

7 Mailed  
5-4-79

PERMIT TO CONSTRUCT

New

Permit No. 79-201

Renewal

Modified

Mike J. Thiel, Inc.

(Name of Facility)

This permit hereby authorizes the applicant:

Mike J. Thiel, Inc.

(Last)

(First)

(Middle)

138 Iron Mtn. Rte.

(Street or P.O. Box)

Cheyenne,

(City)

Laramie,

(County)

Wyoming 82001

(State)

to construct, install, or modify a subsurface disposal

facility located in Sec. 35, T15N, R68W

(Legal Description)

in the County of Laramie

, in the State of

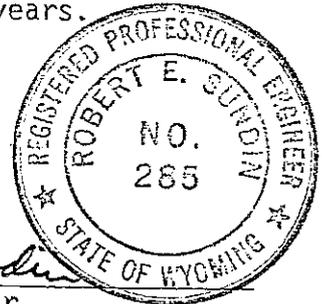
Wyoming. This permit shall be effective for a period of two years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Pala  
Administrator  
Water Quality Division

Robert E. Sunden  
Director  
Wyoming Dept. of Environmental Quality



May 2, 1979

Date of Issuance

"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."

13-6-11-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-202R

Black Mountain Village - Temporary Spaces  
(Name of Facility)

This permit hereby authorizes the applicant:

Basin Electric Power Cooperative

(Last) (First) (Middle)

P.O. Box 518

(Street or P.O. Box)

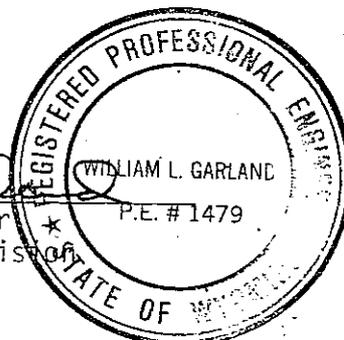
Wheatland, Platte, WY 82201  
(City) (County) (State)

to construct, install, or modify a municipal distribution & collection system  
(public water supply)  
facility located in Sec. 14, T24N, R68W  
(Legal Description)

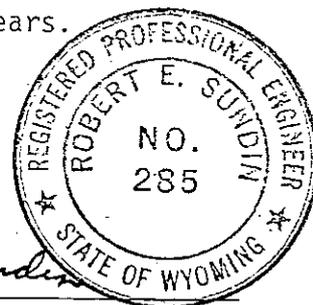
in the County of Platte, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



June 7, 1979

Date of Issuance

"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."

Book  
M-5-15-79

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Black Mountain Village, Wheatland, Wyoming, Platte Co.

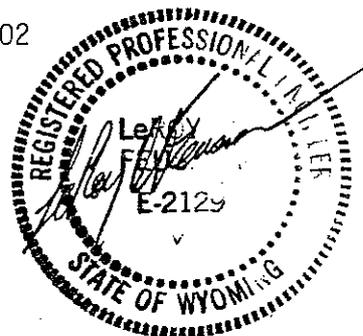
ARCHITECT OR ENGINEER: K & H Engineering  
P.O. Box 1089, Wheatland, WY 82201

WATER QUALITY DIVISION REFERENCE NUMBER: 79-202

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

DATE OF REVIEW: May 10, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION



COMMENTS:

1. Construction plans must be signed by Professional Engineer licensed in Wyoming.
2. A letter of water and wastewater verification must be forwarded to this Division indicating that the public utilities have the capability of supplying at least 350 gallons of drinking water per day per mobile home and that the City of Wheatland wastewater plant can accept and properly treat the additional organic and hydraulic loading from the park's wastewater.
3. Specifications, page S.P.M.-3, paragraph E, Dept. of Environmental Quality should be substituted for State Health Dept.
4. Sheet 4/4 is missing.
5. Show typical drawings of sewer/water crossovers in RV/mobile home areas.
6. Sewer riser pipes shall be protected by concrete at ground surface a minimum of 4 inches thick and 12 inches in diameter. Shall terminate minimum of 4 inches above natural ground, standing water, or surface water runoff, whichever elevation is higher. (DEQ Rules and Regulations, Chapter III, page 11.)
7. Indicate height of water riser above natural ground. Riser is to terminate 4 inches minimum vertical separation above natural ground (DEQ Rules and Regulations, Chapter III, page 12).
8. What provision has been made to assure that no more than 20 water service connections will be without service as a result of a water line break or repair within the park? (DEQ Rules and Regulations, Chapter III, page 12.)

5-02  
M-5-17-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-203

Eastgate III Addition - City of Casper  
(Name of Facility)

This permit hereby authorizes the applicant:

Casper Board of Public Utilities  
 \_\_\_\_\_  
 (Last) (First) (Middle)  
200 N. David  
 \_\_\_\_\_  
 (Street or P.O. Box)  
Casper, Natrona, Wyoming 82601  
 \_\_\_\_\_  
 (City) (County) (State)

to construct, install, or modify a municipal distribution & collection system  
(public water supply)  
facility located in Sec. 18, T33N, R78W  
(Legal Description)

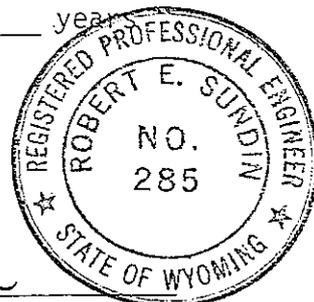
in the County of Natrona, in the State of

Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Galas  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 11, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Book  
m 3-17-79

PERMIT TO CONSTRUCT

New

Permit No. 79-204

Renewal

Modified

Elk Reservoir - Rosebud Coal Sales Co.  
(Name of Facility)

This permit hereby authorizes the applicant:

Rosebud Coal Sales Co.

(Last)

(First)

(Middle)

P.O. Box 780

(Street or P.O. Box)

Hanna,

(City)

Carbon,

(County)

Wyoming 82327

(State)

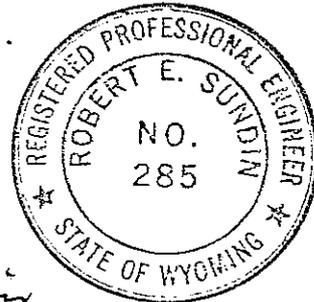
to construct, install, or modify a industrial, evaporative, sediment reservoir  
facility located in Sec. 27, T23N, R81W  
(Legal Description)

in the County of Carbon, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. [Signature]  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 11, 1979

Date of Issuance

"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."

Becker  
M 5-17-79

PERMIT TO CONSTRUCT

New

Permit No. 79-205

Renewal

Modified

Shop Reservoir - Rosebud Coal Sales Company

(Name of Facility)

This permit hereby authorizes the applicant:

Rosebud Coal Sales Company

(Last)

(First)

(Middle)

P.O. Box 780

(Street or P.O. Box)

Hanna,

Carbon,

Wyoming 82327

(City)

(County)

(State)

to construct, install, or modify a evaporative, sediment reservoir

facility located in Sec. 9, T22N, R81W

(Legal Description)

in the County of Carbon, in the State of

Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

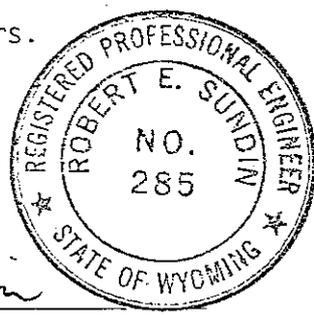
AUTHORIZED BY:

*William J. Adams*

Administrator  
Water Quality Division

*Robert E. Sundin*

Director  
Wyoming Dept. of Environmental Quality



May 11, 1979

Date of Issuance

"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."

Book  
M-5-17-79

PERMIT TO CONSTRUCT

New

Permit No. 79-206

Renewal

Modified

Patent Reservoir - Rosebud Coal Sales Co.  
(Name of Facility)

This permit hereby authorizes the applicant:

Rosebud Coal Sales Co.  
(Last) (First) (Middle)

P.O. Box 780  
(Street or P.O. Box)

Hanna, Carbon, Wyoming 82327  
(City) (County) (State)

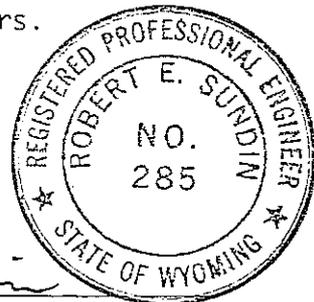
to construct, install, or modify a industrial evaporative, sediment reservoir  
facility located in Sec. 32, T23N, R80W  
(Legal Description)

in the County of Carbon, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Galas  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 11, 1979

Date of Issuance

"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."

PERMIT TO CONSTRUCT

*Book  
picked  
up  
5-25-79*

- New
- Renewal
- Modified

Permit No. 79-207RR

Sandy Lake Estates No. 2

(Name of Facility)

This permit hereby authorizes the applicant:

Shay Investments

(Last) (First) (Middle)

350 West A Street

(Street or P.O. Box)

Casper Natrona Wyoming

(City) (County) (State)

to construct, install, or modify a Public Water System

facility located in Section 27, T 34N, R 78 W

(Legal Description)

in the County of Natrona, in the State of

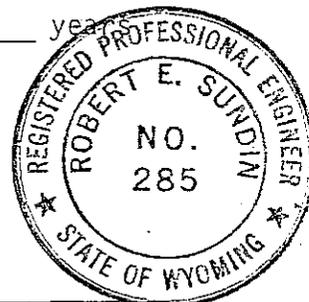
Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

*William S. Jones*  
 Administrator  
 Water Quality Division

*Robert E. Sundin*  
 Director  
 Wyoming Dept. of Environmental Quality



May 25, 1979

Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Booie  
A-5-23-79

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Sandy Lake Estates No. 2, Public Water System, Natrona Co.

ARCHITECT OR ENGINEER: The Engineers, 6405 Indian Scout Drive, Casper, WY 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 79-207R

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, M.S., P.E.

DATE OF REVIEW: May 17, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Wells

1. The casing vent pipe at each well shall terminate at a point at least one foot above the pumphouse floor. (Add this stipulation to "Well House Specifications", page 1, Section B.)
2. At such time as it may be determined that disinfection of the water is essential to protect the health of the consumers, a chlorine contact time of at least 30 minutes prior to consumption will be required.

General

1. Submit assurance that a minimum well water capacity of 150 gallons per minute of potable water will be supplied for this project.
2. Power supply shall be provided to at least one well house from at least two independent sources or standby or auxiliary source.
3. Change the wording in Section 2.16 Special Conditions, page 12 of Specifications for Plastic Pipe from "should" to "shall".
4. Provide a smooth compact access road at a maximum slope of 6% to the entrance of each Chlorine Gas Storage Building.
5. Revise the designations at the wells on the plans from "Well Pit" to "Well" or "Well House".

THIS IS NOT A FINAL REVIEW.

Book  
Mailed  
5-7-79

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Sandy Lake Estates No. 2, Public Water System, Natrona County

ARCHITECT OR ENGINEER: The Engineers, 6405 Indian Scout Drive, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 79-207

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, M.S., P.E.

DATE OF REVIEW: May 7, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Distribution System

1. Stones found in the trench shall be removed for a depth of at least 6 inches below the bottom of the pipe.
2. The open end of the air relief pipe from each air relief valve should be extended to a point at least one foot above grade and be provided with a screened, downward-facing gooseneck.

Wells

1. The ground surface shall slope away from each well for a distance of at least 50 feet in all directions.
2. Each well shall be grouted to provide a watertight seal to a depth of at least 10 feet.
3. Submit a complete chemical analysis to determine the suitability of the water as a potable source. A test for hydrogen sulfide should also be made at the time that each sample is collected.
4. Provide a watertight sanitary well seal at the top of each well casing.
5. Provide a casing vent which extends to a point at least one foot above ground level and terminating at that point in an inverted position with a corrosion resistant screen over the end of the vent pipe.

6. The pit drain pipes shall be cast iron or schedule 40 PVC with watertight joints and shall discharge to gravel pockets located a minimum of 10 feet horizontally from each well.
7. Provide a sump and sump pump in each well pit.
8. Route the chlorinated water through the pressure tanks connected in series to obtain a chlorine contact time of at least 30 minutes.

#### Chlorinator Storage Buildings

1. Restrain all chlorine cylinders, both empty and full, in the upright position.
2. Protect all chlorine cylinders against direct sunlight and excessive heat.
3. Provide a ventilating fan with a capacity which will provide at least one air change per minute.
4. The ventilation fan shall take suction near the floor and discharge so as to not contaminate the air inlet.
5. The air inlet should be through louvers near the ceiling.
6. Switches for fans and lights should be outside the building at the entrance.
7. Provide respiratory protection equipment readily available outside the building. The equipment should preferably be of the self-contained compressed air type with at least a 30 minute capacity.

#### General

1. Submit design calculations to support the water system design.
2. Submit the capacities of the well pump when operating against the expected head.
3. The capacities of the wells and pumps should be at least 6 to 10 times the average daily consumption rate of the community.
4. The gross volume of the hydropneumatic tanks in gallons. should be at least 10 to 15 times the capacity of the largest pump, rated in gallons per minute.
5. Power supply shall be provided from at least two independent sources or standby or auxiliary source shall be provided.
6. Provide specifications covering the construction of watertight well pits.
7. Provide concrete specifications.
8. Specify that all electrical work and components will be in compliance with the National Electrical Code, latest edition.

