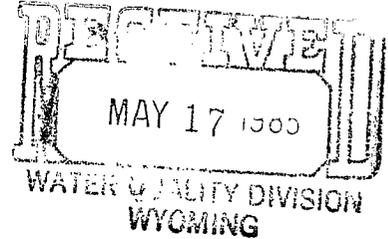




MEMORANDUM

TO: Plans #85-151, Big Piney Construction Camp  
FROM: Steven P. Gerber, P.E. *SPG*  
SUBJECT: Phone Review  
DATED: May 15, 1985



I conducted a phone review on the above referenced project. I spoke with Roland Moreau. I told Roland the following items still need to be addressed:

1. The service lines to the dormitories are not protected and will freeze.
2. When the wells turn on they may flow into the distribution lines by means of the return lines resulting in inadequate chlorination and/or inadequate chlorine retention time. To prevent this the return lines should be installed with check valves.
3. It appears that the relocated fire hydrant is connected to a two inch line. This needs to be clarified.
4. Once the return lines are connected to the storage tank the line pressure will be controlled by the water elevation in the storage tank. A pressure valve of some sort is needed to insure an adequate line pressure will be maintained.

SG/jw  
copy: File  
Plans (3)

AC

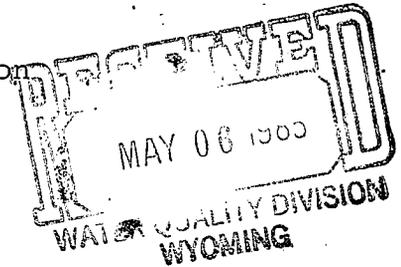
REVIEW OF PLANS AND SPECIFICATIONS  
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Big Piney Construction Camp - 1985 Expansion

ENGINEER: Mr. Jon Anderson  
AVI, P.C.  
1700 Westland Road  
Cheyenne, WY. 82001

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



WATER QUALITY DIVISION REFERENCE NUMBER: 85-151R

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

DATE OF REVIEW: May 2, 1985

ACTION: Not authorized.

COMMENTS:

A review of your response to our comments has been completed. The following items are still in need of being addressed and/or resolved:

1. As we have discussed previously the wells shall be capable of equalling or exceeding the design average day demand (60 gpm) with the largest producing well out of service. Both the existing well and new well must be tested for long term production. If the above criteria cannot be met with these two wells a third well will be required.

2. An adequate freeze protection system must be developed. Provide details of such a system.

3. Provide a properly designed sludge wasting system.

*Ac*

REVIEW OF PLANS AND SPECIFICATIONS

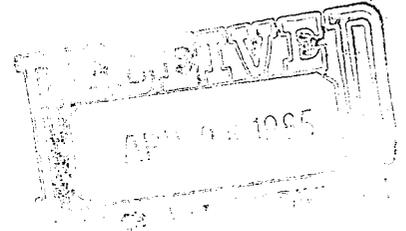
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Big Piney Construction Camp - 1985 Expansion

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

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



WATER QUALITY DIVISION REFERENCE NUMBER: 85-151

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

DATE OF REVIEW: April 4, 1985

ACTION: Not authorized.

COMMENTS:

An initial review of your plans and specifications has been completed. The following items need to be addressed and/or resolved.

1. Plans and specs must be signed by the engineer.
2. Establish maximum day demand, maximum hour demand and average day demand on the water system.
3. Provide the following information on the new well:
  - a. Geology of aquifer and overlying strata.
  - b. Test well depth and method of construction.
  - c. Test pumping rates and duration.
  - d. Draw down and recovery rate.
  - e. Water levels and specific yield.
  - f. Water quality data.

*ABC*

3. The design population assumes only one person per RV site. I would assume a higher population density. Please reevaluate and comment.
4. Provide details of water chlorination system and material specifications.
5. The total developed groundwater source shall provide a combined capacity that shall equal or exceed the design maximum day demand. Where 2 wells are provided, the sources shall be capable of equalling or exceeding the design average day demand with the largest producing well out of service.
6. Specifications for chlorination of the well after the construction is complete is needed.
7. Proposed Water Quality Rules and Regulations, Chapter XII stipulate that wells shall be located a minimum of 100 ft. from a sewer line. Address the potential for well contamination from the sewage collection system.
8. The 8 "Pitless Adapter Detail" on sheet 2 states that the protected screen well vent is optional. The casing vent is not optional and must be covered with a 24 mesh corrosion resistant screen.
9. Water storage requirements must be reevaluated once the system demands have been established. Storage must be provided equal to the average day demand plus fire storage.
10. Provide fire flow requirements typical for this facility.
11. If a water demand occurs in the line just to the west of the circulating pump a reverse flow through the pump could occur. Comment on the need for a back flow prevention device in the pump discharge line.
12. Submit current and projected average, maximum day, and peak wastewater flows for the design of the project. In the absence of flow measurement information the design average daily flow shall be based on a per capita daily flow rate of 100 gallons.
13. Submit current and projected organic loadings. In the absence of wastewater strength data, domestic waste treatment design shall be based on a per capita daily BOD and suspended solids contribution of .22 lb and .25 lb respectively.
14. Verify adequacy of lift station pumps to handle new projected peak hour flows.
15. Verify adequacy of diesel engine generator to run pumps capable of pumping design maximum day flow rates through the treatment process and to disinfect.

16. For average design flows greater than 100,000 gpd more than one unit of each unit process shall be provided.
17. Clarify the operational relationship between the timer and the float switches in the aeration basin and clarifiers. If the operation is controlled by timers as is indicated in the section titled "Automatic Control Operation" in 30 minutes 14,400 gallons (30 min x 480 gpm) will be transferred to the new clarifier and 13,200 gallons (30 min x 440 gpm) will be transferred to the existing clarifier. After settling 7,555 gallons of sludge will be returned to the aeration basin from the new clarifier and 7,388 gallons will be returned from the existing clarifier. This means 6,845 gallons (14,400-7,555) of effluent will be discharged from the new clarifier and 5,812 gallons (13,200-7,388) from the existing clarifier for a total of 12,657 gallons. Based on a cycle of 4 hours this means a discharge will occur 6 times a day for a total discharge of 75,942 gallons/day. This is not equivalent to the average day flow of 96,750 gallons/day established earlier in the report.

If the operation is controlled by level switches as indicated in the section titled "System Hydraulic Loading-Peak Loading Conditions" 18,779 gallons (volume between 1.5 ft. and 4.5 ft.; level switch settings) will be transferred to both the new clarifier and existing clarifier. Since this exceeds the capacity of the clarifiers 2,332 gallons (18,177-15,845) will overflow from the new clarifier back to the aeration basin and 2,726 gallons (18,177-15,451) will overflow from the existing clarifier. The sludge volumes returned to the aeration basin will be the same as those stated above. This means during each cycle 8,290 gallons (15,845-7,555) will be discharged from the new clarifier and 8,063 gallons (15,451-7,388) will be discharged from the existing clarifier for a total of 16,353 gallons. A 4 hour cycle will result in a daily discharge of 98,118 gallons. This discharge is greater than the average daily flow of 96,750 gallons/day but by controlling with level switches the cycle time will be controlled by flow. This will mean long detention times in the clarifiers during low flow periods and short detention times in the clarifiers during high flow periods.

18. Explain the function of the overflow wiers and how they are utilized.
19. The inflow hydrograph is good but a storage hydrograph showing water level or volume versus time for the aeration basin is also necessary to insure adequate storage.
20. Keep in mind that the plant must handle not only peak hour flows but also maximum day flows which in this case may be more critical. Explain how these flows will be handled.
21. Based on the average day flow rate a minimum detention time of 9 hours is required below the pump low level shut-off point.

22. The organic loading within the aeration basin shall not exceed 35 lb/1000 cu. ft./day utilizing only the storage volume below the pump low level shut-off point.
23. For all design average flows in excess of 100,000 gpd two or more aeration basins shall be provided.
24. Submit computations and assumptions used in establishing the new air requirements and blower sizing. Blower specifications are needed to insure the blowers will be of a size to operate the blower throughout the range of ambient air temperatures experienced at the plant site.
25. For treatment plants having an average day design capacity greater than 100,000 gpd the return sludge flow rate from each secondary settling unit and to each aeration basin shall be metered to indicate flow rate.
26. For treatment plants having an average day design capacity greater than 100,000 gpd waste sludge flows shall be metered to indicate and totalize.
27. Sludge removal by vacuum truck will not be allowed. Provide a properly designed sludge wasting system. Submit sizing criteria.
28. Chlorination equipment shall be provided to permit feeding the design dosage with the largest unit out of service. Feeders shall be sized for a 10:1 feed range. Specify the anticipated feed rate. Chemical storage shall provide at least 30 days of chemical supply.
29. Dechlorination equipment shall be provided to permit feeding the design dosage with the largest unit out of service. Feeders shall be sized for a 10:1 feed range. Specify the anticipated feed rate.
30. Detention time in the chlorine contact basin must be verified once the peak hour design flow has been established.
31. Provide location and details of effluent flow meter.





THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

May 9, 1985

David W. Peterson  
Martin & Jones  
1780 Westland Road  
Cheyenne, WY 82001

RE: East High School Addition Permit # 85-153R

Dear Mr. Peterson:

As per your letter of May 7, 1985, the DWV type copper pipe and fittings is acceptable for the pressure pipe system downstream of the sewage lift station.

Sincerely,

*Thomas S. Norman*

Thomas S. Norman  
Water Quality Engineer

TSN/jt

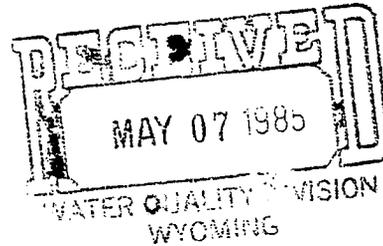
cc: ✓ Norma Coulson

**MARTIN & JONES**  
PROFESSIONAL ENGINEERS

LARRY MARTIN, P.E.

CLIFF JONES, P.E.

May 7, 1985



Mr. Thomas Norman  
State of Wyoming  
Department of Environmental Quality  
Water Quality Division  
Herschler Building  
Cheyenne, Wyoming 82001

Re: East High School Addition Lift Station  
Permit No. 85-153R  
MJ 8469

Dear Mr. Norman:

As per our telephone conversation I am writing to request a follow-up letter from you in regards to the following:

Permission to use DWV type copper pipe and DWV fittings with 95-5 solder for the pressure pipe system downstream of sewage lift station. The pipe, fittings, and solder are rated for over 130 psi working pressure and we will have it tested for 20' of head (approximately 10 psi) before system is put in use. The sewage pumps are rated to deliver 15' of head (approximately 7.5 psi).

Sincerely,

*David W. Peterson*

David W. Peterson  
For the Firm

DWP/cj

4-11-85

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 85-153R

MA 14542

East High School  
(Name of Facility)

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

Laramie County School District #1

2810 House Avenue

Cheyenne, WY 82001

to construct, install, or modify a publicly-owned wastewater lift station facility according to the procedures and conditions of the application No. 85-153R. The facility is located in Section 28, T14N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

4-1-85

Review of Plans and Specifications

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

PROJECT: East High School, Laramie Co.

ARCHITECT OR ENGINEER: Larry Martin, Martin & Jones  
1780 Westland Road, Cheyenne, WY 82001

APPLICANT: Laramie County School District #1  
2810 House Avenue, Cheyenne, WY 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 85-153

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

DATE OF REVIEW: March 29, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. A legal description (S, T, R) is needed.
2. A total of 3 copies of the plans and specifications are required. Therefore, 2 additional copies are required.



THE STATE OF WYOMING

MIKE SULLIVAN  
GOVERNOR



## Department of Environmental Quality

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

Administration  
(307) 777-7937

Air Quality Division  
(307) 777-7391

Land Quality Division  
(307) 777-7756  
FAX (307) 634-0799

Solid Waste Management Program  
(307) 777-7752

Water Quality Division  
(307) 777-7781

August 20, 1990

Richard Olsen  
P.O. Box 1131  
Jackson, Wyoming 83001

RE: Residential Heatpump Injection Well  
Permit UIC 85-154  
Teton County, Wyoming

Dear Mr. Olsen:

Based on your statement that this system is no longer in service, the above referenced permit is hereby canceled.

Sincerely yours,

William L. Garland  
Administrator  
Water Quality Division

WLG/jt

xc: Jake Strohman



THE STATE OF WYOMING

MIKE SULLIVAN  
GOVERNOR



## Department of Environmental Quality

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

Administration  
(307) 777-7937

Air Quality Division  
(307) 777-7391

Land Quality Division  
(307) 777-7756  
FAX (307) 634-0799

Solid Waste Management Program  
(307) 777-7752

Water Quality Division  
(307) 777-7781

July 30, 1990

Richard Olsen  
P.O. Box 1131  
Jackson, Wyoming 83001

RE: Residential Heatpump Injection Well  
Permit UIC 85-154  
Teton County, Wyoming

Dear Mr. Rose:

The above referenced permit requires that an annual report be submitted detailing the status of the system. The last such report was received on March 4, 1987. This department must have the required reports. Enclosed please find copies of the above referenced permit and the transfer papers from Mr. Stilson to you. Section G of the permit, found on page 4 describes the required annual reports.

Sincerely,

Robert Lucht, P.E.  
UIC Program Supervisor  
Water Quality Division

RL/jt

xc: Jake Strohman

4-5-85



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 4, 1985

Mr. Vernon Stilson  
Stilson Sales  
2001 Hi-Country Route  
Jackson, WY 83001

RE: GPC 85-154

Dear Mr. Stilson:

Enclosed is your permit to inject, GPC 85-154, for a residential groundwater heat pump injection well.

Please note that section G states monitoring the discharge is not required by this permit. The only periodic report of section I required by this permit is an annual report. The annual report should be submitted within 30 days following the anniversary date of the permit, and should indicate the status of the operation (active or otherwise), any major modifications to the injection well or operation made during the year, and any problems that may have developed and how they were resolved.

The permittee should keep relevant on-site operation records, for review by the permitting authority as may be necessary or required. The type(s) of records kept for this operation to be determined by the permittee.

Form GPC 7 enclosed with this letter should accompany all reports.

If you have any questions, please feel free to contact Matt Langenfeld at (307) 777-7084.

Sincerely,

William L. Garland  
Administrator

WLG/MML/nc  
Enclosures

cc: A. J. Mancini, DEQ/WQD  
Ed Baruth, DEQ/WQD

DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE OF WYOMING

GROUNDWATER POLLUTION CONTROL PERMIT  
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS  
(Permit to Inject)

MA 14542

- (X ) New
- ( ) Modified

Permit Number:

GPC 85-154  
UIC Class V

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter IX (September 4, 1980),

Vernon Stilson  
2001 Hi-Country Route  
Jackson, WY 83001

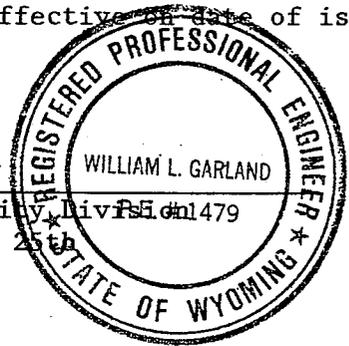
is authorized to operate

residential groundwater heat pump injection well at 2001 Hi-Country Route, Jackson, Wyoming, Teton County, in SE1/4 SE1/4 Section 6, T40N, R116W, as a miscellaneous discharge to groundwater

according to procedures and conditions of the application GPC 85-154 and requirements and other conditions of this permit.

This permit shall become effective on date of issuance.

*William L. Garland*



*April 4, 1985*

Administrator - Water Quality Division  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002  
Phone: (307) 777-7781

Date

*Robert E. Sundin*



*Apr. 4, 1985*

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

Date

A. Discharge (Injection) Zone and Area of Review

The discharge (injection) zone is a subsurface gravel "bed" from the interval of 2 to 10 feet below the ground surface. The discharge is conveyed from the heat pump structure to an outside well. The outside well is a pit, 10 feet deep, filled with varying layers of natural material: 8 feet of coarse gravel and cobbles at the bottom, overlain by 2 feet of fill dirt. The water table is reported at a depth of 10 feet below the surface in this well.

The conveyance consists of a length of garden hose connected from the heat pump to an external length of 2 inch PVC pipe. A 4 inch perforated PVC sleeve surrounds the 2 inch pipe within the well. The discharge pipe enters through the wall of the well and slopes such that the perforated sleeve is in the coarse gravel, approximately 2 feet above the water table. Refer to the application for a schematic diagram.

The area of review is the circular area described as having its center in the vicinity of the subject well and a minimum radius of one-quarter mile. The permittee has reported no other wells in the area of review.

B. Groundwater Classification

Groundwater in the recharge/discharge zone is classified as Class I. The groundwater is to be protected for its existing and potential uses, even though background water quality may indicate variations in certain parameters above Class I standards. Any discharge into a Class I groundwater of the state shall not result in variations in the range of any parameter, or concentrations or constituents in excess of the standards (Water Quality Rules and Regulations, Chapter VIII) at any place or places of withdrawal or natural flow to the surface.

