1986
Date of Issuance





Director
Dept. of Environmental Quality

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

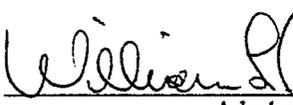
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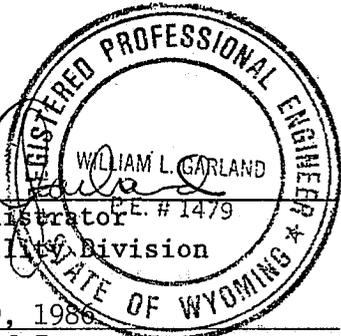
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

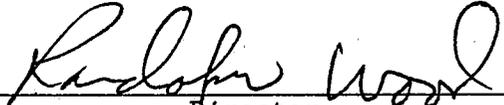
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator P.E. # 1479
Water Quality Division
May 19, 1986
Date of Issuance





Director
Dept. of Environmental Quality

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

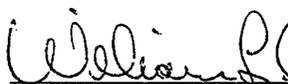
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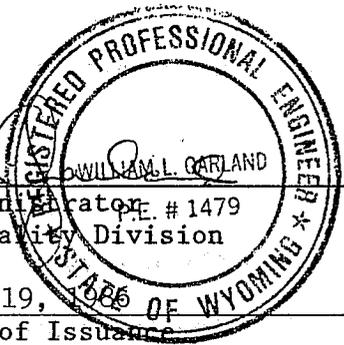
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AUTHORIZED BY:



Admin. # 1479
Water Quality Division
May 19, 1986
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.

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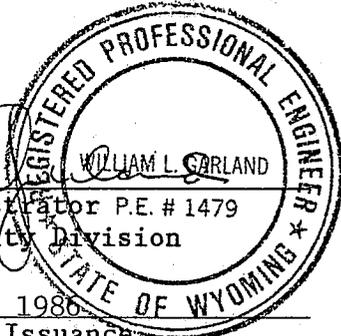
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AUTHORIZED BY:



Administrator P.E. # 1479
Water Quality Division


REGISTERED PROFESSIONAL ENGINEER
WILLIAM L. GARLAND
STATE OF WYOMING

May 19, 1986
Date of Issuance



Director
Dept. of Environmental Quality

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

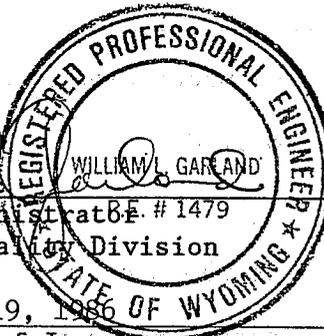
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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AUTHORIZED BY:


William L. Garland
Administ. # 1479
Water Quality Division
May 19, 1986
Date of Issuance

Rudolph Wood
Director
Dept. of Environmental Quality

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

* CONDITION ON PERMIT *

1. Within one year of issuance of this permit, the permittee shall have designed, permitted and constructed, the ultimate wastewater disposal facilities to service the industrial park. The ultimate system may consist of either an interceptor connected to the City of Evanston's wastewater collection system or an approved on-site disposal and/or treatment system.

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.

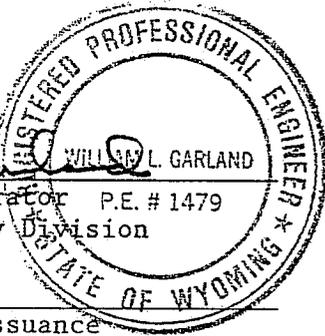
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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
06-20-86
Date of Issuance



Karlson Wood

Director
Dept. of Environmental Quality

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

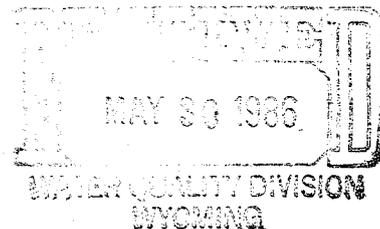
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Norma

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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



PROJECT: Lander Technical Park

ENGINEER: Harry Hughes, P.E.
ARIX
609 E. Madison, Suite 1
Riverton, WY 82501

OWNER: City of Lander
183 S. 4th
Lander, WY 82520

WATER QUALITY DIVISION REFERENCE NUMBER: 86-135

REVIEWING EVALUATOR: Jeff Hermansky

DATE OF REVIEW: May 27, 1986

ACTION: Not authorized.

COMMENTS:

This office has completed a review of the proposed water and sewer improvements in the Lander Technical Park. The following comments and questions need to be addressed before a Permit to Construct can be issued:

1. There were no specifications submitted with the plans or reference to the Lander Standards and Specifications on the plans. Please submit or reference specifications for the project.
2. Please provide information and/or calculations to show that the sewage collection system below the proposed development can handle the projected increase in flow.
3. Please show the water system capacity is sufficient to provide adequate quantity and pressure to the proposed development.
4. Is it possible that $11\frac{1}{2}^\circ$ bends may be necessary in the water main at stations 14+91 and 19+52? The pipe installation must meet the manufacturers recommendations for maximum deflection at joints.
5. I feel that it may be advisable to specifically address compaction requirements for the fill under MH A-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, feel free to contact either Steve Gerber or me.

PERMIT TO CONSTRUCT

New

Permit No. 86-136R

Renewal

Modified

Country Club Road Waterline
(Name of Facility)

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

Casper Board of Public Utilities

200 North David

Casper, WY 82601

to construct, install, or modify a municipal water distribution line facility according to the procedures and conditions of the application No. 86-136R. The facility is located in Section 11, T33N, R79W in the County of Natrona, 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.

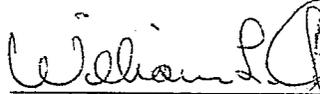
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

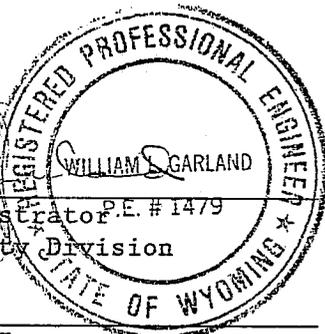
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

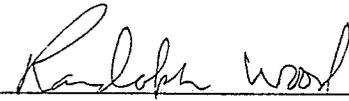
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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 S. GARLAND
Administrator P.E. # 1479
Water Quality Division

06-20-86
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
Herschler Building, 4 West, 122 West 25th
Cheyenne, Wyoming 82002

PROJECT: Country Club Road, Natrona County

ARCHITECT OR ENGINEER: Dave Hill, Casper BPU
200 North David, Casper, WY 82601

APPLICANT: Same

WATER QUALITY DIVISION REFERENCE NUMBER: 86-136

REVIEWING ENGINEER: ^{for} Thomas S. Norman *LR*

DATE OF REVIEW: May 9, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. An application form was not submitted.
2. The request for a variance was not justified. Most of the separation problem can be resolved by shifting the southern end of the line to the east side of the road. Your justification of expense and maintenance problems is not any different than any close horizontal installation. If we allowed this variance based on these two reasons, we would have to allow all horizontal variances. In addition, storm sewers have been shown to carry wastes far worse than most sanitary sewers, although not on a consistent basis.

TSN/nc

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 86-137R
SEE CONDITIONS ON BACK

Laramie Country Club Sewerage Improvements
(Name of Facility)

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

Laramie Country Club

P.O. Box 819

Laramie, WY 82070

to construct, install, or modify a commercial wastewater total containment lagoon system facility according to the procedures and conditions of the application No. 86-137R. The facility is located in SE Section 11, T15N, R74W in the County of Albany, in the State of Wyoming. This permit shall be effective until August 15, 1986 (five (5) years maximum).

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.

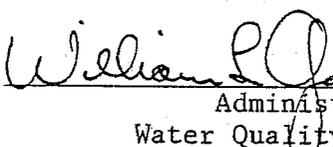
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

7-11-86

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 #86-137

1. A draft operation and maintenance manual shall be submitted at 50% completion with a final approval of the manual required prior to start-up as required in Chapter XI of the Water Quality Rules and Regulations.
2. Both effluent lines out of the second cell shall be permanently plugged so as to prevent unauthorized discharges.

cc: Ted C. Gertsch
Gertsch/Baker & Assoc.
307 Grand Avenue
Laramie, WY 82070



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR



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

July 29, 1987

Gertsch/Baker & Associates
203 Grand Avenue
Laramie, WY 82070

RE: Laramie Country Club O&M Manual, permit #86-137R

Dear Sirs:

The O&M manual has been reviewed and it is close to being acceptable. Final authorization will not be granted until the as-builts have been authorized. There may be items on the as-builts or changes that may be required that could affect the O&M manual.

Some minor comments concerning the O&M manual are as follows:

1. A plan should be included identifying the inlet, pump station, cells 1 and 2, interconnecting piping, etc.
2. Information should be provided on the type of liner and precautions necessary to protect it.
3. The section on excess vegetation should be expanded as to why this maintenance item is critical and also the best methods of keeping weeds out of the pond. Herbicides are not recommended. How can weeds within the water be controlled?

