

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 81-151R

Q-SAND IN-SITU LEACH PROJECT

(Name of Facility)

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

Kerr-McGee Nuclear Corporation

P.O. Box 25861

Oklahoma City, Oklahoma 73125

to construct, install, or modify process wastewater evaporation ponds

facility according to the procedures and conditions of the

application No. 81-151R. The facility is located in

Section 36, T.36N., R.74W.

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 this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, 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
Water Quality Division
STATE OF WYOMING
REGISTERED PROFESSIONAL ENGINEER
WILLIAM L. GARLAND
P.E. # 1479

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

July 8, 1981
Date of Issuance

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

Conditions
Attached to Permit to Construct
Reference Number 81-151R
Q-Sand In-Situ Leach Project

1. The permittee shall monitor, daily, the leak detection sumps shown on the plans. If liquid is detected in the sumps, it shall be sampled, analyzed for chloride content, and a determination made as to whether it constitutes leakage from the ponds.
2. The permittee shall keep records of the above monitoring activity and, upon request, make such records available to personnel of the Department of Environmental Quality.
3. The permittee shall report as soon as possible any suspected or confirmed leakage from the ponds to the Administration of the Water Quality Division. The permittee shall also submit a complete written report to the Division following any leakage incident, including cause, amount of leakage and mitigating actions taken.

Unapproved

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 Coffeen Ave., Suite 301
Sheridan, Wyoming 82801

PROJECT: Q-Sand In-Situ Project Pond

ARCHITECT OR ENGINEER: Kerr-McGee Corporation

WATER QUALITY DIVISION REFERENCE NUMBER: 81-151

REVIEWING ENGINEER: Tom Mueller *TMM*

DATE OF REVIEW: May 11, 1981

ACTION: Not Authorized for Construction

COMMENTS:

1. Drawing No. ATW-05-C01 (Figure 6) should be revised to show the two inch slotted pipe resting directly on the "compacted soil" beneath the sand bed.
2. Will the openings in the slotted pipe be small enough to prevent infiltration of the "sand fill" material into the pipe? Such infiltration could cause a failure of support for the artificial liner, with subsequent failure.
3. Monitoring of the proposed leak detection sumps should be more often than weekly. Any samples taken from the sumps should be monitored to verify the source of fluid. Please verify that chloride monitoring alone will accomplish this.



Norma



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

933 MAIN

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

April 6, 1981

Mr. Dale Peterson
Rocky Mountain Engineering & Surveying, Inc.
P.O. Box 805
Evanston, WY 82930

Re: Marion Aimone Mobile Park North, 81-152

Dear Mr. Peterson:

Enclosed is the material submitted by you in regard to the above referenced project. This project cannot be permitted, as it will probably result in the Ft. Bridger Sewer and Water District's exceeding their discharge permit limitations. Until the Ft. Bridger wastewater stabilization pond is modified, further connections to the wastewater collection system will not be permitted.

Attached to this letter is the pertinent correspondence. If you have questions, please call.

Respectfully,

Albert J. Berreth

Albert J. Berreth
Southwest District Engineer

AJB:nb
cc: Jake Strohman
Enclosures

MEMORANDUM

TO: For the Record
FROM: Al Berreth *ajh*
DATE: April 6, 1981
SUBJECT: Connections to the Ft. Bridger Sewer System

The Ft. Bridger wastewater treatment facility consists of one 3.75 acre flow-through lagoon of a depth of five to six feet. "Ten-States Standards" require the BOD loading rate to be between 15 and 35 lb. per acre-day. However, it states a major design consideration "must be directly related to the climatic conditions." Recommended detention time is between 90 and 120 days, with the cold weather period as a basis of consideration.

Information supplied by Rocky Mountain Engineering and Surveying, of Evanston, and Eckhoff, Watson and Prestor Engineering of, Salt Lake City, Utah, is tabulated below.

Influent		Effluent	Population	Per Capita Contribution	
BOD	Flow	BOD	439	BOD	Flow
60-80 ppm	160,000 gpd (110,000 gpd infiltration)	20-40 ppm		<u>.18 lb</u> Cap-day	<u>364 gal</u> Cap-day

Information supplied by the Technical Services Branch of WQD indicates that the Ft. Bridger lagoon effluent is within permit limitations. The data supplied varied between 11 and 25 ppm BOD₅.

The critical period is winter, when biological activity is slowest. Four degrees Centigrade was chosen as a representative temperature for this period. Metcalf and Eddy's Wastewater Engineering, 1st Edition, states an acceptable value of K is 0.10/day for domestic sewage. Corrected for temperature, K equals 0.0132/day. For determining detention time, Metcalf and Eddy recommend use of a graph presented in the book. Values of 1.0 for dispersion coefficient and 60% removal of BOD₅ yields a value of approximately 1.3 for Kt, where K is the corrected rate constant and t is detention time in days. The value of detention time, t, calculates to 98 days. Current detention time is 38 to 46 days, depending on pond depth (five or six feet). This would indicate that the permit requirements may be exceeded in winter, even under current conditions. At this point, it is worth noting that the winter monitoring report was not available for this evaluation.

Therefore, any further additions to the Ft. Bridger system could result in the effluent exceeding permit requirements. Until the system is expanded, no "Permit to Construct" will be issued that utilize the Ft. Bridger wastewater system.

AB:nb
cc: Jake Strohman
Dale Peterson

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-153RR

Note "Condition" on reverse side.

GROS VENTRE UTILITY DISTRICT SEWAGE TREATMENT PLANT
(Name of Facility)

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

Gros Ventre Utility Company
P.O. Box 2263
Jackson, WY 83001

to construct, install, or modify a sewage treatment plant

facility according to the procedures and conditions of the application No. 81-153RR. The facility is located in Sec. 34, T. 42N, R. 116W

in the County of Teton,

in the State of Wyoming. This permit shall be effective for a period of two 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

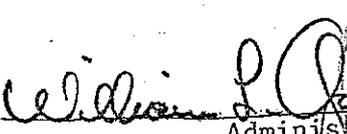
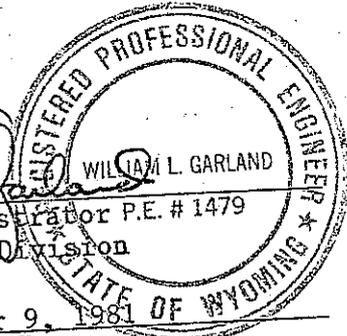
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

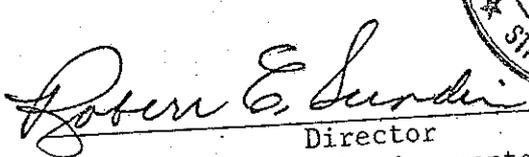
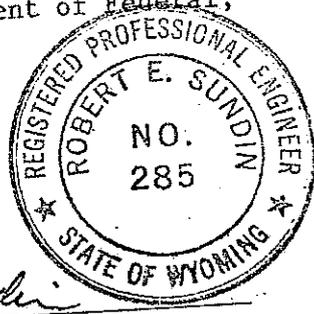
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, 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
September 9, 1981
Date of Issuance



Director
Dept. of Environmental Quality


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

Condition:

This permit is issued with the understanding that a draft of the O & M manual will be presented, by 50% completion of the project, and the finalized O & M manual by 90% completion of the project, to the Lander office, in triplicate.

AB:nb
9-11-81

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET,
LANDER, WYOMING, 82520.
(307) 332-3144

PROJECT: GROS VENTRE UTILITY DISTRICT - SEWAGE TREATMENT PLANT

ENGINEER: NELSON ENGINEERING ATTN: PAUL J. ALLISON
P.O. BOX 1599
JACKSON, WY 83001

OWNER: GROS VENTRE UTILITY CO.
P.O. BOX 2263
JACKSON, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER:

81-153 R

REVIEWING ENGINEER: AL BERRETH *ajf*

DATE OF REVIEW: JUNE 10, 1981

ACTION: NOT AUTHORIZED.

COMMENTS: The following items, as related to the first review, require further clarification:

- Item 1. It needs to be shown through calculations that your treatment process can meet its discharge permit requirements. Please note your source. Please address peak flow conditions as well as minimum flow conditions.
- Item 3. What is the design life of the facility? Please explain your choice.
- Item 4. The terms you have listed are acceptable. These will be a condition of the permit.
- Item 6. Either a bypass or second comminutor must be provided to prevent pump damage or clogging.
- Item 7. What about the airlift pumps? Please send information.
- Item 9. How much air will be required to prevent the sludge from becoming anaerobic? Do you intend to aerate to this degree?
- Item 12. What is the pipe flow velocity in the sludge line to the sludge holding facility during recycle? What recycle rates are expected? What sludge concentration is expected? More information is required on the valves, particularly on their throttling capability. Process variability will also need to be addressed.
- Item 17. It needs to be shown that the existing chlorine building is in compliance with Wyoming Water Quality Rules & Regulations.

Item 21. The letter has not yet been received. The acceptability will be checked with Charles Porter of solid waste.

Item 22. Please expound upon the oxygen requirement calculations. Note your assumptions and why. Where does this equation come from?

In addition to these points, two additional questions have come up.

Item 25. How long can the lift station contain inflow without overflowing? When an overflow occurs, where does it go?

Item 26. Adequate mixing in the aeration chambers needs to be addressed.

AB:sj

cc: Joe Chalfant, Teton County Sanitarian

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Gros Ventre Utility District Sewage Treatment Plant

ENGINEER: Nelson Engineering
P.O. Box 1599
Jackson, WY 83001

ATTN: Paul J. Allison

OWNER: Gros Ventre Utility Co.
P.O. Box 2263
Jackson, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 81-153

REVIEWING ENGINEER: Al Berreth ^{ajb} and Rich Ruyle ^{RR}

DATE OF REVIEW: March 30, 1981

ACTION: Not authorized.

COMMENTS:

The application for "Permit to Construct" is being held pending clarification of the following items:

- 1) What type of process is this facility designed for -- activated sludge (conventional step aeration, contact stabilization, extended aeration), or aerated lagoons? Complete design calculations are required. Existing data on influent strength should be utilized for design. Calculations should include degree of treatment to be obtained.
- 2) Is the nitrogen loading number obtained from existing data?
- 3) How many residential units are you designing for? What is the design life of the facility? Is there anticipated population growth in this district?
- 4) An O & M manual must be provided for the modified facility.
- 5) A grit removal system and coarse bar rack should be provided in front of the comminutor. A minimum of bar rack and gravel trap must be provided.
- 6) A by-pass with bar screen must be provided around the comminutor.

A, B, C

- 7) Pump curves need to be supplied for all pumps.
- 8) Manufacturer's information on the discharge flume is required.
- 9) Details in the sludge holding and digesting process are needed. Will modifications be made?
- 10) Scum removal is required for the settling tank.
- 11) Manufacturer's information on the performance of the floating aerators is needed.
- 12) How is the return sludge flow rate to the aerated ponds controlled independently from sludge removed for holding and digestion?
- 13) A method of flow measurement and sampling for returned sludge must be provided.
- 14) Is the facility in the flood plain of the receiving, or any other, stream? Complete protection from the 100-year flood must be provided.
- 15) Are there existing flow records? What does the typical day's flow graph look like?
- 16) What is the function of the 3' x 3' weir opening at the end of the aeration tank?
- 17) Is the chlorine building going to be modified? Please describe process.
- 18) "Ten-States Standards" requires that, "Each hopper shall have an individually valved sludge withdrawal line at least six inches in diameter."
- 19) The inlet structure to the final clarifier should evenly divide the flow horizontally and vertically.
- 20) What number of air changes per a unit of time can be provided in the building?
- 21) How will the stabilized sludge be disposed of? Please supply letter of acceptance from the receiver.
- 22) Describe affect on facility with an aerator out of service and an air lift pump out of service.
- 23) A manufacturer's representative needs to be on-site for the installation and start-up of major mechanical items. This needs to be incorporated for any items not readily installed.
- 24) Where will the lab work be done -- in particular, the day-to-day information needed?

6-10-81

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-154RR

Teewinot Condominiums
(Name of Facility)

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

David Johnson Jackson Hole Builders
Box 290
Teton Village, WY 83001

to construct, install, or modify a sewer and water line extension

_____ facility according to the procedures and conditions of the application No. 81-154RR. The facility is located in Lot 178 Teton Village Sec. 24, T.42N., R.117W.

_____ in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two 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.

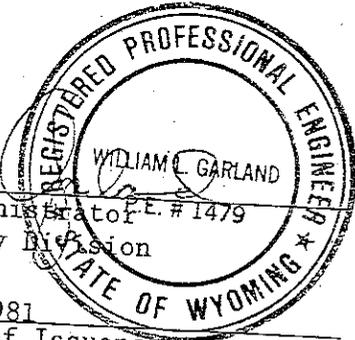
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, 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

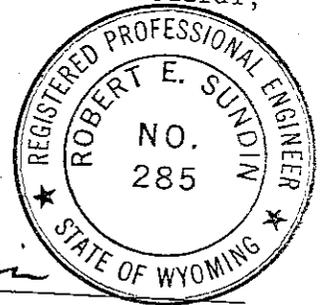


Administrator
Water Quality Division

June 4, 1981

Date of Issuance

Robert E. Sundin



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
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Teewinot Condominiums Sewer Extension

ENGINEER: Paul J. Allison
Nelson Engineering
P.O. Box 1599
Jackson, WY 83001

OWNER: David Johnson
Jackson Hole Builders
Box 290
Teton Village, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 81-154

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: April 1, 1981

ACTION: Not authorized.

COMMENTS: The following items need to be addressed before a "Permit to Construct" can be issued.

1. Are all the units to be served shown? Twenty units are specified on the application, yet only four buildings are on the plans. Are there five units in each building?
2. If there are five units in each building, I question the adequacy of a 4" sewer branch to serve this many units. A 6" line will have to be used.
3. The cleanouts should be shown to extend 4" above ground level on the plans. Also, the dimensions of the concrete slab around the cleanout should be noted.
4. I suggest extending the 8" sewer line northward and placing an additional manhole between the two northern units as noted on the plans. This will shorten the service lines and provide for straight pipe access to the units and easier cleanout capability.
5. Details of the three sewer-water crossings circled on the plans should be provided.
6. The type of PVC sewer line used should be specified on the plans.
7. The type of trench excavation and trench bedding to be used need to be specified.

A, B, C

April 1, 1981

8. All specifications including references to Wyoming Public Works Standard Specifications and any special provisions have to be listed on drawings.

I remind you that adhering to the above changes does not necessarily constitute final approval of the extension. Plans and specifications will have to be resubmitted to this office for review.

If you have any questions, you may contact me at this office.

RR/kn

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.

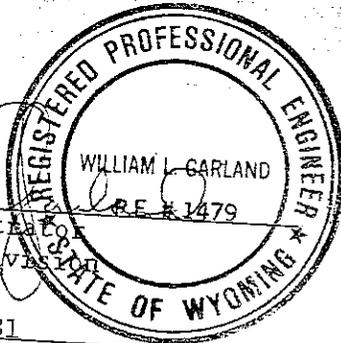
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, Lander, Wyoming, 82520; telephone 332-3144.

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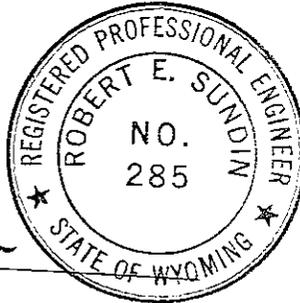
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AUTHORIZED BY:

William L. Garland
Administrator
Water Quality Division



Robert E. Sundin
Director
Dept. of Environmental Quality



June 4, 1981
Date of Issuance

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
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Wind River Condominiums Water and Sewer Line Extension

ENGINEER: Paul Allison
Nelson Engineering
P.O. Box 1599
Jackson, WY 83001

OWNER: Don Erickson Patch
Erickson, Madson and Watten Architects
2311 Wayzata Boulevard
Minneapolis, MN 55405

WATER QUALITY DIVISION REFERENCE NUMBER: 81-155

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: April 1, 1981

ACTION: Not authorized.

COMMENTS: I have reviewed the plans and specifications for the above referenced extension. The following items need to be addressed before a "Permit to Construct" can be issued.

1. Use of a 2" water line to serve 15 units is very questionable. A larger pipe is probably needed to provide required water volume and pressure to all units. Hydraulic calculations justifying use of the selected pipe size should be provided.
2. A water line serving 15 units cannot be viewed as a service line but rather is considered a submain. Consequently, details should be provided for the water line including profiles, sewer-water crossing details, including sewer crossing of existing 8" watermain, thrust block locations and details, and typical service line connections to submain.
3. Flushing hydrants or blowoff valves should be provided in the two spots where the water line dead ends.
4. Manholes rather than cleanouts are required at the end of sewer lines "B" and "C".
5. The type of PVC sewer line used should be specified on the plans.
6. Details of a typical sewer service line connection need to be shown on the plans. Use of a 45 degree Y is suggested.

A.B.C.

April 1, 1981

7. Additional sections of Wyoming Public Works Standard Specifications that need to be referenced are Section 301 - Water Mains and Section 302 - Water Valves. In addition, the type of trench excavation and trench bedding to be used need to be specified.
8. All specifications including references to Wyoming Public Works Standard Specifications and any special provisions have to be listed on drawings.

I remind you that adhering to the above changes does not necessarily constitute final approval of the extension. Plans and specifications will have to be resubmitted to this office for review.

If you have any questions, you may contact me at this office.

RR/kn

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-156
 Reference 79-398

FIRST BAPTIST CHURCH SUBDIVISION/POWELL WATER MAIN EXTENSION
 (Name of Facility)

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

First Baptist Church - c/o Larry E. Biladeau
P.O. Box 966
Powell, WY 82435

to construct, install, or modify an eight-inch water main extension

~~XXXXXXXXXX~~ according to the procedures and conditions of the application
 No. 81-156. The facility is located in Tract 74-C, T.55N,
R.99W.

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

The issuance of this permit provides that the Department of Environ-
 mental 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 responsi-
 bility of the applicant, owner, or operator.