C. Authorized Operations

The permittee is authorized to reinject natural groundwater withdrawn for heat pump use. Groundwater will be utilized in a completely enclosed system.

The permittee has reported that the discharge will vary, with a winter maximum of 5 gallons per minute. A minimum temperature of 40°F and a maximum of 52°F is reported. The system will not be in operation during the summer months.

No other use for or by the discharge (injection) well is authorized by this permit, except summer usage.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the Administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.

E. Entry and Inspection

The permittee shall allow the Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least three (3) years after closure of the facility.
3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The name(s) of individual(s) who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. Names of individuals who performed the analyses;

- e. The analytical techniques or methods used; and
  - f. The results of such analyses.
4. The prescribed program for this permitted activity is as follows:

None required by this permit

G. Requirements for Monitoring the Discharge

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

Monitoring the discharge is not required by this permit. The only periodic report of Section I required by this permit is an annual report. The annual report should be submitted within thirty (30) days following the anniversary date of the permit, and should indicate the status of the operation (active or otherwise), any major modifications to the injection well or operation made during the year, and any problems that may have developed and how they were resolved.

Note "Signatories Requirement" on page 8 of this permit.

The permittee should keep relevant on-site operation records, for review by the permitting authority as may be necessary or required. The type(s) of records kept for this operation to be determined by the permittee.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

Sample collection and analysis is not required unless written notification is provided by the Administrator.

I. Records and Reports

1. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the report or application.
2. The permittee shall give notice to the Administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. The permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
4. Monitoring results shall be reported at intervals specified elsewhere in the permit.

5. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:
  - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable Groundwater of the State.
  - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable Groundwaters of the State.

A written submission shall be provided within five (5) days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until five (5) years after completion of any specified plugging and abandonment procedures. The Administrator may require the owner/operator to deliver the records to the Administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a Groundwater Pollution Control Permit has been issued by the Department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the Administrator, and
  - b. The Administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the Administrator of intent to inspect or otherwise review the facility within thirteen (13) days of the notice of a. above, in which case prior inspection or review is waived, and

- c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the Administrator.

Item I.10. is not applicable to this permit.

11. Annual reports shall be submitted to the Administrator within thirty (30) days following the anniversary date of the permit.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the Administrator within thirty (30) days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

J. Permit Actions

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:

1. Violation of the permit;
2. Obtaining a permit by misrepresentation or failure of the discharge well or system.

Each permit is reviewed at least once every five (5) years, and may be reviewed more frequently.

A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the Council.

This operation (permit) can be terminated by authority of the Administrator for one or more permit violations.

Public notice of the permit review and request for public comment will be made every ten (10) years by the Administrator.

Public notice is not required for this permit.

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

Not required for this permit.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the Administrator.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit.

L. Abandonment

The permittee shall notify the Administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge or related activity, or where a well has not been completed, the applicant/permittee shall notify the Director and follow the procedures prescribed by the Director for plugging and abandonment or the discontinuance of related activities:

The discharge (injection) well will cease operations when the operation of the associated heat pump is permanently discontinued. Abandonment of this injection well will conform to the then-current State regulations and requirements.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to the Administrator within a reasonable time, any information which the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit; and furnish to the Administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in form approved by the Director, to close, plug and abandon the discharge operation in a manner prescribed by the Director.

Certification of financial responsibility is waived.

O. Special measures the Director finds necessary:

This permit does not over-ride local ordinances.

P. Special permit conditions:

Pollution or waste which migrates into an aquifer containing a usable groundwater of the State is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

All reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;

For a municipality, State, Federal or other public agency -- by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the Department Director.

T. Responsibilities

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

U. Property Rights

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

V. Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.



MIKE SULLIVAN  
GOVERNOR

## Department of Environmental Quality

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

Administration  
(307) 777-7937

Air Quality Division  
(307) 777-7391

Land Quality Division  
(307) 777-7756  
FAX (307) 634-0799

Solid Waste Management Program  
(307) 777-7752

Water Quality Division  
(307) 777-7781

July 30, 1990

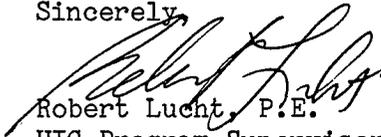
Albert Rose  
Assistant Director  
Region V Board of Cooperative Services  
P.O. Box 240  
Wilson, Wyoming 83014

RE: C Bar V Ranch Heatpump Injection Wells  
Permit UIC 85-155  
Teton County, Wyoming

Dear Mr. Rose:

The above referenced permit requires that an annual report be submitted detailing the status of the system. The last such report was received on February 10, 1987. During an inspection of this system on February 20, 1987, it was noted that the system might be abandoned in favor of a conventional heating plant. This department must have the required reports. If the system has been abandoned please notify us with a request to cancel this permit.

Sincerely,

  
Robert Lucht, P.E.  
UIC Program Supervisor  
Water Quality Division

RL/jt

xc: Jake Strohman

4-5-85

THE STATE OF WYOMING



ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 5, 1985

Mr. Chris Christiansen  
C Bar V Ranches  
P.O. Box 240  
Wilson, WY 83014

RE: GPC 85-155

Dear Mr. Christiansen:

Enclosed is your permit to inject, GPC 85-155, for groundwater heat pump injection wells #1 and #2.

Please note that section G states monitoring the discharge is not required by this permit. The only periodic report of section I required by this permit is an annual report. The annual report should be submitted within 30 days following the anniversary date of the permit, and should indicate the status of the operation (active or otherwise), any major modifications to the injection well or operation made during the year, and any problems that may have developed and how they were resolved.

The permittee should keep relevant on-site operation records, for review by the permitting authority as may be necessary or required. The type(s) of records kept for this operation to be determined by the permittee.

Form GPC 7 enclosed with this letter should accompany all reports.

If you have any questions, please feel free to contact Matt Langenfeld at (307) 777-7084.

Sincerely,

William L. Garland  
Administrator

WLG/MML/nc  
Enclosures

cc: A. J. Mancini, DEQ/WQD  
Ed Baruth, DEQ/WQD

DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE OF WYOMING

GROUNDWATER POLLUTION CONTROL PERMIT  
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS  
(Permit to Inject)

MA 14542

(X) New

Permit Number:

( ) Modified

GPC 85-155  
UIC Class V

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter IX (September 4, 1980),

Chris Christiansen  
C Bar V Ranches  
P.O. Box 240  
Wilson, WY 83014

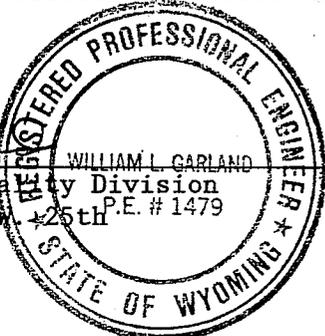
is authorized to operate

groundwater heat pump injection wells #1 and #2 at 3850 North Wilderness Drive, Wilson, Wyoming, Teton County, in NW1/4 NE1/4 Section 12, T41N, R117W, as a miscellaneous discharge to groundwater

according to procedures and conditions of the application GPC 85-155 and requirements and other conditions of this permit.

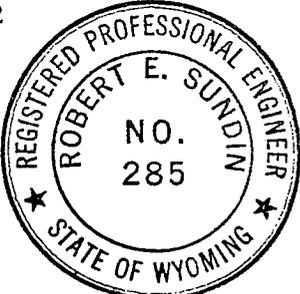
This permit shall become effective on date of issuance.

*William L. Garland*  
Administrator - Water Quality Division  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002  
Phone: (307) 777-7781



*April 4, 1985*  
Date

*Robert E. Sundin*  
Director - Department of Environmental Quality  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002



*Apr. 4, 1985*  
Date

A. Discharge (Injection) Zone and Area of Review

The discharge (injection) zone for injection well #1 and #2 is a sub-surface gravel "bed" from the interval of 2 to 15 feet below the ground surface. The discharge is accomplished through a buried 2 inch aluminum line that splits to injection wells #1 and #2, 6 feet below the surface. Injection wells #1 and #2 are constructed of 8 inch diameter DR 18 class 150 pressure PVC water line. The perforations are from 2 feet to 14 feet with a total depth of 15 feet. The injection wells are gravel packed from 15 feet to 1.5 feet and are capped. The spring and fall static water lines are reported as 8 and 12 feet, respectively. Refer to the application for a schematic diagram.