The stipulation required certain items to be completed by August 1, 1987. The Water Quality Division has not received any of these items except for the O&M manual. There is a \$1000 payment release pending the August 1, 1987 deadline.

Sincerely,

Thomas S. Norman
Southeast District Supervisor
Water Quality Division

TSN/nc

cc: Laramie Country Club, P O Box 819, Laramie, WY 82070

R 7



THE STATE OF WYOMING



MIKE SULLIVAN
GOVERNOR

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
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May 6, 1987

Gertsch/Baker & Associates
203 Grand Avenue
Laramie, WY 82070

RE: Laramie Country Club O&M Manual, Permit #86-137R

Gentlemen:

The operation and maintenance manual for the Laramie Country Club has been reviewed and found that it does not meet the minimum requirements of Chapter XI, Water Quality Rules and Regulations. Since the submittal lacks sufficient information to perform a thorough review, I enclosed a copy of the regulations for your review. After your review, please resubmit the manual that has sufficient detail to comply with these requirements.

The approval of an O&M manual was a condition of the permit to construct #86-137R and also part of the consent decree. It would be in the permittee's best interest to submit an acceptable manual in a timely manner.

Sincerely,

Thomas S. Norman
Southeast District Supervisor
Water Quality Division

TSN/nc

Enclosure: Section 24, Chapter XI

cc: Laramie Country Club, P O Box 819, Laramie, WY 82070

PERMIT TO CONSTRUCT

New

Permit No. 86-138R

Renewal

Modified

Highland Village Subdivision
(Name of Facility)

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

Cheyenne Board of Public Utilities

2300 Pioneer Avenue

Cheyenne, WY 82001

to construct, install, or modify a municipal water distribution and wastewater collection facility according to the procedures and conditions of the application No. 86-138R. The facility is located in Section 5, T13N, 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.

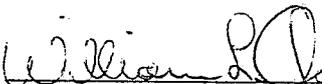
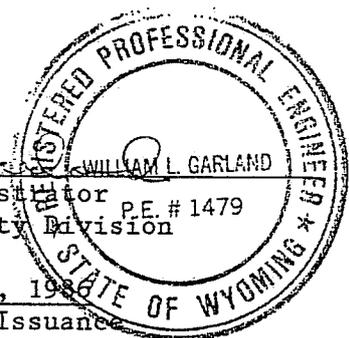
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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
Water Quality Division
P.E. # 1479
June 3, 1986
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
Engineering Consultant
1780 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: Highland Village Subdivision

ARCHITECT OR ENGINEER: Joe Kub
1780 Westland Road, Cheyenne, WY 82001

APPLICANT: Cheyenne Board of Public Utilities
2300 Pioneer Avenue, Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 86-138

REVIEWING ENGINEER: Thomas S. Norman, Engineering Area Evaluator
Thomas S. Norman

DATE OF REVIEW: May 22, 1986

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Water lines are required to be shown on the profile view.
2. On water/sewer crossings, the plans must show whether the minimum separation is going to be met or whether special construction is necessary.
3. My calculations do not agree with the slopes shown for the sewer lines. The Cheyenne specifications require slopes to be computed from invert to invert.
4. Inadequate detail is provided on the meter vault detail (access, material, profile view, drainage, dimensions, etc.). Also, specifications were not provided on these meters.

pjb



Norma
86-139R

ED HERSCHLER
GOVERNOR

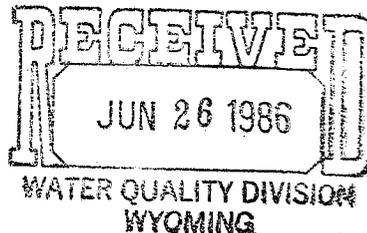
Department of Environmental Quality
Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

June 24, 1986



Rio Verde Engineering
ATTN: Phil Essington
P.O. Box 67
Pinedale, WY 82941

RE: Pinedale-Tyler Avenue Sanitary Sewer Main

Dear Phil:

I have reviewed the revised plans and specifications for the above referenced project you submitted to this office on June 13, 1986.

I have found these revisions to be in accordance with the State of Wyoming Minimum Design and Construction Standards. These revisions are therefore approved by this office.

Please retain a copy of this letter and revised plans in your file as proof that the revisions have been accepted by this office.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bill Locke".

Bill Locke, P.E.
Water Quality Engineer

BL/jw
cc: DEQ/WQD, Cheyenne

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 86-139R

Tyler Street Sanitary Sewer Main
(Name of Facility)

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

Town of Pinedale
P.O. Box 709
Pinedale, WY 82941

to construct, install, or modify a new 12" and 15" PVC sewer main on

Tyler Street in Pinedale
facility according to the procedures and conditions of the

application No. 86-139R. The facility is located in

Sec. 33 and 34, T34N, R109 W and Sec. 3 and 4, T33N, R109W

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-

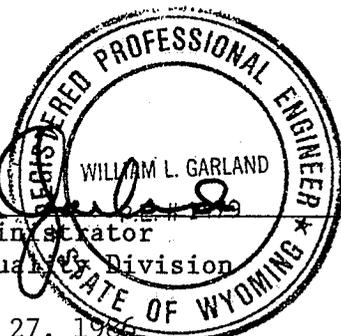
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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:


William L. Garland

Administrator
Water Quality Division
STATE OF WYOMING
May 27, 1966

Date of Issuance

Ralph Wood

Director
Dept. of Environmental Quality

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

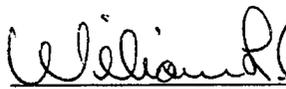
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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.

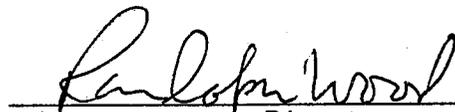
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



WILLIAM L. CARLAND
REGISTERED PROFESSIONAL ENGINEER
1479
Water Quality Division
STATE OF WYOMING
May 19, 1986

Date of Issuance



Director
Dept. of Environmental Quality

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

homa

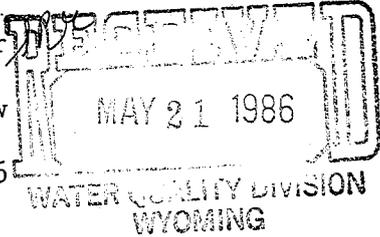
MEMORANDUM

TO: Plans 86-140

FROM: Steve Gerber

SUBJECT: Phone Review

DATED: May 16, 1986



I made a phone review with Bob Ablondi, Jorgensen Engineering, on the above referenced submittal. I gave Bob the following comments to be resolved:

1. Provide construction specifications. May use Wyoming Public Works Standards.
2. Plans must be stamped by the engineer.
3. Interior dikes must have a minimum slope of 3 to 1. Recommend flatter slope than 2:1 for outer slope of gravel filter. Outer slopes for berm can have a slope no greater than 2:1.
4. It appears that surface runoff is being neglected. The regulations require containment of a 10 year 24 hour storm. A significant area is being collected from within Borrow Area "A" plus a large area outside of the borrow area. Provide computations that show the sedimentation pond will contain the dewatering water plus storm water without overtopping the dike.
5. Provide verification that adequate detention time has been provided to settle the sediment carried into the pond.
6. Compute maximum velocities through the gravel filter. Address the concern that the gravel filter may wash out.

SG/jw

norma



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

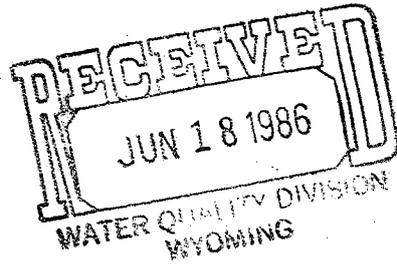
*Department of Environmental Quality
Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

June 16, 1986



Wright Water Engineers, Inc.
2490 W. 26th Avenue, Suite 55A
Denver CO 80211

RE: Marbleton 200,000 Gallon Water Storage Tank
WQD Reference No. 86-141R

Dear Sirs:

I am in receipt of Addendum No. 1 to the above referenced project. I have reviewed this addendum and have found it to be in compliance with the State of Wyoming, Minimum Design Standards and is therefore acceptable to this Division. Please maintain a copy of this letter in your files as proof that this addendum has been approved.

Sincerely,

Bill Locke, P.E.
Water Quality Engineer

BL/jw

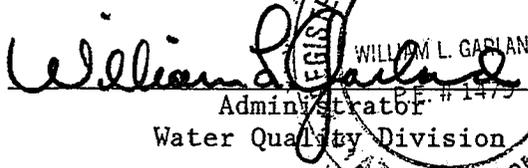
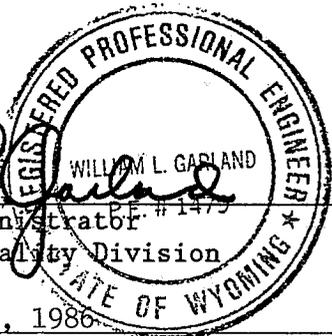
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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:


WILLIAM L. GARLAND
Administrator P.E. # 1475
Water Quality Division

June 6, 1986
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: Marbleton 200,000 Gallon Storage Reservoir

ENGINEER: Kenneth Wright
Wright Water Engineers
2490 West 26th Avenue, Suite 55A
Denver, CO 80211

OWNER: Town of Marbleton
P.O. Box 4160
Marbleton, WY 83113-4160

WATER QUALITY DIVISION REFERENCE NUMBER: 86-141

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

DATE OF REVIEW: May 21, 1986

ACTION: Not authorized.