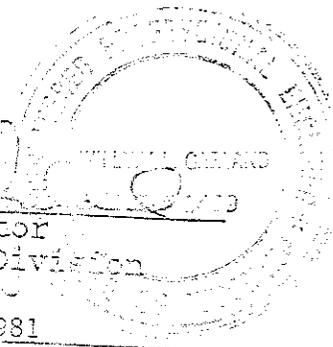
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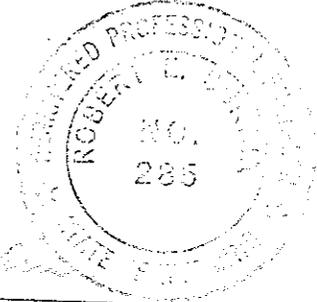
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AUTHORIZED BY:


William J. [Signature]
Administrator
Water Quality Division


[Signature]
Director
Dept. of Environmental Quality

March 27, 1981
Date of Issuance

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

MRC:NKB

C 8/16

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 81-157

See Special Condition

Sweco, Inc.
(Name of Facility)

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

Commercial Building Systems

1971 East Yellowstone

Casper, WY 82601

to construct, install, or modify a two subsurface sewage disposal facility according to the procedures and conditions of the application No. 81-157. The facility is located in Section 34, T34N, R80W 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.

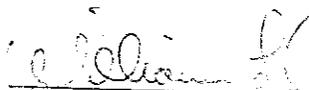
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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.

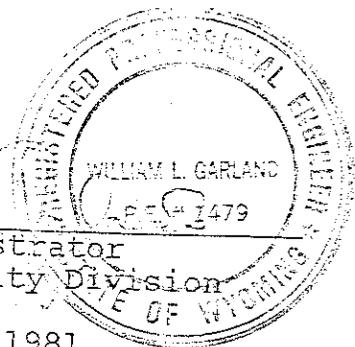
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:

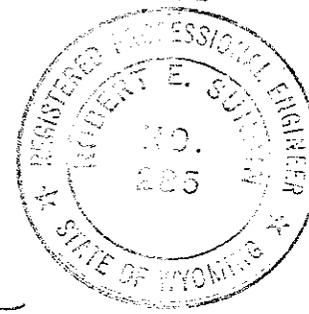


Administrator
Water Quality Division
STATE OF WYOMING





Director
Dept. of Environmental Quality



April 8, 1981
Date of Issuance

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

cc: Gray C. Wangelin
Engineering Inspection Testing Service
P. O. Box 4075
Casper, WY 82604

Conditions to Permit to Construct

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.



THE STATE OF WYOMING

Norma

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

933 MAIN

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

April 8, 1981

Mr. James Wiley
Assistant Project Manager
Daniel Construction Co.
P.O. Box 966
Evanston, WY 82930

Re: Chevron Carter Creek Bachelor Housing
Facility, DEQ No. 81-158

Dear Mr. Wiley:

A review of the "as built" plans for the above referenced facility has been completed. The plans appear to meet minimum design standards in all aspects, except one.

A concrete collar, four inches thick and 12 inches in diameter, is required around all sewer riser pipes. This is not shown on the plans. We are requesting that a concrete collar be placed around all sewer riser pipes which have not yet been covered by a living unit.

Based upon your compliance with this request, this letter can be considered to be formal approval of the plans. If you have any questions, contact me at this office.

Yours truly,

Francis LaBarge

Francis LaBarge
Water Quality Evaluator
Southwest District

FL:nb

Enclosure

cc: Jake Strohman - Engineering Control Supervisor, Cheyenne DEQ/WQD
Ken Walker - Uinta Engineering & Surveying, Inc.

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 81-159RRRRR

ST. STEPHENS INDIAN SCHOOL WASTEWATER TREATMENT AND WATER SUPPLY SYSTEMS
(Name of Facility)

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

Department of the Interior, BIA

Div. of Fac. Engr.
P.O. Box 1242

Albuquerque, N.M. 87103

to construct, install, or modify a

sewerage works and water works

facility according to the procedures and conditions of the

application No. 81-159RRRRR. The facility is located in

Sec. 8, T. 15N, R. 4E

in the County of Fremont,

in the State of Wyoming. This permit shall be effective for a period of two
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 sovereignty.

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 this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, 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.

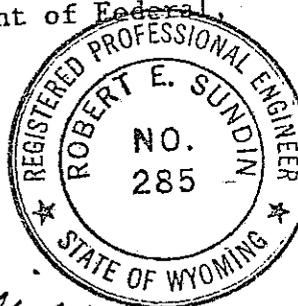
AUTHORIZED BY:

William L. Garland
Administrator
Water Quality Division



Robert E. Sundin

Director
Dept. of Environmental Quality



July 30, 1981
Date of Issuance

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

MRC:nb
7/31/81

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: St. Stephens Indian School Water Supply and Sewage Disposal Systems

ENGINEER: Sullivan and Massson Attn: Louis Sullivan, P.E.
725 West McDowell Road
Phoenix, AZ 85007

OWNER: St. Stephens Indian Mission, Inc.
Wind River Indian Reservation
St. Stephens, Wyoming 82524

Department of the Interior
Bureau of Indian Affairs
Division of Facilities Engineering
Albuquerque, NM

WATER QUALITY DIVISION REFERENCE NUMBER: 80-159

REVIEWING ENGINEER: M. Robin Collins, P.E. *M. Robin Collins*

DATE OF REVIEW: March 31, 1981

ACTION: Not authorized.

COMMENTS:

After reviewing the aforementioned project, I would like to offer the following comments for your consideration in processing the necessary "Permit to Construct":

A. Sewage Disposal System

1. Lift station is under-designed. The flow of 15,000 gpd occurs within eight hours, not 24 hours.
 - a. Recommend the pump capacities be increased accordingly.
 - b. Recommend the wet well storage be enlarged so that each pump does not need to cut on more than 2-3 times per hour.
2. Should add at least six feet of additional head to the pump's lift capacity as stated in "Ten-States Standards."
3. Should calculate altitude corrections to the lift capacity.
4. Should specify that the submersible pumps can pass at least a 3" solid.
5. We question the need of installing a three-phase power line to the lift station for only "1-hp. motors."

A, B, C

6. Can submersible pumps be easily removed without dewatering the wet well or disconnecting any piping in the wet well?
7. Vent pipe should be ductile iron or galvanized in order to prevent possible damage from vandals.
8. Recommend installing lift station closer to school and pump to lagoon so as to eliminate installing manholes and piping below groundwater table and to such depths as shown on sheets C-1A and C-5. Install pressure-type cleanouts at 300' intervals.
9. Recommend the bio-separator curtain be replaced with fiberglass panels, which are more resistant to Wyoming's wind and ice build-up problems.
10. Recommend the aerators placed on the south side of the curtain be removed so as to increase the quiescent zone settling efficiency.
11. Do not need an overflow trench.
12. Need gate valve on pond drainline.
13. Why install check valves on the effluent and drain lines?
14. How will pond depth be controlled without using drainline? Recommend consideration be given to using a concrete discharge structure with variable level controls.
15. Will embankment sloughoff plug up the outlet structures? Recommend at least a six-inch raised collar be installed on the upslope side of the outlet structures.
16. Discrepancy between six-inch effluent pipe shown on "Lagoon Installation Cross-section" and four-inch effluent pipe shown on outlet structure detail be clarified, on sheet C-4.
17. Not enough cover over lift station force main between the lift station and earth berm as presently drawn.
18. Need soil borings closer to the disposal site.
19. Should specify wye service connections from the school to the sewer mains.
20. Recommend the effluent line cleanouts be replaced with manholes.
21. Why use cast iron pipe for effluent line? Is this ground swampy?
22. Recommend piping within lift station be ductile iron or galvanized pipe.
23. Recommend outlet structure for effluent be placed at least three feet above the pond bottom in order to obtain better effluent quality.

24. Recommend force main pond inlet be turned upward, instead of downward, so as to eliminate the need of an inlet splash apron.
25. Further specifications and details are needed for the blower and aeration piping. Will splash pads be needed under aerators? Need to specify a thick-walled PVC pipe for air distribution piping.
26. Some type of ventilation should be installed in the blower building in order to eliminate potential problems from condensation.
27. Aerated pond may need to be of greater depth. Pond bottom should not be disturbed by the aeration equipment. May need to add an impervious barrier underneath aerators, or reduce sizing of the aeration equipment.
28. Recommend consideration be given to utilizing another type of sewage treatment plant. Please contact this office for further discussions of more practical mechanical treatment plants that have been known to work satisfactorily in Wyoming's climate.
29. The enclosed application form for a "Permit to Construct" needs to be properly completed, signed, and returned to this office.

B. Water Supply System

1. Should specify that in all vertical water and sewer line crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. Concrete encasement or equivalent should be specified only if vertical separation distances are less than 18".
2. Discrepancy on Sheet C-7 between a ten-foot and 15-foot horizontal separation for water and sewer lines should be resolved.
3. Recommend fire hydrants be located at least 50 feet from the school building.
4. Recommend a specified maintenance program for the fire protection system be initiated on a regular basis in order to verify operational effectiveness. Things to check include pump workings, fire hydrants, and possible siltation of inlet structure. Consideration can be given to this system for also providing the necessary irrigation water, if practical.
5. Recommend all hydrant pipe leads be at least 6" in diameter.
6. Fire hydrants should have a bottom valve size of at least 5", one 4½" pumper nozzle, and two 2½" nozzles.
7. Low flows of the Little Wind River should be checked to insure minimum fire flows can be delivered to school building with present design arrangement. If this cannot be done, recommend consideration be given to installing a 60,000 gallon storage tank with appropriate booster pumps for satisfying potable water supply purposes, as well as fire protection. Care should be given to such a

new system to insure excessive stagnation will not occur in such a large storage tank.

8. Thrust block areas should be further defined. Thrust blocking should vary with specific soil conditions encountered on the site.
9. Delete the 3/4" diameter measuring pipe in the well.
10. Discrepancy between specifications and drawings on well casing diameter of 8-inch or 10-inch should be resolved.
11. May be cheaper to use a thick-walled PVC pipe for casing instead of the specified steel pipe.
12. Pitless unit casing (6-inch diameter pipe) should terminate at least 18" above final ground elevation, or five feet above highest known flood elevation.
13. What is the purpose of the 8-inch casing, as shown on Sheet C-8?
14. A means for removing and supporting pump, screen, and riser pipe needs to be given. Please reference the attached picture for a typical pitless unit adaptor for further description.
15. Provisions need to be made for venting the well casing to atmosphere. The vent shall terminate in a down-turned position, at or above the top of the casing, in a minimum 1½" diameter opening, covered with a 16-mesh corrosion-resistant screen.
16. The design of the pitless unit shall make provisions for:
 - a. Access to disinfect the well.
 - b. A cover at the upper terminal of the well that will prevent the entrance of contamination.
 - c. A contamination-proof entrance for electrical cable.
 - d. At least one check valve within the well casing.
17. Pitless units shall:
 - a. Be shop-fabricated from the point of connection with the well casing to the unit cap or cover.
 - b. Be threaded or welded to the well casing.
 - c. Be of water-tight construction throughout.
 - d. Be of materials and weight at least equivalent and compatible to the casing.
 - e. Have field connection to the lateral discharge from the pitless unit of threaded, flanged or mechanical joint connection.
18. Further specifications for the concrete grout need to be submitted.
19. Some type of ventilation should be installed in the fire line booster pump housing.

Review of Plans and Specifications

St. Stephens Indian School Water Supply and Sewage Disposal Systems

Date of Review, March 31, 1981

Page Five

20. PVC piping should not be connected directly to the booster pump because of possible vibration fatigue.
21. Means for disinfecting wells, water mains, and storage tank need to be further defined as the Department of Health and Social Services does not have such specifications.
22. Further information on the storage tank's foundation needs to be given.
23. Storage tank drain line needs to be located off of the tank bottom, flows to daylight, and enlarged to facilitate quicker emptying.
24. An overflow pipe needs to be added to the storage tank.
25. Mushroom vent needs to be screened with a 16-mesh copper, brass or bronze screen.
26. Stronger pipe or further support of the PVC piping into and out of the storage tank needs to be specified.
27. The bolted steel storage tank should reference and follow the specifications, as outlined in AWWA D103-80.

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 81-160

PROCESS EQUIPMENT COMPANY SEPTIC SYSTEMS

(Name of Facility)

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

Sheridan Agri Center

Box 6264

Sheridan, Wyoming 82801

to construct, install, or modify a septic wastewater disposal

facility according to the procedures and conditions of the application

No. 81-160. The facility is located in _____

Section 1, 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.

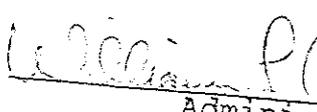
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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.

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

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

AUTHORIZED BY:



REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING
NO. 179
Administrator
Water Quality Division
April 17, 1981
Date of Issuance



REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING
NO. 285
Director
Dept. of Environmental Quality

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

xc: Elmer Kuball
Pilch Engineering
45 E. Loucks Street
Sheridan, WY 82801

18/

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-161R

Town of Mills - Storm Water Discharge Facility
(Name of Facility)

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

Town of Mills

P. O. Box 787

Mills, WY 82644

to construct, install, or modify a wastewater treatment facility facility according to the procedures and conditions of the application No. 81-161R. The facility is located in Section 7, 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.

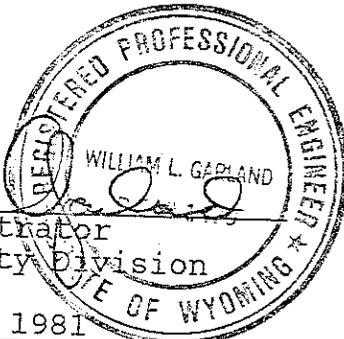
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

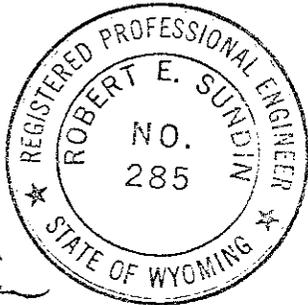
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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
April 28, 1981
Date of Issuance


Robert E. Sundin
Director
Dept. of Environmental Quality

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

cc: Terry Titus
Worthington, Lenhart, Carpenter, & Johnson
632 South David Street
Casper, WY 82601

Review of Plans and Specifications

L2/4-8-81

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
401 West 19th Street
Cheyenne, Wyoming 82002

PROJECT: Town of Mills Storm Water Pond

ARCHITECT OR ENGINEER: Terry Titus, Worthington Lenhart & Carpenter,
Inc.
632 South David, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 81-161

REVIEWING ENGINEER: *Leroy C. Feusner*
Leroy C. Feusner, P. E.

DATE OF REVIEW: April 6, 1981

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Two copies of an application for a Permit to Construct must be submitted with plans.
2. What material/construction specifications will be used?
3. I cannot determine from drawing how a siphon would work for this pond to eliminate discharge of oil & grease. Please show detail.

5-26-81

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 81-162R

Sutphin Condominiums
(Name of Facility)

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

Donald M. Sutphin

700 Harisson

Douglas, WY 82633

to construct, install, or modify a packaged sewage treatment plant and subsurface disposal field facility according to the procedures and conditions of the application No. 81-162R. The facility is located in Section 15, 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.

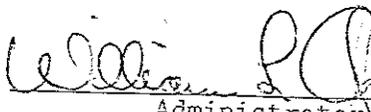
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

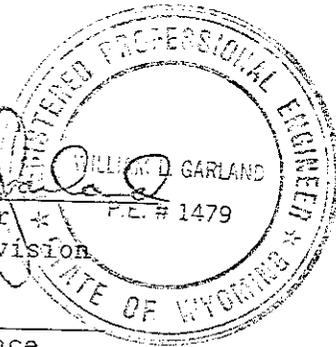
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Water Quality Construction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

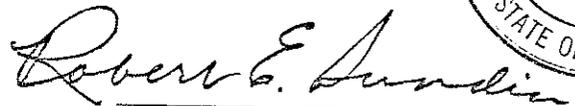
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

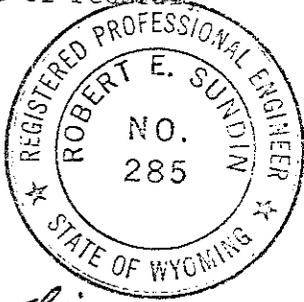
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM L. GARLAND
Administrator * P.E. # 1479
Water Quality Division
May 14, 1981
Date of Issuance




ROBERT E. SUNDIN
Director
Dept. of Environmental Quality



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

cc: Carter-Leikam & Associates
740 South 4th, Suite D
Douglas, WY 82633

L216

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
401 West 19th Street
Cheyenne, Wyoming 82002

PROJECT: Sutphin Condominiums

ARCHITECT OR ENGINEER: Thomas E. Burnett, P.E., Charter-Leikam &
Associates
740 South 4th, Suite D, Douglas, WY 82633

WATER QUALITY DIVISION REFERENCE NUMBER: 81-162

REVIEWING ENGINEER: Theodore D. Coyer, P.E. *Theodore D. Coyer*

DATE OF REVIEW: April 9, 1981

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Please provide test data which indicates treatment plant winter operating conditions.
2. Detailed drawing of the treatment plant have not been received. Please submit them so that my review can be completed.
3. Provide specifications and detailed drawings for the solids return pump which is to be installed in the second clarifier.
4. A manhole must be provided at the east end of the sanitary sewer main.
5. Some arrangement must be made to prevent vehicles from parking on or crossing the treatment plant and drainfield, without creating a hazard.
6. Who will be responsible for maintaining the system once the condominiums are sold?

81-163



THE STATE OF WYOMING

BO HERSHMAN
SECRETARY

Department of Environmental Quality

Water Quality Division

401 W. 19TH STREET

EQUALITY STATE BANK BUILDING
CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7731

April 22, 1981

Harry B. Patterson, P.E.
Patterson, Weber and Associates
437 South Spruce
Casper, WY 82601

RE: Casper College - Myra Skelton Fox Addition, Casper,
Wyoming

Dear Mr. Patterson:

In your letter of March 19, 1981 concerning the above named project, you requested approval of the existing four (4) inch diameter sewer serving the facility. I have discussed this with Mr. Strocian, Non-Municipal Operations Section Supervisor and we have concluded that your proposal is acceptable and a construction permit will not be required.

If you have any questions about this, please feel free to contact us.

Very Truly yours,

Theodore D. Coyer, P.E.
Water Quality Engineer

WJ/mb

March 19, 1981

Department of Environmental Quality
Water Quality Division
Equality State Bank Building
Cheyenne, Wyoming 82002

ATTN: Theodore D. Coyer
Environmental Engineer

RE: Casper College Myra Skelton Fox Addition
Casper, Wyoming



Dear Mr. Coyer:

In reply to your letter of February 25, 1981 concerning the existing 4" branch sewer presently serving Myra Skelton Fox Energy Institute, the plans you reviewed are for the new addition to Myra Skelton Fox Energy Institute. The existing sewer is a 4" V.C.T. line running approximately 450 feet with cleanout every 100 feet and connecting into a manhole in the main 8" sewer line. We propose to re-route (as necessary) the present 4" service line to miss the new addition and connect to the present line. We are adding 47 more drainage fixture units which brings the total fixture units that the 4" line would handle to 94. We do not know the present slope on the 4" line, however, there is approximately 21 feet difference between the finished floor of the building and the flow line in the manhole that we connect into. We did not change the 4" on account of cost because it runs under an asphalt parking lot and the 4" sewer line at a minimum 1/8" slope will carry 180 fixture units and would be capable of handling the 94 that we will need to carry. We did not show a cleanout where our 4" service line changes in direction of about 20 degrees, however, we will install one there if we could use the 4" line.