THIS IS NOT A FINAL REVIEW

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-208R

LEACH BED FOR LOT 3, 4, and 5, BLOCK 8, NEWTON HILLS  
(Name of Facility)

This permit hereby authorizes the applicant:

<u>Butler</u>	<u>Dean</u>	<u></u>
(Last)	(First)	(Middle)

892 North DeSmet Avenue  
(Street or P.O. Box)

<u>Buffalo</u>	<u>Johnson</u>	<u>Wyoming</u>	<u>82834</u>
(City)	(County)	(State)	

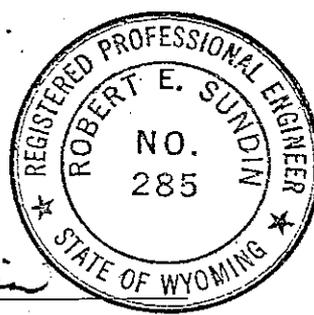
to construct, install, or modify a sewage disposal system  
facility located in Section 28, T.50N., R.72W.  
(Legal Description)

in the County of Campbell, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

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

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



June 12, 1979  
Date of Issuance

"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."

M 405  
5-27-79

PERMIT TO CONSTRUCT

New

Permit No. 79-209

Renewal

Modified

COAL CREEK MINE  
Sewerage System for Temporary Construction Offices  
(Name of Facility)

This permit hereby authorizes the applicant:

Atlantic Richfield Company, Attention: D. R. Christiansen  
(Last) (First) (Middle)

P.O. Box 5300  
(Street or P.O. Box)

Denver, Colorado 80217  
(City) (County) (State)

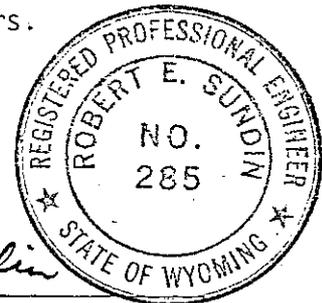
to construct, install, or modify a subsurface disposal  
facility located in Section 17, T.46N., R.70W.  
(Legal Description)

in the County of Campbell, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Gale  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 23, 1979  
Date of Issuance

"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."

PERMIT TO CONSTRUCT

M 70 L  
5-29-79

New

Permit No. 79-210R

Renewal

Modified

Married Student Housing, Northwest Community College  
(Name of Facility)

This permit hereby authorizes the applicant:

Northwest Community College

(Last)

(First)

(Middle)

(Street or P.O. Box)

Powell

Wyoming

82435

(City)

(County)

(State)

Attention: Bill Woods

to construct, install, or modify a water distribution and sewage collection

facility located in Lot 75H, T.55N, R.99W

(Legal Description)

in the County of Park, in the State of

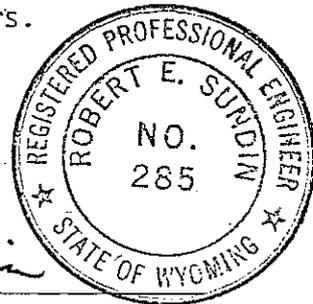
Wyoming. This permit shall be effective for a period of 2 years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Galad  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 16, 1979

Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
933 MAIN STREET,  
LANDER, WYOMING 82520

PROJECT: MARRIED STUDENT HOUSING, NORTHWESTERN COMMUNITY COLLEGE  
OWNER: NORTHWEST COMMUNITY COLLEGE - 231 W 6th, POWELL, WYO. 82435 ATTN: WILLIAM WOODS  
ARCHITECT OR ENGINEER: ROGER JACOBSON, ENGINEERING ASSOCIATES, P.O. BOX 1539, CODY, WYO.  
82435  
WATER QUALITY DIVISION REFERENCE NUMBER: 79-210  
REVIEWING ENGINEER: RICK ENGELMANN *RE*  
DATE OF REVIEW: MAY 8, 1979  
ACTION: NOT AUTHORIZED.  
COMMENTS:

We will need the following:

1. ~~Specifications for exfiltration testing and infiltration testing -~~  
I know there is high ground water in this area.
2. ~~The specifications attached referred to in Note 11 on plan sheet 1.~~
3. ~~The acceptable methods for achieving 95% Proctor density in the backfill.~~
4. We are still awaiting the water pressure information.

REjky

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-211

OFC Investments Lease Facilities  
(Name of Facility)

This permit hereby authorizes the applicant:

OFC Investments  
(Last) (First) (Middle)

P.O. Box 3040  
(Street or P.O. Box)

Casper, Natrona, Wyoming 82602  
(City) (County) (State)

to construct, install, or modify a private wells, distribution system, subsurface disposal  
facility located in Sec. 34, T34N, R80W  
(Legal Description)

in the County of Natrona, in the State of

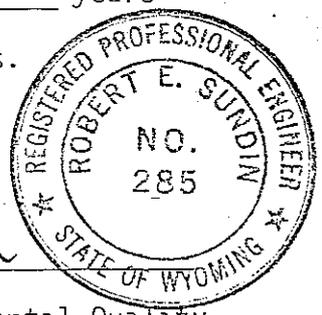
Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Ojala  
Administrator  
Water Quality Division

Robert E. Sunden  
Director  
Wyoming Dept. of Environmental Quality



May 11, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Book  
2-5-17-99

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-212

Town of Mills, Water & Sewer Extension to Bayless Addition  
(Name of Facility)

This permit hereby authorizes the applicant:

Town of Mills  
 (Last) (First) (Middle)

P.O. Drawer 789  
 (Street or P.O. Box)

Mills, Natrona Wyoming 82644  
 (City) (County) (State)

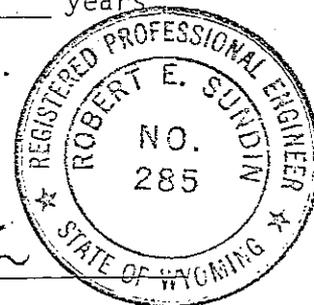
to construct, install, or modify a municipal source development and collection system  
(public water supply)  
facility located in Mills  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Ojala  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 11, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

cc: Carlton & Carlton  
P. O. BOX 435  
Evanston, WY 82930

mt 7  
7-19-79

PERMIT TO CONSTRUCT

New

Permit No. 79-213R

Renewal

Modified

M BAR B FIRST ADDITION

(Name of Facility)

This permit hereby authorizes the applicant:

LANNING  
(Last)

MICHAEL  
(First)

L  
(Middle)

P. O. BOX 435

(Street or P.O. Box)

Evanston  
(City)

WY  
(County)

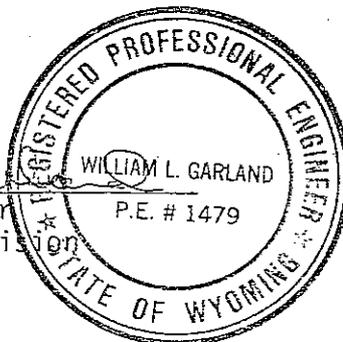
82930  
(State)

to construct, install, or modify a Water distribution and wastewater collection  
facility located in Sec. 16, T. 15 N, R. 120 W  
(Legal Description)

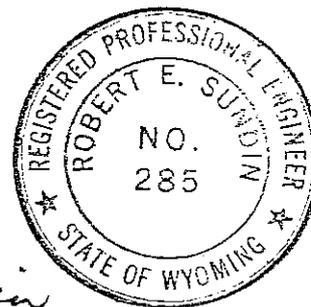
in the County of UINTA, in the State of  
Wyoming. This permit shall be effective for a period of TWO years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



July 13, 1979  
Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
933 MAIN STREET,  
LANDER, WYOMING, 82520.

(307) 332-3144

PROJECT: M bar B First Addition  
Water and Sewer Extensions, Evanston, Wyoming  
Sec. 16, T. 15 N., R. 120 W., Uinta County

ENGINEER: Harry N. Carlton.P.E.  
Carlton & Carlton  
P.O. Box 435  
Evanston, Wyoming 82930

OWNER: Michael L. Lanning  
P.O. Box 435  
Evanston, Wyoming 82930

WATER QUALITY DIVISION REFERENCE NUMBER: 79-213

REVIEWING ENGINEER: <sup>Des</sup> David W. Hill

DATE OF REVIEW: May 22, 1979

ACTION: NOT AUTHORIZED.

COMMENTS:

General

1) Verification is needed that the city will approve and accept the extensions and provide water and sewer service.

Water

2) A 3/4 inch service connection blowoff is acceptable for a temporary situation. However, details of the proposed yard hydrant are needed. Some yard hydrants are in fact stop and waste valves which are not acceptable.

PERMIT TO CONSTRUCT

M to L  
5-29-79

New

Permit No. 79-214R

Renewal

Modified

Ocean Lake Unit Residence #2

(Name of Facility)

Modification of Permit 79-61

This permit hereby authorizes the applicant:

Wyoming Game and Fish Department

(Last)

(First)

(Middle)

5400 Bishop Blvd.

(Street or P.O. Box)

Cheyenne

Wyoming

82002

(City)

(County)

(State)

Attention: Jon S. Ogden

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

facility located in NW1/4NW1/4 Sec. 30, T.3N, R.3E

(Legal Description)

in the County of Fremont, in the State of

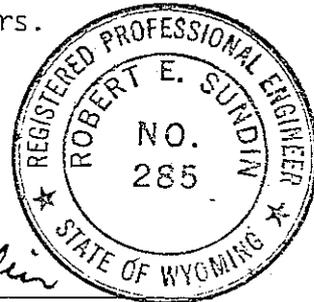
Wyoming. This permit shall be effective for a period of 2 years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Pauland  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 16, 1979

Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
933 MAIN STREET,  
LANDER, WYOMING 82520

PROJECT: OCEAN LAKE RESIDENCE #2

ARCHITECT OR ENGINEER: JON S. OGDEN, WYOMING GAME & FISH DEPT. 5400 BISHOP BLVD,  
CHEYENNE, WYO. 82002

WATER QUALITY DIVISION REFERENCE NUMBER: 79-214

REVIEWING ENGINEER: RICK ENGELMANN *RE*

DATE OF REVIEW: MAY 8, 1979

ACTION: NOT AUTHORIZED

COMMENTS:

Normally we assume about 350 gpd from an individual residence. Using the equation:

$$\text{Application Rate} = \frac{5}{\sqrt{\text{perc. rate}}}$$

and a perc. rate of 120 min/inch, we come out with an application rate of 0.46 gpd/sq. foot and a resulting drainfield area of 770 sq. feet. In addition, if laundry and garbage grinders will be using the system, we increase this area by 60% (see enclosed), yielding 1225 sq. feet for the proposed house. You have proposed 720 sq. feet.

As we have pointed out before, using the above equation is risky for perc rates over 60 min/inch. Once installed, this system will have to be closely watched.

RE/jky

Enc.

PERMIT TO CONSTRUCT

30  
7-5-79

- New
- Renewal
- Modified

Permit No. 79-215

Water Line Extension - P & R Excavation Property  
(Name of Facility)

This permit hereby authorizes the applicant:

P & R Excavation  
 \_\_\_\_\_  
 (Last) (First) (Middle)  
 2148 So. Jefferson St.  
 \_\_\_\_\_  
 (Street or P.O. Box)  
 Casper, Natrona, Wyoming 82601  
 \_\_\_\_\_  
 (City) (County) (State)

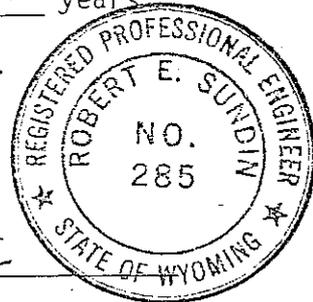
to construct, install, or modify a public water supply, distribution system  
 facility located in Sec. 6, T33N, R79W  
 \_\_\_\_\_  
 (Legal Description)

in the County of Natrona, in the State of  
 Wyoming. This permit shall be effective for a period of two (2) years  
 from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. [Signature]  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 11, 1979

Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Book  
M 5-11-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-216M

Hillsdale Elementary School and Teacherage  
(Name of Facility)

This permit hereby authorizes the applicant:

Hillsdale School  
(Last) (First) (Middle)

P.O. Box 37  
(Street or P.O. Box)

Hillsdale, Laramie, Wyoming 82060  
(City) (County) (State)

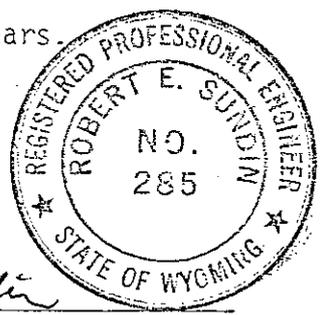
to construct; install, or modify a subsurface disposal  
facility located in Sec. 6, T14N, R63W  
(Legal Description)

in the County of Laramie, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Garland  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 7, 1979  
Date of Issuance

"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."