COMMENTS:

A preliminary review of the above referenced plans and specifications has been completed. A permit to construct will not be issued until the following items have been addressed:

1. An Engineering Design Report is required as described in the Wyoming Water Quality Rules and Regulations (WWQRR), Chapter XII, Section 6. This report should include, but is not limited to; the scope and purpose of the project, a description of the service area, projected domestic and fire protection water demands and calculations indicating normal working and minimum water pressures for the system. The report must also include a soil investigation and structural design for the reservoir foundation.
2. All sewer lines within 30 feet of the waterlines must be shown on the plan sheets.
3. Please confirm that the ductile iron pipe specified conforms to AWWA C151, the pressure test conforms to AWWA C600 and the waterline disinfection conforms to AWWA C601.
4. What precautions will be taken to ensure that the vertical reservoir inlet pipe does not freeze below the ground surface?
5. A splash block is required to prevent erosion under the overflow pipe. Also, the overflow pipe should be constructed down to an elevation between 12 and 24 inches above the finished ground.
6. A detail of the reservoir drain line, vents and roof hatch should be included.

Review of Plans & Specs.

Ref. No. 86-141

Page Two

7. Consideration should be given to include a by-pass line around the altitude valve. This would allow for manual operation of the reservoir during a time period when the altitude valve might be inoperable.

8. Confirm that the reservoir disinfection specified is in accordance with AWWA D105.

9. 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

cc: Jack Noblitt & Assoc.

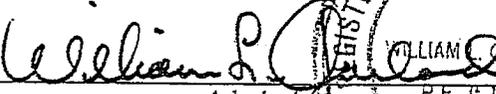
ing working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

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.

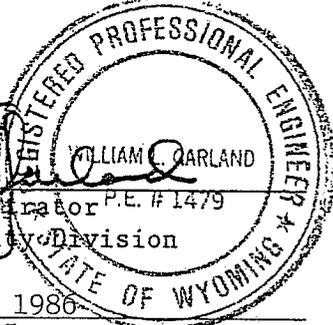
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator P.E. #1479
Water Quality Division
June 5, 1986

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. 86-143
SEE CONDITIONS ATTACHED

Ft. Laramie Station
(Name of Facility)

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

Amoco Pipeline Co.

P.O. Box 168

Ft. Laramie, WY 82240

to construct, install, or modify a crude oil road dust control facility according to the procedures and conditions of the application No. 86-143. The facility is located in E1/2 SE1/4 Section 23, T26N, R64W in the County of Goshen, 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.

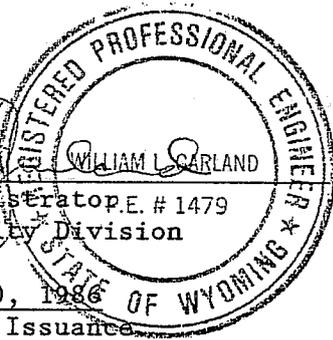
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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
May 20, 1986
Date of Issuance


Director
Dept. of Environmental Quality

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

This permit authorizes you to dispose of 5,400 cubic feet of crude oil saturated sand on the adjoining 0.75 miles of newly graded dirt road, comprising 1.5 acres, a total liquid application of 1.0 inches.

CONDITIONS TO PERMIT TO CONSTRUCT NO. 86-143

1. Wastewater shall be applied at a rate which will not produce runoff or ponding. Application shall not be initiated during the spring runoff period or other periods where saturated soil conditions exist.
2. The application site slope shall not exceed 8% for vehicular application or 15% for spray irrigation or irrigation by gated pipe on the contour. Vegetated areas of the site shall not be spray-irrigated where possible plant leaf injury may result from salt residue.
3. Wastewater application shall be terminated within 300 feet of the definable high water mark of perennial and intermittent drainages, irrigation canals, lakes and reservoirs.
4. The permittee will contact the Department of Environmental Quality, Water Quality Division District Engineer, Herschler Bldg., 4 West, Cheyenne, Wyoming 82002, phone number 777-7088, to arrange a field inspection prior to initiation of work. The District engineer should be notified at least 48 hours in advance of discharges and must be informed how much wastewater will be applied (number of truckloads), the specific site of application (to the nearest 1/4 section) and time of application.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 86-144R

Town & Country Shopping Center
(Name of Facility)

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

Northwestern Development Co., Inc.

2146 Coffeen Avenue

Sheridan, Wyoming 82801

to construct, install, or modify a water and wastewater improvement facilities according to the procedures and conditions of the application No. 86-144R. The facility is located in Section 2, T.55N., R.84W., in the County of Sheridan, 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.

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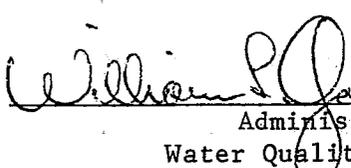
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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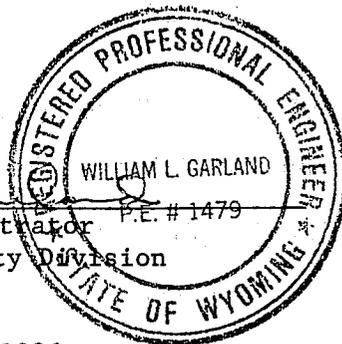
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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
Department of Environmental Quality

May 29, 1986
Date of Issuance

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

xc: Dan J. Allen
TSP Two, Inc.
1 South Scott, Suite 1
Sheridan, Wyoming 82801

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 86-145
SEE CONDITION ON BACK

Northwoods Community Church
(Name of Facility)

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

Cheyenne Board of Public Utilities
2300 Pioneer Avenue
Cheyenne, WY 82001

to construct, install, or modify a municipal wastewater collection facility according to the procedures and conditions of the application No. 86-145. The facility is located in Section 22, 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.

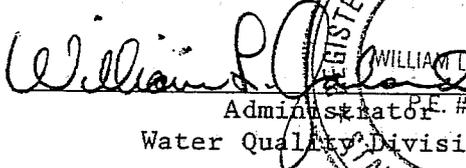
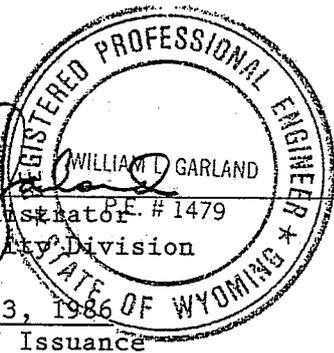
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

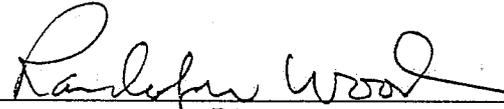
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State 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 T. GARLAND
 Administrator P.E. # 1479
 Water Quality Division
 May 23, 1986
 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 #86-145

The 4-inch sewer service line shall be laid on a minimum slope of 2% or it shall be changed to a 6-inch sewer service line.

cc: D. M. Hopkins & Associates
 216 East 17th Street
 Cheyenne, WY 82001

PERMIT TO CONSTRUCT

New

Permit No. 86-146

Renewal

Modified

Wyoming Industrial Park Subdivision - Water Line Improvements
(Name of Facility)

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

North Platte Water & Sewer District

P O Box 614

Casper, WY 82602

to construct, install, or modify a municipal water distribution line facility according to the procedures and conditions of the application No. 86-146. The facility is located in S4, T33N, R79W in the County of Natrona, 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.

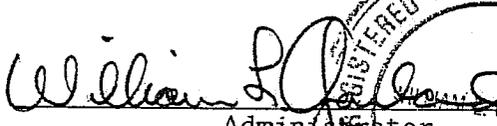
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

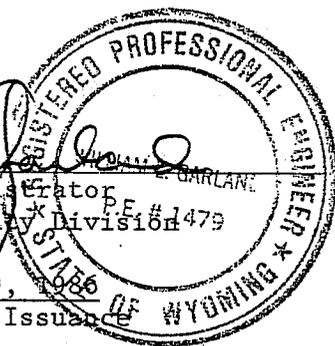
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State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

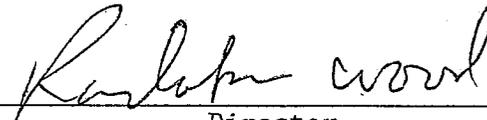
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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. Director
Water Quality Division
P.E. #1479
May 29, 1986
Date of Issuance




Director
Dept. of Environmental Quality

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

cc: Donald R. Horton
Global Engineering and Land Surveying, Inc
P O Box 532
Casper, WY 82602

Dave Hill
Casper Board of Public Utilities
200 North David
Casper, WY 82601

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 86-147
Reference No. 81-730RRR

ROCHELLE MINE RESERVOIR SP-10

(Name of Facility)

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

Rochelle Coal Company

Caller Box 3035

Gillette, Wyoming 82716

to construct, install, or modify a sediment ponds facility according to the procedures and conditions of the application No. 86-147. The facility is located in Section 15, T.41N., R.70W., in the County of Campbell, 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.