We would appreciate if you would see yourself clear to approve the existing 4" line. We do understand that a 6" line would be a much better line size to pull maintenance on. This project cannot stand any more cost unless absolutely necessary.

Very truly yours,

Patterson, Weber & Associates
Harry O. Patterson
Harry O. Patterson, R.P.E.

HOP/aa

cc: Henry Therkildsen

M
4-27-81

PERMIT TO CONSTRUCT

Permit No. 81-164

- New
- Renewal
- Modified

Tri-View Sewer and Water
(Name of Facility)

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

Casper Board of Public Utilities

200 N. David

Casper, WY 82601

to construct, install, or modify a sanitary sewer and water main facility according to the procedures and conditions of the application No. 81-164. The facility is located in Section 19, 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.

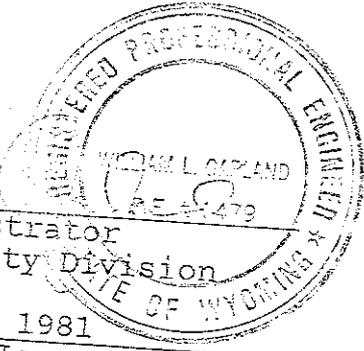
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

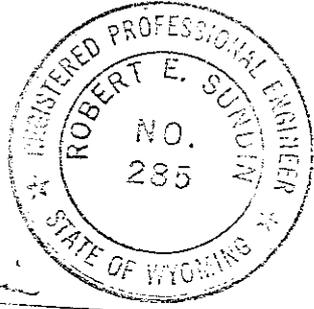
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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:


Michael L. Kazand
Administrator
Water Quality Division
April 21, 1981
Date of Issuance


Robert E. Sundin
Director
Dept. of Environmental Quality

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

cc:



THE STATE OF WYOMING

RECEIVED

FEB 2 1982

WYCON, CHEYENNE

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

January 14, 1982

CERTIFIED

R.W. Martin
Wycon Chemical Co.
P.O. Box 1287
Cheyenne, WY 82001



Dear Mr. Martin:

Our records indicate your application for a permit to construct, Reference Number 81-165RR, Facility Name Wycon Chemical Co., has not been resubmitted to this office. Please indicate below the status of your application.

The application will not be resubmitted. The application is to be removed from DEQ files.

The application will be resubmitted within 30 days.

The facility has been constructed, or is under construction.

Other remarks _____

If this letter is not returned within 30 days, your application will be removed from our files.

Sincerely,

Thomas S. Norman

Thomas S. Norman
Water Quality Division

cc: R.W. Martin
P.O. Box 1287
Cheyenne, WY 82001

486

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
401 West 19th Street
Cheyenne, Wyoming 82002

PROJECT: Wycon Chemical Company

ARCHITECT OR ENGINEER: R.W. Martin
P. O. Box 1287, Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 81-165RR

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

DATE OF REVIEW: May 5, 1981

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The polyethylene liner must be extended to the ground surface (a requirement of Chapter III). The reason that evapotranspiration (E-T) beds are installed rather than drainfields is because of either high groundwater or bedrock problems. The E-T system better treats the wastewater rather than allowing it to get into the groundwater. The PVC liner assures that if the system is not working that the wastewater will surface rather than get into the high groundwater. The manufacturer does not want the liner to the ground surface as any failing system will not be noticed and thus the "system has never failed".

I doubt the claim that the sand bed formed in a lens shape will divert much rainwater. Sand has such a high porosity that any precipitation in Wyoming would be expected to infiltrate - unless the bed is full of wastewater.
2. An engineer in our Lander office had started to investigate this system last fall. When he contacted the supplier in Glendive, Montana, the supplier stated the system was no longer being produced because of handling problems. Although the system can be approved, do you know if the Armon system is still manufactured and is it still reliable?

286

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
401 West 19th Street
Cheyenne, Wyoming 82002

PROJECT: Wycon Chemical Company

ARCHITECT OR ENGINEER: R.W. Martin, P. O. Box 1287
Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 81-165R

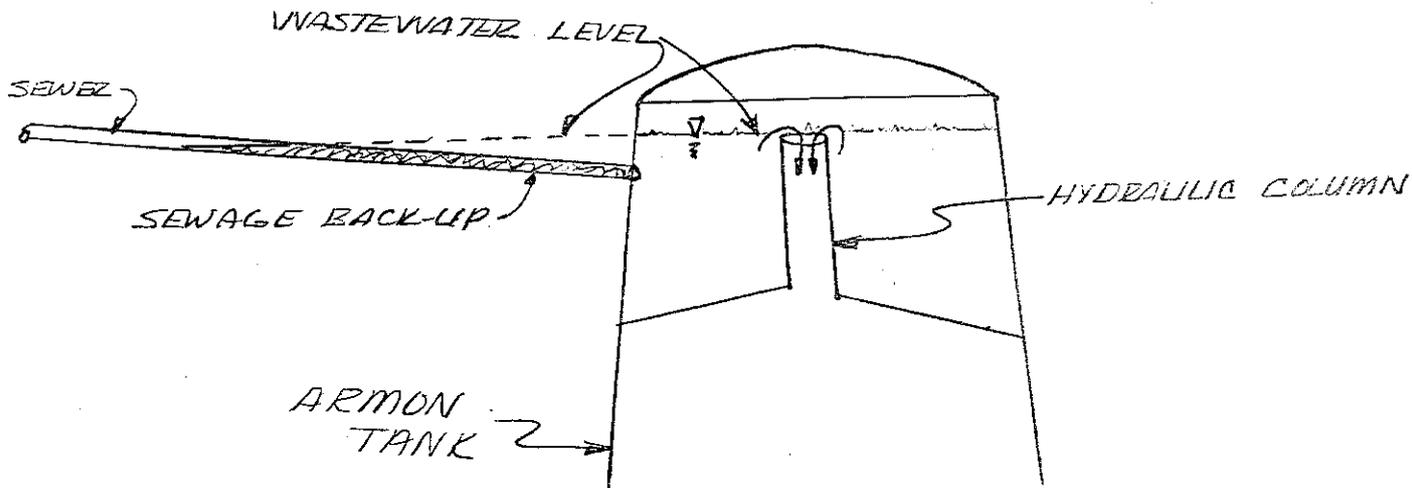
REVIEWING ENGINEER: T. S. Norman *T.S. Norman*

DATE OF REVIEW: April 21, 1981

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. I am still concerned about sewage backing up into the service pipe. Your diagrams shows the influent pipe to be lower than the hydraulic column connecting the upper and lower unit. The hydraulic elevation must be at the top of the column in order for the system to work and thus sewage will back up. See diagram.



2. The polyethylene liner must extend to the ground surface. All wastewater must be contained within the bed boundaries and not be allowed to seep over the sides.
3. According to your letter, additional comments have been added to the drawing. DEQ must have copies of all final plans.

Review of Plans and Specifications

4-8-81
Lef

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
401 West 19th Street
Cheyenne, Wyoming 82002

PROJECT: WYCON Chemical Company

ARCHITECT OR ENGINEER: R. W. Martin, P. O. Box 1287
Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 81-165

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

DATE OF REVIEW: April 3, 1981

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. How is the tank cleaned out? Can both sections be cleaned out? The drawings are not clear.
2. Concern is shown for potential backing up of sewage in the service pipe. This is quite possible as the effluent in the bed must raise at least above the rock layer to get any capillary action to the surface. If this effluent level gets close to the influent pipe, then sewage will start backing up and plugging will occur. How can this be remedied?
3. The plans show the slope going to the center of the bed. The ground slope should be graded to drain away from the bed to minimize rainfall interference.
4. Does the polyethylene liner extend to the ground surface?

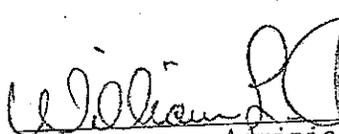
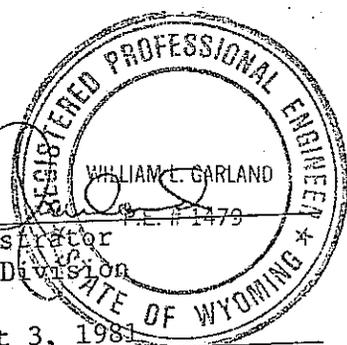
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

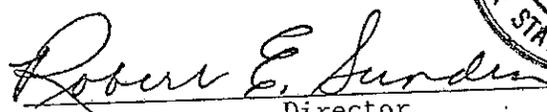
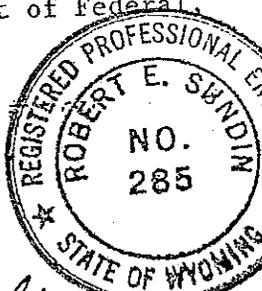
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, 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
P.E. #1479
Administrator
Water Quality Division



Robert E. Sander
Director
Dept. of Environmental Quality


August 3, 1981
Date of Issuance

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

CONDITIONS

Within 30 days following completion of construction of an individual facility, the permittee shall furnish the Water Quality Division with the following: a) the exact size, location and capacity of the facility, amount of disturbed area and other information used to size the facility, b) certification that the facility was constructed to meet the approved design requirements and sizing criteria.

81-166

THE STATE



OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

2161 COFFEEN AVENUE,
SUITE 301

SHERIDAN, WYOMING 82801

TELEPHONE 307-672-6457

April 22, 1981

Mr. W. E. Beaver
Reclamation Supervisor.
Cordero Mining Company
P.O. Box 1449
Gillette, Wyoming 82716

Dear Bill:

This letter is in response to your submittal for a general permit for sediment ponds at the Cordero Mine. The submittal is largely complete, but the following are needed:

- 1) A completed Application for Permit to Construct (blank copies enclosed);
- 2) Two additional copies of the drawings must be submitted. Two copies will be retained by Water Quality Division, and the other will be forwarded to Land Quality Division upon approval. This is in accordance with the approved state plan for assumption of authority under the Surface Mining Act. If you wish an "approved" copy, a third additional copy should be submitted;
- 3) The portion of your submittal dealing with pond sizing is somewhat vague. Some additional detail on design procedures should be provided. Sample calculations would be most useful;
- 4) The typical construction drawings (labeled 3.2-2), while not inadequate, do have one peculiarity. They show only facilities constructed below grade (i.e., there are no embankments). As a result there is no information regarding fill placement, compaction or sideslopes. If only similar facilities will be constructed under the general permit, this information is sufficient. Otherwise, additional information regarding embankments should be submitted.

beaver
-, 1981
Page Two

If you have questions regarding any of this, please do not hesitate to contact me.

Yours truly,



Tom Mueller
District Supervisor

TM/lis

Enclosures

xc: Jake Strohman

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 81-167R

CANYON VILLAGE ESTATES RESERVOIR

(Name of Facility)

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

South Thermopolis Water & Sewer District - Agent, Albert L. Nelson, P.E.

342 Amoretti Street

Thermopolis, WY 82443

to construct, install, or modify a 100,000 gallon water storage
tank

facility according to the procedures and conditions of the application

No. 81-167R. The facility is located in _____

Sec. 14, T. 42N, R. 95W

in the County of Hot Springs, in the State of Wyoming. This permit shall be effective for a period of two 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.

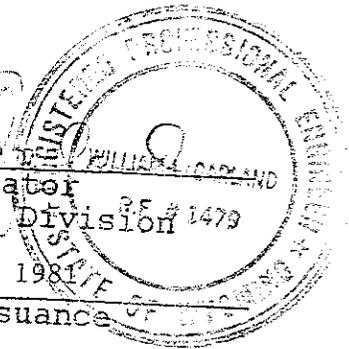
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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.

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.

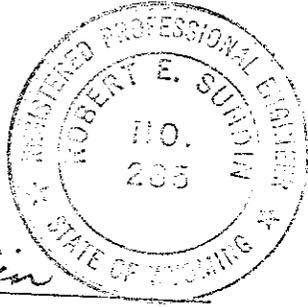
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


William J. Capland

Administrator
Water Quality Division
April 10, 1981

Date of Issuance


Robert E. Sundin

Director
Dept. of Environmental Quality

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

MRC:nb

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Canyon Village Estates Reservoir

ENGINEER: Cardinal Engineering
2334 Rose Lane
Riverton, WY 82501
Attn: Jerry Crews, P.E.

Nelson Engineering
P.O. Box 1599
Jackson, WY 83001
Attn: Albert L. Nelson, P.E.

OWNER: South Thermopolis Water & Sewer District
342 Amoretti Street
Thermopolis, WY 82443

WATER QUALITY DIVISION REFERENCE NUMBER: 81-167

REVIEWING ENGINEER: M. Robin Collins, P.E.



DATE OF REVIEW: April 3, 1981

ACTION: Not authorized.

COMMENTS: After reviewing the aforementioned project, I would like to offer the following comments for your consideration in processing the necessary permit.

1. Recommend the storage tank vent be screened with a 16-mesh copper, brass or bronze screen.
2. What is the storage tank's "specified overflow rate?"
3. More information on the disinfection of the storage tank should be given. Recommend procedures as outlined in AWWA D105-80 be specifically cited to include satisfactory bacteriological testing.

If further information is required, please do not hesitate to advise.

AC

M 5-4-21

PERMIT TO CONSTRUCT

Permit No. 81-168R

- New
- Renewal
- Modified

Freden Addition
(Name of Facility)

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

D. H. Lower

83 Magnolia

Casper, WY 82602

to construct, install, or modify a potable water main and sanitary sewer facility according to the procedures and conditions of the application No. 81-168R. The facility is located in Section 12, T33N, R80W 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.

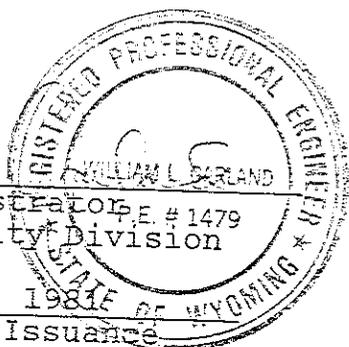
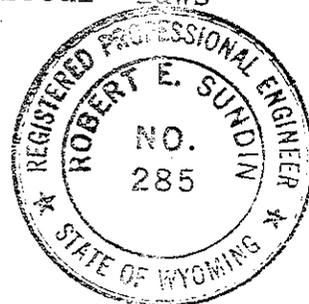
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions 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: Water Quality Construction Projects Control Officer, 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, E. # 1479
Water Quality Division
April 29, 1984
Date of Issuance

Robert E. Sundin

Director
Dept. of Environmental Quality

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

cc: The Engineers
6405 Indian Scout
Casper, WY 82601

Lef

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
401 West 19th Street
Cheyenne, Wyoming 82002

PROJECT: Freden Addition

ARCHITECT OR ENGINEER: Thomas P. McDill, Jr., The Engineers
6405 Indian Scout, Casper, WY 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 81-168

REVIEWING ENGINEER: Theodore D. Coyer, P.E.

Theodore D. Coyer

DATE OF REVIEW: April 14, 1981

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The sanitary sewer invert at station 6+00 is incorrect.
2. Please check the manhole stationing and separation distances for manholes 9 and 10 and 7 and 8.
3. A letter of verification from the public utility system manager stating that they are capable of handling added organic and/or hydraulic loads from the sanitary sewer must be submitted.
4. A letter of verification should also be provided stating that they can adequately supply potable water to this subdivision at a minimum pressure of 20 psi under all conditions of flow.

111
5-6-81

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 81-169
EPA C560121-03

Laramie Wastewater Collection and Treatment Systems
(Name of Facility)

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

City of Laramie

P. O. Box C

Laramie, WY 82070

to construct, install, or modify a sewerage system and treatment works facility according to the procedures and conditions of the application No. 81-169. The facility is located in Sections 20 & 29, T16N, R73W in the County of Albany, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

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

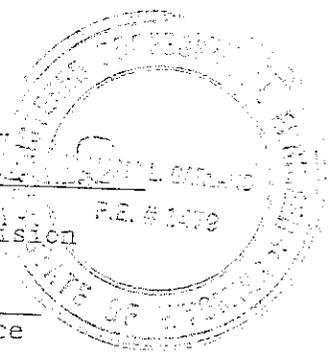
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

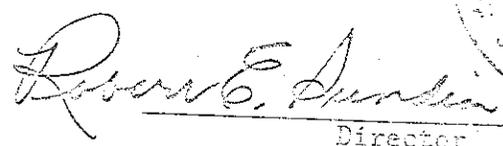
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

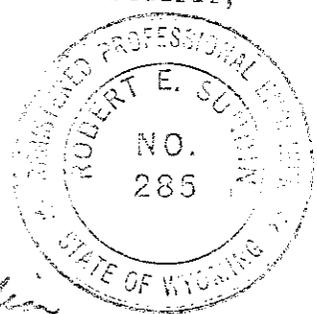


Administrator
Water Quality Division
May 5, 1981
Date of Issuance





Director
Dept. of Environmental Quality



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

cc: Gordon W. Bruchner
ARIX
760 Horizon Drive
Grand Junction, CO 81501

81-170 4-8-81
LEJ
10



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality

Water Quality Division

401 W. 19TH STREET

EQUALITY STATE BANK BUILDING
CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 7, 1981

Charles A. Haas
Wells Engineers, Inc.
1225 Sage Street
Gering, NE 69341

RE: Lingle, Wyoming Special Improvement District No. 2,
Residential Storm Drainage

Dear Mr. Haas:

The Water Quality Division has reviewed the referenced project
and have found that a Permit to Construct is not required.

Sincerely,

LeRoy C. Feusner, P.E.
Southeast District Supervisor

LCF/pjb

286

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-171

Johnson Junior High School
(Name of Facility)

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

City of Cheyenne

2101 O'Neil

Cheyenne, WY 82001

to construct, install, or modify a sanitary sewer and potable water supply facility according to the procedures and conditions of the application No. 81-171. The facility is located in Section 7, 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.