Boat  
A-5-17-77

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-217

2026 Corporation  
(Name of Facility)

This permit hereby authorizes the applicant:

Spiva Backhoe  
 (Last) (First) (Middle)

P.O. Box 122  
 (Street or P.O. Box)

Mills, Natrona, Wyoming 82644  
 (City) (County) (State)

to construct, install, or modify a well and subsurface disposal (public water supply)  
 facility located in Sec. 14, T34N, R81W  
 (Legal Description)

in the County of Natrona, in the State of

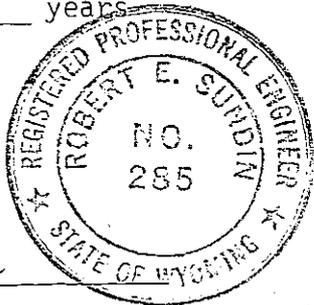
Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Galas  
 Administrator  
 Water Quality Division

Robert E. Sardin  
 Director  
 Wyoming Dept. of Environmental Quality



May 11, 1979  
 Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

4-8-84



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 3, 1984

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

Dear Sir:

On March 13, 1984, a status letter was sent to you concerning a permit to construct, reference number 79-218, facility name Masek-Sundown Addition to Town of Mills. The 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,

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

LCF/nc

cc: Terry Titus  
Worthington, Lenhart, Carpenter & Johnson, Inc.  
632 S. David  
Casper, WY 82601



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

March 13, 1984

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

Dear Sir:

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:	Masek-Sundown Addition to Town of Mills
DEQ/WQD Reference Number:	79-218
Engineering Consultant:	E. C. Lenhart, Worthington, Lenhart, Carpenter & Johnson
DEQ/WQD Reviewing Engineer:	Robert Pinther
Date of DEQ/WQD Review:	September 11, 1979

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 \_\_\_\_\_

Terry L. Titus 3/20/84

Terry L. Titus, P.E.  
WORTHINGTON, LENHART,  
CARPENTER & JOHNSON, INC.

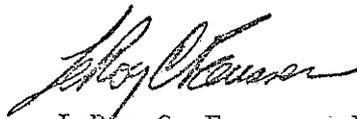
632 South David

Casper, Wyoming 82601

cc: Town of Mills

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: ✓ E. C. Lenhart  
Worthington, Lenhart, Carpenter & Johnson  
632 South David  
Casper, WY 82601

M-3-14-84



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

March 13, 1984

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

Dear Sir:

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:	Masek-Sundown Addition to Town of Mills
DEQ/WQD Reference Number:	79-218
Engineering Consultant:	E. C. Lenhart, Worthington, Lenhart, Carpenter & Johnson
DEQ/WQD Reviewing Engineer:	Robert Pinther
Date of DEQ/WQD Review:	September 11, 1979

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: E. C. Lenhart  
Worthington, Lenhart, Carpenter & Johnson  
632 South David  
Casper, WY 82601



*Department of Environmental Quality*  
*Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

November 16, 1979

Worthington, Lenhart & Carpenter, Inc.  
632 South David  
Casper, WY 82601

Attention: Mr. Mike Bell

Re: WQD Ref. No. 79-218  
Plans for Masek-Sundown Addition

Dear Mr. Bell:

Following our telephone conversation of November 16, 1979, I looked at my plan review of September 11, 1979 pertaining to the referenced facility. It appears that it will be necessary that we receive the information requested in our review in addition to the standard specifications for the Town of Mills.

Your submittal of satisfactory information pertaining to our comments will enable us to issue the permit to construct for this project.

Sincerely,

*Robert H. Pinther*  
Robert H. Pinther, M.S., P.E.  
Area Engineer

RHP/nc

M 11-27-79

Book  
M-9-21-79

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
~~XXXXXXXXXXXXXXXXXXXX~~  
Cheyenne, Wyoming 82002

PROJECT: Proposed Water & Sewer, Masek & Sundown Additions, Mills, WY, Natrona Co.

ARCHITECT OR ENGINEER: Worthington, Lenhart & Carpenter, Inc., 632 S. David,  
Casper, WY 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 79-218

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, M.S., P.E.

DATE OF REVIEW: September 11, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Water Main Extensions

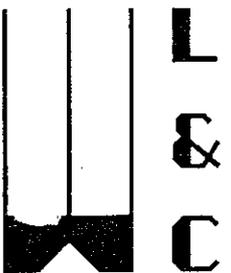
1. Submit design calculations to support the ability of the existing 6 inch feed main and the 4 inch feeder main to supply the proposed subdivisions as well as future areas in the foreseeable future while providing a normal working pressure of not less than 35 psi throughout the system and maintaining a minimum pressure of 20 psi at ground level at all points in the distribution system under all conditions of flow.

Sewer Main Extensions

1. Show the sizes and materials of construction of the existing receiving sewer.
2. Submit design calculations to support the ability of the existing receiving sewer to handle the expected increased loading without overloading or surcharging.
3. Provide a minimum slope of 0.60 feet per hundred feet in the 6 inch sewer lines between MH A2-1 and Cleanout A1-1.

Specifications

Submit the "Town of Mills Standard Specifications for Construction of Sewer and Water" which Mr. Mike Bell, Engineer's representative, indicated by letter on July 6, 1979 will be the specification for this project following their approval by this Division.



79-218  
Book  
WORTHINGTON, LENHART, AND CARPENTER, INC.

CONSULTING ENGINEERS AND LAND SURVEYORS

632 SOUTH DAVID

PHONE 307 266-2524

CASPER, WYOMING 82601

July 6, 1979

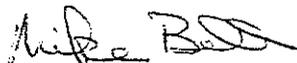
Bob Penther  
DEQ  
Hathaway Building  
Cheyenne, Wyoming 82002



Dear Bob:

This letter is to confirm our telephone conversation of 7/5/79 concerning the plans for water and sewer construction for the Masek-Sundown Addition to the Town of Mills. As we agreed on the phone, the review of this project (No. 79-218) can be postponed until final drafts of the Town of Mills Standards for the construction of sewer and water have been resubmitted and approved by your office. Thank you for your prompt attention to this matter.

Sincerely,

  
Michael R. Bell

207  
6-19-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-219R

Water Line Improvements - 1979  
(Name of Facility)

This permit hereby authorizes the applicant:

Casper Board of Public Utilities  
(Last) (First) (Middle)

200 North David Street  
(Street or P.O. Box)

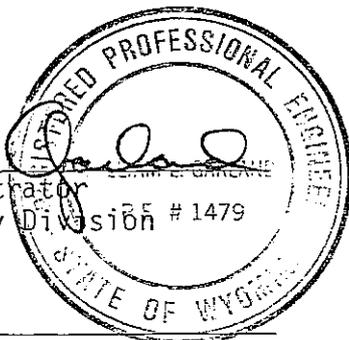
Casper, Natrona WY  
(City) (County) (State)

to construct, install, or modify a water transmission mains Schedules I & II  
facility located in Sections 5, 8, 9, 11, 12, 13; T33N: R79W  
(Legal Description)

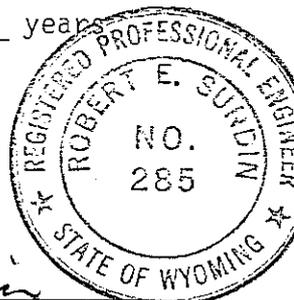
in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. [Signature]  
 Administrator  
 Water Quality Division # 1479



Robert E. Sordin  
 Director  
 Wyoming Dept. of Environmental Quality



June 13, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.



*Department of Environmental Quality*  
*Water Quality Division*

HATHAWAY BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 6, 1979

Western Engineers-Architects  
501 N. Sun Drive  
Casper, WY 82601

ATTN: Mr. Barry Venn

Re: Revised Copy of Plan Review #79-219,  
Dated June 4, 1979, Water Line  
Improvement - 1979, Casper Board of  
Public Utilities

Gentlemen:

Please replace our plan review of May 29, 1979 submitted earlier and bearing Water Quality Reference No. 79-219 with the enclosed review of the same date but revised on June 4, 1979. You will note that the comment pertaining to allowable leakage has been omitted from the revision. This action has been taken because it has been brought to our attention that this section of the specifications is correct as originally submitted for review.

We appreciate your prompt response to our review and will be able to issue a Permit to Construct for this project upon receipt of your addendum covering the remaining two comments which are set forth in our revised review.

Sincerely,

*Robert H. Pinther*  
Robert H. Pinther, P.E., M.S.  
Environmental Engineer, Area IV

RHP/nc

Enclosure

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Water Line Improvements - 1979, Casper Board of Public Utilities, Bid Schedules I & II, Casper, WY, Natrona Co.

ARCHITECT OR ENGINEER: Western Engineers-Architects, Inc., Casper, WY

WATER QUALITY DIVISION REFERENCE NUMBER: 79-219

REVIEWING ENGINEER: Robert H. Pinther, P.E., M.S.

DATE OF REVIEW: May 29, 1979, Revised June 4, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The open end of each air-relief pipe shall be extended from the manhole to a point at least one foot above ground and provided with a screened, downward facing elbow.
2. Insert the attached "Requirements for Horizontal and Vertical Separation Between Water and Sewer Mains."

Book  
M-5-3-79

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Water Line Improvements - 1979, Casper Board of Public Utilities, Bid Schedules I & II, Casper, WY, Natrona Co.

ARCHITECT OR ENGINEER: Western Engineers-Architects, Inc., Casper, WY.

WATER QUALITY DIVISION REFERENCE NUMBER: 79-219

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, P.E., M.S.

DATE OF REVIEW: May 29, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The open end of each air-relief pipe shall be extended from the manhole to a point at least one foot above ground and provided with a screened, downward facing elbow.
2. Reduce the allowable leakage from 0.2 to 0.1 gallons per inch diameter per 1000 lineal feet to main being tested.
3. Insert the attached "Requirements for Horizontal and Vertical Separation Between Water and Sewer Mains."

REQUIREMENTS FOR  
MINIMUM HORIZONTAL AND VERTICAL SEPARATION  
BETWEEN  
WATER AND SEWER MAINS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION

I. Parallel Installation

A. Normal Conditions

Water mains shall be laid at least 10 feet horizontally from any sanitary sewer, storm sewer or sewer manhole, whenever possible; the distance shall be measured edge-to-edge.

B. Unusual Conditions

When local conditions prevent a horizontal separation of 10 feet, a water main may be laid closer to a storm or sanitary sewer provided that:

1. the bottom of the water main is at least 18 inches above the top of the sewer;
2. where this vertical separation cannot be obtained, the sewer shall be constructed of materials and with joints that are equivalent to water main standards of construction and shall be pressure tested to assure watertightness prior to back-filling.

II. Crossings

A. Normal conditions

Water mains crossing house sewers, storm-sewers or sanitary sewers shall be laid above the sewers to provide a separation of at least 18 inches between the bottom of the water main and the top of the sewer, whenever possible.

B. Unusual Conditions

When local conditions prevent a vertical as described in "A" above, the following construction shall be used:

1. sewers passing over or under water mains shall be constructed of materials described in "B. 2." above for a horizontal distance of at least 10 feet on each side of the crossing;
2. water mains passing under sewers shall, in addition, be protected by providing:
  - a. a vertical separation of at least 18 inches between the bottom of the sewer and the top of the water main;

REQUIREMENTS FOR MINIMUM HORIZONTAL  
AND VERTICAL SEPARATION BETWEEN  
WATER AND SEWER MAINS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
Page two

- b. adequate structural support for the sewers to prevent excessive deflection of joints and settling on and breaking the water mains;
- c. that the length of water pipe be centered at the point of crossing so that the joints will be equidistant and as far as possible from the sewer.

Book  
M-5-17-79

PERMIT TO CONSTRUCT

New

Renewal

Modified

Permit No. 79-220

William E. Rickart (Residence)  
(Name of Facility)

This permit hereby authorizes the applicant:

Rickart, William E.  
(Last) (First) (Middle)

1607 Westridge Ct.  
(Street or P.O. Box)

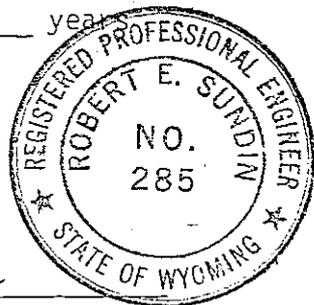
Casper, Natrona Wyoming 82601  
(City) (County) (State)

to construct, install, or modify a subsurface disposal  
facility located in Sec. 29, T33, R79  
(Legal Description)

in the County of Natrona, in the State of

Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:



William P. Jala  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality

May 11, 1979

Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Book  
M-5-25-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-221

Sierra Madre Subdivision  
(Name of Facility)

This permit hereby authorizes the applicant:

Fred Black  
(Last) (First) (Middle)

Continental Western Construction  
6213 Sycamore Road  
(Street or P.O. Box)

Cheyenne, Wyoming 82001  
(City) (County) (State)

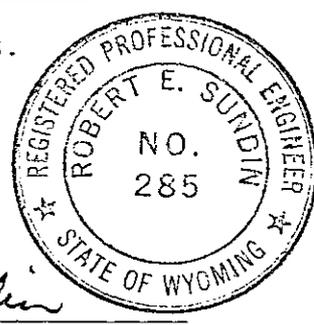
to construct, install, or modify a municipal distribution and collection system  
(public water supply)  
facility located in Sec. 14, T17N, R84W  
(Legal Description)

in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Galand  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 23, 1979  
Date of Issuance

"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."