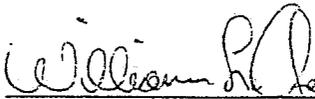
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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, 2161 Coffeen Avenue, Suite 601, Sheridan, Wyoming 82801; telephone, 672-6457.

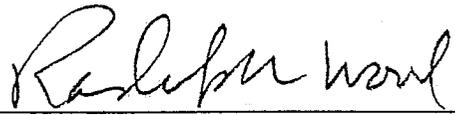
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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AUTHORIZED BY:



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



Director
Department of Environmental Quality

June 3, 1986
Date of Issuance

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

xc: John A. Nadolski
Powder River Coal Company
Caller Box 3034
Gillette, Wyoming 82716

MEMORANDUM

~~86-126~~
86-147

TO: Bob Giurgevich, Land Quality District Supervisor
FROM: Rich Ruyle, Water Quality District Supervisor
DATE: May 28, 1986
SUBJECT: Review of Rochelle Mine Reservoir SP-10

Comments:

- 1.) The 10 year, 24 hour storm event was taken as 2.20 inches in the design calculations. Rochelle Mine's NPDES Discharge Permit defines the 10 year, 24 hour storm as 2.6 inches. The higher number should be used or the discrepancy explained.

In response to your inquiry, the following general information is required in an application for a Permit to Construct for a sediment pond.

I. Plans

- A.) Plan view showing location, drainage area, dimensions, collection ditches, bypass ditches, etc.
- B.) Profile showing elevations of pond bottom, sediment storage, H.W.L., spillways, etc.

II. Specifications

- A.) Construction specifications for dikes, liners, trenches, etc.
- B.) Material specifications for pipes, mechanical equipment.

III. Calculations

- A.) Verify capacity for runoff from 10 year, 24 hour storm.
- B. Verify capacity for one year sediment accumulation.

I have enclosed Chapter X (see Appendix A) and a Draft Review Guideline which contain more specific information on design criteria.

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 86-148
*SEE CONDITION ON BACK

City of Sheridan, Alley Water Main Construction
(Name of Facility)

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

City of Sheridan

P.O. Box 848

Sheridan, Wyoming 82801

to construct, install, or modify a water main extension and automatic flushing system facility according to the procedures and conditions of the application No. 86-148. The facility is located in Section 27, T.56N., R.84W., in the County of Sheridan, 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.

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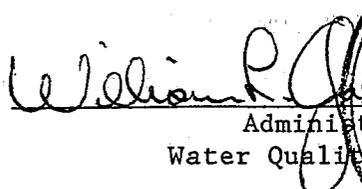
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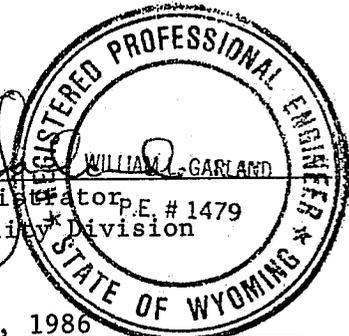
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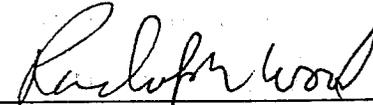
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AUTHORIZED BY:


Adminisrator
Water Quality Division
P.E. # 1479



REGISTERED PROFESSIONAL ENGINEER
WILLIAM L. GARLAND
STATE OF WYOMING


Director
Department of Environmental Quality

May 29, 1986
Date of Issuance

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

CONDITION

Backflow prevention in the form of double check valves will be installed upstream of all fire sprinkler systems that are serviced by the taps depicted in this application.

xc: Daniel E. Songler
Centennial Engineering
237 North Main Street
Sheridan, Wyoming 82801

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 86-149R
EPA C560232

Elk Mountain Wastewater System
(Name of Facility)

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

Town of Elk Mountain
P O Box 17
Elk Mountain, WY 82324

to construct, install, or modify a municipal wastewater collection, pumping, and treatment (lagoon) system facility according to the procedures and conditions of the application No. 86-149R. The facility is located in S17 & 20, T20N, R80W 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.

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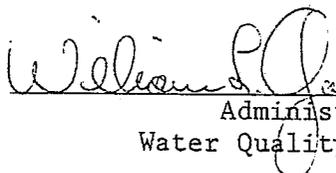
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Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

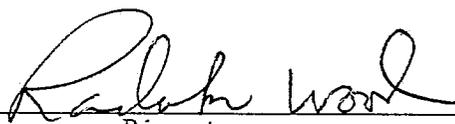
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AUTHORIZED BY:


Administrator
Water Quality Division



08-29-86
Date of Issuance


Director
Dept. of Environmental Quality

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

cc: Harry Hughes
ARIX
609 East Madison
Riverton, WY 82501



file w/ project

86-149
EPA CS6 0232
ED HERSCHLER
GOVERNOR

*Department of Environmental Quality
Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

July 21, 1986

Mr. Kenneth D. Kennedy, Mayor
Town of Elk Mountain
P O Box 17
Elk Mountain, Wyoming 82324

RE: Town of Elk Mountain Wastewater Improvements Project Preliminary Review of Plans and Specification - Comments from Department of Fire Protection and Electrical Safety.

Dear Mayor Kennedy:

In my letter of July 3, 1986 I mentioned that the review comments from the Department of Fire Protection and Electrical Safety would be forwarded to you once I had received them. Enclosed please find those comments which must be address in the revised contract documents.

Sincerely,

A handwritten signature in cursive script that reads "Wally Koch".

Wally Koch, P.E.
Engineering Evaluator

WK/jt

cc: Harry Hughes, ARIX, Riverton (w/encl)
✓ Tom Norman, DEQ/WQD (w/encl)
Grant File (w/encl)

ELECTRICAL ITEMS:

1. The area within the pump station manholes shall be classified as Hazardous Locations --(Class I). The terminal boxes located on the exterior of these walls shall have seals in all raceways entering the box. The seals are for the purpose of prevention of gas or vapor communication from the manhole through the terminal box and onto the control panel, therefore, one seal per raceway on either side of the terminal box will satisfy. REF: 501-5(a)(4) and 501-5(b)-(2).
2. The specifications require a standby generator to be provided for emergency power. The drawings do not indicate the methods of integration of this alternate source of power into the facility. The NEC requires the use of transfer equipment to guarantee that all ungrounded conductors of one source of supply are disconnected before ungrounded conductors of a second source are connected. REF: 230-83.
3. The system shall be considered as a "separately derived system". If a transfer switch is installed which will disconnect the "grounded" conductor of the 4-wire Delta secondary of the facility transformer. A separate ground for the generator will then be required by 250-26. The use of a 3-pole transfer switch, where only the 3 ungrounded facility phase conductors are isolated will permit the established grounding electrode to serve both power sources.
4. The receptacle shown inside the valve manhole shall be approved for Class I-Div II locations and the raceway installation shall meet requirements of ART. 502. If location of receptacle is moved outside, normal wiring methods are acceptable.
5. On a Delta service with a high leg to ground, the high leg shall be identified and be installed ABC front to back or side to side with the high leg being the B phase. N.E.C. 230-56, 384-3(e), 384(f), 215-8.

62 file



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

86-149
C560232

July 3, 1986

Mr. Kenneth D. Kennedy, Mayor
Town of Elk Mountain
P. O. Box
Elk Mountain, WY 82324

RE: Town of Elk Mountain Wastewater Improvements Project,
Preliminary Reveiw of Plans and Specifications

Dear Mayor Kennedy:

The review of the preliminary plans and specifications for the above refer-
enced project has been completed by the District Engineer and also by our office.
Review comments are here presented.

PLANS

1. Sheet 1 - General Notes. Recommend that the first note be expanded to give a better description of the depth and location of the buried utilities.
2. Sheet 2 - Is there an easement for the haul road? What improvements are required at the Mill Creek crossing?
3. Sheet 3 - MH 2-I is not shown on the interceptor sewer alignment. Second-ary sewer line E does not correlative with the plan-profile version shown on sheets 12 & 13. Secondary sewer line A is slightly different than that shown on plan-profile sheet 10.
4. Sheet 4 - The plan view between MH-2 and MH-3 is missing 320.00' which indicates the length of 8" sanitary sewer.
5. Sheet 7 - Telephone lines are not shown in the profile view at STA 24+70, 31+65, and 32+40. The telephone line at STA 24+70 needs to be extended in the plan view to indicate that this line will be crossed by the new sani-tary sewer.

Recommend that the sanitary sewer service at STA 32+10, as shown on sheet 14, be shown here on sheet 7 rather than on sheet 14.

Can the reach of sanitary sewer from MH-9B to MH-10 be installed in the

Mr. Kenneth D. Kennedy, Mayor
July 3, 1986
Page 2

limited space between the edge of pavement and the right-of-way line? Is additional easement required in order to install the new sewer?