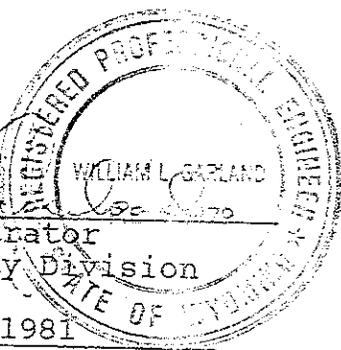
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

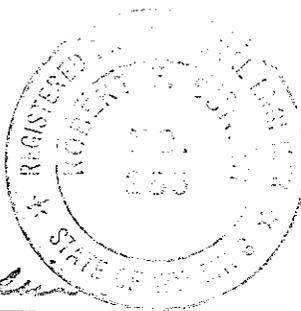
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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
April 14, 1981
Date of Issuance


Robert E. Anderson
Director
Dept. of Environmental Quality

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

cc: Banner Associates, Inc.
P. O. Box 550
Laramie, WY 82070

PERMIT TO CONSTRUCT

- New
 Renewal
 Modified

Permit No. 81-172

WYOMING SANITARIUM WATER LINE EXTENSION - BASIN
(Name of Facility)

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

State Board of Charities and Reform
Agent: Richard Gray
c/o Clyde Pruett, Superintendent
P.O. Box 111, Basin, Wyoming 82401

to construct, install, or modify a ten-inch water line extension

~~activity~~ according to the procedures and conditions of the application
No. 81-172. The facility is located in _____
Sec. 30, T. 51N, R. 93W

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

The issuance of this permit provides that the Department of Environ-
mental 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 responsi-
bility 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 oper-
ational requirements.

The permittee shall allow authorized representatives from the Depart-
ment of Environmental Quality, Water Quality Division, upon the pre-
sentation 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.

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.

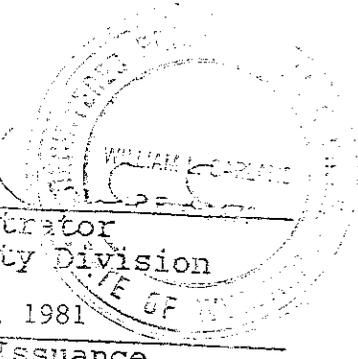
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



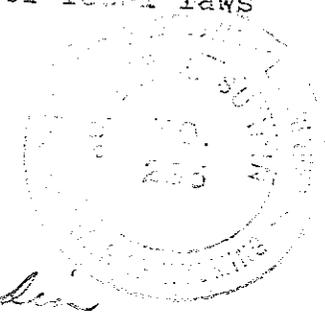
Administrator
Water Quality Division
April 6, 1981

Date of Issuance





Director
Dept. of Environmental Quality



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

MRC:mb

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 81-173R

TOWN OF PAVILLION PINE STREET WATER LINE EXTENSION
(Name of Facility)

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

Town of Pavillion
Jim Gores, P.E., Agent
P.O. Box 15

Pavillion, Wyoming 82523

to construct, install, or modify a six-inch water line extension
and blowoff valve

~~facility~~ according to the procedures and conditions of the application

No. 81-173R. The facility is located in _____

S. 7, T. 3N, R. 1E

in the County of Fremont, in the State of Wyoming. This permit shall be effective for a period of two 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.

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.

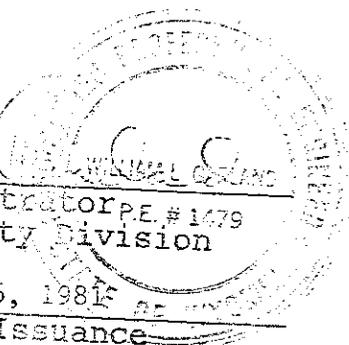
nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

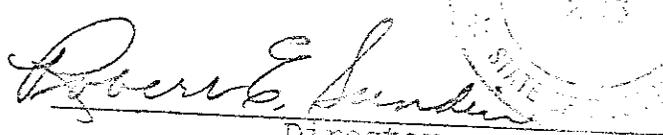
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator PE # 1479
Water Quality Division
April 6, 1981
Date of Issuance





Director
Dept. of Environmental Quality



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

MRC:nb

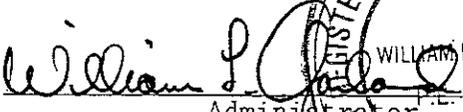
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

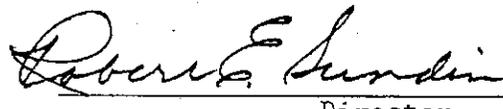
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, 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
P.E. # 1479
Administrator
Water Quality Division
REGISTERED PROFESSIONAL ENGINEER
STATE OF WYOMING


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

May 22, 1984
Date of Issuance

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

CONDITIONS

Within 30 days following completion of construction of an individual facility, the permittee shall furnish the Water Quality Division with the following: a) the exact size, location and capacity of the facility, amount of disturbed area and other information used to size the facility; b) certification that the facility was constructed to meet the approved design requirements and sizing criteria.

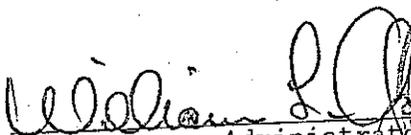
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

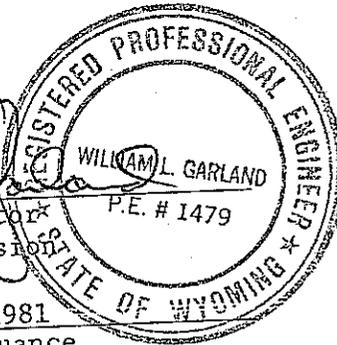
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction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

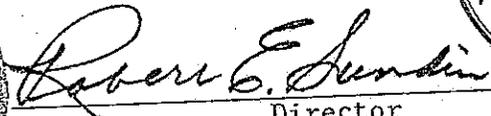
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

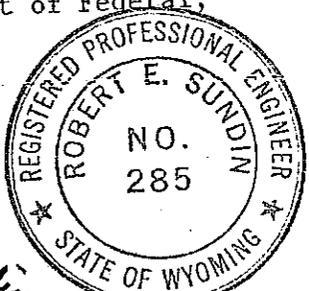
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division




Director
Dept. of Environmental Quality



June 11, 1981
Date of Issuance

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

CONDITIONS

1. Prior to construction or installation of any housing units in Phases III, IV or V of the Fox Park Subdivision, the permittee shall apply for and obtain an additional permit to construct for the necessary expansion of the sewage treatment works.
2. Prior to construction or installation of any housing units in Phases III, IV or V of the Fox Park Subdivision, the permittee shall apply for and obtain an additional permit to construct for the inclusion of additional water wells or other source of water for the Public Water Supply. The application must include a study showing the anticipated total water demand for the entire subdivision and indicating the actual (not design) capacity of the existing well.

Norma



ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

933 MAIN

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

April 22, 1981

Nelson Engineering
Box 1599
Jackson, WY 83001

Attn: Robert L. Farnsworth

RE: Addition of Teton Shadows to Gros
Ventre Utility District / 81-176R

Dear Mr. Farnsworth:

The additional information has been reviewed and the application you submitted is being returned. The Hardy-Cross analysis which was submitted indicates that the water system which serves Fairways estates is minimal in the provision of fire flow. "Ten-States Standards" requires that 20 psi minimum pressure be maintained under all flow conditions. Under the 500 gpm plus peak day flow, the pressure drops below 20 psi. The addition of Teton Shadows could only make the situation worse. It is also felt that the use of 500 gpm for fire flow is low. The National Board of Fire Underwriters states that fire flow should be equal to 1,020 times the square foot of population, in thousands, times the sum of one minus one hundredth of the square root of population, in thousands. In the sizing of the system, it is further recommended that the fire flow plus the maximum daily demand be used. From the data supplied a fire flow of approximately 700 gpm plus peak day would be required.

For the above reasons, a "Permit to Construct" cannot be issued until the system capacity is expanded, for example, in the form of additional wells or larger pumps.

Respectfully,

Albert J. Berreth
Albert J. Berreth
Southwest District Engineer

AB:nb
cc: Cheyenne DEQ/WQD

Plans returned - Permit denied

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Gros Ventre Utility District

ENGINEER: Nelson Engineering Attn: Robert L. Farnsworth, P.E.
Box 1599
Jackson, WY 83001

OWNER: Gros Ventre Utility District
Box 250
Moran, WY 83013

WATER QUALITY DIVISION REFERENCE NUMBER: 81-176

REVIEWING ENGINEER: Al Berreth *ajt*

DATE OF REVIEW: April 6, 1981

ACTION: Not authorized.

COMMENTS:

The following clarifications are needed before a "Permit to Construct" can be issued:

- 1) The application indicates that 8-inch diameter line is to be installed, but your letter and other submittals indicate 6-inch diameter. I assume you have a typo on the application and have enclosed it for your correction.
- 2) Were the water demand estimates based on actual data? If not, why not? How about population estimates? Are any exact figures known?
- 3) Why is the per capita usage lower for Teton Shadows?
- 4) Will there be future additions to this system?
- 5) Please explain cycle time calculations. Eight and ten cycles per hour seem to be excessive.
- 6) If Teton Shadows provides their own fire protection, the possibility of a cross-connection will exist. If fire protection will not be provided through the distribution system, existing fire hydrants will need to be removed.

... /2

A, B, C

- 7) What width of styrofoam is required over the pipe?
- 8) Was the Hardy-Cross analysis only run for a demand at Node 290? The results of a demand at Node 140 would like to be seen. Also, the sum of flows for the average day plus fire equal 543 gpm on the print-out and equal 573 from the data supplied. Please explain.
- 9) Please provide a letter from the fire protection authority on what their requirements are for this area.

Some of the pressures observed on the print-outs were minimal. A decision on approval will be made upon resolution of the items listed.



Department of Environmental Quality

Water Quality Division

933 MAIN

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

June 24, 1981

Well Tech, Inc.
P. O. Drawer 33
Riverton, WY 82501

ATTN: Edward A. Pierce

RE: Well Tech, Inc., 81-177RRR

Dear Mr. Pierce:

From the as-built plans and information submitted to us by you and your engineer, it appears that the system in question is adequate and meets minimum requirements. This letter is being issued in lieu of a "Permit to Construct," which cannot be issued for existing facilities.

Respectfully,

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

Albert J. Berreth
Southwest District Engineer

AJB:nb

cc: Wayne Johnson, Johnson, Fermelia & Crank
Cheyenne DEQ/WQD
File (2)

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Welltech, Inc.

ENGINEER: Johnson-Fermelia & Crank, Inc. Att: Wayne L. Johnson
P. O. Box 1633
Rock Springs, WY 82901

OWNER: Welltech, Inc. Att: Ed Pierce
P. O. Drawer 33
Riverton, WY 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 81-177RR

REVIEWING ENGINEER: Al Berreth *ajf*

DATE OF REVIEW: June 5, 1981

ACTION: Not authorized.

COMMENTS: In order to accept the plans, one addition must be made to the open pit disposal system. That is some type of fencing or cover needs to be provided to prevent injury to anyone, particularly a small child.

AJB:sj

cc: Cheyenne DEQ/WQD

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Well Tech, Inc.

ENGINEER: Johnson, Fermelia & Crank, Inc. Attention: Wayne C. Johnson
P.O. Box 1633
Rock Springs, WY 82901

OWNER: Well Tech, Inc.
Attention: Ed Pierce
P.O. Drawer 33
Riverton, WY 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 81-177R

REVIEWING ENGINEER: Al Berreth *ajb*

DATE OF REVIEW: May 21, 1981

ACTION: Not authorized.

COMMENTS: The as-built drawings appear to be complete and have all necessary information regarding the septic tank and drainfield installation. However, the open pit which appears on the drawing raises a couple of additional questions.

1. What is the quality of the water discharged into the pit? Is oil and grease present?
2. How deep is the open pit? Is there any standing water in the pit?

AB/kn

A.C

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Welltech, Inc.

ENGINEER: None

OWNER: Welltech, Inc.
P.O. Drawer 33
Riverton, WY 82501
Attn: Ed Pierce

WATER QUALITY DIVISION REFERENCE NUMBER: 81-177

REVIEWING ENGINEER: Al Berreth *ajb*

DATE OF REVIEW: April 6, 1981

ACTION: Not authorized.

COMMENTS:

The material submitted is being returned to you for completion. The facility, as constructed, does not appear to meet minimum design standards. This means that the facility will need to be modified. The items listed below need to be addressed. An answer to them is expected within the month.

- 1) An engineer registered within the State of Wyoming must be employed to provide as-built drawings stamped by him.
- 2) Those drawings must show all applicable distances. That is the distance from septic tank or leach field to property line, building, water line, etc.
- 3) The small waste checklist must be filled out completely. It is important to know inlet/outlet pipe material on the septic tank.
- 4) Six holes are normally required for percolation tests. Why were five done?
- 5) What will the sump hold?
- 6) The sump and bath line cannot connect directly to the leach field.
- 7) What is the estimated sewage flow?
- 8) The incoming water line must be shown.
- 9) The leach field must have one complete loop.

A complete review will be made upon receipt of the appropriate plans.

A, B, C

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Elk Run Development

ENGINEER: Robert T. Ablondi
P.O. Box 1142
Jackson, WY 83001

OWNER: Elk Run Associates
P.O. Box AD
Jackson, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 81-178R

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: May 21, 1981

ACTION: Not authorized.

COMMENTS:

The following items need to be altered before a "Permit to Construct" can be issued.

- 1) The sewer lines serving the four unit buildings (1062, 1072, 1092) will have to be changed from four inches to six inches.
- 2) Contrary to my initial assessment, manholes will be needed on the 12-inch sewer line where the 6-inch service lines tie into it. If the lines tie into the manholes already shown where possible, only three new manholes will be needed. These should be included on the profile drawing of the 12-inch line. The location of where the service lines tie into the manholes should also be shown on the profile drawings.
- 3) The cleanout detail showing a yard box should include a watertight cap on the riser.
- 4) There is no cleanout shown for building 1080.
- 5) A note should be added on the drawings or in the specifications that the 6" and 4" sewer service lines will have a minimum of five feet of cover.
- 6) One of the 3" branch water mains is not labeled on Sheet 1.
- 7) A P.E. stamp or signature is needed on the drawings and specifications before they are approved.

Feel free to call me with questions.

RR:nb

A, B, C

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-178RRRR

ELK RUN DEVELOPMENT

(Name of Facility)

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

Elk Run Associates

PO Box AD

Jackson, WY 83001

to construct, install, or modify a _____

sewer and water line extension for Elk Run Development

_____ facility according to the procedures and conditions of the

application No. 81-178RRRR. The facility is located in _____

Sec. 32, T41N, R116W

_____ in the County of Teton,

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.

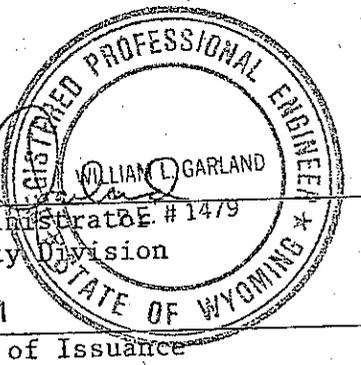
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, Lander, Wyoming, 82520; telephone 332-3144.

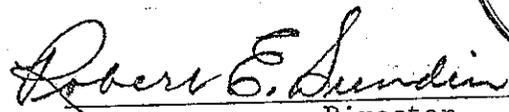
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

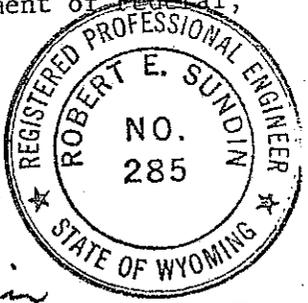
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


WILLIAM L. GARLAND
Administrative # 1479
Water Quality Division
August 5, 1981
Date of Issuance




Robert E. Sundin
Director
Dept. of Environmental Quality



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

RR/ch
8/5/81

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Elk Run Development

ENGINEER: Robert T. Ablondi
P.O. Box 1142
Jackson, WY 83001

OWNER:

WATER QUALITY DIVISION REFERENCE NUMBER: 81-178

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: April 7, 1981

ACTION: Not authorized.

COMMENTS: I have made a review of the above referenced development. The following items need to be addressed before a "Permit to Construct" can be issued.

- 1) The four-inch sewer laterals branching off the 12-inch main and the 24-inch interceptor must be considered submains. Ten State Standards requires a minimum size of eight inches for gravity sewers. Four-inch service lines are acceptable only as lines that run directly from a single dwelling unit into a submain.
Profile drawings are required for eight-inch lines showing slope, elevation, manholes, depth of cover, and location of sewer-water crossings.
- 2) Manholes are required at all sewer intersections. This includes intersections of the eight-inch branches with the 12- and 24-inch mains and intersections within the eight-inch branch, itself.
Manholes, rather than cleanouts, are also required at the end of any laterals longer than 150 feet. This would include the branches serving building numbers 1, 4, 6, and 12-19.
- 3) I suggest using two sewer service lines for each duplex in the northeast corner of the development to tie into the 24-inch interceptor separately. This will allow use of four-inch lines and will enhance cleanout capability.
In addition, a separation of ten feet should be maintained between water and sewer service lines for these duplexes.
- 4) Profile drawings of water mains larger than two inches should be provided, including elevations, depth of cover, and sewer-water crossing locations. The

... 12
A, B, C

water line branch off of the eight-inch main on Maple Way (nearest Powderhorn Lane) should also be shown in profile.

- 5) Water lines that cross closer than 18 inches above sewer lines, or cross below sewer lines, should be noted on the profile drawings and referenced to an appropriate special crossing detail drawing, or to Section 301.08 B-2 of the Wyoming Public Works Standard Specifications. Crossings shown thus far, that this will apply for, are the ends of the six-inch water main where it crosses over the 15-inch sanitary sewer on Powderhorn and Maple Way.
- 6) The elevation of the six-inch PVC water main, where it crosses the 12-inch sewer main, is shown to be 6141.1, on sheet 3. The elevation of the same six-inch pipe, at the same crossing on sheet 4, is 6138.5. This corresponds to the elevation of the sewer at the point of the crossing on sheet 3.
Consistent pipe elevations have to be maintained between appropriate drawings. The water main should be shown to be at least 18 inches above the sewer on both drawings. Ground cover should be consistent, as well, on matching drawings, i.e., above the crossing.
- 7) Can you show the flood line of Elk Run on sheet 1, to insure proper separation between sewers and the stream?
- 8) A drawing of a typical cleanout should be included. It should extend four inches above ground level and have a 12 x 12 x 4 inch concrete pad around it.
- 9) Shouldn't there be a valve at mid-point on the six-inch water main? Ten State Standards specifies a maximum of 800-foot intervals between valves.
- 10) Blow-offs or flushing hydrants are needed at the dead ends of the three-inch mains.
- 11) Air relief valves are needed at each end of the six-inch main, where the high points occur.
- 12) The calculations look good, except for the following clarifications:
 - a) Where are the headloss/100 ft. figures obtained for the steel water service lines?
 - b) How is the instantaneous demand of 232 GPM for the entire development arrived at?
 - c) For future reference, we normally calculate on the basis of four persons/living unit.
- 13) The 1½-inch service line to Building 6, in the calculations, is shown as 1¼-inch on sheet 1 of the drawings.