M402  
5-25-79

PERMIT TO CONSTRUCT

New

Permit No. 79-223

Renewal

Modified

G & D Co. Septic System  
(Name of Facility)

This permit hereby authorizes the applicant:

Don's Piping  
(Last) (First) (Middle)

Box 365  
(Street or P.O. Box)

Casper, Wyoming 82601  
(City) (County) (State)

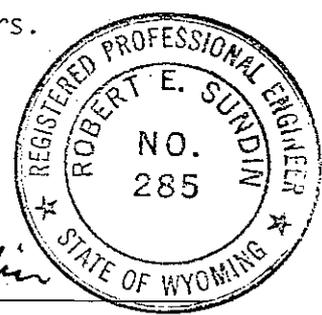
to construct, install, or modify a septic tank-leach field  
facility located in Sec. 12, T. 24 N., R. 91 W.  
(Legal Description)

in the County of Sweetwater, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Galand  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 25, 1979  
Date of Issuance

"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."

6-20-83

THE STATE OF WYOMING



ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 20, 1983

Raymond L. Woods  
Winchester Hills Association  
1111 East Lincolnway  
Cheyenne, WY 82001

RE: Restriction on Construction Permit 79-224RRRR

Dear Mr. Woods:

On March 3, 1981, we received an application for a "Permit to Construct" requesting the restriction on permit number 79-224RRRR be lifted to allow development of lots 1-13 of block 1, lots 17-31 of block 2 and lots 1-3 and 14-18 of block 5, Winchester Hills Subdivision, First Filing. On April 7, 1981, Theodore Coyer, Engineering Evaluator, notified your engineer that the permit restriction could not be lifted because of inadequate sewage treatment and disposal facilities.

Recently we received plans for expanding the sewage treatment system and construction permit number 83-189RR has been issued. Based on construction of the lagoon, I am hereby lifting the construction ban on the lots indicated above.

If you have any questions about this, please feel free to contact Mr. Coyer or myself at 777-7781.

Very truly yours,

*William L. Garland*  
William L. Garland  
Administrator

WLG/TDC/nc

cc: AVI, P.C., 7300 Yellowstone Road, Cheyenne, WY 82009  
Wright Water Engineers, Inc., 2420 Alcott St., Denver, CO 80211

cc: Anderson-Voeller, Inc.  
1111 Imperial Plaza  
Cheyenne, WY 82001

cc: Frank J. Trelease, Vice President  
Wright Engineering, Inc.  
3228 Locust Drive  
Cheyenne, WY 82001

PERMIT TO CONSTRUCT

M-10-30-79  
Signed  
10/24/79

- New
- Renewal
- Modified

Permit No. 79-224RRRR

Winchester Hills Subdivision  
(Name of Facility)

This permit hereby authorizes the applicant:

Winchester Hills Association

(Last) (First) (Middle)

Attn: R. J. Rohn  
1111 E. Lincolnway

(Street or P.O. Box)

Cheyenne, WY 82001

(City) (County) (State)

to construct, install, or modify a public water supply & sewerage system  
(for 132 single family homes only)\*  
facility located in Sec. 29, 30 and 31, T13N, R66W  
(Legal Description)

in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit not to exceed five (5) years.

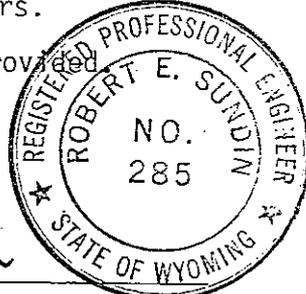
\*See sheet 7 of 7 of plans for lots not to be built on until new well is provided

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director



Wyoming Dept. of Environmental Quality

October 24, 1979  
Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

~~State Office Building~~ Hathaway Bldg.  
Cheyenne, Wyoming 82002

PROJECT: Winchester Hills Subdivision, Water & Sewer Plans, Cheyenne, WY,  
Laramie Co.

ARCHITECT OR ENGINEER: Anderson-Voeller, Inc., 1111 East Lincolnway,  
Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER 79-224RR

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, M.S., P.E.

DATE OF REVIEW: October 2, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Water Distribution System

Incorporate in the plans and/or specifications a detail of a typical blow-off valve to be installed on the proposed distribution systems and at the west end of the Hyman Homesites water line. These valves shall discharge at an above grade location which is not subject to flooding by surface water, shall not connect directly to any storm sewer or sanitary drain, and shall not be of the stop-and-waste type.

Water Storage Reservoir

1. Provide a removable silt stop in the bottom of the reservoir at the point where the 10 inch discharge line leaves the reservoir.
2. To facilitate the removal of sediment, the drain line should be separate from the discharge line and designed for smooth flow.

Note: The reservoir bottom should be sloped to the floor outlet.

Pump Station Mechanical

1. Specify restraint equipment to protect chlorine cylinders on the weighing scales against upset without interfering with the accuracy of the weighing process.

Note: Two shaped restraining bars which clamp on the vertical section of the scales and encircle one or more cylinders on the scales without contacting them may be employed.

2. Specify that reservoir probes be set to shut off the booster pumps in accordance with the following schedule:
  - a. Set one probe to shut down one 500 gpm pump at an elevation of 6206 feet.\*
  - b. Set a second probe to shut down the remaining pumps (1150 gpm eventual additional capacity) at an elevation of 6203.5 feet.\*
3. Specify that the 2½" blowoff from the well located adjacent to the pump station shall terminate above grade where it is not subject to flooding by surface water and shall not connect directly to any storm sewer or sanitary drain.

#### Wells

As soon as water is available from each source, submit the following analyses of water from each well:

- a. Chemical analyses for determination of suitability for domestic purposes and for heavy metals.
  - b. Radiological analyses for radium-226, radium-228, and gross alpha particle activity.
1. The initial construction shall be confined to the number of homes that can be adequately served by the available wells.
  2. As a minimum, the total capacity of the water sources shall equal the design average daily demand with the largest producing well out of service.
  3. When available and prior to completion of the water distribution system, submit details as to the working capacities of the water sources.

\*Based on data submitted by Douglas-T. Sovern, Consulting Engineer, to prevent vacuum upstream from the base of the pump suction riser.

Book  
M-5-21 79

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

~~XXXXXXXXXXXXXXXXXXXX~~ Hathaway Bldg.

Cheyenne, Wyoming 82002

PROJECT: Winchester Hills Subdivision, Water & Sewer Plans, Cheyenne, WY,  
Laramie Co.

ARCHITECT OR ENGINEER: Anderson-Voeller, Inc., 1111 East Lincolnway, Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 79-224R

REVIEWING ENGINEER: *B. H. P. by me*  
Robert H. Pinther, M.S., P.E.

DATE OF REVIEW: August 15, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Water Distribution System

1. Please submit a copy of the specifications in which you indicate our water and sewer crossings requirements have been incorporated.
2. Please submit a copy of the drawing for the west end of Hyman Homesites water line in which you say the requested blowoff has been included.

Pump Station Mechanical

1. Please submit an equipment brochure or other material which describes the manner in which the combination pump control and back pressure valves shown on WME #3 and specified on page PS-2 of the specifications will prevent a vacuum from occurring in the pump suction header.
2. Provide the following in connection with the chlorination facility. The chlorine cylinders which are on the scales should, also, be restrained in position to prevent upset.

Water Storage Tank

3. Please clarify the method by which the tank can be drained through a fire hydrant. This does not seem possible without going to the trouble of removing a blind flange in the booster pumphouse.
4. Provide for disinfection of the tank as outlined in our review 79-224 of July 13, 1979 or submit revised specifications that contain these provisions.

Plan Review  
Winchester Hills Subdivision  
DEQ Ref. No. 79-224R  
August 15, 1979  
Page two

Wells and Pump Facilities

The initial construction should be confined to the number of homes that can be adequately served by the available wells.

Book  
m-7-24-79

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
~~STATE OFFICE~~ Hathaway Bldg.  
Cheyenne, Wyoming 82002

PROJECT: Winchester Hills Subdivision, Water & Sewer Plans, Cheyenne, WY,  
Laramie Co.

ARCHITECT OR ENGINEER: Anderson-Voeller, Inc., Cheyenne, WY

WATER QUALITY DIVISION REFERENCE NUMBER: 79-224

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, P.E., M.S.

DATE OF REVIEW: July 13, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

General

1. Power supply shall be provided from at least 2 independent sources or a standby or auxilliary source shall be provided.
2. Submit an application for a permit to construct in duplicate.
3. Submit one additional copy of plans and specifications covering tank site, pump station, wells and reservoir.

Water Distribution System

1. Incorporate in the specifications the attached "Requirements for Horizontal and Vertical Separation Between Water and Sewer Mains."
2. Provide an approved blowoff at the west end of the 3" water line along Highway 223 in the Hyndman home sites.

Pump Station Mechanical (and chlorination)

1. Provide a pump control device which will shut off the pumps before vacuum conditions occur in the pump suction header.
2. Provide the following in connection with the chlorination facility:
  - a. A vacuum breaker in the water feed line to each chlorine ejector immediately upstream from each ejector.

- b. The window between the chlorination room and the pump room should be shatter resistant.
- c. The partition between the chlorination room and the pump room shall be gas tight.
- d. A standby chlorinator.
- e. The ventilating fan shall take suction near the floor.
- f. The air inlet should be near the ceiling.
- g. Empty and full chlorine cylinders should be stored in the chlorination room restrained in position to prevent upset.
- h. The chlorination room should be heated to 60°F and protected from excessive heat.
- i. The self-contained breathing apparatus shall be readily available and stored outside the chlorination room.
- j. It is recommended that the chlorination room floor be recessed to accommodate the cylinder scales.
- k. A bottle of ammonium hydroxide shall be available for chlorine detection.
- l. The chlorine solution line shall be of non-corrosive material.

#### Water Storage Tank

- 1. Submit specifications. They shall be in compliance with AWWA Standard D100.
- 2. Submit details of the reservoir vent and roof hatch. (See Sections 6.6 and 6.7 of AWWA D100.)
- 3. Provide a drain to facilitate cleaning and maintenance. The drain shall discharge to the surface above grade.
- 4. Provide for disinfection of the tank in accordance with AWWA Standard D102-64 (see attached excerpt from AWWA Standard and New York State Department of Health Bulletin 21).

#### Wells and Pump Facilities

- 1. The area around each well for a distance of at least 50 feet in all directions shall be reserved for water supply purposes and shall be protected from encroachment by sewer lines and other sources of contamination.
- 2. Ground level at each well shall be at least 6 inches above normal ground level and shall slope away from the well for a distance of at least 50 feet in all directions.

3. Provide additional well water capacity to attain capacity which will equal or exceed the design average day demand with the largest producing well out of service.
4. As soon as practical, submit chemical analyses of water from each well.

Sewage Collection System

1. All sewers shall be deep enough to receive sewage from basements (see sheet 1 of 7).
2. Cleanouts shall not be substituted for manholes nor installed at the end of laterals greater than 150 feet in length (see sheet 1 of 7).

cc: Frank J. Trelease, Vice President  
Wright Water Engineering, Inc.  
3228 Locust Drive  
Cheyenne, WY 82001

Book  
M. 5-2279

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-225

Coffman Court - City of Casper  
(Name of Facility)

This permit hereby authorizes the applicant:

Casper Board of Public Utilities  
(Last) (First) (Middle)

200 N. David  
(Street or P.O. Box)

Casper, Natrona, Wyoming 82601  
(City) (County) (State)

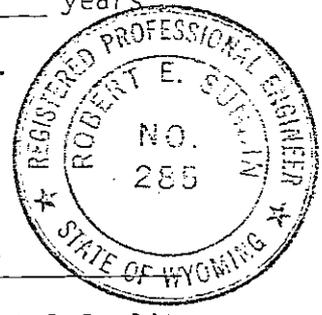
to construct, install, or modify a municipal distribution & collection system  
(public water supply)  
facility located in the City of Casper  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. O'Leary  
Administrator  
Water Quality Division

Robert E. Scurdin  
Director  
Wyoming Dept. of Environmental Quality



May 21, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

cc: Patterson, Weber & Assoc.  
437 S. Spruce  
Casper, WY 82601

Book  
2-9-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-226R

Ted Sarles Mobile Home Park  
(Name of Facility)

This permit hereby authorizes the applicant:

Sarles, Ted S.  
(Last) (First) (Middle)

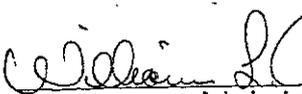
1113 No. Beech St.  
(Street or P.O. Box)

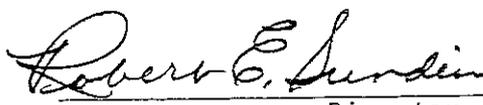
Casper, Natrona, WY 82601  
(City) (County) (State)

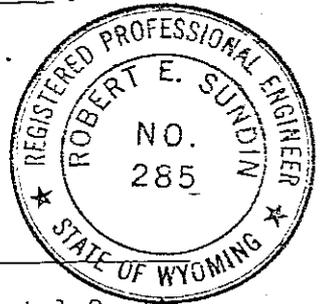
to construct, install, or modify a municipal waste treatment  
facility located in Lot 3, 4 & 5, Block 19, Nelson Addition, City of Casper  
(Legal Description)

in the County of Natrona, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

  
 WILLIAM J. GARLAND  
 Registered Professional Engineer  
 State of Wyoming  
 P.E. # 1479  
 Water Quality Division

  
 Director  
 Wyoming Dept. of Environmental Quality



July 18, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

*Pat*  
*1/5/1979*

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Ted Sarles Mobile Home Park, Casper, WY, Natrona Co.