6. Sheet 8 - Waterlines are not shown in the profile view at STA 0+30 of line K and STA 43+30 of the main line. Telephone line is missing from the profile view at STA 0+40 of line K.
7. Sheet 9 - Are the two sanitary sewer services at STA 56+20 deep enough to provide gravity flow? On line J there is a sanitary sewer service at STA 0+90. Is this one service intended to serve all eight houses located between Willow Place and Aspen Street?
8. Sheet 10 - The electrical line at STA 9+40 is not shown in the profile view.
9. Sheet 11 - Recommend that the sanitary sewer service at STA 4+40, as shown on sheet 10, be shown here on sheet 11 rather than sheet 10. The waterline at STA 0+30 is not shown in the profile view.
10. Sheet 12 - Can the sewer from MH E-2 be installed in the limited space between the edge of pavement and the right-of-way line? Will additional easement be required? A telephone line at STA 4+35 is not shown in the profile view. The note concerning open cut of the highway should indicate "three" service crossings, not two. The right-of-way line on the west side of Bridge Street looks to be drawn incorrectly.
11. Sheet 15 - The waterline at G line STA 0+20 is not shown in the profile view. Is the sanitary sewer service at G line STA 2+10 deep enough to provide gravity flow? There should be a note that indicates that two sewer service lines are to be installed on the portion of line I which is not shown in the plan view. Recommend that the sanitary sewer service at STA 10+10 be installed with an in-line 45 degree fitting and not use the two 90 degree bends as shown.
12. Sheet 16 - The symbol for existing fence should be used to show the fence alignment. The symbol for property line should be used to show the lagoon site boundary. Recommend that the access road right-of-way be shown on this sheet in order to correlate the interceptor sewer location with the road location. Is an easement needed to cross the Sinclair Pipeline? Is the 60 foot construction easement permanent or only temporary? How wide is the permanent easement?
13. Sheet 17 - The top of MH 4-I is nearly two feet below finished road surface. Is this manhole beyond the edge of the 15 foot wide road surface? Recommend that the access road right-of-way be shown. Recommend that a match line at STA 24+00 be shown in the plan view. Recommend that in the profile view from STA 22+30 to STA 24+00 the length of sewer be shown as 170 feet, rather than 360 feet.

14. Sheet 18 - Recommend match line at STA 24+00 be shown in plan view. Recommend that profile view from STA 24+00 to STA 25+90 show length of sewer as 190 feet rather than 360 feet. Are the three existing ditches to remaining in operation? Additional instructions on keeping these ditches operable and also instructions on ditch restoration would seem appropriate.
15. Sheet 19 - Existing fences are not shown. Where the access road crosses existing fences, is the contractor required to install gates, cattle guards, or what? Recommend showing sewer construction easement and access road right-of-way on same sheet. Is a culvert need at STA 0+00 to prevent a drainage problems? Recommend that match line at STA 11+55 be shown in the plan view.
16. Sheet 20 - Recommend that match lines at STA 11+55 and STA 19+50 be shown in plan view. Show sewer construction easement and access road right-of-way on same sheet. Is a culvert needed at STA 14+75? The culvert at STA 12+32 looks to extend beyond the limits of the 25 foot wide easement. Does this present a problem?
17. Sheet 21 - Show match line at STA 19+50 in plan view. Is a culvert needed at STA 22+50? Why is the invert of the box culvert at STA 30+35 set so high above the channel invert elevation? The box culvert extends beyond the 25 easement? Is this a problem? The length of culvert looks to be about 47 feet rather than 30 feet.
18. Sheet 22 - The minimum water surface in the wet well is shown as 7210.00, but sheet 28 indicates pump off elevation as 7210.25. Which is correct? The influent pipe to the inlet box shall be at least six inches above the normal operating water level of the primary cell.
19. Sheet 23 - The inlet/outlet pad shown in cell 1 should have a drawing cross reference symbol indicating that this is detail B as drawn on sheet 29. We have a concern with the honey wagon dump chute. Will this chute cause deposition of solids at the base of the chute and a consequent circulation and order problem? Would a dump structure adjacent to the wet well, similar to that used at the Riverton plant, be a better solution?
20. Sheet 25 - In the Soil - Bentonite Liner Detail the cover material over the liner is to be "semi-compacted" soils. What does the term "semi-compacted" mean?
21. Sheet 26 - Transfer box two must have a free draining pipe from the floor of the box out to daylight.
22. Sheet 27 - The inlet box drawing cross reference symbol should indicate that the detail can be found on sheet 29. Will the emergency generator be stored in town? During the winter deep snow could make it difficult to transport the generator trailer to the site, therefore, would it be better to store the generator at the site?

23. Sheet 28 - Pump Station Plan should be labeled with a drawing cross reference symbol which indicates the drawing as detail A taken from sheet 27 and drawn here on sheet 28. The Pump Station Plan drawing says to "See Note 2" concerning sealing of the wall sleeve. This should be "Note 4". The wet well vent pipe does not provide two feet of clearance between the end of the vent and the top of ground or top of wet well cover. If the ground elevation is 7221.0 and the top of the valve vault is 7221.5 it looks like the Section A is not drawn to scale. Pump Station Section A should not show the eight inch interceptor pipe oval. The wet well steps need to be positioned so as to be reachable from the access door. Steps need to be extended to the bottom of the wet well.
24. Sheet 29 - Inlet Box Plan drawing should be labeled with a drawing cross referenced symbol indicating it as detail 1 taken from sheet 27 and drawn here on sheet 29. The influent line needs to be six inches above the normal operating water surface of the primary cell. The pipe to cell 1 should have an invert flush with the floor of the inlet box and the floor of the inlet box should slope toward the discharge pipe to prevent deposition of solids in the inlet box. The inlet/outlet pad has to have minimum dimensions of 4'x4'.
25. Sheet 30 - Will water freeze in the transfer box and damage the weir gate? Transfer box two must be locked and tagged to prevent accidental discharge. If this is not done, a NPDES permit will be required. There are no specifications for the metal grating on the transfer box.
26. Sheet 32 - Contour line 33 looks to be mislabeled.
27. Sheet 34 - Waterline crossing at STA 3+55 is not shown in the profile view. The 18" CMP at STA 8+45 is not shown in the plan view.

SPECIFICATIONS

1. Table of Contents - There are errors in the number of pages for various sections. Section 02580 should read Non Potable water wells. Section 15064 should read PVC pipe. Why are there no separate sections for Division 16 - Electrical?
2. There are two pages IB-9, therefore pages IB-9 through IB-17 need to be increased by one.
3. Page IB-10 (IB-11 renumbered) - Covered area is State of Wyoming, County of Carbon, Town of Elk Mountain. Goals for this project are:
Minority - 7.5%
Female - 6.9%
4. Page IB-17 (IB - 18 renumbered)
Timetable = until further notice

Minority = 7.5%
Female = 6.9%

5. Bid Form - Quantities for a number of bid items do not match the plans. Recommend a bid item for stream crossing and two inch pressure sewer. There seems to be an imbalance between the amount of excavation and the amount of embankment. Are the quantities intended to indicate a balance between cut and fill? Recommend a bid item for providing portable generator.
6. Page BF - 6 - Contract time needs to be changed.
7. Page A-1 - Fill in contract time.
8. Page 01010-1 - Work Sequence - If streets are restored, can work on the collector system be done over two construction seasons?
9. Section 01500 - Temporary Facilities and Controls - recommend that you address the detour required while the box culvert at access road STA 30+35 is being installed?
10. Section 01550 - Measurement and Payment - Recommend that clarification be made as to what exactly is included in the payment for piping. How will granular bidding material be measured? If an unstable trench floor is encountered, is granular bedding paid for to produce a stable trench bottom? If so, how is the material measured? Is dewatering incidental to pipe installation? No mention is made for the bid item "buried telephone cable." Road base and asphalt restoration are described as paid for by the linear foot, but the bid form uses square yards as the unit. Which is correct? How is unclassified embankment measured? What is the procedure for cross-sectioning the lagoon site and the borrow area? Are these areas cross sectioned after stripping the topsoil and then again prior to replacing the topsoil? Non potable water well is not mentioned. No mention is made for electrical service and controls. Where do the limits of payment for pump station and valve vault end and limit for force main begin.

On page 01550-3 the seventh paragraph is missing the end of the sentence.

How will the bentonite be measured? On page 01550-4 the paragraph on Equipment Manuals looks to be out of place for this section.

11. Related work specified elsewhere - In each section this paragraph needs to be checked to insure that the sections listed are correct.
12. Page 02200-6 - Last word on page should be compacted, not computed. What is the compaction requirement for unclassified fill which will receive gravel street surface?
13. Page 02200-7 Bentonite Lining - The third paragraph requires the bentonite

manufacturer to confirm the application rate to meet the specified permeability coefficient, but paragraph five instructs the contractor to spread 3.4 pounds per square foot. These conflicting instructions must be corrected, and the specs. need to be written so as not to give the bentonite supplier a "blank check" situation.