The area of review is the circular area described as having its center in the vicinity of the subject well and a minimum radius of one-quarter mile. The permittee has reported no other wells in the area of review.

B. Groundwater Classification

Groundwater in the recharge/discharge zone is classified as Class I. The groundwater is to be protected for its existing and potential uses. Any discharge into a Class I groundwater of the state shall not result in variations in the range of any parameter, or concentrations or constituents in excess of the standards (Water Quality Rules and Regulations, Chapter VIII) at any place or places of withdrawal or natural flow to the surface.

C. Authorized Operations

The permittee is authorized to reinject natural groundwater withdrawn for heat pump use. Groundwater will be utilized in a completely enclosed system.

The permittee has reported 7 heat pump units in use and that the maximum discharge will be 60 gallons per minute at a maximum temperature of 55°F.

No other use for or by the discharge (injection) wells is authorized by this permit.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the Administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.

E. Entry and Inspection

The permittee shall allow the Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least three (3) years after closure of the facility.
3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The name(s) of individual(s) who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. Names of individuals who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.

4. The prescribed program for this permitted activity is as follows:

None required by this permit

G. Requirements for Monitoring the Discharge

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

Monitoring the discharge is not required by this permit. The only periodic report of Section I required by this permit is an annual report. The annual report should be submitted within thirty (30) days following the anniversary date of the permit, and should indicate the status of the operation (active or otherwise), any major modifications to the injection well or operation made during the year, and any problems that may have developed and how they were resolved.

Note "Signatories Requirement" on page 8 of this permit.

The permittee should keep relevant on-site operation records, for review by the permitting authority as may be necessary or required. The type(s) of records kept for this operation to be determined by the permittee.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

Sample collection and analysis not required unless written notification is provided by the Administrator.

I. Records and Reports

1. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the report or application.
2. The permittee shall give notice to the Administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. The permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
4. Monitoring results shall be reported at intervals specified elsewhere in the permit.
5. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:
  - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable Groundwater of the State.
  - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable Groundwaters of the State.

A written submission shall be provided within five (5) days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until five (5) years after completion of any specified plugging and abandonment procedures. The Administrator may require the owner/operator to deliver the records to the Administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a Groundwater Pollution Control Permit has been issued by the Department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the Administrator, and
  - b. The Administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the Administrator of intent to inspect or otherwise review the facility within thirteen (13) days of the notice of a. above, in which case prior inspection or review is waived, and
  - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the Administrator.

Item I.10. is not applicable to this permit.

11. Annual reports shall be submitted to the Administrator within thirty (30) days following the anniversary date of the permit.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the Administrator within thirty (30) days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

J. Permit Actions

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:

1. Violation of the permit;
2. Obtaining a permit by misrepresentation or failure of the discharge well or system.

Each permit is reviewed at least once every five (5) years, and may be reviewed more frequently.

A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the Council.

This operation (permit) can be terminated by authority of the Administrator for one or more permit violations.

Public notice of the permit review and request for public comment will be made every ten (10) years by the Administrator.

Public notice is not required for this permit.

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

Not required for this permit.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the Administrator.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit.

L. Abandonment

The permittee shall notify the Administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge or related activity, or where a well has not been completed, the applicant/permittee shall notify the Director and follow the procedures prescribed by the Director for plugging and abandonment or the discontinuance of related activities:

The discharge (injection) wells will cease operation when the operation of the associated heat pumps is permanently discontinued. Abandonment of these injection wells will conform to the then-current State regulations and requirements.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to the Administrator within a reasonable time, any information which the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit; and furnish to the Administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in form approved by the Director, to close, plug and abandon the discharge operation in a manner prescribed by the Director.

Certification of financial responsibility is waived.

O. Special measures the Director finds necessary:

This permit does not over-ride local ordinances.

P. Special permit conditions:

Pollution or waste which migrates into an aquifer containing a usable groundwater of the State is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

All reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;

For a municipality, State, Federal or other public agency -- by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the Department Director.

T. Responsibilities

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

U. Property Rights

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

V. Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.





*Norma*

85-157

ED HERSCHLER  
GOVERNOR

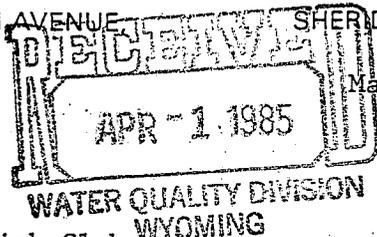
MA 14542

# Department of Environmental Quality

## Water Quality Division

2161 COFFEEN AVENUE SHERIDAN, WYOMING 82801  
SUITE 301

TELEPHONE 307-672-6457



March 29, 1985

Mr. Rick Clabaugh  
Big Horn Coal Company  
P.O. Box 724  
Sheridan, Wyoming 82801

Dear Rick:

This letter constitutes an As-Built Approval of the Pit No. 4 Containment Ditch Reservoir in Section 15, T.57N., R.84W., Sheridan County, Wyoming (DEQ Reference No. 85-157).

As we discussed and as noted in the annual water quality inspection, the following items should be taken care of:

- 1) The embankment of the reservoir should be reworked to provide for 1.0 foot of freeboard as shown on the plans.
- 2) Although a spillway is not required, it may be a good idea to install one with erosion protection.
- 3) The disturbed area around the pond should be revegetated as soon as possible.

Because the reservoir is already constructed, a Permit to Construct cannot be issued. This letter essentially serves the same purpose.

Thank you for your timely response in sending plans and support data. Please call if you have any questions.

Sincerely,

Susan Holmes  
Environmental Engineer

SH:ls

cc: Kathy Ogle, LQD Cheyenne  
Rick Chancellor, LQD Sheridan

MEMORANDUM

TO: Kathy Ogle, Land Quality Division, Cheyenne  
FROM: Susan Holmes, Water Quality Division, Sheridan  
DATE: March 29, 1985  
SUBJECT: Big Horn Coal Company Pit No. 4  
Catchment Ditch Reservoir

Enclosed is the information submitted by Big Horn Coal Company regarding the Pit No. 4 Catchment Ditch Reservoir and our resulting approval.

Thank you for your efforts to try and clear up this mishap. Please call if you have any questions.



REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Jakalley Disposal Reservoir

ENGINEER: Phillip D. Essington  
P.O. Box 1065  
Pinedale, WY 82941

OWNER: Kelley G. Winters  
P.O. Box 814  
Pinedale, WY 82941

WATER QUALITY DIVISION REFERENCE NUMBER: 85-158RRR~~E~~

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

DATE OF REVIEW: October 28, 1985

ACTION: Not authorized.

COMMENTS:

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

1. The leak detection system proposed will not work satisfactorily without a permeable material placed directly under the liner and sloped toward the collection trenches. The possibility of a leak being detected by one of the two proposed monitoring wells is quite slim, especially if the leak migrates toward the east or west.

2. It is highly recommended that an earth cover be placed over the liner to protect it from mechanical damage. I have enclosed three pictures of a similar facility in Sweetwater County with a failing synthetic liner. You can see that the liner pictured has been punctured at or near the high water line. Also, liners that are uncovered have a tendency to lift off of their base in high winds. This also can damage the integrity of the liner.

As you are aware, the 30 mil synthetic liner does meet our minimum design standards. This is only offered as a suggestion.

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

BL/jw

C

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Jakalley Disposal Reservoir

ENGINEER: Phillip D. Essington  
P.O. Box 1065  
Pinedale, WY 82941

OWNER: Kelly G. Winters  
P.O. Box 814  
Pinedale, WY 82941

WATER QUALITY DIVISION REFERENCE NUMBER: 85-158RR

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

DATE OF REVIEW: September 27, 1985

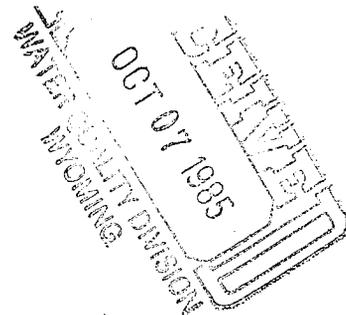
ACTION: Not authorized.

COMMENTS:

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

1. It is felt that the proposed leak detection system would be inadequate in the detection of leaks on the north and south perimeters of the ponds. Additional drain trenches would be an improvement.
2. A permeable material should be placed under the liner and sloped toward the collection trenches. This will allow a leak to be identified much earlier.
3. An earth cover should be placed over the synthetic liner to protect it from ice and other miscellaneous damage.
4. Materials and installation specifications should be included for the liner and leak detection system.
5. Please resubmit the required information to this office in triplicate. Be sure to include the Water Quality Reference Number that appears on this review sheet in a cover letter or transmittal sheet. Should you have any questions or comments, please contact this office.