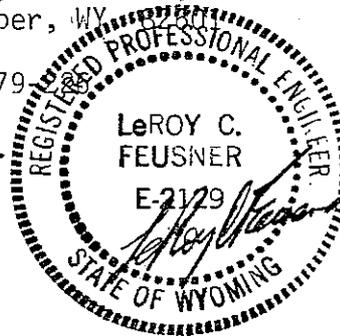
ARCHITECT OR ENGINEER: Harry O. Patterson, Patterson, Weber & Associates  
437 S. Spruce, Casper, WY

WATER QUALITY DIVISION REFERENCE NUMBER: 79

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

DATE OF REVIEW: May 18, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION



COMMENTS:

Wastewater System

1. A letter of verification from the Casper Board of Public Utilities stating that Casper is capable of handling the added organic and/or hydraulic wastewater loads must be included with this application (paragraph 1.0, page 9, Chapter III, Wyoming Water Quality Rules & Regulations).
2. Four inch sewer lines cannot be used as a main, except for a service connection to one mobile home residence (paragraph 1.1, page 9, Chapter III, Wyoming Water Quality Rules & Regulations). Minimum size for a main is 6 inches.
3. Indicate slope of sewer lines and burial depth.
4. Indicate construction material for sewer pipe and type of jointing.
5. Riser sewer pipe must terminate minimum of four inches above natural ground and must be protected by concrete at ground surface a minimum of four inches thick and 12 inches in diameter (paragraph 1.8, page 11, Wyoming Water Quality Rules & Regulations, Chapter III).

Drinking Water System

1. Since water is to be connected to a municipal water district, a letter of verification is required from Casper Board of Public Utilities stating that they can adequately supply 350 gallons/mobile home/day at required pressure of 20 psi under all flow conditions (paragraph 2.0, page 11, Water Quality Rules & Regulations, Chapter III).

Review of 79-226  
May 18, 1979  
Page two

2. Water riser is to terminate four inches above natural ground and shall be protected by a concrete apron (paragraph 2.1, page 12, Water Quality Rules & Regulations, Chapter III).
3. Indicate procedures/specification for water line pressure tests and disinfection.
4. Indicate construction material for water lines.
5. What is depth of bury for water line?

General Considerations

1. Drawings must be signed by Professional Engineer licensed in Wyoming.
2. Add following note: "All construction must be accomplished in accordance with 1978 City of Casper, Board of Public Utilities, Standards and Specifications, as amended by DEQ letter dated May 4, 1978." City of Casper has revised their 1978 Standards/Specifications, however, this Division has not completed the technical review of the 1979 revision.

cc: John A. Lambert  
P.O. Box 34  
Douglas, WY 82633

PERMIT TO CONSTRUCT

New

Permit No. 79-227RR

Renewal

Modified

Chalk Buttes Mobile Home Park

(Name of Facility)

This permit hereby authorizes the applicant:

Ness,

Carol

(Last)

(First)

(Middle)

310 So. 4th St.

(Street or P.O. Box)

Douglas,

Converse,

WY 82633

(City)

(County)

(State)

to construct, install, or modify a water and sewerage system

facility located in Sec. 18, T32N, R71W

(Legal Description)

in the County of Converse

, in the State of

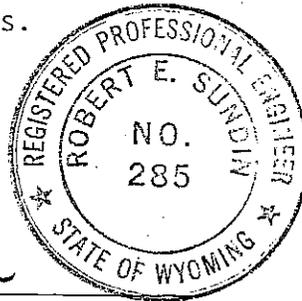
Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Jones  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



September 20, 1979

Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~ Hathaway Bldg.  
Cheyenne, Wyoming 82002

PROJECT: Chalk Buttes Mobile Home Park, Douglas, WY, Converse Co.

ARCHITECT OR ENGINEER: John A. Lambert, Box 34, Douglas, WY 82633

WATER QUALITY DIVISION REFERENCE NUMBER: 79-227RR

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, M.S., P.E.

DATE OF REVIEW: September 11, 1979

ACTION: CONSTRUCTION AUTHORIZED

COMMENTS:

In accordance with our telephone conversation with the Engineer on September 11, 1979, the following change in the construction of the septic tank will be accomplished:

An additional access manhole will be installed in the septic tank cover at a point over the concrete wall which divides the tank into two compartments. This manhole shall be at least 20 inches in its least dimension.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Chalk Butte Mobile Home Park, Douglas, WY, Converse Co.

ARCHITECT OR ENGINEER: John A. Lambert, Douglas, WY

WATER QUALITY DIVISION REFERENCE NUMBER: 79-227

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, P.E., M.S.

DATE OF REVIEW: June 11, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Water System

1. Specify the allowable leakage at  $1\frac{1}{2}$  times the normal working pressure.

NOTE: The specifications gave leakage at two different pressures which were both double the allowable leakage set forth in the latest AWWA specification, C600-77.

2. Submit a detail of the well and pumps installation including a watertight seal with concrete or grout to a depth of at least 10 feet, the casing extending 12 inches above ground surface, a sanitary well seal at the top of the casing and a 4-inch minimum concrete slab with radius at least 2 feet sloped to drain to ground surface away from the well in all directions.

3. Submit the results of a test on the well water for chemical constituents.

Sewerage System

1. The minimum septic tank capacity shall be 3750 gallons.
2. Provide a minimum drainfield area of 2692 square feet.
3. Indicate the depth of the bottom of the drainfield.
4. Indicate the depth of the seasonal high groundwater table, if any.
5. Provide a lamphole, cleanout, or manhole at the upper end of line 2.
6. Specify that the maximum vertical deflection of any sewer pipe shall not exceed 5% of the internal pipe diameter.

Chalk Butte Mobile Home Park  
Robert H. Pinther  
79-227  
NOT AUTHORIZED FOR CONSTRUCTION  
Page two

General

1. Submit two copies of the revised plans and specifications.
2. Submit an application for a permit to construct in duplicate.

4-5-84



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 3, 1984

H & H Service Station  
Orin, WY 82633

Dear Sir:

On March 13, 1984, a status letter was sent to you concerning a permit to construct, reference number 79-228, facility name Travel Trailer Park, H & H Service Station. The 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,

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

LCF/nc

cc: John Lambert  
P.O. Box 34  
Douglas, WY 82633



*Department of Environmental Quality*  
*Water Quality Division*

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

March 13, 1984

H & H Service Station  
Orin, WY 82633

Dear Sir:

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:	Travel Trailer Park, H & H Service Station, Orin, WY
DEQ/WQD Reference Number:	79-228
Engineering Consultant:	John Lambert
DEQ/WQD Reviewing Engineer:	Robert Pinther
Date of DEQ/WQD Review:	June 11, 1979

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 \_\_\_\_\_



*Department of Environmental Quality*  
*Water Quality Division*

1111 EAST LINCOLNWAY

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

March 13, 1984

H & H Service Station  
Orin, WY 82633

Dear Sir:

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:	Travel Trailer Park, H & H Service Station, Orin, WY
DEQ/WQD Reference Number:	79-228
Engineering Consultant:	John Lambert
DEQ/WQD Reviewing Engineer:	Robert Pinther
Date of DEQ/WQD Review:	June 11, 1979

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: John Lambert  
P.O. Box 34  
Douglas, WY 82633

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Travel Trailer Park, H & H Service Station, Orin, WY, Converse Co.

ARCHITECT OR ENGINEER: John A. Lambert, Douglas, WY

WATER QUALITY DIVISION REFERENCE NUMBER: 79-228

REVIEWING ENGINEER: *Robert H. Pinther*  
Robert H. Pinther, P.E., M.S.

DATE OF REVIEW: June 11, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Sewerage System

1. Show or indicate location of any present or future sewer lines, septic tanks, drainfields or other sources of contamination on this property or on adjacent property.
2. Where will the wastewater disposal system for the proposed bathhouse be located?
3. Show the size and dimensions of the septic tank.
4. Indicate the percolation test results in minutes per inch in the drainfield area.
5. Submit the design calculations upon which the size of the septic tank and drainfield were based.
6. Indicate the depth of the bottom of the drainfield.
7. Indicate the depth of the seasonal high groundwater table, if any.
8. Specify that the maximum vertical deflection of any sewer pipe shall not exceed 5% of the internal pipe diameter.
9. Has permission been obtained to place the septic tank and drainfield on adjacent property?

General

1. Submit 2 copies of the revised plans and specifications.
2. Submit an application for a permit to construct in duplicate.

cc: Wayne R Haug  
Scott Engineering Co.  
P.O. Box 2097  
Gillette, WY 82716

Mto S  
9-9-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. -79-229R

Interstate Industrial Park  
(Name of Facility)

This permit hereby authorizes the applicant:

Larson, Carl  
(Last) (First) (Middle)

124 Mesa Drive  
(Street or P.O. Box)

Gillette, Campbell WY 82716  
(City) (County) (State)

to construct, install, or modify a septic wastewater  
facility located in Section 24, T.50N., R.72W.  
(Legal Description)

in the County of Campbell, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

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

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

August 29, 1979  
Date of Issuance

"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."



*Department of Environmental Quality*  
*Water Quality Division*

30 EAST GRINNELL

SHERIDAN, WYOMING 82801

TELEPHONE 307-672-6488

June 15, 1979

Mr. Wayne Haug, P.E.  
Scott Engineering  
P.O. Box 2097  
Gillette, WY 82716

*Larson*  
RE: Application for Septic System,  
Lot 5, Block 1, Interstate  
Industrial Park, WQD No. 79-229

Dear Wayne:

Based upon the information you recently submitted to this office, the Water Quality Division must deny the referenced Application for Permit to Construct. The reasons for the denial are as follows:

Methylene Chloride (Dichloro Methane) and Methanol, two of the chemicals you listed as being used for furniture refinishing, are soluble in water. Therefore, these materials cannot be removed by a simple grease trap, and a septic system which receives such wastes will ultimately discharge them to the groundwater. This Division would have no control over such discharges if a permit were issued, and therefore proposes to deny the permit.

I should mention that under Chapter III of the Water Quality Rules and Regulations, the applicant is entitled to request a hearing on this matter, if he so desires. The request, if one is made, should be to Mr. Robert Sundin, Director, Department of Environmental Quality, Hathaway Building, Cheyenne, Wyoming 82002.

Yours truly,

*Tom Mueller*  
Tom Mueller  
District Supervisor

TM/lis

cc: Mal Crawford, County Sanitarian  
/ Jake Strohman, Cheyenne WQD

Cheyenne

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Leach Bed System for Lot 5, Block 1, Interstate Industrial Park

ARCHITECT OR ENGINEER: Wayne Haug, Scott Engineering,  
P.O. Box 2097, Gillette, WY 82716

WATER QUALITY DIVISION REFERENCE NUMBER: 79-229

REVIEWING ENGINEER: Dan H. Kim, Tom Mueller

DATE OF REVIEW: May 30, 1979

ACTION: Not Authorized for Construction

COMMENTS:

- 1) What is the estimated industrial flow in terms of gallons per day from furniture refinishing and construction equipment wash down?
- 2) What kinds of chemicals, including solvents if any, are to be used, particularly in furniture refinishing activity? Is there any information available as to chemical compositions and density of these substances? Are any chemicals to be used known as non-biodegradable, toxic to soil bacteria, corrosive, or extremely pungent?
- 3) We are concerned about extremely poor percolation rate at the proposed site. With the perc rate of 80 minutes/inch, allowable sewage application rate is only 0.56 gallons per day per square foot. Literature also indicates that any area with perc rate over 60 min/in is not suitable for leaching system. Please justify your design.
- 4) What is the depth to the highest known ground water or impervious layer?
- 5) Where will the grits and settleable substances in the grit-oil trap be disposed of?

PERMIT TO CONSTRUCT

New

Permit No. 79-230R

Renewal

Modified

CHABOT CAMP #1 - U.S. ENERGY TRAILER COURT

(Name of Facility)

This permit hereby authorizes the applicant:

U. S. Energy Corporation

(Last)

(First)

(Middle)

Attention: Joe Lynde

625 East Madison, Suite 1

(Street or P.O. Box)

Riverton, WY 82501

(City)

(County)

(State)

to construct, install, or modify a sewage treatment

facility located in Section 20, T.42N., R.80W.