14. Page 02200-8 - The second paragraph calls for 95% compaction and the third paragraph only 90%. Which is correct? There is no mention of the compaction of the 6" thick cover material placed on top of the bentonite liner. Something more explicit than "semi-compact" is needed.
15. Page 02200-12 - Recommend that seepage rate be listed in a more manageable unit, such as inches per day. Is the barrel test even worth the effort it takes to run it? What will be the source of water needed to fill the lagoon for testing? If a water use permit is required, is the contractor to obtain the permit? Making the contractor totally responsible for obtaining the water for testing the lagoon may be short sighted because he could encounter delays beyond his control. In order to avoid delays during construction, it may be more prudent to further investigate the source of water for testing the lagoons and consider having the Town obtain the permit.
16. Page 02220-7 - Is any sod replacement expected on this project? Will it be a pay item?
17. Page 02560-3 - Manhole steps must have a minimum width of 16 inches.
18. Page 02560-4 - What is the procedure for testing the force main?
19. Page 02570-5 - No mention of the access frame and cover for the valve vault.
20. Page 02570-7 - B. Additional electrical components - first line: The number 60 is missing prior to work Hertz.
21. Page 02570-9 Telephone Cable - the word "tyoe should be type."
22. Page 02570-10 - Bottom of page - Ductile Iron Pipe is in Section 15062. This section does not mention anything about the pipe supports in the valve vault or about the vent pipe.
23. Page 02580-1 - Description - the water well is to be "non" potable. Second paragraph refers to adjustment in accordance to unit prices, but there are no unit prices. Requirements of Regulatory Agencies - a well permit from the State Engineers Office will be required.
24. Page 02580-2 - Water Samples - Why the need for water samples?
25. Page 02580-4 - Well Construction - why the concern with contamination of

Mr. Kenneth D. Kennedy, Mayor
July 3, 1986
Page 7

a non potable water well?

26. Page 02580-5 - Well Depths - there are no unit prices in the bid schedule.
27. Page 02610-1 Referenced Standards - Recommend that you use the State of Wyoming Highway Standards, rather than State of Colorado.
28. Page 02610-3 - Middle of page. There is no Section 02620 included in the specifications.
29. Page 02710-2 - Posts and braces should be 6" diameter not 6'.
30. Page 02800-2 - Top of page. Formula for determining PLS is missing.
31. Page 09925-7 - Pipe Identification - There is no Section 09930 in the specs.
32. Page 15062-2 - Protective Coatings - Is polyethylene encasement to be required on all ductile iron pipe?
Ductile Iron Pipe - 4" D.I. has a minimum thickness class of 51.
33. Page 15062-4 - Pressure and Leakage Tests - no pressure and leakage tests are shown in the specs.
34. Page 15064-3 - Pressure and Leakage Tests - There is no Section 02550 in the specs.
35. Page 16000-1 - Bottom of page. There is no Division 02 "Excavating and Backfilling."
36. Division 16 - Electrical - Recommend that individual Sections be used.
37. Section 16405-1 - Portable Standby Engine - Generator Set - No bid item for the generator. Would the generator be more useful if stored at the site?
38. Standard Drawings - 2550 A - plug valves are specified, not gate valves. 2560C - manhole steps are not up to OSHA requirements. Recommend including a drawing of a standard manhole.

General Comments

1. There needs to be a specification for aluminum grating for the transfer boxes.
2. How will the old septic tanks be abandoned? How will the Town insure that all users connect to the new collection system? Will there be a deadline for connecting?
3. A sewer use ordinance and a user charge system must be approved by our

Mr. Kenneth D. Kennedy, Mayor

July 3, 1986

Page 8

office before the project can be approved for bidding. Neither document has yet been received by our office.

4. A preliminary Plan of Operation must be approved before the project can be bid. This document has not submitted.
5. Warning signs around the lagoon fence should be provided.
6. The pump specifications call for the pump to meet of TDH of 15 feet. This looks to be marginal. Recommend that this figure be checked.
7. An impoundment permit from the State Engineer's Office will required for building the lagoons.
8. Enclosed is a copy of the comments from Mr. Joseph J. Borghi of the Office of Occupational Health and Safety. Mr. Borghi's comments must also be addressed when revising the contract documents. I have also included a letter from Donald D. Owsley which states that the Wyoming Occupational Health and Safety Department now has jurisdiction for health and safety matters on Federal projects within the State.
9. To date we have not received comments from the Department of Fire Prevention and Electrical Safety. These comments will be forwarded to your once we have received them and their comments also must be addressed when revising the contract documents.
10. There has been some confusion as to whether down gradient monitoring water wells are required on this project. After consulting with our groundwater section, they have informed me that down gradient monitoring water wells will not be required on this project.

If you have any questions, please contact me at 777-7073.

Sincerely,



Wally Koch, P.E.
Engineering Evaluator

WK/ad
Enclosures

cc: Harry Huges, Arix-Riverton (w/encl)
Tom Norman, DEQ (w/encl)
grant file (w/encl)



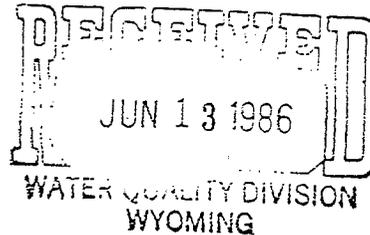
Occupational Health and Safety

CHEYENNE, WYOMING 82002

June 13, 1986

JAMES ZANCANELLA, PH.D.,
CHAIRMAN
H.B. ANDERSON, M.D.
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L. KEITH HENNING
FLOYD J. HENRY
JAMES D. NEIMAN, JR.
JENNIE PARKER

DONALD D. OWSLEY
HEALTH AND SAFETY ADMINISTRATOR
(307) 777-7786



Wally Koch, P.E.
DEQ/WQD
Herschler Building
Cheyenne, WY 82002

Dear Wally:

I have reviewed the book of specifications and the blueprints for the Elk Mountain Waste Water Improvement Project, Number 85113.01, and have the following comments:

1. Pg. SGC-20 of Federal attachments.

The Williams Steiger Act does not apply in Wyoming as the Wyoming Occupational Health and Safety Department has the responsibility and jurisdiction concerning health and safety in the state.

2. Paragraph 1, line 2 - change to read: "the Wyoming Occupational Health and Safety Act of 1969."
3. Paragraph 2, line 3 - change, "Federal laws" to "State laws."
4. Change, "Williams-Steiger, Occupational Safety and Health Act" to "Wyoming Occupational Health and Safety Act of 1969."
5. Change, Part 1910 etc., etc., to "the Wyoming Occupational Health and Safety Department Rules and Regulations for General Industry."
6. Change, Part 1926 etc., etc., to "Wyoming Occupational Health and Safety Rules and Regulations for Construction."
7. Safety and Health Program, paragraph 1, change to read: . . . "be governed by the Wyoming Occupational Health and Safety Rules and Regulations for Construction as amended to date."
8. Paragraph 4, line 4, change to read: "under the provisions of the Wyoming Occupational Health and Safety Act of 1969."

Wally Koch

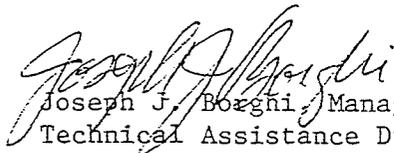
Page (2)

9. Page 01080-1 - Applicable Codes, change, "Williams Steiger etc., etc., to "Wyoming Occupational Health and Safety Act of 1969."
10. Page 09925-1, under Reference Standards, change, "Occupational Safety & Health, etc., etc.", to "Wyoming Occupational Health and Safety Rules and Regulations for:
General Industry
Construction Industry
11. Pg. 09925-2 - After January 3, 1987, material safety data sheets will be required to be available for all hazardous materials. It would be in your best interest to ensure that the material safety data sheets are collected and made available for inspection by those employees exposed to them.
12. Standard No. 2560 C - The rungs or steps on the ladder indicate 4 inches. WOHS General rules, Chapter IV, Section 7.c.(4), require minimum 7 inches from rungs to wall and 16 inches minimum clear length of rungs or cleats, WOHS General rules, Chapter IV, Section 7.b.(1)(c).
13. Sheet 28 - Pump Station Details

There seems to be no provisions to enter manhole under terminal box
$$\begin{array}{r} 3 \\ 28 \overline{)28} \end{array}$$
14. Sheet 2560 C - Shallow manhole in specs book spaces ladder rungs at 12 inches on center, sheet 28, pump station details steps at 15 inches, typical on center. I suggest that you standardize them. I presume the steps on sheet 28 go all the way to the bottom of the manhole.

Please call if you have any questions or I can be of further assistance.