BL/jw



C

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Jakalley Disposal Reservoir

ENGINEER: Phillip D. Essington  
P.O. Box 1065  
Pinedale, WY 82941

OWNER: Kelly G. Winters  
P.O. Box 814  
Pinedale, WY 82941

WATER QUALITY DIVISION REFERENCE NUMBER: 85-158R

REVIEWING ENGINEER: Bill Locke, P.E., and Tom Williams

DATE OF REVIEW: August 8, 1985

ACTION: Not authorized.

COMMENTS:

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

1. The first water bearing formation at the well in Lot 28 of the Energy Industrial Subdivision was encountered at 30 feet. The proposed monitoring wells are to be to a depth of 20 feet below the bottom of the proposed pit. These wells may not be deep enough to intersect this formation.

2. The existing well at Lot 28 is screened at a depth of 272 to 286 feet. According to the drilling log on the statement of completion, there are at least three water bearing formations above this interval. Therefore, this well is inadequate for use as background water quality.

3. If a groundwater monitoring system is to be used, a subsurface investigation needs to be conducted to insure that the monitoring wells are placed down gradient of the two pits.

4. An alternative to the groundwater monitoring system would be to install a leak detection system between the synthetic liner and the soil (bedding) liner. This system could direct any pit seepage to a collection sump(s). Each pit should be monitored separately.

Should you have any questions on the above comments, please contact either Jack Bedessem or myself.

BL/jw

A

To <sup>London</sup> 7-31

WATER QUALITY DIVISION  
GROUNDWATER SECTION  
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-158R

DATE SUBMITTED FOR REVIEW JULY 19, 1985

NAME AND LOCATION OF FACILITY JAKALLEY DISPOSAL RESERVOIR  
SAC 2, T30N, R111W  
SUBLETTE COUNTY, WY

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

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

SIGNED Thomas R. Williams  
 TITLE GROUNDWATER ENGINEERING ASSOCIATE E.I.T. NO. ZZ4Z  
 DATE JULY 30, 1985

ACCEPTED FOR RECORD 7/30/85  
(Date)

agm  
Groundwater Control Supervisor



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Bill Locke, Southwest District Engineering Evaluator  
FROM: Thomas R. Williams, Groundwater Engineering Associate TRW  
DATE: July 29, 1985  
SUBJECT: Groundwater Review of Revised Permit to Construct Application Number 85-158R for the Jakalley Disposal Reservoir in Sublette County, Wyoming

I have reviewed the revised permit to construct application number 85-158R for the Jakalley Disposal Reservoir in Sublette County, Wyoming for consistency with current groundwater protection procedures and requirements.

The groundwater monitoring program submitted with the permit application is outlined as follows:

1. The applicant proposes to install two groundwater monitoring wells; one near the north end and one near the south end of the proposed facility.
2. The wells are to be drilled to a depth of 20 feet below the bottom of the proposed pit if the material is still typically dense sandstone or shale, or to the first water bearing formation.
3. Background water quality is to be established by completing and sampling a nearby well located in lot 28 of the Energy Industrial Subdivision.

I view this groundwater monitoring program as being inadequate for the following reasons:

1. The first water bearing formation at the well in lot 28 of the Energy Industrial Subdivision was encountered at a depth of 30 feet. In the proposed monitoring well drilling program, if the lithology indicates that the well should only be drilled to a depth of 20 feet below the bottom of the proposed pit, the well may not be deep enough to intersect the first water bearing formation.
2. Without knowing the direction of groundwater movement, it is not possible to determine the locations of monitoring wells in advance. If the groundwater gradient happened to be in a east or west direction, neither proposed monitoring well would be downgradient of the pit. A subsurface investigation needs to be conducted to insure that the monitoring wells are placed downgradient of the two pit cells.

3. The well located in Lot 28 of the Energy Industrial Subdivision is screened at a depth of 272 to 286 feet. According to the drilling log on the statement of completion, there are at least three water bearing formations above the screened interval. As these water bearing formations may be separate aquifers, this well is not suitable for use as a background well.

There are two alternatives to address the potential release of contaminants into the subsurface at this facility:

1. Groundwater monitoring - If the groundwater monitoring alternative is chosen, a subsurface investigation needs to be conducted to determine the depth to groundwater and the direction of groundwater movement. To accomplish this, a minimum of three monitoring wells need to be completed around the proposed facility. These wells should be drilled at least 10 feet below the first water bearing zone and screened from the bottom of the well to the top of the water table. For operational monitoring of the facility, at least one well must be downgradient of each cell. Background groundwater quality must be established and there will be a quarterly operational groundwater monitoring program. Prior to the construction of the monitoring wells, a detail showing the construction of a typical monitoring well must be submitted to the Water Quality Division for review.
2. Leak detection system - A synthetic liner is proposed to be placed above a compacted soil liner at this facility. An alternative to the groundwater monitoring program would be to install a leak detection system between the synthetic liner and the soil liner. This system would direct pit seepage to a collection sump. Each cell would have to be monitored separately. The collection sump would be checked for the presence of fluid on a monthly basis. Plans and specifications for the leak detection system must be submitted to the Water Quality Division for review.

If the consultant has any questions about the groundwater protection requirements for this facility, please have them contact me.

TW/nc

REVIEW OF PLANS AND SPECIFICATIONS

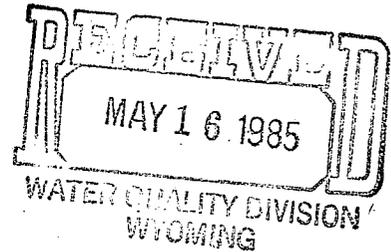
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Jacalley Disposal Reservoir

ENGINEER: Phillip D. Essington  
P.O. Box 1065  
Pinedale, WY 82941

OWNER: Kelly G. Winters  
P.O. Box 814  
Pinedale, WY 82941



WATER QUALITY DIVISION REFERENCE NUMBER: 85-158

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

DATE OF REVIEW: May 13, 1985

ACTION: Not authorized.

COMMENTS:

An initial review of the plans and specifications has been completed. The following items need to be addressed and/or resolved.

1. The dikes are 14 feet above grade with no indication of a road. Explain how the trucks are going to empty their loads.
2. Wave action will erode a soil liner. Explain how both the interior and exterior slopes will be protected.
3. The specifications must be stamped by the engineer.
4. Hazardous materials cannot be disposed of in these ponds. Explain what measures are being taken to control access to the site.
5. A log must be kept of each load emptied into the ponds. The entry shall include source of wastewater, type of fluid, volume and date.
6. The soils will have a tendency to crack in ponds with varying water levels. Explain how this cracking will be prevented.
7. Past experience has shown that fluids with a high total dissolved solids content tends to increase the permeability of a soil with time. Explain how the original permeability will be maintained.

AC

8. The permeability tests were performed on soils which will not be utilized as liner material. Verify that the soils to be utilized will meet the permeability requirements and that all soil used is the same. Estimate the quantities of soil required and how much is available on site.

9. Three test holes were drilled at the site to characterize the subsurface geology. The logs of these test holes do not provide enough information. For example, how was it determined that the clay was a bentonite? What are the textural and compositional characteristics of the sandstone? If samples were collected during the drilling operation, they should be used to provide a more thorough description of the subsurface material encountered.

10. The application contains no regional geologic or hydrogeologic information. What geologic formations are exposed in this area and what is the geologic structure at the site? How close are the nearest wells? What are the well uses and in which aquifer are they completed? At what depth below the pits might groundwater be found? What is the groundwater quality?

11. One monitoring well along the western end of the two pits is not adequate to detect if one or both of the pits are leaking. A more comprehensive groundwater monitoring or leak detection program should be proposed. This program should be capable of determining which of the two wells are leaking and provide contingencies describing remedial actions if pit leakage is discovered.

Please submit your response to the above comments in triplicate. If you have any questions do not hesitate to contact me.

SG/jw  
copy: File (2)

Returned  
to Landen  
5-2-85

WATER QUALITY DIVISION  
GROUNDWATER SECTION  
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-158

DATE SUBMITTED FOR REVIEW 4/25/85

NAME AND LOCATION OF FACILITY JACKLEY DISPOSAL RESERVOIR  
SEC 2, T 30N, R 11W  
SIBLETTE COUNTY, WY

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

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

SIGNED Thomas R. Williams  
TITLE GROUNDWATER ENGINEERING ASSOCIATE E.I.T. #2242  
DATE 5/1/85

ACCEPTED FOR RECORD 5/1/85 (Date) ajm  
Groundwater Control Supervisor

MEMORANDUM

TO: Jack Bedessem, Southwest District Supervisor

THROUGH: *ajm* A. J. Mancini, Groundwater Control Supervisor

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

DATE: May 1, 1985

SUBJECT: Comments on Permit to Construct Application Number 85-158 for the Jacalley Disposal Reservoir in Sublette County, Wyoming

I have reviewed permit to construct application number 85-158 for the Jacalley Disposal Reservoir in Sublette County, Wyoming for consistency with current groundwater protection procedures and requirements.