(Legal Description)

in the County of Johnson, in the State of

Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

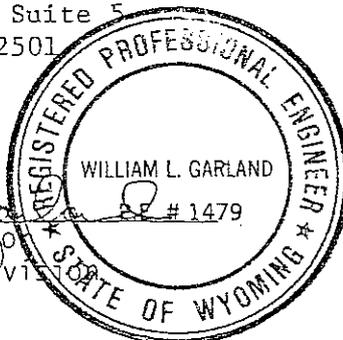
cc: J. H. Hibsman

625 E. Madison, Suite 5

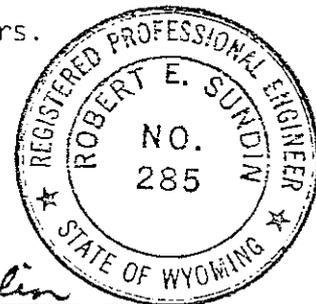
Riverton, WY 82501

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



June 27, 1979

Date of Issuance

"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."

Book ref - 79  
Permit 5-16-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-231

Wardwell Water & Sewer District, Prairie Lane Water Line Extension  
(Name of Facility)

This permit hereby authorizes the applicant:

Burris, Ken  
 \_\_\_\_\_  
 (Last) (First) (Middle)

3401 Hawthorne  
 \_\_\_\_\_  
 (Street or P.O. Box)

Casper, Natrona Wyoming 82601  
 \_\_\_\_\_  
 (City) (County) (State)

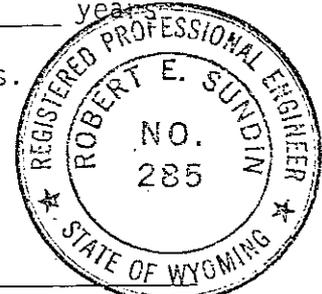
to construct, install, or modify a public water supply distribution system  
 facility located in Sec. 17, T34N, R79W  
 (Legal Description)

in the County of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Jula  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 16, 1979  
 Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

cc: Western Engineers & Architects, 501 Sun Drive, Casper, WY 82601

Book picked up 5-16-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-232

Wardwell Water & Sewer District, Melodi Lane Water Line Extension  
(Name of Facility)

This permit hereby authorizes the applicant:

Bates, Richard A.  
 (Last) (First) (Middle)

Box 1421  
 (Street or P.O. Box)

Mills, Natrona, Wyoming 82644  
 (City) (County) (State)

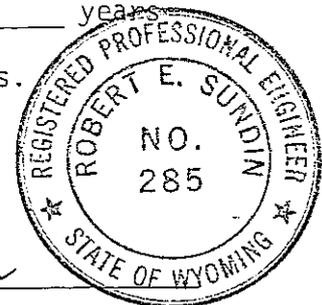
to construct, install, or modify a public water distribution system  
 facility located in Sec. 29, T34N, R79W  
 (Legal Description)

in the County of Natrona, in the State of  
 Wyoming. This permit shall be effective for a period of two (2) years  
 from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Janda  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 16, 1979  
 Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

cc: Western Engineers & Architects, 501 N. Sun Drive, Casper, WY 82601

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PERMIT TO CONSTRUCT

Book

New

Renewal

Modified

Permit No. 79-233R

Colonial Inn Sewer Extension, City of Cody  
(Name of Facility)

This permit hereby authorizes the applicant:

City of Cody  
(Last) (First) (Middle)

1338 Rumsey Avenue  
(Street or P.O. Box)

Cody Wyoming 82414  
(City) (State) (Zip Code)

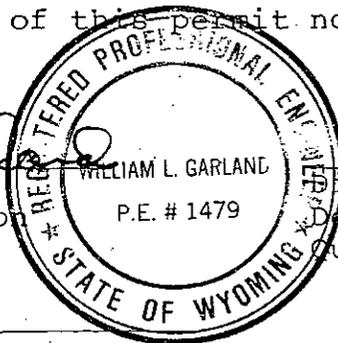
to construct, install, or modify a sewage collection  
facility located in Lot 68, T.52N, R.102W  
(Legal Description)

in the County of Park, in the State of Wyoming.

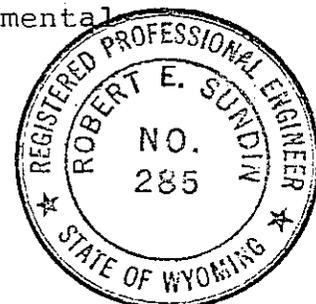
This permit shall be effective for a period of 2 years from  
the date of issuance of this permit not to exceed five (5) years.

Authorized by:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Department of Environmental  
Quality



June 4, 1979  
Date of Issuance

Park Co.

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Colonial Inn Sewer Extension

ENGINEER: Lee Graham  
P.O. Box 382  
Cody, Wyoming 82414

OWNER: City of Cody  
1338 Rumsey Ave.  
Cody, Wyoming 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 79-233

REVIEWING ENGINEER: Rick Engelmann



DATE OF REVIEW: May 22, 1979

ACTION: NOT AUTHORIZED.

COMMENTS:

1. There is a discrepancy between your spec.s and the Construction Standards Sheet - the spec. calls for SDR 35 PVC pipe, but the plan sheet calls for SDR 41. Which are you using?
2. We have recently decided that if an industry standard construction spec. is called out, a copy of this spec. must be included in the project specifications or be maintained on site by the contractor or inspecting engineer. This would apply to ASTM D2321.
3. I just noticed something unusual about your exfiltration criteria - the spec. calls for the upstream manhole to be filled only to the crown of the outflow sewer pipe. Standard practice is to fill the upstream manhole to a depth of four feet or more or, if groundwater is present, to at least four feet above the water table. Four feet of water provides much more head for the test.

RHE:rhe

3002  
M  
5-29-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-234

Salt Creek Auto & Body

(Name of Facility)

This permit hereby authorizes the applicant:

Svoboda, Dick  
 \_\_\_\_\_  
 (Last) (First) (Middle)

P.O. Box 474  
 \_\_\_\_\_  
 (Street or P.O. Box)

Mills, Natrona, WY 82644  
 \_\_\_\_\_  
 (City) (County) (State)

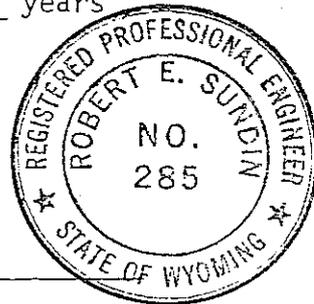
to construct, install, or modify a commercial subsurface disposal  
 facility located in Sec. 29, T34N, R79W  
 \_\_\_\_\_  
 (Legal Description)

in the County of Natrona, in the State of  
 Wyoming. This permit shall be effective for a period of two (2) years  
 from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Galad  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 21, 1979  
 Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Book  
M-6-11-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-235

Randy Watkins Recreation Camp (University of Wyoming)  
(Name of Facility)

This permit hereby authorizes the applicant:

University of Wyoming  
(Last) (First) (Middle)

P.O. Box 3227, University Station  
(Street or P.O. Box)

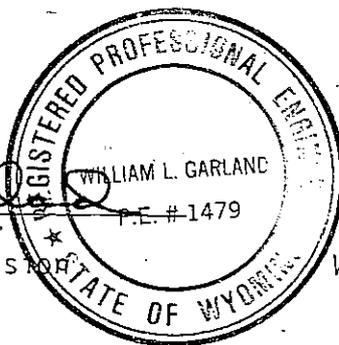
Laramie, Albany, WY 82071  
(City) (County) (State)

to construct, install, or modify a subsurface disposal  
facility located in Sec. 33, T16N, T78W  
(Legal Description)

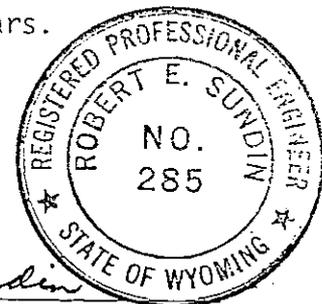
in the County of Albany, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



June 7, 1979

Date of Issuance

"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."



Department of Environmental Quality  
Water Quality Division

933 MAIN

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

January 29, 1980

Robert A. Harrower, P.E.  
Rio Verde Engineering  
P.O. Box 67  
Pinedale, WY 82941

RE: Favazzo Apartments Waste Treatment Facility, Sublette  
County, #79-236

Dear Mr. Harrower:

Our records indicate your application for a permit to construct for the above referenced facility 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,

DAVID W. HILL  
District Engineer

DWH/ms

*What date were  
plans removed?  
2-4-80*

Chapman

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER QUALITY DIVISION  
933 MAIN STREET,  
LANDER, WYOMING 82520

PROJECT: Favazzo Apartments Waste Treatment Facility OWNER: William C. Favazzo  
Sec. 34, T. 34 N., R. 109 W. 1304 N. Cordova  
Sublette County Burbank, Calif. 91505

ARCHITECT OR ENGINEER: Robert A. Harrower, P.E. Rio Verde Engineering  
P.O. Box 67  
Pinedale, Wyo. 82941

WATER QUALITY DIVISION REFERENCE NUMBER: 79-236

REVIEWING ENGINEER: David <sup>D. Hill</sup> W. Hill

DATE OF REVIEW: May 29, 1979

ACTION: NOT AUTHORIZED

COMMENTS:

- 1) Although it looks adequate, how far is the well from the leach field? Also, will the well being downslope from the leach field create problems.
- 2) More information is needed on the proposed lift station ( i.e.- capacity, head, alarms, manufacturer information, etc.)

J

Book  
M-5-30-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-237

Woodglenn Village Addition - City of Casper  
(Name of Facility)

This permit hereby authorizes the applicant:

Casper Board of Public Utilities  
 (Last) (First) (Middle)

200 N. David  
 (Street or P.O. Box)

Casper, Natrona, WY 82601  
 (City) (County) (State)

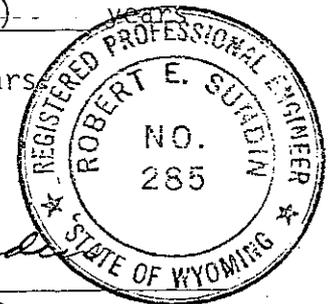
to construct, install, or modify a municipal distribution & collection system  
 (public water supply)  
 facility located in the City of Casper  
 (Legal Description)

in the County of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Galand  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 29, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Boyd  
M-5-29-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-238

City of Casper - Project #W-79-3 Water Improvements  
(Name of Facility)

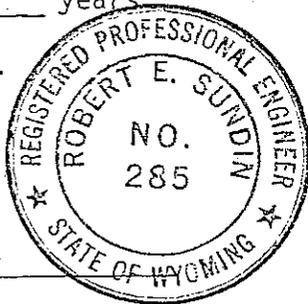
This permit hereby authorizes the applicant:

Casper Board of Public Utilities  
 (Last) (First) (Middle)  
200 N. David  
 (Street or P.O. Box)  
Casper, Natrona, WY 82601  
 (City) (County) (State)

to construct, install, or modify a municipal distribution system (public water supply)  
 facility located in City of Casper  
 (Legal Description)

in the County of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:



William J. Galand  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality

May 23, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

cc: George Dale Crank  
P.O. Box 631  
Kemmerer, WY 83101

*Bob  
M-8-10-79*

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-239 RRR

South Superior - Sewer System Improvements  
(Name of Facility)

This permit hereby authorizes the applicant:

Town of South Superior  
(Last) (First) (Middle)

P.O. Box 307  
(Street or P.O. Box)

South Superior, Sweetwater, WY 82945  
(City) (County) (State)

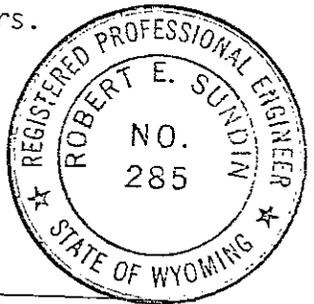
to construct, install, or modify a sewage collection, interceptor & lagoon  
facility located in Sec. 33, 34 & 28, T21N, R102W and Sec. 6, T20N, R102W  
(Legal Description)

in the County of Sweetwater, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

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

*Robert E. Sundin*  
Director  
Wyoming Dept. of Environmental Quality



August 13, 1979  
Date of Issuance

"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."

Book  
M-7-2-79

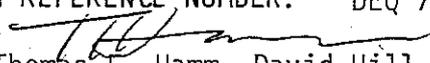
REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: South Superior Collection, Interceptor and Treatment System,  
Box 307, South Superior, WY 82945, Sweetwater Co.

ARCHITECT OR ENGINEER: Johnson, Fermelia & Crank, Inc., P.O. Box 631  
Kemmerer, WY 83101

WATER QUALITY DIVISION REFERENCE NUMBER: DEQ 79-239, EPA C560119

REVIEWING ENGINEER:  Thomas F. Hamm, David Hill, Rick Engelmänn

DATE OF REVIEW: June 28, 1979

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

Drawings

Sheet 3 - Is there sufficient clearance between MH 26 and 27 for the line? There appears to be an interference with the 144 inch and 24 inch lines.

- The following collection lines have slopes less than minimum:

MH - 27-17, 17-69, 40-41, 46-45, 44-43, 73-56. These are unacceptable.

- The following interceptor lines have slopes less than minimum but may be acceptable:

MH - 77-78, 87-88, 93-100, 100-terminus.

Sheet 10 - Between MH 65 and 66, a 144 inch CMP line and a sewer line, there is interference.