Review of Plans and Specifications - Elk Run Development (81-178)
Date of Review - April 7, 1981
Page Three

- 14) Three copies are needed of the calculations and Wyoming Standard Drawings.
- 15) Use of the Wyoming Public Works Standard Specifications should be noted on the drawings.
- 16) A Wyoming P.E. stamp is required on the drawings.

You may reach me at this office with questions.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Elk Run Development

ENGINEER: Robert T. Ablondi
P. O. Box 1142
Jackson, WY 83001

OWNER: Elk Run Associates
P. O. Box AD
Jackson, WY 83001

WATER QUALITY DIVISION REFERENCE NUMBER: 81-178RRR

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: July 16, 1981

ACTION: Not authorized.

COMMENTS:

I offer the following comments concerning the above referenced project.

1. Manholes at the intersections of the six inch service lines from the condominiums and the 12 inch sewer main will not be required as previously discussed.
2. However, I am requesting that an additional cleanout be provided at the mid-point of each six inch service line that is longer than 100 feet. This includes lines from Building #1025, 1062, and 1075.
3. I suggest that the service line from Building #1080 run directly from the cleanout to MH#. This will eliminate the need for a man hole on the service line.
4. Please provide a drawing of a typical building showing the crawl space and plumbing underneath the building.
5. A copy of the home owner's association "by laws" or similar document, detailing the ownership and responsibility for maintenance of the water and sewer service lines, should also be provided.

R:dl
/17/81

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-179R

COAL CREEK MINE SEDIMENTATION POND NO. 7

(Name of Facility)

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

ARGO Attention: Scott Raymond

P.O. Box 5300

Denver, Colorado 80217

to construct, install, or modify a runoff and pit water control
pond

facility according to the procedures and conditions of the application

No. 81-179R. The facility is located in _____

Section 18, T.46N., 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.

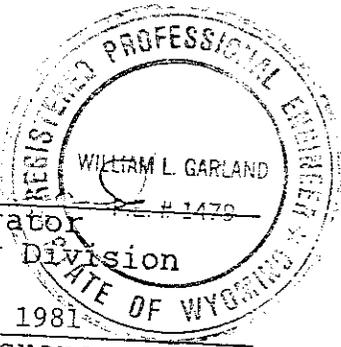
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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.

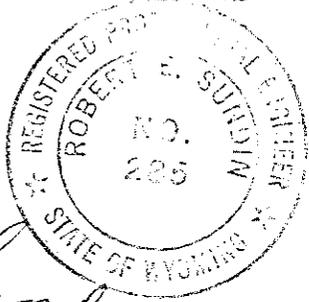
AUTHORIZED BY:

William L. Garland



Administrator
Water Quality Division

April 13, 1981
Date of Issuance



Robert E. Sundin

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. 81-180R

COAL CREEK MINE SEDIMENTATION POND NO. 8

(Name of Facility)

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

ARCO Attention: Scott Raymond

P.O. Box 5300

Denver, Colorado 80217

to construct, install, or modify a runoff and sediment control pond

facility according to the procedures and conditions of the application

No. 81-181R. The facility is located in _____

Section 16, T.46N., 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.

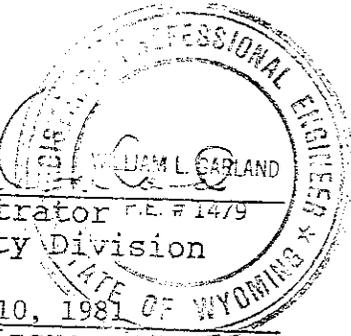
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

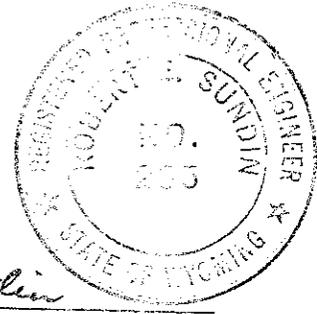
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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 License # 1479
Water Quality Division
STATE OF WYOMING
April 10, 1981
Date of Issuance


Robert E. Sundin
Director
Dept. of Environmental Quality

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

M...

PERMIT TO CONSTRUCT

New

Renewal and Transfer of Ownership

Modified

Permit No. 81-181

Buckskin Sedimentation No. 5 Reservoir
(Name of Facility)

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

Triton Coal Company, Attention: J. V. Burk

P.O. Box 3027

Gillette, WY 82716

to construct, install, or modify a runoff/sediment control pond facility according to the procedures and conditions of the application No. 81-181. The facility is located in Section 32, T52N, R72W 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.

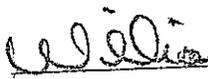
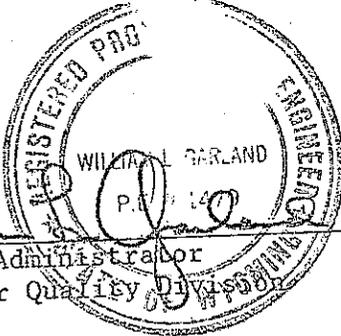
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

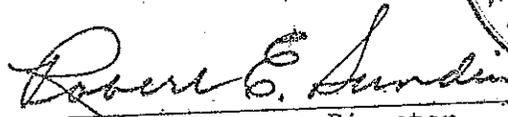
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, 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 Garland
P.E.
Administrator
Water Quality Division


Robert E. Sundin
Director
Dept. of Environmental Quality

June 4, 1982
Date of Issuance

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

cc: Bruce Yates
HKM Assoc.
24 South Main
Sheridan, WY 82801

PERMIT TO CONSTRUCT

M 5-0

New

Permit No. 81-181

Renewal

Modified

BUCKSKIN SEDIMENTATION NO. 5 RESERVOIR

(Name of Facility)

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

Shell Oil Company, attention: C.R. Rester

P.O. Box 2906

Houston, Texas 77001

to construct, install, or modify a runoff/sediment control pond

facility according to the procedures and conditions of the

application No. 81-181. The facility is located in

Section 32, T.52N., R.72W.

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 this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 2161 Coffeen Avenue, Suite 301, Sheridan, Wyoming, 82801; telephone 672-6457.

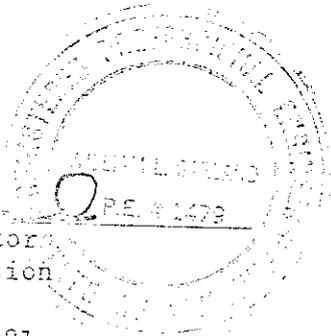
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The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal,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

AUTHORIZED BY:

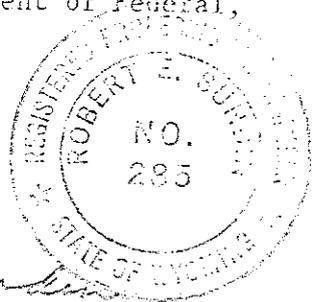
William R. O'Connell

Administrator
Water Quality Division



Robert E. Anderson

Director
Dept. of Environmental Quality



May 19, 1981
Date of Issuance

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

xc: Bruce Yates
HKM Assoc.
24 South Main
Sheridan, Wyoming 82801

PERMIT TO CONSTRUCT

- New
 Renewal and Transfer of Ownership
 Modified

Permit No. 81-182

Buckskin Sedimentation No. 6 Reservoir
(Name of Facility)

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

Triton Coal Company, Attention: J. V. Burk

P.O. Box 3027

Gillette, WY 82716

to construct, install, or modify a runoff/sediment/pit water control pond facility according to the procedures and conditions of the application No. 81-182. The facility is located in Section 32, T52N, R72W 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.

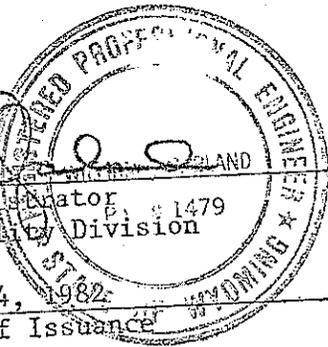
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

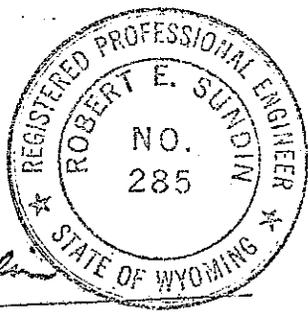
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: Water Quality Construction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

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AUTHORIZED BY:


William J. [Signature]
Administrator
Water Quality Division
June 4, 1982
Date of Issuance


Robert E. Sundin
Director
Dept. of Environmental Quality

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

cc: Bruce Yates
HKM Assoc.
24 South Main
Sheridan, WY 82801

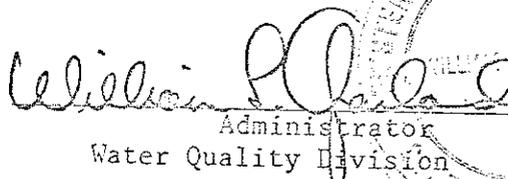
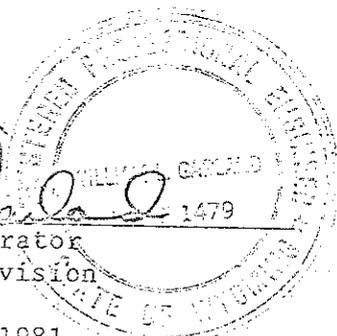
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

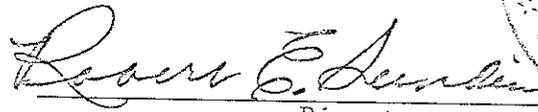
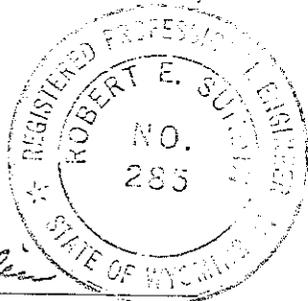
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction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

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AUTHORIZED BY:


Administrator
Water Quality Division

May 19, 1981
Date of Issuance


Director
Dept. of Environmental Quality


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

xc: Bruce Yates
HKM Assoc.
24 S. Main
Sheridan, Wyoming 82801

M-21-8

PERMIT TO CONSTRUCT

Permit No. 81-183

- New
- Renewal
- Modified

South Conwell Water Main
(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 8" diameter water main facility according to the procedures and conditions of the application No. 81-183. The facility is located in Section 15, 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.

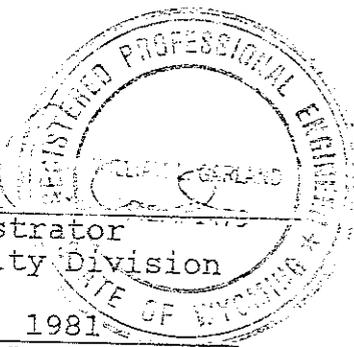
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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.

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.

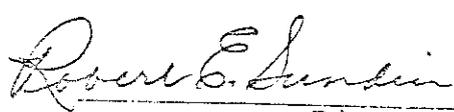
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

10207-
 REGISTERED PROFESSIONAL ENGINEER
ROBERT E. SUTIN
NO. 285
STATE OF WYOMING

Administrator
Water Quality Division

April 20, 1981
Date of Issuance



Director
Dept. of Environmental Quality



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

cc: Terry L. Titus
Worthington, Lenhart, Carpenter & Johnson
652 South David
Casper, WY 82601

81-184
4-21-81



ED HERSCHLER
GOVERNOR

Department of Environmental Quality

Water Quality Division

401 W. 19TH STREET

EQUALITY STATE BANK BUILDING
CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 21, 1981

Mr. Chuck Kupilik
Flying X Ranch
Bosler Route S.W.
Wheatland, WY 82201

Dear Mr. Kupilik:

In regards to my April 16, 1981 inspection with you of the partially constructed Flying X Ranch mobile home park and campground facilities, I would like to present the following background information and requirements as seen by the Water Quality Division:

1. On October 5, 1978, plans were submitted to the Water Quality Division for review and issuance of a Permit to Construct for a public water supply and wastewater collection and multiple septic tank treatment system. A Permit to Construct, No. 78-617, was issued to the Flying X Ranch Project on November 6, 1978, for a public water distribution and wastewater collection system. The Permit to Construct was issued with an effective period of two (2) years from the date of issuance.
2. My on-site inspection revealed that the public water (one well) distribution and wastewater collection systems had been installed for the mobile home park. Installation work for the campground facility had not yet been completed. A storage tank for the public water supply system had not been installed. A wastewater treatment system had not been installed as of April 16, 1981. During this inspection, you indicated to me that a lagoon wastewater treatment system was planned for construction later this summer and that the multiple septic tank/leach field system originally proposed will not be installed. Although several mobile homes are occupying spaces in the park, no sanitary wastewater was observed to be discharging into the collection system. "Honey wagons" were being utilized to collect the wastewater from each mobile home, and the wastewater was being disposed into the main Flying X Ranch septic tank/leach field system. The "grey water" from the mobile home showers/kitchens was being applied to flower gardens.

After consultation with the Water Quality Administrator, the following requirements must be met prior to any further construction of a public water supply or wastewater collection/treatment systems:

1. Your original Permit to Construct, No. 78-617, expired on November 6, 1980, two years after issuance. Any further construction of the public water supply and/or wastewater collection/treatment systems without a renewed Permit to Construct would constitute a violation of Chapter III, Wyoming Water Quality Rules & Regulations and be subject to the penalty provisions of the Wyoming Environmental Quality Act.
2. Renewal of your Permit to Construct for the public water supply system would require the following minimum actions:
 - a. Submission to the Water Quality Division of an affidavit affirming that no changes from the original application have occurred.
 - b. Since the original application indicated construction of a water storage tank, but did not provide construction details/specifications, your application for a Permit renewal must include this information for the water storage tank.
 - c. Additionally, we will require detailed drawings for the completed well construction, pump tests, and water quality analyses of the raw water for compliance with the U.S. EPA Safe Drinking Water Act.
 - d. Construction/material specifications for the water distribution pipe installation.
 - e. Provisions must be provided for emergency chlorination (either gas or liquid) of the raw water prior to entry into the storage tank. The chlorination system must be designed and submitted to us for approval.
 - f. Three sets of all above drawings, design information, and/or other data are required by the Water Quality Division.
 - g. A certified water treatment system operator will be required for this public water supply system. Mr. Bill Loft of the Water Quality Division can provide information to you for this requirement.
3. If a wastewater treatment lagoon system is being considered for these facilities, a Permit to Construct for the lagoon system will be required prior to construction. Three copies of the plans/specification for the lagoon system must be

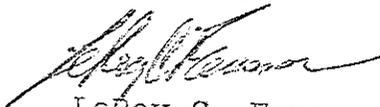
Mr. Chuck Kupilik
April 21, 1981
Page 3

submitted to this Division along with a completed application form. Guidelines for lagoon system design are attached for your use. A certified wastewater treatment system operator will be required for a lagoon system.

4. Since Permit to Construct No. 78-617 only authorized a wastewater collection system, a modified Permit to Construct will be required for any septic tank/leach field system if this option is desired over a lagoon system.
5. All engineering plans and specifications submitted shall carry the seal or signature of the designing engineer, who is a registered engineer in the State of Wyoming.

As is evident from the above requirements, several problem areas exist with your public water supply and wastewater collection/treatment systems in order to achieve full compliance with State regulations. I am available here in Cheyenne to meet with you and/or your engineer to further discuss these items. In any event, early submission of the required plans/specifications/design data/testing results will lead to early resolution of these problems.

Sincerely,



LeRoy C. Feusner, P.E.
Southeast District Supervisor

Attachments:

1. Chapter V, Certification of Water & Wastewater Treatment Works, Collection and Distribution System Operations.
2. U.S. Safe Drinking Water Act Analysis Parameters
3. Application Forms for a Permit to Construct
4. Lagoon System Design Parameters
5. Permit to Construct, No. 78-617, issued November 6, 1978
6. Wyoming Environmental Quality Act
7. Ten State Standards for Public Water Supplies and Wastewater Treatment (Engineer Only)

cc: Bill Loft, DEQ/WQD, Cheyenne
Tom Curren, Laramie-Albany Co. Regional Planning Office,
Room 402, Albany County Courthouse, Laramie, WY 82070
(with attachments 1, 2, 5, & 6)
Wickersham & Associates, Inc., 1503 Spruce St.,
Boulder, CO 80302 (with attachments)
Dr. Martin Skinner, WY Dept. of Health, Hathaway Bldg.,
Cheyenne, WY 82001

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
1111 East Lincolnway
Cheyenne, Wyoming 82002

PROJECT: Flying X Ranch, Albany Co.

ARCHITECT OR ENGINEER: Ray Harmon, Construction Management Company
2900 Dove Street, Denver, CO 80221

APPLICANT: Kirk Wickersham & Assoc.
1503 Spruce St., Boulder, CO 80302

WATER QUALITY DIVISION REFERENCE NUMBER: 81-184RR

REVIEWING ENGINEER: *LeRoy Feusner*
LeRoy Feusner, P.E.

DATE OF REVIEW: February 2, 1982

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

General

1. Your application for a Permit to Construct, dated July 18, 1981, made application for only the public water supply system. A new application for both the public water supply and wastewater treatment (lagoon) systems must be completed.
2. An application for a National Pollutant Discharge Elimination System (NPDES) permit to authorize a discharge from the lagoon system must be made and approved by the Water Quality Division prior to issuance of a Permit to Construct. An application form is enclosed.
3. Complete construction/material specifications have not been provided.

Wastewater Treatment System (Standards: Chapter 100, Ten State Standards)

1. There is no indication of groundwater level in relation to the bottom of the proposed lagoon site. Please provide depth to groundwater.
2. Provide groundwater quality data to determine classification IAW Chapter VIII (enclosed).
3. What is the permeability characteristics of the pond bottom (pond #2) and pond sealing material (pond #1)? Data from any soil borings conducted to determine subsurface soil characteristics and groundwater characteristics should be submitted.
4. Provide calculations for natural drainage diversion bypass. How will lagoon dikes be protected from erosion during a 100 year flood levels in drainage?
5. Provide geological data specified in the attached "Guidelines for Wastewater Pond Construction Permit Applications" to allow review by our groundwater quality section.