Three test holes were drilled at the site to characterize the subsurface geology. The logs of these test holes do not provide enough information. For example, how was it determined that the clay was a bentonite? What are the textural and compositional characteristics of the sandstone? If samples were collected during the drilling operation, they should be used to provide a more thorough description of the subsurface material encountered.

The application contains no regional geologic or hydrogeologic information. What geologic formations are exposed in this area and what is the geologic structure at the site? How close are the nearest wells? What are the well uses and in which aquifer are they completed? At what depth below the pits might groundwater be found? What is the groundwater quality?

One monitoring well along the western end of the two pits is not adequate to detect if one or both of the pits are leaking. A more comprehensive groundwater monitoring or leak detection program should be proposed. This program should be capable of determining which of the two wells are leaking and provide contingencies describing remedial actions if pit leakage is discovered.

The application states that standard proctor and permeability tests were run on samples of material obtained at a depth of 10 feet. No description is provided of where this sample was obtained. Is the material that was tested the same material that will be used to construct the liner? Will all of the material be collected from the same location? Did the permeability test conducted by Bennett-Carder and Associates use water or a representative sample of drilling fluid?

There is not enough information in this application to adequately address the potential impact to groundwater and the feasibility of successfully installing and maintaining the integrity of a compacted clay liner. Increases in the permeability of a compacted clay liner have been documented in the past. In order to avoid the remedial measures associated with pit leakage, a synthetic liner with a leak detection system should be considered as an alternative to a compacted clay liner with an extensive groundwater monitoring network.

TRW/nc

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-159  
MA 14542

Temporary Iron Filter Media  
(Name of Facility)

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

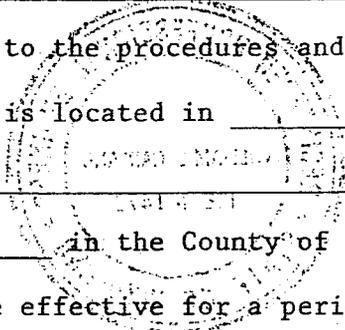
Town of Superior  
P.O. Box 307  
Superior, WY 82945

to construct, install, or modify a sand and gravel filter media for iron  
removal in existing vessel

facility according to the procedures and conditions of the

application No. 85-159. The facility is located in

Sec. 28, T21N, R102W



in the County of Sweetwater,

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

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

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

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

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



WATER QUALITY DIVISION  
GROUNDWATER SECTION  
PERMIT APPLICATION REVIEW

*Ret to  
Sander  
4-17-85*

APPLICATION NUMBER 85-160

DATE SUBMITTED FOR REVIEW 4-2-85

NAME AND LOCATION OF FACILITY Red Lane Mobile Home Park  
Thermopolis, Wyo.  
Hot Springs Co.

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

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

SIGNED *Richard L. ...*  
TITLE *Eng. Seal*  
DATE *4-16-85*

ACCEPTED FOR RECORD *4/17/85*  
(Date)

*ajm*  
Groundwater Control Supervisor







REVIEW OF PLANS AND SPECIFICATIONS

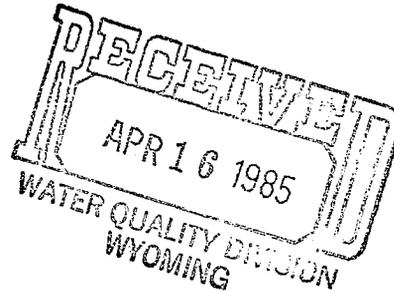
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Hudson Market

ENGINEER: Greguras Consulting Engineers  
P.O. Box 608  
Lander, WY 82520

OWNER: Harold DeLozier  
P.O. Box 269  
Hudson, WY 82515



WATER QUALITY DIVISION REFERENCE NUMBER: 85-163

REVIEWING EVALUATOR: Jeff Hermansky *JH*

DATE OF REVIEW: April 11, 1985

ACTION: Not authorized.

COMMENTS:

The application that you have submitted for the construction of an on-site wastewater disposal facility to serve the proposed Hudson Market is incomplete. Please address the following questions and comments:

1. The application form that was submitted is not appropriate for this project. Please complete the enclosed application form and resubmit.

2. All applications submitted to the DEQ/Water Quality Division must be submitted in triplicate. Upon authorization a stamped copy is returned to the engineer, one retained in Lander and the third sent to the DEQ archives in Cheyenne.

3. The plans and design sheets must be signed by an Engineer registered in Wyoming.

4. The plan of the leach field does not correlate with the design shown on the data sheets. Clearly detail all the leach field dimensions on the plan sheet. Also show the distances from the proposed field to any waterways, wells, nearby property lines, and buildings.

5. The sewer lines from the building to the septic tank and tank to the field must be detailed. Include the size and type of pipe, pipe lengths and the slope the lines are to be laid.

*AC*

April 11, 1985  
Review of Plans & Specs.  
Ref. No. 85-163  
Page Two

6. The design does not show any use of the restroom facilities by the public. Please include an estimate of the public use and the flow generated. The field and tank must be adequately sized for the total flow.

7. The profile view of a leach field trench which you have shown on the Plan Sheet shows 24 inches of gravel. Is this to be total gravel depth or depth under the leach pipe? Please clarify this detail.

8. The leach field must be protected from traffic, parking, or storage. Please show how this is to be done.

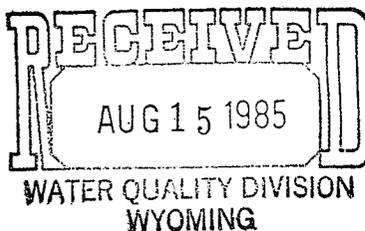
9. Federal regulations require that the fuel storage tanks be protected by a Spill Prevention Control and Countermeasures Plan (SPCC). A likely plan for your facilities would require an impervious soil base and dikes around the tanks. The dikes must be able to contain at least the volume of the largest tank.

Please contact either the EPA in Denver (303-236-5060) and speak with Marty Byrne or this office for further details.

Please contact either Ed Baruth or me if you have any questions.



THE STATE OF WYOMING



*Ed Herschler*  
*Lincoln*

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*

*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

July 25, 1985

Tri-County Ready Mix  
P.O. Box 233  
LaBarge, WY 83123

RE: Application to Permit #85-165

Dear Sir:

The purpose of this letter is to verify that you are withdrawing your application for a "Permit to Construct." Should you desire to construct this facility in the future an application for a "Permit to Construct" must again be submitted.

Please be advised that construction of the proposed facility without a "Permit to Construct" or unauthorized discharge of any wastewater which will pollute or threaten to pollute any waters of the State is in violation of the Water Quality Act. Such a violation is punishable by a fine up to \$10,000 per day during which the violation continues.

If you have any questions or if I can be of any assistance do not hesitate to contact me.

Sincerely,

*Steven P. Gerber*

Steven P. Gerber, P.E.  
Northwest District Supervisor

SPG/jw  
copy: Files (2)

REVIEW OF PLANS AND SPECIFICATIONS

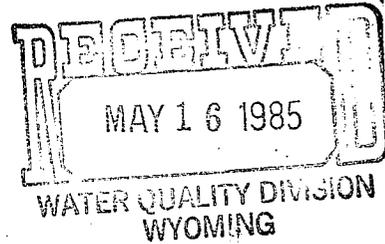
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Ready Mix Truck Wash Out

ENGINEER: Keith E. McNinch  
P.O. Box 633  
Big Piney, WY 83113

OWNER: Tri-Co. Ready Mix  
P.O. Box 233  
LaBarge, WY 83123



WATER QUALITY DIVISION REFERENCE NUMBER: 85-165

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

DATE OF REVIEW: May 13, 1985

ACTION: Not authorized.

COMMENTS:

An initial review of the plans and specifications has been completed. The following items are required to establish the potential for ground-water contamination.

1. Provide the depth from grade to the seasonally high groundwater table.
2. Perform a permeability test and submit the results. The test must be run where the pond is to be constructed and at a depth equal to the pond bottom.
3. Submit data on all of the wells within a  $\frac{1}{4}$  mile radius of the pond.
4. Based on the location of the site it would appear that a permeable gravel layer would underly the silty clay layer. Establish the thickness of the silty clay layer.