Sheet 14 - Creek crossings - Compact to what density standards?

Sheet 16 - Cell piping designed for short circuiting. What is the percentage air to each cell and what is designed reduction per cell?

Sheet 17 - Where are elevation profiles for variable level drawoffs?

Sheet 19 and 20 - How are lines to penetrate walls and floor, sleeved or what and how are they to be sealed? Put design requirements in specs.

Sheet 21 - What type chlorine injector is to be used?

### Specifications

1. In 1-08.6, a minimum, a minimum trench width has been specified. There could also be specifications of maximum trench width.
2. It should be specified that the bedding must be free of large chunks over 1" diameter, etc. (1-08.g).
3. Select backfill should go to at least 12" over the pipe (1-09). See WPCF MOP 9, p. 268, or Uni-Bell standard UNI-B-4, Sec. 5. Also, specify minimum depths of backfill over pipe before wheel loading or hydrohammer compaction may be used. Again, see UNI-B-4, Sec. 7.
4. There should be specifications for insulation of the creek crossings - these have frozen in Bairoil.
5. Anchor blocks for the steep sewer sections should be placed just below a bell to provide pipe support. The block should also extend into native soil. Special care should be taken to seal these lines into the upper manholes to prevent leakage along the pipes.
6. Valve bodies should be anchored (tied) down to a support block.
7. Specs must be provided for sealing lines into manholes, and for deflection testing of flexible pipe.

### Lagoon System

#### Dorr-Oliver System

##### Process design

1. An operating D.O. of 1 mg/l is too low - generally a minimum of 2 is recommended.
2. Provide the following:
  - a. Justification for the selection of the 1.43 coefficient (conversion to BOD?), , , the 10°C maximum temperature, the 1.584 SOR ratio, and the 15 day detention time.
  - b. A complete outline of the Dorr-Oliver design and equipment selection method - the calculations provided to us are not adequately defined or explained.

South Superior Collection, Interceptor & Treatment System  
Johnson, Fermelia & Crank, Inc.  
DEQ 79-239, EPA C560119  
June 28, 1979  
Page three

### Specifications

1. In 1-08.6, a minimum, a minimum trench width has been specified. There could also be specifications of maximum trench width.
2. It should be specified that the bedding must be free of large chunks over 1" diameter, etc. (1-08.g).
3. Select backfill should go to at least 12" over the pipe (1-09). See WPCF MOP 9, p. 268, or Uni-Bell standard UNI-B-4, Sec. 5. Also, specify minimum depths of backfill over pipe before wheel loading or hydrohammer compaction may be used. Again, see UNI-B-4, Sec. 7.
4. There should be specifications for insulation of the creek crossings - these have frozen in Bairoil.
5. Anchor blocks for the steep sewer sections should be placed just below a bell to provide pipe support. The block should also extend into native soil. Special care should be taken to seal these lines into the upper manholes to prevent leakage along the pipes.
6. Valve bodies should be anchored (tied) down to a support block.
7. Specs must be provided for sealing lines into manholes, and for deflection testing of flexible pipe.

### Lagoon System

#### Dorr-Oliver System

##### Process design

1. An operating D.O. of 1 mg/l is too low - generally a minimum of 2 is recommended.
2. Provide the following:
  - a. Justification for the selection of the 1.43 coefficient (conversion to BOD?), , the 10<sup>0</sup>C maximum temperature, the 1.584 SOR ratio, and the 15 day detention time.
  - b. A complete outline of the Dorr-Oliver design and equipment selection method - the calculations provided to us are not adequately defined or explained.

South Superior Collection, Interceptor & Treatment System  
Johnson, Fermelia & Crank, Inc.  
DEQ 79-239, EPA C560119  
June 28, 1979  
Page four

- c. Complete calculations for blower and air line head loss design for both winter and summer extremes.
3. We will require aeration in the second cell.

#### Hardware

1. How durable are fiberglass baffles? There have been problems with these in other installations in the State.
2. How would an operator pull an air grid for maintenance - does the town have equipment on hand for doing this?
3. Is there any concern about surging with these centrifugal blowers?
4. There should be a pressure gauge on the discharge header.

#### Schraam System

##### Process Design

1. Provide the following:
  - a. Justification for the selection of  $\alpha$ ,  $\beta$ ,  $K_C$ , 15 days retention time, maximum temperature of 23°C, and the estimate for O<sub>2</sub> required. Note that there are significant differences between these valves and the ones used in the Dorr-Oliver design, yet this is identical waste!
  - b. A complete outline of the Schraam design and equipment selection method. The calculations provided are not adequate.
  - c. Complete calculations for blower and air line head loss design for both winter and summer extremes.
  - d. Justification of 14.1% transfer rate - this seems too high for a diffuser producing 1/16" bubbles.
2. The 1st-order reactor equation has been incorrectly used - N=2 because there are only two aerated cells in series. The third cell cannot be incorporated into this.

#### Hardware

1. As proposed, there is no way to isolate cell 1 air piping from cell 2 air piping in the blower house.

2. There are no expansion/contraction couplings in the discharge manifold piping - are you at all concerned with possible stress on blowers, etc.?
3. There should be a pressure gauge on the blower discharge manifold.

#### General Cell Design - Layout

1. How would the cells be drained for maintenance?
2. Please provide the following:
  - a. Specifications for rip-rapping.
  - b. A way for Cell 1 effluent to flow directly to Cell 3. The proposed piping does not permit just Cell 2 to be bypassed - it requires both Cells 2 and 3 to be bypassed.
  - c. Calculations to show that the interceptor ditch can handle the 100 year storm.
  - d. Criteria for judging the suitability of native material for pond lining. We allow no more than 1/4" percolation per day for all ponds.

#### Chlorination

1. Is it being planned to use sodium or calcium hypochlorite? If the calcium form is being used, then the hypochlorinator should have two tanks; one is for dissolving and settling out of precipitate, and the second is used for holding the decant from the first. The pump would pull from the second tank.
2. How is water for the hypochlorinator tank being brought in?
3. The proposed method of chlorine application will provide very poor mixing. See WPCF MOP 8, page 392.
4. Please provide the following:
  - a. A baffle ahead of the effluent weir to catch floating solids.
  - b. A sump in the contact basin floor for dropping a pump into.
  - c. A sloped floor in the hypochlorinator room for drainage.

South Superior Collection, Interceptor & Treatment System  
Johnson, Fermelia & Crank, Inc.  
DEQ 79-239, EPA C560119  
June 28, 1979  
Page six

d. Specifications of EPA certified lab equipment (14-04).

General

1. It appears that specification 2-02C(1) permits bank run gravel for aggregate.
2. Flooding or running water over curing concrete is not good practice (2-14).

Books  
M to L  
7-10-79

PERMIT TO CONSTRUCT

New

Permit No. 79-240R

Renewal

Modified

SHOP AND OFFICE BUILDING  
(Name of Facility)

This permit hereby authorizes the applicant:

WASHAKIE COUNTY WEED AND PEST CONTROL DISTRICT  
(Last) (First) (Middle)

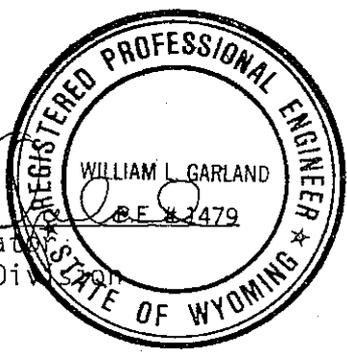
P. O. Box 936  
(Street or P.O. Box)

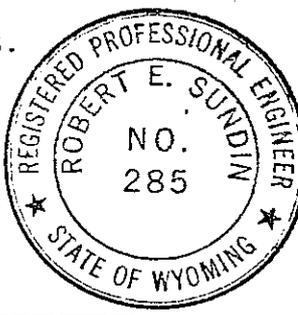
Worland Wyoming 82401  
(City) (County) (State)

to construct, install, or modify a wastewater treatment  
facility located in Sec. 26, T. 47 N., R. 93 W.,  
(Legal Description)

in the County of Washakie, in the State of  
Wyoming. This permit shall be effective for a period of two years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division  


Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality  


June 26, 1979  
Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
933 MAIN STREET,  
LANDER, WYOMING, 82520.  
(307) 332-3144

PROJECT: Washakie County Weed and Pest Control District Sewage Disposal System

ENGINEER: None

OWNER: Washakie Co. Weed and Pest  
P.O. Box 936  
Worland, Wyoming 82401

WATER QUALITY DIVISION REFERENCE NUMBER: 79-240

REVIEWING ENGINEER: Rick Engelmann 

DATE OF REVIEW: May 23, 1979

ACTION: NOT AUTHORIZED.

COMMENTS:

The application is not acceptable; according to our regulations, all commercial, industrial, and public permit applications must be submitted by an engineer licensed in this state. See Section 4 of the enclosed Chapter III Regulations.

RHE:rhe

Enclosure

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-241R

MOORCROFT REST AREA

(Name of Facility)

This permit hereby authorizes the applicant:

Wyoming Highway Department

(Last) (First) (Middle)

Attention: Gary Brown, P.E.

P.O. Box 1708

(Street or P.O. Box)

Cheyenne, WY 82001

(City) (County) -- (State)

to construct, install, or modify a effluent disposal lagoon

facility located in Section 36, T.50N., R.68W.  
(Legal Description)

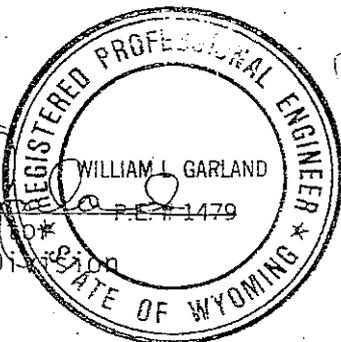
in the County of Crook, in the State of

Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

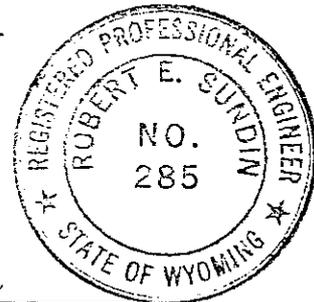
AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director

Wyoming Dept. of Environmental Quality



June 27, 1979

Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002



PROJECT: Moorcroft Rest Area Sewage Treatment

ARCHITECT OR ENGINEER: Gary Brown, P.E.  
Wyoming Highway Department, P.O. Box 1708  
Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 79-241

REVIEWING ENGINEER: Tom Mueller *TJM*

DATE OF REVIEW: June 11, 1979

ACTION: Not Authorized for Construction (See Comments)

COMMENTS:

1. In order to verify the adequacy of the lagoon sizing, some estimate of the following must be provided:
  - a) expected rate of percolation from the pond
  - b) anticipated average and peak, daily wastewater
2. The following information should be provided for the proposed irrigation:
  - approximate acreage
  - drainage patterns
  - distance to the Belle Fourche River
  - anticipated effluent application rates



# NORTH ANTELOPE COAL COMPANY

CAMPUS 6 OFFICE, SUITE 600  
12015 EAST 46TH AVENUE  
DENVER, COLORADO 80239  
TELEPHONE (303) 371-7990

May 13, 1982

RETURN RECEIPT REQUESTED  
CERTIFIED MAIL NO. 236040



Mr. Tom Mueller  
Wyoming Department of Environmental Quality  
Water Quality Division  
2161 Coffeen Avenue, Suite 301  
Sheridan, Wyoming 82801

RE: Permit to Construct No. 79-242R

Dear Mr. Mueller:

As we discussed in our phone conversation of May 13, 1982, our permit to construct sewage treatment facilities at the North Antelope Mine lapsed on February 7, 1982 prior to construction. Since this permit was issued on February 7, 1980 and would normally have had a term of five years, I respectfully request that the permit be reissued for a full five-year term. I have attached a copy of the original permit 79-242R for your information.

It is my understanding that the Water Quality Division does not issue a permit to operate this type of facility. Please confirm this for my information.

I would also request a complete and up to date copy of the Water Quality Division Rules and Regulations.

Thank you very much for your timely consideration of my requests.

Respectfully,

A handwritten signature in cursive script that reads 'Curtis M. Belden'.

Curtis M. Belden, P.E.  
Engineering Manager

CMB/dkt  
Attachment

cc: Lawrence Brennan  
P.O. Box 235  
St. Louis, MO 63166

RECEIVED  
FEB 21 1980

PERMIT TO CONSTRUCT

S. LUNAN

- New
- Renewal
- Modified

Permit No. 79-242R

NORTH ANTELOPE MINE  
(Name of Facility)

This permit hereby authorizes the applicant:

North Antelope Coal Company

(Last) (First) (Middle)

12015 East 46th Avenue, Suite 600

(Street or P.O. Box)

Denver, Colorado 80239

(City) (County) (State)

to construct, install, or modify a sewage treatment

facility located in Section 16, T.41N., R.70W.