6. What chemical wastes, if any, from recreational vehicles or mobile home sanitary wastewater holding tanks have been considered in the lagoon design?
7. The wastewater treatment lagoons must be sized for 100% occupancy of the park or campground. We will allow a wastewater loading design factor of 100 gallons/site/day; therefore, $162(100) = 16,200$ gallons per day for design purposes.
8. Using design procedures contained in the Metcalf-Eddy publication "Wastewater Engineering", a detention time of 40 days will be required for winter time operations, the controlling design parameter. Accordingly, a total pond volume of 85,982 cubic feet will be required to give adequate (85% removal) treatment. For an average wastewater depth of 10 feet, a total area of 0.20 acres will be needed for the lagoon system.
9. What will be the top width of the lagoon dikes? A minimum of 8 feet is required.
10. Inner and outer dike slopes shall not be greater than 1 vertical to 3 horizontal (1:3).
11. Minimum freeboard shall be 3 feet.
12. Why is a 12 mil PVC liner being proposed for Cell #1?
13. What is the life expectancy of a 12 mil PVC liner?
14. How will a synthetic liner be anchored to the lagoon dikes? What is a "poly fastener"? Will it be covered with soil? As shown on the existing drawing, how will floating of the liner be prevented in the event wastewater seeps under it? How will it be protected from puncturing or ice rupture?
15. Do you anticipate any wastewater freezing problems with the effluent piping from Cell #1 and Cell #2?
16. All primary cells (Cell #1) shall have individual influent lines which terminate at approximately the center of the cell as to minimize short-circuiting and help prevent accumulation of solids near the edge of the cell. All aerated cells shall have influent lines which distribute the load within the mixing zone of the aeration equipment.
17. The influent line should discharge horizontally into a shallow, saucer-shaped depression.
18. Rip-rap around all inner dike banks may be necessary to prevent ice damage to the liner in Cell #1 and eliminate severe erosion in Cell #2 due to wave/ice action.
19. Aeration equipment is discussed in the application, but no specifications or manufacturer literature has been provided. Please provide. If a nonaerated Cell #1 is the option selected for this system, the maximum wastewater depth in this cell must not exceed six feet. Greater depths (10 feet) are permissible although aeration must be provided.

20. Without a bypass capability to Cell #2, how will any maintenance repairs (sludge removal, liner tear repairs, etc.) in Cell #1 be completed?
21. The end of the discharge line in Cell #2 shall rest on a suitable apron large enough to prevent the terminal velocity at the end of the apron from causing soil erosion.
22. The pad area shall be enclosed with an adequate fence to prevent entering of livestock and discourage trespassing. Fencing should not obstruct vehicle traffic on top of the dikes. All access gates shall be provided with locks.
23. An all weather access road shall be provided to the pond site to allow year-around maintenance.
24. Appropriate permanent signs shall be provided along the fence around the ponds to designate the nature of the facility and advise against trespassing. At least one sign shall be provided on each side and one every 500 feet.
25. Flow measurement facilities (effluent) shall be provided at all wastewater treatment plants. Flow measurement for lagoon systems shall not be less than pump-calibration time clocks or calibrated flume.
26. Baffling of the chlorine treatment tank is required to eliminate short-circuiting and allow adequate contact time prior to discharge.

Water Supply System (Standards: Ten State Standards and Chapter III)

1. Water quality samples for the following additional parameters must be submitted for this public water supply system: arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, fluoride, gross alpha and combined radium 226/228 (radiological), pH, copper, chloride, iron, manganese, zinc and sodium.
2. Provide detail drawing of pitless adaptor installations (Section 3.2.7.4, Ten State Standards).
3. Are the well casings vented?
4. Has the completed well casing been grouted? (Section 3.2.5.7, Ten State Standards)
5. Since Well #FX-6 was completed in 1978, is it still producing 25 gpm constantly? Is Well #FX-5 still producing 25 gpm for this system? State Engineer records indicate that an application for enlargement of Well #FX-5 has been applied for to increase production from 25 to 150 gpm. Will this quantity of water serve the public water system? If so, we will need a completion report for the segment of water source. Are any other wells, i.e., FX-1, 2, or 3 used as a source for this public water supply system?
6. At least two pumping units shall be provided in the pumphouse. With any pump out of service, the remaining pump shall be capable of providing the maximum daily pumping demand of the system (Section 6.3, Ten State Standards).

7. What source of emergency power is available when commercial power outages may occur?
8. Your letter of July 28, 1981 indicated that a 30,000 gallon water storage tank would be constructed. Provide a detail drawing indicating construction/installation details as outlined in Section 7 (Ten State Standards). Is a smaller 12,000 gallon tank also proposed? Provide details.
9. What is the water pressure in the distribution system?
10. Provide construction/material specifications for distribution pipe (Section 8, Ten State Standards).
11. The minimum size of water main for providing fire protection and serving fire hydrants shall be six inch diameter. Two inch line has apparently been installed in the facility.
12. What is the separation distance between the water and sewer mains?

157



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

*Department of Environmental Quality
Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

November 5, 1985

Flying X Ranch
Bosler Route SW
Wheatland, WY 82201

RE: DEQ/WQD Ref. No. 81-184RR

Gentlemen:

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

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

Sincerely,

William L. Garland
Administrator

WLG/CGN/nc

2-15-84



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

February 13, 1984

Flying X Ranch
Bosler Route SW
Wheatland, WY 82201

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 are:

Facility name:	Flying X Ranch Water System
DEQ/WQD Reference Number:	<u>81-184RR</u>
Engineering Consultant:	Construction Management Company
DEQ/WQD Reviewing Engineer:	LeRoy C. Feusner
Date of DEQ/WQD Review:	February 2, 1982

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,



LeRoy C. Feusner, P.E.
Southeast District Supervisor
Water Quality Division

cc: Construction Management Company
2900 Dove Street
Denver, CO 80302

Lef 7-15-81

Review of Plans and Specifications

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
1111 East Lincolnway
Cheyenne, Wyoming 82002

PROJECT: Public Water Supply System Flying X Ranch

ARCHITECT OR ENGINEER: Kirk Wickersham, Jr, Wickersham & Assoc., Inc.
1503 Spruce Street, Boulder, CO 80302

WATER QUALITY DIVISION REFERENCE NUMBER: 81-184

REVIEWING ENGINEER: *LeRoy C. Feusner*
LeRoy C. Feusner, P.E.

DATE OF REVIEW: July 13, 1981

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. On June 22, 1981, the Water Quality Division received your letter for an extension on the Permit to Construct for the public water supply at the Flying X Ranch. As I stated in my letter to Mr. Chuck Kupilik on April 21, 1981, we will require some additional information which was not included in the original application back in 1978. Two copies of the following information items must be provided for our review and approval prior to issuance of this permit.
2. Provide construction drawings/specifications for the water storage tank.
3. Provide engineering drawings for the completed well construction, pump tests, and water quality analyses of the raw water for compliance with the U.S. EPA Safe Drinking Water Act.
4. Construction/material specifications for the water distribution pipe installation.
5. Provisions must be provided for chlorination (either gas or liquid) of the raw water prior to entry into the storage tank. Provide the chlorination system design and material specifications.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Mansface Housing Development

ENGINEER: James Burke & Associates, Inc.
145 Grand Avenue, Suite A
Grand Junction, CO 81501

OWNER: Mansface Terrace Housing Development Corp.
135 Powell Street
Green River, WY 82935

WATER QUALITY DIVISION REFERENCE NUMBER: 81-185

REVIEWING ENGINEER: Al Berreth *ajb*

DATE OF REVIEW: April 8, 1981

ACTION: Not authorized.

COMMENTS:

Before a "Permit to Construct" can be issued, the following items must be resolved.

- 1) Please provide details of thrust blocking and connection. Specifically, to what is the 3-inch line to be connected? What is the depth of burial?
- 2) The 8-inch sewer line needs to connect into a manhole and the 6-inch stub should connect into a manhole.
- 3) The maximum length of sewer line which may have a cleanout is 150 feet.
- 4) A profile of the sewer main is needed.
- 5) The specifications do not address installation and are vague as to material. You might consider using the "Wyoming Public Works Standard Specifications," which can be referenced on the drawing.
- 6) Please use a Wyoming stamp on drawings.

A, B, C

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-185R

Mansface Housing Development
(Name of Facility)

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

Mansface Terrace Housing Development Corp.
135 Powell St.
Green River, WY 82935

to construct, install, or modify a _____
sewer line and water line extension

_____ facility according to the procedures and conditions of the
application No. 81-185R. The facility is located in _____
Sec. 27. T18N, R107W

_____ 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 Per-
mittee understands that it is solely responsible to any third parties for any liabil-
ity arising from the construction or operation of the facility described herein. By
the issuance of this permit, the State does not in any way waive its sovereign
immunity.

The permittee shall allow authorized representatives from the Department of Environ-
mental 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.

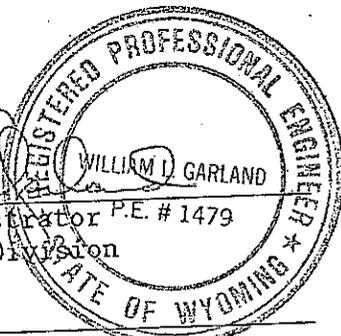
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, 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 D. Garland

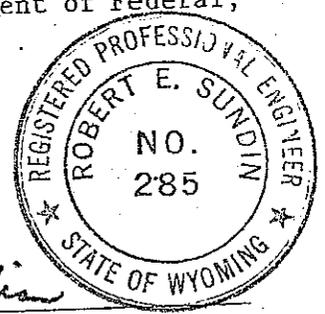


Administrator P.E. #1479
Water Quality Division

July 7, 1981

Date of Issuance

Robert E. Sundin



Director

Dept. of Environmental Quality

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

AJB:ch

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Rock Springs - 16" Watermain, Blair Avenue to Grant Street

ENGINEER: Pacific Power & Light Co. Attn: Robert L. Svendsen
920 S.W. Sixth Avenue
Portland, OR 86204

OWNER: SAME

WATER QUALITY DIVISION REFERENCE NUMBER: 81-186R

REVIEWING ENGINEER: Al Berreth *ajf*

DATE OF REVIEW: May 1, 1981

ACTION: Not authorized.

COMMENTS:

Further clarification is needed on the following items:

- 1) How was it determined that 3,300 gpm was necessary for the downtown and north Rock Springs area?
- 2) A profile of the waterline must be provided. Sewerline crossings must be shown on the profile.
- 3) What was the amount of thrust blocking used on this job?
- 4) Existing sewer mains must be shown.

A, C

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Rock Springs - 16" Watermain, Blair Avenue to Grant Street

ENGINEER: Pacific Power & Light Co.
920 S.W. Sixth Avenue
Portland, OR 86204
Attn: Robert L. Svendsen

OWNER: Same

WATER QUALITY DIVISION REFERENCE NUMBER: 81-186

REVIEWING ENGINEER: Al Berreth *ajb*

DATE OF REVIEW: April 9, 1981

ACTION: Not authorized.

COMMENTS:

A response to the following items is needed to determine the adequacy of your plans.

- 1) The drawings need to be stamped by an engineer registered in the State of Wyoming.
- 2) Six feet of cover is normally required over the top of the pipe.
- 3) Calculations need to be supplied which justify line size.
- 4) Please explain rationale for choosing butterfly valves as opposed to gate valves. How many turns does it take to shut off water supply from completely open?
- 5) A profile of the waterline is needed.
- 6) What radius of curve is expected in the "pipe deflection zone?" Is it compatible with manufacturer's recommendations?
- 7) What amount of thrust blocking is required?
- 8) No sewer mains are shown. Are there none? Existing sewer mains need to be shown.
- 9) Thrust blocking for reducer is not shown in Detail "D."

A, B, C

M
4-29-81

PERMIT TO CONSTRUCT

Permit No. 81-187

- New
- Renewal
- Modified

Rawlins Water Distribution System
(Name of Facility)

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

City of Rawlins

P. O. Box 953

Rawlins, WY 82301

to construct, install, or modify a two 6-inch water mains facility according to the procedures and conditions of the application No. 81-187. The facility is located in Section 16, T21N, R87W 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.

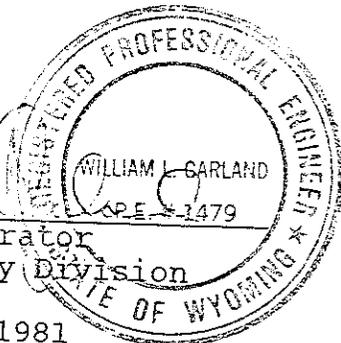
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

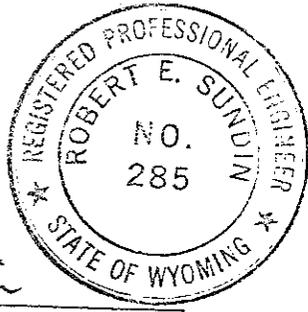
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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
April 20, 1981
Date of Issuance


Robert E. Sundin
Director
Dept. of Environmental Quality

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

cc:

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 this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, Lander, Wyoming, 82520; telephone 332-3144.

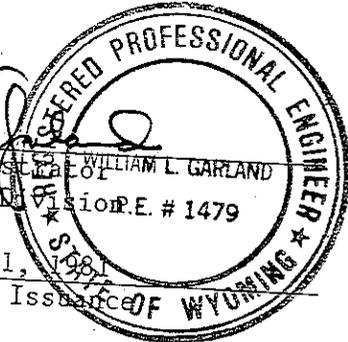
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

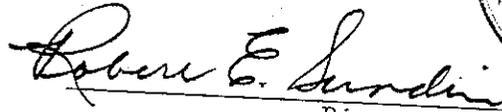
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

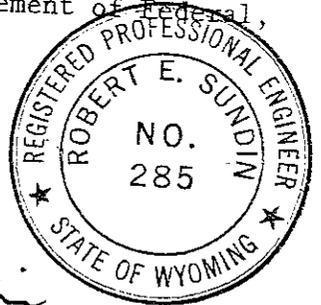

Administrator for WILLIAM L. GARLAND
Water Quality Division P.E. # 1479

June 1, 1981
Date of Issuance





Director
Dept. of Environmental Quality



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

RR:nb

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Water Transmission Lines - Town of Kemmerer

ENGINEER: Marc A. Yarger
MSM Consultants, Inc.
350 West A Street
Casper, WY 82601

OWNER: Mr. Gerald Olsen, Mayor
Town of Kemmerer
P.O. Box 312
Kemmerer, WY 83101

WATER QUALITY DIVISION REFERENCE NUMBER: 81-188R

REVIEWING ENGINEER: Richard Ruyle *RR*

DATE OF REVIEW: May 12, 1981

ACTION: Not authorized.

COMMENTS:

I have made a second review of your application for the project referenced above. Most of my questions have been answered sufficiently. However, the following items on my original review letter have yet to be resolved.

- Item 8. I will need a copy of the change order with a drawing for the valves, manhole, and taps to be added at the Hams River crossing.
- Item 9. Even though a nationwide permit has been issued by the Corps of Engineers for the Hams Fork River crossing, a state certification form (401) must be filed with the State. I enclosed a copy of this application with my original review. To save time, you should send a copy of the completed application to me at this office, and one each to Mike Stone and Mike Carnevale at the Cheyenne DEQ office, Water Quality Division, 401 West 19th Street, 82002.
- Item 11. Twenty-four-inch valves will have to be added to the main on the downstream side of the Frontier and Clubhouse feedline T connections. "Ten States Standards" requires valves at 800-foot intervals. However, adding valves at the two locations mentioned above is sufficient to assure continued service in case of breakage or repair.

Review of Plans and Specifications

Water Transmission Lines - Town of Kemmerer - DEQ #81-188R

Date of Review - May 12, 1981

Page Two

Item 16. "Ten States Standards" requires that, "the open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade (ground level) and provided with a screened, downward facing elbow." This is particularly important in watertight pits. A change order, with drawings, should be submitted.

Do not hesitate to call me at this office with questions.

RR:nb

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Water Transmission Lines - Town of Kemmerer

ENGINEER: Marc A. Yarger
MSM Consultants, Inc.
350 West A Street
Casper, WY 82601

OWNER: Mr. Gerald P. Olsen, Mayor
Town of Kemmerer
P.O. Box 312
Kemmerer, WY 83101

WATER QUALITY DIVISION REFERENCE NUMBER: 81-188

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: April 22, 1981

ACTION: Not authorized.

COMMENTS:

I have made a review of your application and related documents for the project referenced above. The following clarifications are needed before a "Permit to Construct" can be issued:

- 1) Normally, we like to see an Engineer's Report submitted, as a separate document, along with the plans and specifications. The report should contain the following information:
 - a) Calculations upon which the design of the transmission lines and feed lines were based.
 - b) Estimated population which will be served by the proposed lines, present water consumption and projected average and maximum daily demands used as the basis of design.
 - c) Design life of the system, population projection of the area for the future, appraisal of future requirements, and provisions for extending the system.
 - d) Design flow and pressure in the pipes to justify selected pipe size and class, and to verify needed demand can be met.
 - e) Description of the existing water plant, pumping station, and storage tanks. Verify that these facilities have the capability to handle the proposed additional flow.

- f) The character of the soil through which the water mains are to be laid. Soils tests should be included.
- g) The approximate elevation of ground water in relation to the water mains.
- 2) The grade of the water mains should be as uniform as possible. Why does the grade vary so much? Having a uniform grade for the pipes is much more acceptable and easier to excavate and install.
- 3) Shouldn't thrust blocks be provided at vertical bends in the pipe, as well as horizontal bends? Straightening the pipe out would eliminate the need for most of these additional blocks.
- 4) The severe dip in the pipe on the north side of the railroad crossing is not shown on the profile drawing of sheet 2. Is there a reason for the discrepancy?
- 5) The ground cover over the 24" line is shown to be insufficient in a few spots on the profile drawings, even though 6' of cover is specified. Is there a reason for the discrepancy? The cover should be consistent. Some spots where this occurs are at stations 71+00, 97+00, and 107+00.
- 6) The cover over the drainage ditch crossings should also be 6' if at all possible, especially if the ditches are dry. Spots where these ditches occur are at stations 27+25, 41+75, and 48+75 along the 24" line, station 5+25 on the Frontier feedline, and station 1+75 on the Clubhouse feedline.
- 7) Please describe the flow in the above ditches and the channels located at station 45+00 on the 24" line and station 6+50 on the 16" line. "401" and "404" permits may be required if there is significant flow in the channels.
- 8) Special provisions are required for the Hams Fork River crossing of the 24" pipe as described in "Ten States Standards." Valves shall be provided at both ends of the water crossing so that the section can be isolated for testing and repair. The valve closest to the supply source shall be in a manhole. Permanent taps shall be made on each side of the valve within the manhole, to allow insertion of a small meter for testing to determine leakage and for sampling purposes.
- 9) A 401 permit from the State and a 404 permit from the Corps of Engineers are required for all dredge and fill operations. These permits must be obtained for the stream crossing and by-pass construction before the plans can be approved. The applications are enclosed.
- 10) The location of the Frontier feed line T connection should be shown on the plan drawing of the 24" transmission line.
- 11) Shouldn't 24" butterfly valves be included on the downstream side of the Frontier and Clubhouse feedline T connections to the main, similar to the Willow addition connection?