AC

5-23

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 85-166RR  
MA 14542

Waltman Rest Area  
(Name of Facility)

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

Wyoming Highway Department  
P.O. Box 1708  
Cheyenne, WY 82001-9019

to construct, install, or modify a evaporation/containment pond for

R.O. brine, drink fountain, and lavatory wastewater

facility according to the procedures and conditions of the

application No. 85-166RR. The facility is located in

Sec. 23, T36N, R87W

in the County of Natrona,

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

years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

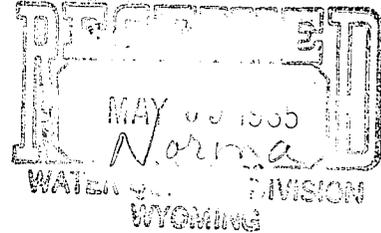
REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Waltman Rest Area

ENGINEER: Patterson, Weber & Associates  
437 South Spruce  
Casper, WY 82601



OWNER: Wyoming Highway Department  
P.O. Box 1708  
Cheyenne, WY 82001-9019

WATER QUALITY DIVISION REFERENCE NUMBER: 85-166R

REVIEWING EVALUATOR: Jeff Hermansky

DATE OF REVIEW: May 7, 1985

ACTION: Not authorized.

COMMENTS:

Your recent letter addressed most of the comments listed in my April 12, 1985 review letter. However, questions and comments 5, 6, 7, 8, 9 and 10 must be answered by including the necessary changes on the contract documents.

Please record the changes as required and resubmit 3 copies of all sheets that have been revised.

AC

REVIEW OF PLANS AND SPECIFICATIONS

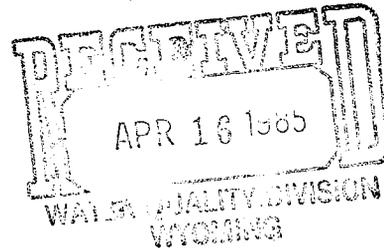
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Waltman Rest Area

ENGINEER: Patterson, Weber & Associates  
437 South Spruce  
Casper, WY 82601

OWNER: Wyoming Highway Department  
P.O. Box 1708  
Cheyenne, WY 82001-9019



WATER QUALITY DIVISION REFERENCE NUMBER: 85-166

REVIEWING EVALUATOR: Jeff Hermansky

DATE OF REVIEW: April 12, 1985

ACTION: Not authorized.

COMMENTS:

A review of the wastewater treatment facilities for the proposed Waltman Rest Area has been completed by this office. The following questions and comments must be addressed before a "Permit to Construct" can be issued:

1. All plans and specifications must be signed by a professional engineer licensed in Wyoming.
2. How were the design flows determined? Do you have water use data from similar rest area installations? Can such data be correlated based upon traffic count?
3. All wastewater disposal ponds except high-rate infiltration ponds, must be designed with a minimum water depth of at least 2 feet. The minimum water depth helps to prevent weed growth in the pond bottom, discourage mosquito breeding by the wave action, and the depth helps to control any possible odors. The minimum depth must also be maintained during start-up.

Please re-evaluate the pond design with consideration for this requirement.

4. A minimum freeboard of two feet shall be provided between the lowest embankment berm and the maximum water level. The maximum water level shall not be less than five feet.

ABC

April 12, 1985  
Review of Plans & Specs.  
Ref. No. 85-166  
Page Two

5. The sewer line from the restroom building to the evaporation pond must be at least 4 inch minimum diameter.

6. Please show the slope of the sewer line and station the cleanout locations.

7. What material is proposed of the sewer line?

8. There must be a cleanout wye installed just prior to the entrance of the sewer pipe into the pond and it must be located on the dike or as close to the dike as topography permits. The invert of the pipe at the cleanout should be at least 6 inches above the maximum operating level of the pond.

9. The plans show a 6" clay liner on the bottom and inner dikes of the pond (section E-E) yet there are no specifications on the liner material or installation.

10. Since the pond construction will include the cut of sand and claystone to be used in dike construction, the specifications should clearly state the breaking of lumps and clods and acceptable maximum size of fill material.

11. The proposed water system is considered a public water supply system by the U.S. Environmental Protection Agency. Therefore, the supply must be monitored. Please contact Marc Alston of the EPA in Denver for information regarding monitoring (303-837-2731).

12. Please supply design and installation information for the Clivus-Mulstrom toilets.

Feel free to contact either Ed Baruth or me if you have any questions.

copy: Paul O'Leary

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-167R

MA 14542

MCI Cherokee Peak Wyoming Site  
(Name of Facility)

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

Mr. Donald Barnwell

MCI Telecommunications, Inc.

400 International Parkway

Richardson, TX 75081

to construct, install, or modify a small wastewater septic system facility according to the procedures and conditions of the application No. 85-167R. The facility is located in Section 10, T21N, R88W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

Review of Plans and Specifications

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

PROJECT: M.C.I. Cherokee Peak Wyoming Site, Carbon Co.

ARCHITECT OR ENGINEER: Bruce A. Walker, Merrick & Company  
P.O. Box 22026, Denver, CO 80222

APPLICANT: MCI Telecommunications, ATTN: Donald Barnwell  
400 International Parkway, Richardson, TX 75081

WATER QUALITY DIVISION REFERENCE NUMBER: 85-167

REVIEWING ENGINEER: LeRoy C. Feusner, P.E. *[Signature]*

DATE OF REVIEW: April 11, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Provide a site detail drawing (3 copies) of the septic tank/leach field design, indicating all required distances and other design data as required by the attached small wastewater package forms. The plan sheet in this package may be used for the detail drawing of this system. Indicate the location of a future leach field replacement area.
2. Absorption field calculations require modification. Sizing of trenches is based upon percolation rate, trench dimensions, and depth of gravel pack beneath leach field pipe. See example in small wastewater package.
3. Plan sheet drawing must carry the seal or signature of a professional engineer licensed in Wyoming.
4. Are kitchen facilities to be included at the site? If so, an appropriate increase in wastewater generation rates is required.



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

November 5, 1985

Jerry Miller  
City of Rawlins  
P.O. Box 953  
Rawlins, WY 82301

Dear Mr. Miller:

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:	City of Rawlins Standard Specifications
DEQ/WQD Reference Number:	85-168
Engineering Consultant:	Jerry Miller
DEQ/WQD Reviewing Engineer:	Thomas S. Norman
Date of DEQ/WQD Review:	April 5, 1985

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

Please indicate below the status of your application and return this form to our office:

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

You are reminded that the construction, installation, or modification of any sewerage system, treatment works, disposal system, or other facility capable of causing or contributing to pollution, or public water supply system without a Permit to Construct is a violation of Wyoming State Statutes. Unless the Water Quality Division reviewing engineer receives this information within 15 days of the receipt of this letter, follow-up action will be taken.

Sincerely,

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

Thomas S. Norman  
Water Quality Engineer  
Water Quality Division

TSN/nc



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

July 16, 1986

Jerry Miller  
City of Rawlins  
P O Box 953  
Rawlins, WY 82301

RE: City of Rawlins Standard Specifications, WQD No. 85-168

Dear Mr. Miller:

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

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

Sincerely,

A handwritten signature in cursive script that reads "William L. Garland".

William L. Garland  
Administrator

WLG/TSN/pjb

Review of Plans and Specifications

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

PROJECT: City of Rawlins Standard Specifications, Carbon Co.

ARCHITECT OR ENGINEER: Jerry Miller  
P.O. Box 953, Rawlins, WY 82301

APPLICANT: City of Rawlins  
P.O. Box 953, Rawlins, WY 82301

WATER QUALITY DIVISION REFERENCE NUMBER: 85-168

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

DATE OF REVIEW: April 5, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. An application form is necessary (enclosed).
2. The water and sewer sections that are included are directly from the 1979 Public Works Standard Specifications. These have been revised in 1984 and I suggest that you adopt or incorporate the new standard specifications into your standard specifications. The 1979 set is no longer an acceptable reference. When you resubmit the 1984 standard specifications, please identify any changes you make.

Just as a suggestion, many towns just reference the 1984 Wyoming Public Works Standard Specifications and any particular changes the town wants are just put into an addendum. This not only saves paper, but provides consistency in the state and also allows contractors to readily identify any changes that are particular for the town.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-169R  
 MA 14542

1985 Rawlins Sewer Main Replacement  
 (Name of Facility)

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

City of Rawlins

P.O. Box 953

Rawlins, WY 82301

to construct, install, or modify a municipal wastewater collection facility according to the procedures and conditions of the application No. 85-169R. The facility is located in Section 17 and 18, T21N, R87W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

4-10-85

Review of Plans and Specifications

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

PROJECT: Rawlins 1985 Sewer Improvements, Carbon Co.