(Legal Description)

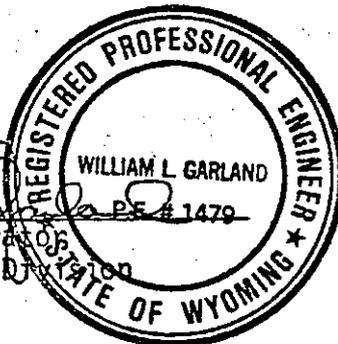
in the County of Campbell, in the State of

Wyoming. This permit shall be effective for a period of two (2) years

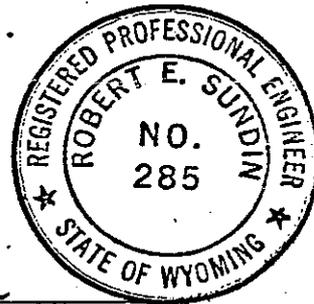
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



February 7, 1980  
Date of Issuance

"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."



PERMIT TO CONSTRUCT

New

Permit No. 79-242R

Renewal

Modified

NORTH ANTELOPE MINE

(Name of Facility)

This permit hereby authorizes the applicant:

North Antelope Coal Company

(Last)

(First)

(Middle)

12015 East 46th Avenue, Suite 600

(Street or P.O. Box)

Denver, Colorado 80239

(City)

(County)

(State)

to construct, install, or modify a sewage treatment

facility located in Section 16, T.41N., R.70W.

(Legal Description)

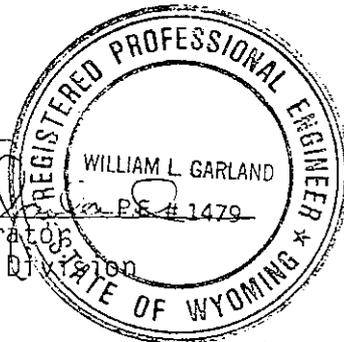
in the County of Campbell, in the State of

Wyoming. This permit shall be effective for a period of two (2) years

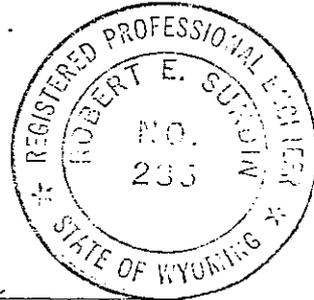
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality

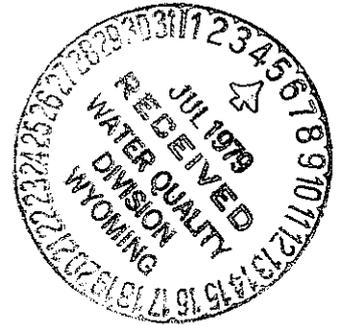


February 7, 1980  
Date of Issuance

"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."

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002



PROJECT: North Antelope Mine, Sewage Treatment Facilities

ARCHITECT OR ENGINEER: North Antelope Coal Company, Attention: Leonard G. Shearer  
12015 East 46th Ave., Suite 600  
Denver, Colorado 80239

WATER QUALITY DIVISION REFERENCE NUMBER: 79-242

REVIEWING ENGINEER: Tom Mueller

DATE OF REVIEW: 7/5/79

ACTION: Not Authorized for Construction (See Comments)

COMMENTS:

1. No Permit to Construct will be issued until the drawings accompanying the application have been signed by a Professional Engineer registered to practice in Wyoming. For this reason, one copy of the plans received, and the original application, are returned herewith.
2. If influent flows to the pond become as large as those indicated by the calculations on sheet 461-3-G1, a mass balance indicates that evaporation cannot totally dispose of the influent wastewater. Additional disposal, by percolation and/or discharge would be necessary. It is noted that no sanitary sewage discharge is authorized by the proposed NPDES permit for the North Antelope Mine, and no information on anticipated percolation is provided in this application. The question of actual effluent disposal must be resolved.
3. Percolation from the first pond should be limited to approximately  $\frac{1}{4}$  inch per day. If the natural soil will not limit percolation to this amount, a liner (compacted clay, bentonite, or artificial membrane) will be required.
4. Where will the domestic water well(s) be located with respect to the ponds?
5. The groundwater depth below the ponds should be reported.
6. Water Quality Division standards require minimum slopes of 3 to 1 on both inside and outside slopes of pond dikes.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
State Office Building  
Cheyenne, Wyoming 82002

PROJECT: Newton Industrial Park

ARCHITECT OR ENGINEER: John Wesnitzer, P.E.  
R. G. Stuckert & Associates  
55 Western Ave., Buffalo, WY 82834

WATER QUALITY DIVISION REFERENCE NUMBER: 79-243

REVIEWING ENGINEER: Tom Mueller *TJM*

DATE OF REVIEW: June 13, 1979

ACTION: Not Authorized for Construction (See Comments)

COMMENTS:

1. The total booster pump capacity is considered inadequate. The booster pump system should be able to deliver the indicated fire flow with one pump out of service. It is also suggested the indicated fire flow of 500 gpm may be low for this location. It is recommended that representatives of the local fire department be contacted and inquiries made regarding necessary fire flow.
2. There is no indication in the specifications for the booster pumps of how their speed is to be controlled, or at what speed they are to produce the specified head and delivery. Also, is the pressure reducing valve to serve as a bypass, or as a safety mechanism?
3. In Section 15050 of the specifications, please indicate what is meant by "an approved bolted steel reservoir?"
4. The storage reservoir should be tested for biological contamination following disinfection, and re-disinfected if necessary.
5. The specifications for the chlorination equipment were apparently written for a sewage-effluent disinfection application, and do not apply well to this installation. The usual chlorine residual specified for public water supplies is 0.2 to 0.4 mg/li.
6. A potability analysis of the well water should be made, and a copy of the results forwarded to this office, when the well is completed.

Book  
M-5-30-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-244

Hanna High School - Water & Sewer Extension  
(Name of Facility)

This permit hereby authorizes the applicant:

Carbon County School District #2  
(Last) (First) (Middle)

P.O. Box 98  
(Street or P.O. Box)

Saratoga, Carbon WY 82331  
(City) (County) (State)

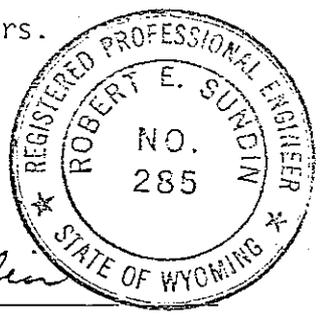
to construct, install, or modify a municipal distribution & collection system  
(public water supply)  
facility located in Sec. 20, T22N, R81W  
(Legal Description)

in the County of Carbon, in the State of  
Wyoming. This permit shall be effective for a period of two (2) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Gales  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 29, 1979  
Date of Issuance

"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."

Book  
M-5/30/79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-245

Lot 17, Westgate Park II Subdivision  
(Name of Facility)

This permit hereby authorizes the applicant:

Larson Construction Co.  
 (Last) (First) (Middle)  
P.O. Box 1527  
 (Street or P.O. Box)  
Mills, Natrona, WY 82644  
 (City) (County) (State)

to construct, install, or modify a commercial subsurface disposal  
 facility located in Sec. 27, T34N, R80W  
 (Legal Description)

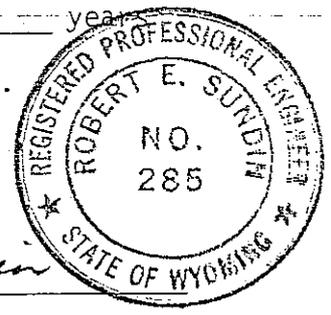
in the County of Natrona, in the State of  
 Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William R. O'Neal  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 29, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Book  
M-5-30-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-246

Pratt #4 Addition - City of Casper  
(Name of Facility)

This permit hereby authorizes the applicant:

Casper Board of Public Utilities  
 (Last) (First) (Middle)

200 N. David  
 (Street or P.O. Box)

Casper, Natrona, WY 82601  
 (City) (County) (State)

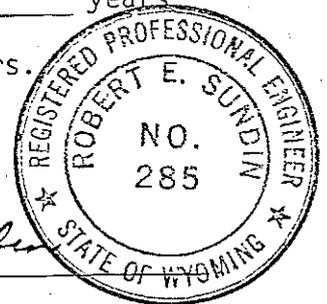
to construct, install, or modify a municipal distribution & collection system  
 facility located in the City of Casper  
 (Legal Description)

in the County of Natrona, in the State of  
 Wyoming. This permit shall be effective for a period of two (2) years  
 from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Jala  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 29, 1979  
 Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-247

Tanner-Freiberg  
(Name of Facility)

This permit hereby authorizes the applicant:

Tanner-Freiberg (Last) (First) (Middle)  
1731 Kingsboro Road (Street or P.O. Box)  
Casper, Natrona, WY 82601  
 (City) (County) (State)

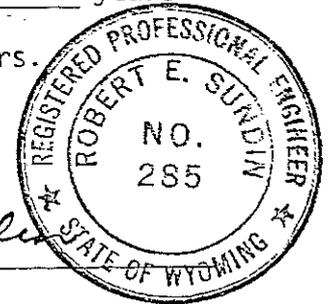
to construct, install, or modify a small subsurface disposal (public water supply)  
 facility located in Sec. 20, T34N, R79W  
 (Legal Description)

in the County of Natrona, in the State of  
 Wyoming. This permit shall be effective for a period of two (2) years  
 from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William J. Galano  
 Administrator  
 Water Quality Division

Robert E. Sundin  
 Director  
 Wyoming Dept. of Environmental Quality



May 29, 1979  
 Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

Book  
M-5-30-79

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 79-248

Natrona County Weed & Pest  
(Name of Facility)

This permit hereby authorizes the applicant:

Natrona County Weed & Pest  
(Last) (First) (Middle)

P.O. Box 1385  
(Street or P.O. Box)

Mills, Natrona, WY 82644  
(City) (County) (State)

to construct, install, or modify a small subsurface disposal (public water supply)  
facility located in Sec. 34, T34N, R80W  
(Legal Description)

in the County of Natrona, in the State of

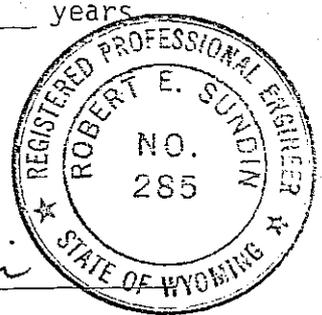
Wyoming. This permit shall be effective for a period of two (2) years

from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Galand  
Administrator  
Water Quality Division

Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 29, 1979  
Date of Issuance

"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."

This permit does not supercede the requirements for obtaining a Septic Tank Permit from Natrona County Health Department.

PERMIT TO CONSTRUCT

717  
6 22 79

- New
- Renewal
- Modified

Permit No. 79-249

FT. UNION MINE SEDIMENT PONDS 1, 2, 3 and 4  
(Name of Facility)

This permit hereby authorizes the applicant:

Delzer Melvin E.  
(Last) (First) (Middle)

c/o Paul A. Rechard, P.E.  
P.O. Box 3067  
(Street or P.O. Box)

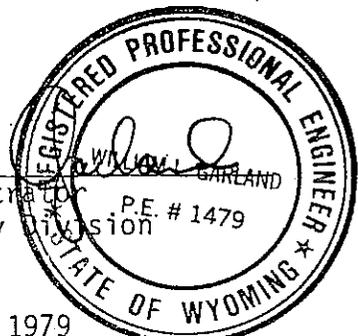
Laramie, WY 82071  
(City) (County) (State)

to construct, install, or modify a pit water and sediment  
facility located in Section 21, 28, 29, 33, T.51N., R.71W.  
(Legal Description)

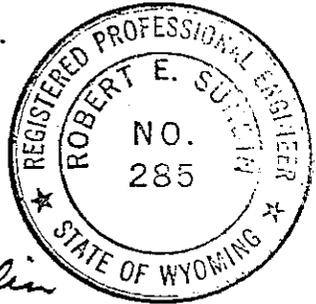
in the County of Campbell, in the State of  
Wyoming. This permit shall be effective for a period of five (5) years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. ...  
Administrator  
Water Quality Division



Robert E. Surtin  
Director  
Wyoming Dept. of Environmental Quality



June 20, 1979  
Date of Issuance

"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."

7/10/79  
6-11

PERMIT TO CONSTRUCT

New

Permit No. 79-250

Renewal

Modified

Town of Marbleton Water System  
(Name of Facility)

This permit hereby authorizes the applicant:

Town of Marbleton  
(Last) (First) (Middle)

\_\_\_\_\_  
(Street or P.O. Box)

Marbleton, Wyoming 83113  
(City) (County) (State)

to construct, install, or modify a water distribution system extension  
facility located in Sec. 29 & 30, T. 30 N., R. 111 W.  
(Legal Description)

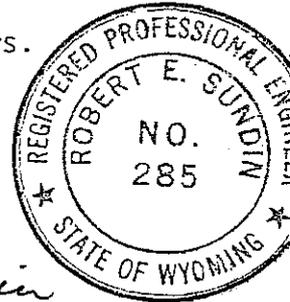
in the County of Sublette, in the State of  
Wyoming. This permit shall be effective for a period of 2 years  
from the date of issuance of this permit not to exceed five (5) years.

AUTHORIZED BY:

William L. Garland  
Administrator  
Water Quality Division



Robert E. Sundin  
Director  
Wyoming Dept. of Environmental Quality



May 29, 1979  
Date of Issuance

"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."