- 12) A dewatering permit will be required for the trench excavation across the swampy area on sheet 8, and any other area where dewatering of trenches is required. An application is enclosed.
- 13) How will the 24" pipe be anchored in the swampy area?
- 14) It is suggested that drains be provided at the low points in the water lines. These spots occur on either side of the river crossing for the 24" line, at station 10+75 on the 16", at station 00+75 on the Willow addition feedline, and at station 4+50 on the Frontier feedline.
- 15) It is suggested that a few more air relief valves be provided on the 24" line. They can be installed in combination with the line drains.
- 16) How will the air relief pit shown on sheet 20 be drained?
- 17) Has a local fire official approved the location of the new fire hydrants?
- 18) Can you provide details to the meter vault connection on sheet 13?
- 19) Details of a typical service line reconnection should be provided, including a gooseneck and corporation stop.
- 20) Shouldn't there be thrust blocks indicated on the tank form connection detail on sheet 11, where the 90° bends and T intersection occur?
- 21) The location of existing pipes at the tank form that are traversed by the 24" line should be shown in the profile drawing on sheet 17.
- 22) Notations of fence restoration should be included at the Green Hill tank - sheet 19, at the water treatment plant - sheet 17, and near the highway crossing - sheet 5.
- 23) What is the manufacturer's recommended deflection at the joints of the water pipes? Can the proposed curve of the pipes be accomplished by this method?
- 24) What is the meaning of a restrained joint and restrained pipe length as shown on the plans at bends in the pipe? Why are the restrained joints and pipe lengths not always consistent between different bends? Are they needed on the 16" line? Please provide specifications for the restrained joints.
- 25) Are the seals at the ends of the steel casing pipes for the highway and railroad crossings considered water-tight?

I remind you that the above comments do not necessarily constitute the final review of the project. Feel free to call me at this office with questions.

RR:nb

5-26-81

PERMIT TO CONSTRUCT

New

Permit No. 81-189RR

Renewal

Modified

Daniel Construction Company/Chevron Carter Creek
Temporary Waste Disposal System at the Chevron Carter Creek Jobsite
(Name of Facility)

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

Daniel Construction Company
P.O. Box 966
Evanston, WY 82930

to construct, ~~instead, or modify~~ five jobwide collection and wastewater holding
systems

facility according to the procedures and conditions of the
application No. 81-189RR. The facility is located in Sec. 6, T. 18N, R. 119W

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

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

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

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

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

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

The permittee shall notify representatives from the Department of Environmental Qual-
ity, Water Quality Division the day construction commences and give an estimate of
completion of this project. The authorized representative in your area can be
contacted at the following address: Water Quality Construction Projects Control
Officer, State of Wyoming, Department of Environmental Quality, Water Quality Divi-
sion, 933 Main Street, Lander, Wyoming, 82520; telephone 332-3144.

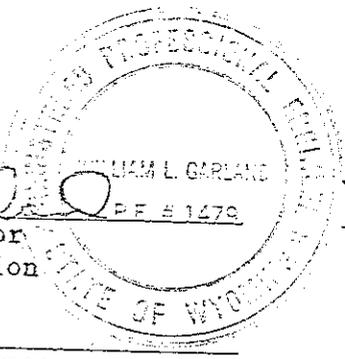
Nothing in this permit shall be construed to preclude the institution of any legal
action or relieve the permittee from any responsibilities, liabilities or penalties
established pursuant to any applicable State law or regulation.

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:

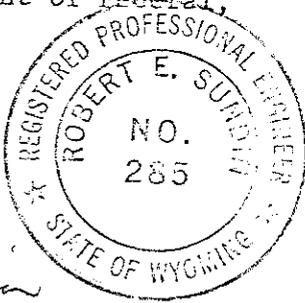
William L. Garland

Administrator
Water Quality Division



Robert E. Sunden

Director
Dept. of Environmental Quality



May 12, 1981

Date of Issuance

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

FL/kn

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Daniel Construction Company/Chevron Carter Creek Temporary Waste Disposal System at the Chevron Carter Creek Job Site

ENGINEER: Daniel Construction Company
P.O. Box 966
Evanston, WY 82930
ATT: J.J. Wiley

OWNER: Daniel Construction Company
P.O. Box 966
Evanston, WY 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 81-189R

REVIEWING ~~ENGINEER~~ EVALUATOR: Francis LaBarge *FL*

DATE OF REVIEW: May 1, 1981

ACTION: Not authorized.

COMMENTS:

The following points need to be clarified before a permit to construct can be issued:

1. Detail "A" shows a 3 inch line from the guardhouse to the holding tank. Minimum acceptable size is 4 inches.
2. Complete and detailed construction specifications are required.

Please submit the required information, in triplicate, to this office. If you have any questions, please call.

FL/pm

A, B, C

REVIEW OF PLANS AND SPECIFICATIONS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Daniel Construction Company/Chevron Carter Creek

ENGINEER: J. J. Wiley
Daniel Construction Co.
P.O. Box 966
Evanston, WY 82930

OWNER: Daniel Construction Co.
P.O. Box 966
Evanston, WY 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 81-189

REVIEWING ~~ENGINEER~~ EVALUATOR: Francis LaBarge *FL*

DATE OF REVIEW: April 13, 1981

ACTION: Not authorized.

COMMENTS:

The following points need to be clarified before a permit to construct can be issued:

- 1) Details are needed of the holding tanks. The bottoms should be shaped so that the contents will flow to the draw-off point.
- 2) What material are the holding tanks made of?
- 3) Details of the sewer line connection to the tanks are required.
- 4) A fence or other suitable barrier should be installed around each tank to prevent possible damage that could result from heavy equipment driving over them.
- 5) Details are needed of how the holding tanks will be installed.
- 6) All pipe material and specifications must be shown on the plans.
- 7) Details are needed of the stand pipes. Where are they located? How are they anchored?
- 8) The plans show potable water tanks. Are these for flushing, only, or do they furnish drinking water also? If they do serve drinking water to more than a total of 25 people, regardless of how many individual water tanks there are the system is defined as a non-community water system, and it falls under EPA guidelines. If this is the case, contact Marc Allston at (303) 837-2731, of the Denver EPA office. He will

A, B, C

Review of Plans and Specifications
Daniel Construction Company/Chevron Carter Creek (81-189)
Date of Review - April 13, 1981
Page Two

then inform you of what must be done to satisfy EPA. If you have a total of ten or more service connections, you also fall under DEQ's program, and must get the plans and specifications for the water system approved by this office.

Please submit the required information and revised drawings, in triplicate, to this office. If you have any questions, please call me.

M
4-29-81

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-190

WITH CONDITION

Dreco, Inc., Lots 40 & 41
(Name of Facility)

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

Larson Construction Company
P. O. Box 1527
Mills, WY 82644

to construct, install, or modify a subsurface sewage disposal facility according to the procedures and conditions of the application No. 81-190. The facility is located in Section 34, T34N, R80W 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.

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.

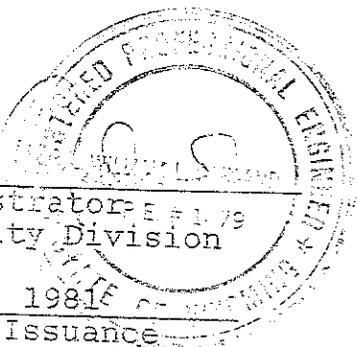
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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:

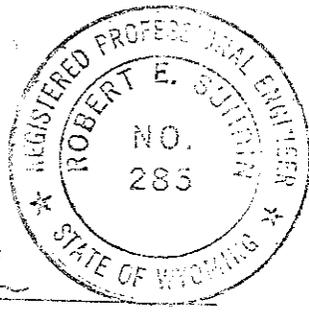


Administrator
Water Quality Division
April 21, 1981
Date of Issuance





Director
Dept. of Environmental Quality



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

cc:

Conditions to Permit to Construct

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.

M
4-29-81

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-191
WITH CONDITIONS

Dreco, Inc., Lots 43 & 44
(Name of Facility)

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

Larson Construction Company
P. O. Box 1527
Mills, WY 82644

to construct, install, or modify a subsurface sewage disposal facility according to the procedures and conditions of the application No. 81-191. The facility is located in Section 34, T34N, R30W 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.

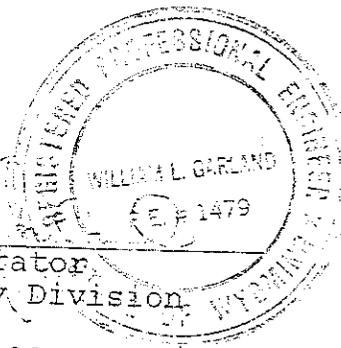
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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.

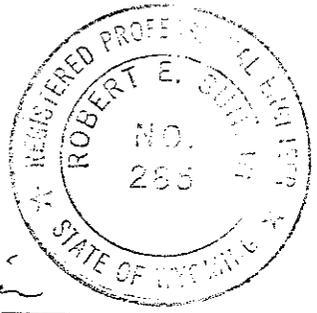
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

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. Grand

Administrator
Water Quality Division


Robert E. Sundin

Director
Dept. of Environmental Quality

April 21, 1981
Date of Issuance

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

cc:

Conditions to Permit to Construct

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.

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.

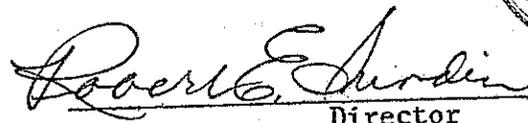
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction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

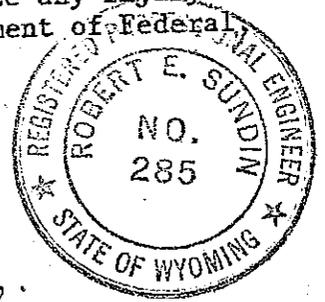
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AUTHORIZED BY:


WILLIAM L. GARLAND
P.E. # 479
Administrator
Water Quality Division
STATE OF WYOMING
March 15, 1982
Date of Issuance


Director
Dept. of Environmental Quality



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

xc: Keith Neustal, Plains Engineering
Millard Bruce, Johnson County Sanitarian

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
2161 Coffeen Ave., Suite 301
Sheridan, Wyoming 82801

PROJECT: Wyoming Society for Crippled Children and Adults
Lodge Sewage Holding Tank

ARCHITECT OR ENGINEER: Plains Engineering
P.O. Box 452
Buffalo, Wyoming 82834

WATER QUALITY DIVISION
REFERENCE NUMBER: 81-192

REVIEWING ENGINEER: Tom Mueller *TMM*

DATE OF REVIEW: May 27, 1981

ACTION: Not Authorized for Construction

COMMENTS:

1. A drawing of the tank installation must be provided.
2. Corrosion protection of some sort should be provided for the tank, whether cathodic protection, coating, wrapping, etc. Please address this question.
3. Calculations regarding flows and storage are acceptable. How will access to the tank be provided?
4. Please indicate sewer material and distance from tank to lodge.



PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 81-193R

GRANT VILLAGE WATER SYSTEM IMPROVEMENTS - PHASE I
(Name of Facility)

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

Superintendent Ronald N. Wrye

Yellowstone National Park

Yellowstone National Park, WY 82190

to construct, install, or modify a

0.7 MGD Water Treatment Plant plus Improvements

~~EXEMPT~~ according to the procedures and conditions of the application

No. 81-193R. The facility is located in

44° 24' N, 110° 35' W

in the County of Park, in the State of Wyoming. This permit shall be effective for a period of two 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.

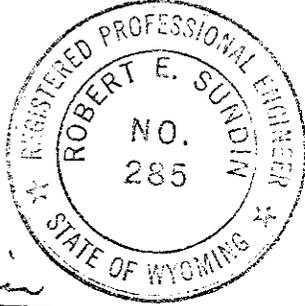
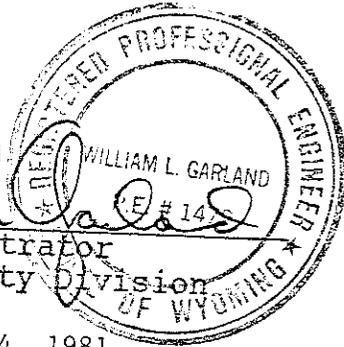
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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.

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
OF WYOMING

Robert E. Sundin
Director
Dept. of Environmental Quality

April 24, 1981
Date of Issuance

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

MRC:nkb

5-27-81

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-194R

AMERICAN DRILLING COMPANY SMALL WASTEWATER FACILITY
(Name of Facility)

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

American Drilling Co. c/o Duane Potter
P.O. Box 122
Casper, WY 82602

to construct, install, or modify two septic tanks and one leach field for a 12-
bedroom (2 persons per bedroom) man-camp

facility according to the procedures and conditions of the
application No. 81-194R. The facility is located in Sec. 30, T. 15N, R. 120W.

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

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

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

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

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

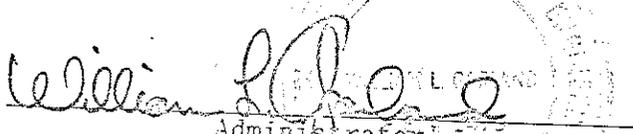
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

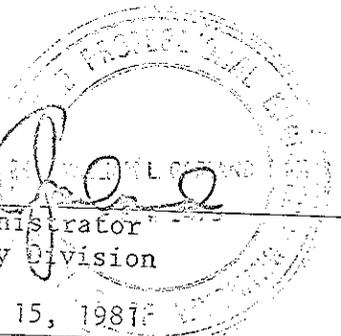
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, Lander, Wyoming, 82520; telephone 332-3144.

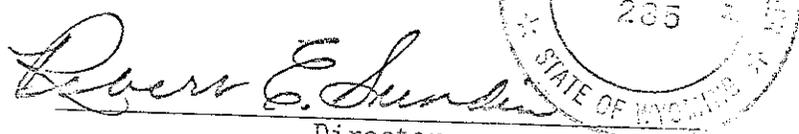
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

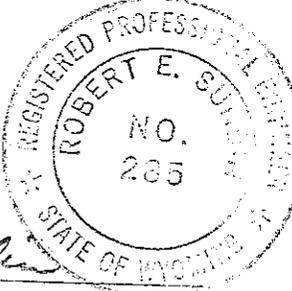
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administrator
Water Quality Division
May 15, 1981
Date of Issuance




Director
Dept. of Environmental Quality



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

FL:nb

81-194



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality
Water Quality Division

933 MAIN

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

April 29, 1981

CERTIFIED MAIL

Duane Potter
American Drilling Co.
P.O. Box 3353
Casper, WY 82602

Re: American Drilling Co. Man-Camp
Located in Sec. 30, T. 15N,
R. 120 W., Uinta Co.

Dear Mr. Potter:

It has come to the attention of this office that American Drilling Co. has begun construction of a small wastewater facility (i.e., a septic tank-leach field) at the above referenced facility. Please be advised that as stated in Chapter III of the Wyoming Water Quality Rules & Regulations (copy enclosed), a "Permit to Construct" must be issued before any construction, installation or modification of a sewage system can take place.

Any person who violates, or any director, officer or agent of a corporate permittee, who willfully and knowingly authorizes, orders or carries out any violation of the Wyoming Environmental Quality Act (copy enclosed) is liable to a penalty not to exceed ten thousand dollars (\$10,000.00) for each day during which the violation continues.

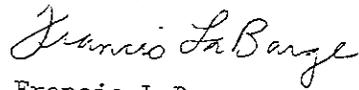
This department is requesting that construction of the small wastewater facility in question be halted until a "Permit to Construct" has been issued. This office has reviewed the plans for the above referenced facility; however, they have not been approved. A review letter (copy enclosed) has been sent to your engineer and when a satisfactory response is received a "Permit to Construct" will be issued.

Duane Potter
April 29, 1981
Page Two

If any further violations are discovered, it will be the recommendation of this office that a Notice of Violation be issued and the matter referred to the Attorney General's office. You are requested to acknowledge this letter, in writing, within one week of your receipt of it.

If you have any questions, please contact me at this office.

Yours truly,



Francis LaBarge
Water Quality Evaluator
Southwest District

FL:nb
Enclosures (2)

cc: Cheyenne DEQ/WQD
Dennis Farley - Uinta County Planner

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: American Drilling Co. Small Wastewater Facility

ENGINEER: Rocky Mountain Engineering & Surveying, Inc.
P.O. Box 805
Evanston, WY 82520
Attn: Dale Peterson

OWNER: American Drilling Co.
P.O. Box 122
Casper, WY 82602

WATER QUALITY DIVISION REFERENCE NUMBER: 81-194

REVIEWING ~~ENGINEER~~ EVALUATOR: Francis LaBarge *FL*

DATE OF REVIEW: April 23, 1981

ACTION: Not authorized.

COMMENTS:

The following points need to be resolved before a permit to construct can be issued.

- 1) The Engineering Report states the design is based upon figures obtained from the S.C.S. Percolation tests must be run on the site of the proposed leach field.
- 2) The plans are designed around 12 bedrooms. How many people will occupy these bedrooms?
- 3) The checklist sheet indicates a ground slope of 90°. Please clarify.
- 4) Which pipes in the leach field are perforated and which are solid? This needs to be clearly shown on the plans.
- 5) The Engineering Report states the groundwater flow is to the north, with the nearest well approximately one-half mile north of the disposal site. The following information is needed on that well:

- depth to the static water level
- depth to the water bearing strata
- complete chemical and physical analysis of the well water

Please submit the required information, in triplicate, to this office. If you have any questions, please call me.