Sincerely,


Joseph J. Borghi, Manager
Technical Assistance Division

JJB:ec



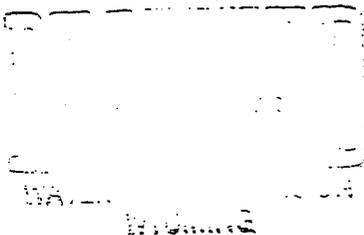
Occupational Health and Safety

CHEYENNE, WYOMING 32002

June 26, 1986

JAMES ZANCANELLA, PH.D.,
CHAIRMAN
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DONALD D. OWSLEY
HEALTH AND SAFETY ADMINISTRATOR
307/777-7786



Jerry Placzek
DEQ/WQD
Herschler Building
Cheyenne, WY 82002

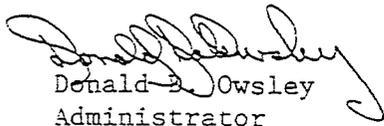
Dear Jerry:

Attached is a copy of the Federal Register approving the Wyoming State Plan and relinquishing Federal jurisdiction for health and safety matters in the state.

Note the highlighted area in the Federal Register, page 26548, dated June 27, 1985. There is more information, background and history of the plan, available if you need it. I didn't think that you would require or want all the additional paper in your files.

Please let me know if this is sufficient documentation for your needs.

Yours for employee health and safety,


Donald D. Owsley
Administrator

DDO:JJB:ec
Attachment

Immigration and Nationality Act, Residency.

Accordingly, Chapter 1 of Title 8 of the Code of Federal Regulations is amended as follows:

PART 316—DEPORTABLE, PHYSICAL PRESENCE AND ABSENCE

1. The authority for 8 CFR Part 316 continues to read as follows:

Authority: Secs. 101 and 316 of the Immigration and Nationality Act, as amended, (5 U.S.C. 1181 and 1527).

§ 316.3.3 (Amended)

In § 316.3, American institutions of research, the listing of organizations is amended by deleting "Michigan State University (Department of Zoology), Lansing, Michigan" and adding in alphabetical sequence "Michigan State University, Lansing, Michigan".

Dated June 13, 1983.

Marvin J. Gilman,
Acting Associate Commissioner,
Department of Immigration and
Naturalization Service.

[FR Doc. 83-11379 Filed 6-23-83; 8:43 am]
GALINA GERR 679-11-2

**DEPARTMENT OF ENERGY
Federal Energy Regulatory
Commission**

18 CFR Part 282

**Natural Gas; Incremental Pricing
Regulations; Incremental Pricing
Acquisition Cost Thresholds**

AGENCY: Federal Energy Regulatory
Commission, DOE.

ACTION: Order prescribing Incremental
Pricing Thresholds.

SUMMARY: The Director of the Office of Pipeline and Producer Regulation is issuing the incremental pricing acquisition cost thresholds prescribed by Title II of the Natural Gas Policy Act and 18 CFR 282.204. The Act requires the Commission to compute and publish the threshold prices before the beginning of each month for which the figures apply. Any cost of natural gas above the applicable threshold is considered to be an incremental gas cost subject to incremental pricing surcharging.

EFFECTIVE DATE: July 1, 1983.

FOR FURTHER INFORMATION CONTACT:
Kenneth A. Williams, Federal Energy
Regulatory Commission, 825 N. Capitol

Street, NE, Washington, D.C. 20423,
(202) 367-3500.

SUPPLEMENTARY INFORMATION: Section 203 of the NGPA requires that the Commission compute and make available incremental pricing acquisition cost threshold prices prescribed in Title II before the beginning of any month for which such figures apply.

Pursuant to that mandate and pursuant to § 375.307(1) of the Commission's regulations, delegating the publication of such prices to the Director of the Office of Pipeline and Producer Regulation, the incremental pricing acquisition cost threshold prices for the month of July 1983 is issued by the publication of a price table for the applicable month. The incremental pricing acquisition cost threshold prices for months prior to July 1983 are found in the tables in § 282.204.

List of Subjects in 18 CFR Part 282

Natural gas.
Kenneth A. Williams,
Director, Office of Pipeline and Producer
Regulation.

TABLE I—INCREMENTAL PRICING ACQUISITION COST THRESHOLD PRICES

	Calendar year 1981											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Incremental Pricing Threshold	\$2,254	\$2,291	\$2,259	\$2,207	\$2,315	\$2,323	\$2,331	\$2,228	\$2,345	\$2,352	\$2,259	\$2,288
NGPA Section 102 Threshold	3,598	3,638	3,632	3,558	3,680	3,725	3,730	3,752	3,774	3,787	3,621	3,645
NGPA Section 103 Threshold	2,550	2,587	2,575	2,523	2,591	2,599	2,607	2,414	2,421	2,428	2,438	2,444
100% of No. 2 Fuel Oil in New York City Threshold	7,728	7,579	7,578	8,550	8,560	7,479	7,430	7,740	7,850	7,730	7,060	7,280

	Calendar year 1982						
	Jan.	Feb.	Mar.	Apr.	May	June	July
Incremental Pricing Threshold	\$2,373	\$2,378	\$2,380	\$2,388	\$2,389	\$2,416	\$2,421
NGPA Section 102 Threshold	3,680	3,680	3,611	3,522	3,682	3,942	4,022
NGPA Section 103 Threshold	2,632	2,657	2,652	2,607	2,478	2,485	2,500
100% of No. 2 Fuel Oil in New York City Threshold	7,178	7,319	7,980	6,928	7,218	7,120	7,408

[FR Doc. 83-11463 Filed 6-23-83; 8:43 am]
GALINA GERR 679-11-2

DEPARTMENT OF LABOR

Occupational Safety and Health

Administrative

29 CFR Part 1952

(Federal Reg. 1-1952)

**Wyoming State Plan Approval of
Revised Compliance Staffing
Benchmarks and Final Approval
Disapproval**

AGENCY: Occupational Safety and

Health Administration (OSHA), Labor.

ACTION: Approval of Revised
Compliance Staffing Benchmarks and
Final State Plan Approval.

SUMMARY: This document amends
Subpart EE of 29 CFR Part 1952 to reflect
the Assistant Secretary's decision
approving revised compliance staffing
benchmarks and granting final approval
to the Wyoming State plan. As a result
of this affirmative determination under
section 12(a) of the Occupational Safety
and Health Act of 1970, Federal OSHA
standards and enforcement authority no
longer apply to occupational safety and

health issues covered by the Wyoming
plan, and authority for Federal
concurrent jurisdiction is relinquished.
Federal enforcement jurisdiction is
retained over private sector maritime
employment, private sector hazardous
waste disposal facilities designated as
"Superfund sites" and activities on the
Warren Air Force Base. Federal
jurisdiction remains in effect with
respect to Federal government
employers and employees.

EFFECTIVE DATE: June 27, 1983.

FOR FURTHER INFORMATION CONTACT:
James Foster, Director, Office of
Information and Consumer Affairs.

5-04659 5012-104 JUN-83 1213-29

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

December 24, 1986

Strat Murdock
Environmental Coordinator
Pathfinder Mines Corporation
Shirley Basin Mine
Shirley Basin, Wyoming 82615

Re: Pathfinder Recharge Drain O & M Manual 86-150R

Dear Mr. Murdock:

The following comments refer to the Pathfinder Recharge Drain O & M Manual:

1. Page 1 - Shouldn't the efficiency of recharge wells be based on flow or pressure in pipe rather than water level. How can you change the water level?
2. Page 1 - Where is the middle culvert on map? Does this 1" line go through the meter? Not shown on plan.
3. Page 1 - If the 1-inch line is necessary for enhancing recharge, why is it allowed to be just a seasonal condition?
4. Page 2 - If the water levels are not being met, what is done to change it?
5. Page 2 - Are the reversal wells within the zone of depression of pumpback wells? Is there a difference between the "reversal" wells and "other" wells?
6. Page 3 - Are there dates when groundwater data is due to NRC/DEQ?
7. What are the pump sizes of both recharged recovery wells?
8. Are there any periodic maintenance requirements?
9. Any long down time should be reported to DEQ.

10. Page A-3 - A matrix showing parameters, container size, and preservations is shown. This matrix needs to be updated and expanded so that it encompasses the entire groundwater monitoring program which is presented under the "Water Quality" section of the same document. In particular, the wells and parameters in the annual sampling require clarification. The attached sampling form is an example of a useful organizational tool which can be modified and adapted to this situation.
11. The Quality Assurance/Quality Control Program for sampling, sample preservation, transportation, and laboratory analyses should be included. This QA/QC program will assure that 1) the data is representative of groundwater conditions; 2) errors in methodology are avoided; 3) cross-contamination is avoided; and 4) consistency in data collection is maintained.
12. A Sampling Plan should include enough detail to guide the individuals actually doing the field work and scheduling the analytical laboratory space. Attached is an example of portions of a sample plan which would apply here. Also included are some example forms which should aid in organizing the field work and in recording data. Each of the items under Methods and Procedures should be addressed in the context of PSB's sampling objectives.
13. Page A-6 - The text indicates that the hose is emptied into a deep well. Which well is receiving this water? Cross-contamination is suspected.
14. Page A-8 - Under "Procedures for Use of Metal Tape", is chalk necessary to clearly indicate where contact with the water is made?
15. The O & M Manual should include a map(s) clearly showing all monitoring locations.
16. Why are wells MP25 and MP27 not included in the monitoring program?

Water Quality Division personnel are available to answer questions and provide more detailed technical assistance.