A.C.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 81-195

CHARLES STUMP SMALL WASTEWATER FACILITY
(Name of Facility)

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

Charles Stump (c/o Carl Spomer)
Box 392
Thermopolis, WY 82443

to construct, install, or modify a septic tank - leach field

facility according to the procedures and conditions of the application

No. 81-195. The facility is located in Lot 4, Powell Industrial Park, NW $\frac{1}{4}$ NW $\frac{1}{4}$, Lot 61, T. 55N, R. 99W Resurvey

in the County of Park, in the State of Wyoming. This permit shall be effective for a period of two 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.

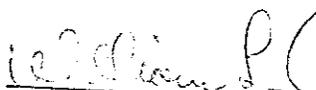
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

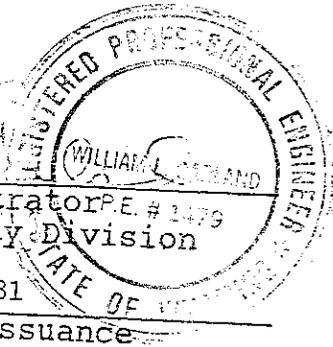
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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.

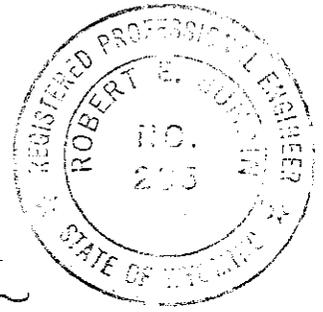
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator P.E. # 2179
Water Quality Division
STATE OF MICHIGAN




Director
Dept. of Environmental Quality


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

This permit is granted with the understanding that the following conditions will be met:

- 1) Schedule 40 PVC pipe will be used for a minimum of five feet, both in and out of the septic tank.
- 2) The 1,000 gallon septic tank installed will be C & J Precast's standard tank.

JH:nb

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

PROJECT: Twin Ridge Subdivision and PRUD

ENGINEER: Great Basin Engineering, Inc. Attn: John A. Bradshaw
P.O. Box 9307
Ogden, UT 84009

OWNER: Gary Ellingsford
Evanston, WY 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 81-196

REVIEWING ENGINEER: Al Berreth *ajb*

DATE OF REVIEW: April 15, 1981

ACTION: Not authorized.

COMMENTS:

Before a "Permit to Construct" can be issued, the following items must be addressed:

Items discussed on Monday, April 13, 1981:

- 1) A waterline profile is needed with average depth of cover six feet to the top of pipe.
- 2) Please include rim elevations on sanitary sewer.
- 3) The calculations need to demonstrate that a residual pressure 20 psi will be maintained at fire flow.
- 4) Gate valves preceding fire hydrants need to be shown.
- 5) Waterline/sewerline crossings need to be shown on the sewerline profile, as well as having a standard detail.
- 6) Thrust blocking needs to be shown; that is, symbolized on the plan view of the waterline. Square footage required should be noted.
- 7) Please stamp drawings with your Wyoming seal.

... /2

A, B, C

- 8) Comments from Wayne Shepard, Evanston City Engineer, will be needed prior to final approval. Also letters are needed from the City which state they can handle the increased load on the sewer and water systems.
- 9) If the sewer and watermain material is to be specified, then complete specification needs to be shown on the drawings.
- 10) That lots 12-16, in the PRUD, are to be deleted from this application, should be in writing. The sewerline should also be deleted.

Items not discussed Monday, April 13, 1981:

- 1) An application form needs to be completed. Forms are enclosed.
- 2) At the end of Twin Ridge Avenue, the sewer and water is shown to be plugged. As a minimum, a cleanout is required for the sewer if the length of the line is less than 150 feet; if it is longer, a manhole is required. A blowoff needs to be provided for the waterline. Two-inch is the minimum size allowed. Details should be included.
- 3) The effect of a curve in the waterline needs to be addressed. How much deflection is permitted in a joint of pipe? What is the minimum radius of curve?
- 4) Please explain note on waterline, "8 in, 200 class PVC and 8 in. D.I. in same trench."
- 5) Please note distances between manholes and number.
- 6) The waterline on Simpson Ave. (sheet 2/14) is shown to stop, but the sheet from the analysis shows it looping with the system in the PRUD. Please clarify.
- 7) Comment #2, above, applies to the sewerline and waterline at the end of Hickey Ave.
- 8) On Hickey Ave., the transition from six-inch to two-inch line needs to be shown. Is the tee a 2 x 6 x 6? A blowoff needs to be provided.
- 9) Perhaps the fire hydrant on Morgan Circle should be on the other side of the storm water catch basin. How close is it to the sanitary sewer?
- 10) How close is the storm water culvert to the manhole on the north end of Lucas Ave?
- 11) Comment #2, above, applies to the sewerline and waterline at the end of Hathaway Ave., Kendrick Ave., Herschler Ave., Hansen Ave., Barber Ave., Gage Ave. (East and West Ends), Brooks Ave., Campbell Ave., and Crane Ave.

- 12) Please explain tees in waterline at the intersections of Crane Ave. and Simpson and Barrett Aves. Is the pipe to be curved, or another fitting to be installed?
- 13) "Ten-States Standards" recommends an even flow line for manholes where the pipe changes size (8" to 10"). A approximate method is to align the 0.8 depth point.
- 14) The National Board of Fire Underwriters recommends a fire flow of approximately 2,500 gpm plus maximum daily requirement. Fire flow is determined from the equation, Q equals 1,020 times the square root of the population in thousands times one minus 0.01 times the square root of the population in thousands. Please consider this in the design of the main line down Yellow Creek Road.
- 15) Please detail connections to existing water and sewer.
- 16) After running a short check, the calculated pressure at point A on the Hardy-Cross analysis came out to 64 psi, which is 4 psi lower than the value used. It is hoped that this would not materially affect the minimum pressure calculation.

AB:nb

cc: Wayne Shepard (with plans)
Cheyenne DEQ/WQD
Attachment (Application)

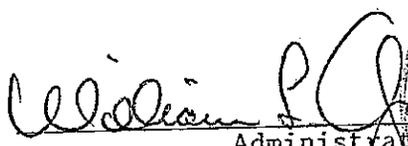
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

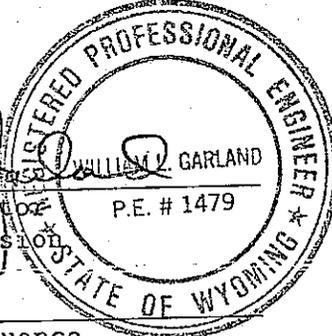
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, Lander, Wyoming, 82520; telephone 332-3144.

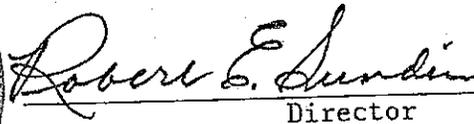
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

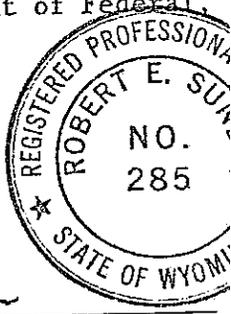
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administrative
Water Quality Division
June 9, 1981
Date of Issuance




Director
Dept. of Environmental Quality



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

AB/sj

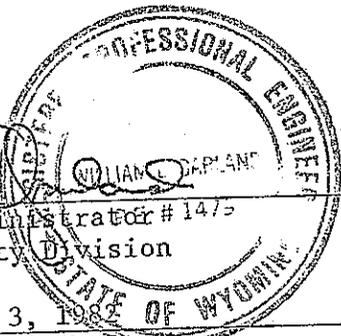
during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

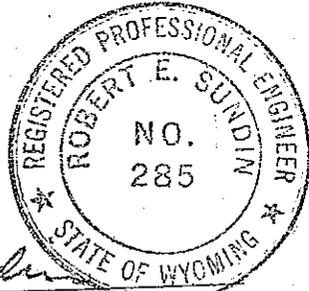
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, 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. Daplane
Administrator # 1475
Water Quality Division
May 3, 1982
Date of Issuance


Robert E. Sundin
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
933 MAIN STREET
LANDER, WYOMING 82520
PHONE: (307) 332-3144

PROJECT: Magee Shop Building

ENGINEER: Lloyd B. Baker
Box 210
Thayne, WY 83127

OWNER: James Magee
Route 89
Thayne, WY 83127

WATER QUALITY DIVISION REFERENCE NUMBER: 81-198R

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: May 26, 1981

ACTION: Not authorized.

COMMENTS:

The following items need to be addressed before a "Permit to Construct" can be issued.

- 1) The two drawings on the plan sheets do not agree. The orientation of the leach fields are different. If the second drawing is to be used, it should show the location of the existing buildings, septic system, well, and water line as in the original drawing. Appropriate distances between these items should be marked. Submittal of one complete drawing, stamped by a Professional Engineer, will eliminate confusion.
- 2) The drainage pipes downstream of the septic tank should not slope a minimum of $\frac{1}{4}$ " per foot, as noted on the second drawing, but, rather, can slope a maximum of only 6 in./100 ft.
- 3) Why does the drain and trap line bypass the septic tank? It should join the inlet line to the septic tank in a wye connection, at which point a cleanout should be provided.
- 4) How many people will work at the shop? What is the basis for design of the leach field?

A, B, C

Review of Plans and Specifications - Magee Shop Building (DEQ #81-198R)

Date of Review - May 26, 1981

Page Two

- 5) The width of the trenches should be listed on the check list (18 to 36 inches). The disposal area should also be computed (trench width X length of perforated pipe).
- 6) Please fill in the engineer's name, number and address on the application sheet.
- 7) The Professional Engineer's stamp or signature should be on all of the sheets submitted.

RR:nb

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.

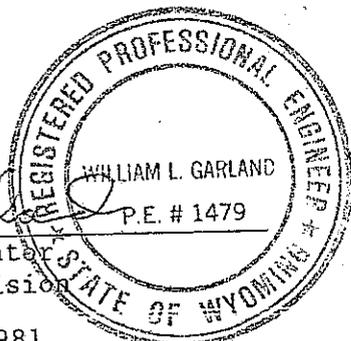
The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of this project. The authorized representative in your area can be contacted at the following address: Water Quality Construction Projects Control Officer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 933 Main Street, 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.

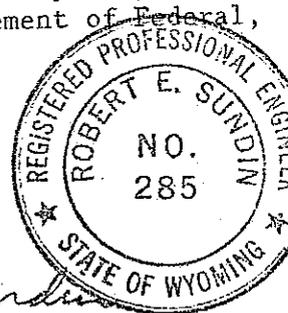
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:

William L. Garland
Administrator
Water Quality Division



Robert E. Sundin
Director
Dept. of Environmental Quality



July 1, 1981

Date of Issuance

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

RR:nb
7/1/81

REVIEW OF SMALL WASTEWATER FACILITY PLANS
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520

PHONE: (307) 332-3144

OWNER/APPLICANT: James Magee

ADDRESS: Route 89
Thayne, WY 83127

WATER QUALITY DIVISION REFERENCE NUMBER: 81-198

REVIEWING ENGINEER: Rich Ruyle *RR*

DATE OF REVIEW: April 20, 1981

ACTION: Not authorized.

COMMENTS:

Dear Jim:

After my conversation with you on the phone today, I realized that your proposed facility is not in the category of a small wastewater facility. According to Chapter III of the Wyoming Water Quality Rules and Regulations, "small wastewater facility" means sewerage systems, disposal systems, and treatment works for a single family house, or a single mobile home unit.

Any facility not in this category must have plans and specifications that are stamped or signed by a registered engineer in the State of Wyoming. A review cannot be made until this requirement is met.

ALL REPLIES SHOULD BE DIRECTED TO Rich Ruyle REF. NO. 81-198

B

28/6

PERMIT TO CONSTRUCT

Permit No. 81-199
See Special Condition

- New
- Renewal
- Modified

Independent Electric
(Name of Facility)

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

Richard O'Quinn

P. O. Box 1688

Mills, WY 82644

to construct, install, or modify a subsurface sewage disposal facility according to the procedures and conditions of the application No. 81-199. The facility is located in Section 2, T33N, R80W 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.

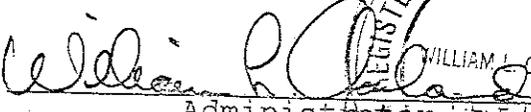
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

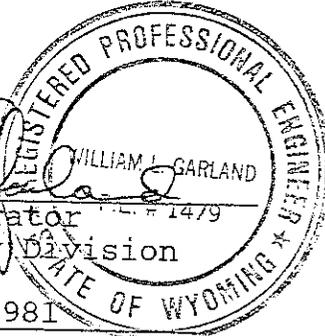
The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions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

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.

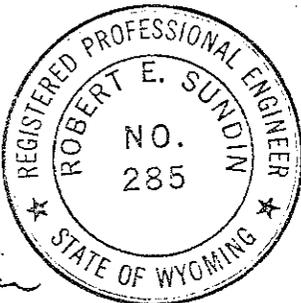
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:


Administratiator
Water Quality Division
April 28, 1981
Date of Issuance




Director
Dept. of Environmental Quality



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

cc: Edwin S. Rate, Jr.
P. O. Box 930
Casper, WY 82602

Conditions to Permit to Construct

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.

Norma
81-200

FLUOR ENGINEERS AND CONSTRUCTORS, INC.

May 21, 1981

4620 NORTH BRAESWOOD
HOUSTON, TEXAS 77096
TELEPHONE: (713) 662-3000

Re: CHEVRON U.S.A. INC.
Carter Creek Gas Plant
Sulfur Loading Facilities
Lincoln County, Wyoming



Wyoming Department of Environmental Quality
Water Quality Division
933 Main
Lander, Wyoming 82520

Attention: Mr. Francis LaBarge
Water Quality Evaluator
Southwest District



Gentlemen:

On April 13, 1981, we submitted to you an application for a permit to construct a sewage lagoon at the above referenced facilities. (Water Quality Division Reference Number 81-200). Additional engineering studies indicate that a septic tank installation with effluent discharge to the evaporation pond is preferable. An application for a permit to construct the evaporation pond was also submitted on April 13, 1981. (Water Quality Division Reference Number 81-201). Based on your review of the plans and specifications, additional engineering information is forthcoming. We propose to include the septic tank and discharge system in the application for the evaporation pond (81-201). This was discussed and agreed upon in a telephone conversation between you and Mr. James Gilliam, of Fluor, on May 8, 1981. The plans and specifications for this system will be included in the additional information requested.

We request that you withdraw from consideration the application for a permit to construct the sewage lagoon. If you have any questions or comments, please feel free to contact us.

Yours very truly,

FLUOR ENGINEERS AND CONSTRUCTORS, INC.

J. J. Hainbach
D. J. Hainbach
Project Director

JJH:JEG:ch

cc: Mr. K. O. Rattie - Chevron

*appl
with -
drawn*

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION
933 MAIN STREET
LANDER, WYOMING 82520
PHONE: (307) 332-3144

PROJECT: Chevron U.S.A., Inc. Carter Creek Gas Plant Sulfur Loading
Facility Sewer Lagoon

ENGINEER: Fluor Engineers and Constructors, Inc.
P.O. Box 35000
Houston, TX 77035
Attn: J. J. Hainbach

OWNER: Chevron, U.S.A., Inc.
P.O. Box 599
Denver, CO 80201

WATER QUALITY DIVISION REFERENCE NUMBER: 81-200

REVIEWING ~~ENGINEER~~ EVALUATOR: Francis LaBarge *FL*

DATE OF REVIEW: April 21, 1981

ACTION: Not authorized.

COMMENTS:

The following items need to be addressed before a permit to construct can be issued for this project:

1. A detailed Engineering Report is required. At a minimum, it should address:
 - a--Collection system capabilities which are verified by the necessary calculations.
 - b--The proposed construction schedule.
 - c--Relationship to adjacent projects.
 - d--Flood protection.
 - e--Isolation from any water supplies.
 - f--Site description, including maps showing elevations and contours of the site and adjacent area.
 - g--Site specific soil borings. At least one boring should be a minimum of 25' in depth or into bedrock, whichever is shallower. If bedrock is encountered, rock type, structure and corresponding geological formation data should be provided. The boring should be filled and sealed.
 - h-- Distance from habitation.
 - i--Direction of prevailing winds.

j--Adequate provision must be made to divert storm water runoff around the pond and protect the pond embankments from erosion.

k--Depth to groundwater must be confirmed.

l--Design calculations. I have reviewed your calculations. I agree with all of the design parameters except detention time. A minimum of 150 days should be used. This results in a maximum pond depth of six feet, which increases your pond depth by one foot.

2. A detailed set of construction specifications are required. They must include:

a--Dike material specifications.

b--Dike construction specifications.

c--All aspects of the sewer line installation, such as trenching, bedding, back-fill, deflection test, leakage tests, inspection, etc. In short, complete specifications for all installations.

d--Complete specifications for all materials.

e--Pond bottom specifications.

f--Uniformity of the pond bottom.

g--Prefilling of the pond.

h--Influent line installation.

i--Maintenance procedures and schedule.

j--The specifications should be separate and distinct from the engineering report.

3. A complete and detailed set of construction plans are required. These plans should be the same ones to which the facilities will be constructed. They must include:

a--Plan views and boundaries.

b--Location, size and direction of flow of proposed sewer lines.

c--Profiles showing line slope, cover, etc.

d--All material specifications must be on the plans or stated in the specifications.

e--A manhole or vented cleanout wye is required prior to the entrance of the influent line into the pond. Its invert must be at least 6" above the maximum operating level of the pond and provide sufficient hydraulic head without surcharging the manhole.

f--The influent line should be placed on the pond bottom and be adequately anchored. The influent pipe shown on the plans is unacceptable.

g--The pond must be fenced and warning signs put up.

h--Pond level gauges should be provided.

i--Top of dike dimensions need to be shown, as well as pond bottom dimensions.

Review of Plans and Specifications - Chevron U.S.A., Inc., Carter Creek (81-200)

Date of Review - April 21, 1981

Page Three

j--Dike slopes and vertical dimensions showing maximum operating depth and minimum amount of freeboard are required.

k--Complete details and specs are needed for the 8" carrier pipe, including the necessary load calculations.

l--A manhole or cleanout at the 45-degree bend in the sewer line.

Included for your reference is a copy of "Guidelines for Wastewater Pond Construction Permit Applications" and "Guidelines for Wastewater Pond Construction Permit Applications Requiring Liners." All applicable information requested in these guidelines must be furnished with the application.

Please submit the required information, in triplicate, to this office. This does not necessarily constitute the final review. If you have any questions, contact me at this office.

FL:nb

Enclosures