Sincerely,



Phil Pucel
Engineering Evaluator



Thomas S. Norman
Southeast District Supervisor

PP/TSN/jn

cc: Jake Strohman, DEQ/WQD
Attachment

PREPARATION OF A SAMPLE PLAN

INTRODUCTION

The Sample Plan should be designed to compile all of the information necessary for a complete sampling effort. It is the means by which the sampler reserves the necessary laboratory space.

OBJECTIVE OF SAMPLING EFFORT

Describe the objective of this sampling effort. How are you going to use the data? Do not just state the obvious. Please provide a detailed objective.

BACKGROUND

Identify current and historical site information and data which might have a bearing on the proposed sampling and data collection effort. Include unusual analytical parameters, special methods, and detection limits.

MAPS

All pertinent locations should be identified.

Highlight sampling points, known and potential contamination sources, directions of groundwater flow, and all other significant information on the maps.

REQUEST FOR ANALYSIS (Tabular and Narrative)

Explain why some samples are being analyzed for one suite of analytical parameters and other samples for different parameters suites?

TABULAR REQUEST FOR ANALYSIS

Identify all analytical parameters by matrix on a sample by sample basis in a tabular format.

The table should identify all field QA/QC samples (blanks, backgrounds, replicates, and splits). If extra samples or volumes are needed for Lab QA/QC samples this should be identified.

The table should identify containers, preservatives, and hold times to be used for each sample parameter.

If sampling occurs in episodes, e.g. daily or weekly, devote a page/sample matrix/episode.

The table should specify Special Analytical Service (SAS) needs, e.g. low detection limits, fast turnaround times, non-routine compounds, non-routine analytical methods, and non-routine sample matrix.

Our format does not fit all sampling schemes and is for guidance. Your modified version must include all of the information requested on our form (see appendix A).

METHODS AND PROCEDURES

If the explicit details are included in the Quality Assurance Program (QAP) then the Sample Plan should identify the methods or procedure to be followed and cite the sections and pages in the QAP which have the details. If the procedures are not in the QAP, they must be included in the Sample Plan. In either case the Sample Plan should include enough detail to guide the individuals actually doing the field work and scheduling the analytical laboratory space.

- A) Sample Collection Techniques
- B) Disposal of Contaminated Materials
- C) Equipment Decontamination
- D) Sample Containers
- E) Sample Preservation
- F) Sample Shipment
- G) Sample Documentation
- H) Quality Assurance/Control Samples (Blanks, Background, Replicates, & Splits)

A Sample Collection

Identify the sampling procedures and techniques to be followed.

Include procedures and methods for work such as well bailing, drilling of auger holes, compositing of samples, and sample preservation.

e.g.

Metals in water: Samples are filtered in the field (Indicate the source of the vacuum). Samples are preserved with nitric acid to pH 2 (Indicate the quality of nitric acid used).

Subsurface Soils: The top and bottom of each brass sleeve will be marked in the field (Discuss how the sleeves will be sealed).

Well Installation: Explain the placement scheme for the wells. Discuss the construction of the wells. Discuss the depth of well and length and placement of screened interval. How will the wells be developed?

Where possible, identify those sampling points which will be the source of replicate samples.

Check to make sure that appropriate numbers of blanks (background) and replicates are included for each sample matrix.

Disposal of Contaminated Materials

What will be done with disposal equipment which is contaminated on site?

Identify how contaminated cuttings and well development and well purge water will be collected.

Drummed cuttings and water should be labeled as to point source to insure appropriate disposal.

Discuss the disposal of contaminated materials.

Equipment Decontamination

EPA Region 9 recommended generic procedure prior to initial sampling.

- 1) Wash with non-phosphate detergent.
- 2) Tap water rinse.

You may want to use a different procedure. Give the rationale.

Sample Containers

Identify the parameters which will be combined in sample containers. Make sure that the preservation requirements are compatible and the sample volume will be sufficient.

Sample Preservation

The preservatives used should be indicated on the sample container.

Sample Shipment

Identify how sample shipment will occur. Include method of shipment and the time schedule of shipment relative to sample collection. Do not ship samples as baggage on passenger plants. It is against Department of Transportation (DOT) regulations.

Quality Assurance

1. Replicates

Replicates are a check on the laboratory and field procedures. Collect 1 sample or 10%/parameter/matrix/lab/site whichever is greater. Replicates should be from sampling points which are known or suspected to be contaminated.

Replicates should be for samples which have a complete parameter suite. Identify the sampling point, if known, which will have replicate samples. The replicate should be collected, numbered, packaged, and sealed in the same manner as the other samples.

2. Blank and Background Samples: 1/day/shipment/lab

Blank samples are a check for cross-contamination during sample collection and shipment and on the laboratory. Use analytically certified organic free water for organic parameters. Use deionized water for metal parameters.

Blank samples should be analyzed for the complete parameter suite. The blank is collected, numbered, packaged, and sealed in the same manner as the other samples.

Only one type of blank need be collected. Blanks are listed below based on collection preference.

a. Equipment Blank

Collect after the last rinse of the equipment decontamination process. Use the appropriate "blank" water identified above to fill equipment and then pour it into the appropriate containers. An equipment blank should be collected each time the sampling equipment is decontaminated and reused in the field.

b. Field Bottle Blank

Collect when decontamination of equipment is not necessary or possible. The field bottle blank should be poured at a sampling point.

Background samples (soil & surface water)

Background samples should be analyzed for the complete parameter suite. Background is collected, numbered, packaged, and sealed in the same manner as other samples.

Collect 10% background samples for long term sampling projects.

SITE SAFETY PLAN

Must be approved by the Health and Safety Officer of the organization doing the field work.

Sample Plan Title: _____

Site Name: _____

Site Location: _____

City/State/Zip: _____

Anticipated Sampling Dates: _____

Prepared by: _____ Date

Agency or Firm: _____

Address: _____

City/State/Zip: _____

Telephone: (____) _____

Project Officer: _____ Phone #

Approval Date: _____

* * * * *

Received by Field Operations Branch: _____ Date

Received by Reviewer: _____ Date

Reviewed by: _____ Date

Received by Quality Assurance Management Section: _____ Date

Analysis Reserved by: _____ Date

Concurrence: _____ Date

ROUTE TO NORMA

Phil

REQUEST FOR GROUNDWATER SECTION
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 86-150R

DATE SUBMITTED FOR REVIEW 11-19-86

NAME AND LOCATION OF FACILITY Pathfinder Mines
Shirley Basin

COMMENTS Murdock submitted their draft
OSM manuals and wanted to meet
on 11-20-86. I said you would be back
12-1-86 and we would meet later
that week. Please advise as to time &
date for meeting. I prefer 11-4-86

Please return your comments to me by ~~Tom~~ week of 12-1-86

SIGNED Tom Norman

DATE 11-19-86



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

86-150R

September 25, 1986

CERTIFIED

Strat Murdock
Pathfinder Shirley Basin Mine
Shirley Basin, WY 82615

RE: Operation and Maintenance Manual for Seepage Containment

Dear Mr. Murdock:

The July 17, 1986 settlement stipulation agreed between Pathfinder and the Water Quality Division contained a requirement under Section 8.h. that an operation and maintenance manual be submitted to the Water Quality Division. Proper procedure is to have the O & M manual finalized and approved prior to completion of the construction and start of operation. This is necessary so that the operator can effectively run the system from initial start-up.

The Water Quality Division has not received an O & M manual and yet Pathfinder has stated that construction is complete. The failure to submit the O & M manual violates the settlement stipulation. Please respond within 15 days as to when the draft and final O & M manual will be submitted to the Water Quality Division for review and approval.

Sincerely,

Thomas S. Norman, P.E.
Southeast District Engineer Supervisor

TSN/ad

cc: Phil Pucel
Weldon Caldbeck

PERMIT TO CONSTRUCT

New
 Renewal
 Modified

Permit No. 86-150R
SEE CONDITIONS ON BACK

Pathfinder Shirley Basin Mine
(Name of Facility)

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

Pathfinder Mines Corporation

Shirley Basin, WY 82615

to construct, install, or modify a seepage containment facility according to the procedures and conditions of the application No. 86-150R. The facility is located in Section 28, T28N, R78W in the County of Carbon, 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.

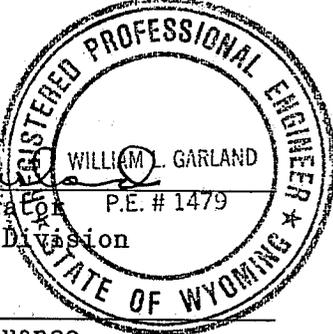
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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 L. Garland
Administrator P.E. #1479
Water Quality Division
07-09-86
Date of Issuance

Ralph 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 #86-150R

1. Per the June 17, 1986 letter from Pathfinder Shirley Basin to the Water Quality Division, several wells, in addition to those included in the permit application, will be monitored for static water levels.
2. The system will be operated, maintained, and monitored as prescribed in the permit application.
3. If the Water Quality Division annual review indicates that mitigation is inadequate, additional measures will be implemented as soon as weather permits.
4. The seepage containment system shall be constructed and properly operating by September 30, 1986.