ARCHITECT OR ENGINEER: Jerry Miller  
P.O. Box 953, Rawlins, WY 82301

APPLICANT: City of Rawlins  
P.O. Box 953, Rawlins, WY 82301

WATER QUALITY DIVISION REFERENCE NUMBER: 85-169

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

DATE OF REVIEW: April 5, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

- 1. An application form is required (enclosed).
- 2. The locations of water line crossings are not shown on the sewer profiles.
- 3. Elm Street

Why is the effluent elevation in MH#3 higher than the inlet? Why isn't the slope uniform from existing MH-B to MH-A?

- 4. Front Street

It is confusing as to what is being accomplished without some explanation. There are lots of sanitary sewers shown and no directions as to flow. Some justification is necessary as to whether a 10-inch sewer is adequate.

Near manhole #1, it looks like the V.C.P. is connected to a 4-inch water pipe.

- 5. Due to your request for a quick review, the specifications you submitted will be acceptable. Future submittals should include the 1984 Wyoming Public Works Standard Specifications as stated in our reply to your standard set of specifications (application #85-168).

The one exception is that this project did not have a section on the minimum separation for water and sewer mains.

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-170  
SEE CONDITIONS ON BACK

MA 14542

Jirdon Wyoming Calf Feeding Facility  
(Name of Facility)

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

Mr. Donald Steen

Jirdon Wyoming Livestock Company

P.O. Box 456

Morrill, NE 69358

to construct, install, or modify a groundwater monitoring well system facility according to the procedures and conditions of the application No. 85-170. The facility is located in Section 19, T24N, R60W in the County of Goshen, in the State of Wyoming. This permit shall be effective for a period of five (5) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

WATER QUALITY DIVISION  
GROUNDWATER SECTION  
PERMIT APPLICATION REVIEW

APPLICATION NUMBER 85-170

DATE SUBMITTED FOR REVIEW 4/8/85

NAME AND LOCATION OF FACILITY Jirdon calf feeding area  
(feed lot)  
Torrington area

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

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

Comments attached.

SIGNED ajm

TITLE \_\_\_\_\_

DATE 4/12/85

ACCEPTED FOR RECORD ajm  
(Date)

4/12/85  
Groundwater Control Supervisor

MEMORANDUM

TO: LeRoy Feusner  
FROM: *ajm* A. J. Mancini  
DATE: April 12, 1985  
SUBJECT: Comments on Jirdon Proposal for Calf Feeding Area Near Torrington,  
#85-170

The subject proposal includes three monitor wells. Based on previously obtained information, monitoring this facility for potential impacts to groundwater does not seem very practical, due to topography and drainage, and site location on the "up" side of an irrigation canal.

Monitoring might be helpful in determining whether or not infiltration from the proposed facility could mask an impact due to infiltration in the land application area, on the east (northeast) side of the irrigation canal passing by the originally permitted feed lot area. In this case, one monitor well on the "up" side of the canal, between the proposed facility and the land application area probably would be sufficient. This presumes that neither topography nor depth to groundwater would preclude the installation of an effective monitor well.

4-12-85



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 11, 1985

Mr. Paul A. Rechar, P.E. & L.S.  
Western Water Consultants, Inc.  
P.O. Box 4128  
Laramie, WY 82071

RE: Permit Application #85-171, City of Laramie, Solid Waste Disposal  
Facility Monitoring Wells

Dear Mr. Rechar:

The permits related to a monitor program and operation of the facility are being handled by Solid Waste Management. Therefore, the Water Quality Division will not issue permits for monitor wells at this site. However, since the Water Quality Division maintains an interest in the project and makes recommendations to Solid Waste Management, the continued submittal of reports to the Water Quality Division on groundwater work is appreciated. Well construction should be implemented according to the Department of Environmental Quality, Water Quality Division's Chapter XI Rules and Regulations.

Sincerely,

Phil Pucel  
Groundwater Engineering Evaluator

PP/nc

*2 copies returned  
1 copy kept for groundwater file*

*nr*



REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Greenbelt Irrigation Project - 10% Transmission Line

ENGINEER: Johnson, Fermelia and Crank Consulting Engineers  
1515 9th Street  
Rock Springs, WY 82901  
ATTN: Leon Kjellgren

OWNER: City of Rock Springs  
P.O. Box 1030  
Rock Springs, WY 82901

WATER QUALITY DIVISION REFERENCE NUMBER: 85-172

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

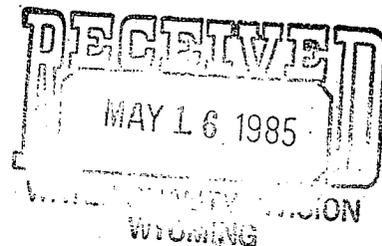
DATE OF REVIEW: May 13, 1985

ACTION: Not authorized.

COMMENTS:

An initial review of the plans and specifications has been completed. The following items need to be addressed and/or resolved.

1. The specifications must be stamped and signed by the Engineer.
2. Provide a cross section detail of the pipe bedding.
3. The method described in article 301.07,A,(2),(b) is not allowed by the Wyoming Water Quality Regulations for reducing the required separation between a water and sewer line. If the minimum 1.5 feet vertical separation cannot be maintained the sewer line must be placed in a separate conduit.
4. The following items need to be revised in article 301.07,B,(2):
  - a. Sub-article (a) must be revised to state that the casing pipe must be placed around the sewer pipe only.
  - b. Sub-article (b),(2) is not acceptable. Joints in sewers at crossings shall be located at least ten feet from water mains at all crossings or the sewer shall be placed in a separate conduit pipe.
5. Explain the purpose of the flushing lines. These lines will not be allowed to discharge as indicated unless the discharge permit for the WWTP is modified to include these points. This will mean that the discharges must be sampled and conform to the permit requirements. We would suggest that if these flushing lines are necessary that the possibility of connecting them to the sanitary sewer be investigated.



*AC*

May 13, 1985  
Review of Plans & Specs.  
Ref. No. 85-172  
Page Two

Please submit your response to the above comments in triplicate. If you have any questions do not hesitate to contact me.

SG/jw .

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-173R  
 SEE CONDITIONS ON BACK  
 MA 14542

Tullis Fencing Club  
 (Name of Facility)

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

Scott Tullis

5001 Griffith

Cheyenne, WY 82009

to construct, install, or modify a wastewater holding tank for fencing club facility according to the procedures and conditions of the application No. 85-173R. The facility is located in 4702 Wright Court, Lot 7, Sunlight Subdivision, Section 27, T14N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

Review of Plans and Specifications

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

PROJECT:

ARCHITECT OR ENGINEER: Dan A. Glandt  
929 McGovern, Cheyenne, WY 82001

APPLICANT: Scott Tullis  
5001 Griffith, Cheyenne, WY 82009

WATER QUALITY DIVISION REFERENCE NUMBER: 85-173

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

DATE OF REVIEW: April 8, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Because your facility is within the Cheyenne "201" wastewater planning and management area, you will need to obtain an exemption from the City/County Planning Office (Jon Arason), phone number 637-6280. This exemption allows you not to connect to the regional wastewater plant. The Department of Environmental Quality, Water Quality Division, cannot issue a permit until the exemption is obtained.
2. The plans must be signed/sealed by a Wyoming registered engineer; the application form is not adequate.
3. The basis for sizing the holding tank is not supported. We need to know how many people will be using the holding tank, how often they will be there, and what type of facility this is.
4. More information is necessary on the holding tank (i.e. type of material, dimensions, manufacturer, vents access, pump out, etc.).
5. More information is necessary on the alarm as to what depth it will be placed at and where the alarm is located.
6. Where will you haul the wastes? A letter of acceptance from the receiving agency saying that they will receive and treat your wastes.
7. Please explain how you will abandon the old septic tank and drainfield.
8. Attached is a copy of our regulations. Please refer to Section 43 on holding tanks.

Enclosure

5-29-85

PERMIT TO CONSTRUCT

Permit No. 85-174RR

MA 14542

- New
- Renewal
- Modified

1985 Rawlins Water Main Improvements  
(Name of Facility)

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

City of Rawlins

P.O. Box 953

Rawlins, WY 82301

to construct, install, or modify a public water distribution facility according to the procedures and conditions of the application No. 85-174RR. The facility is located in Section 20 and 21, T21N, R87W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

Review of Plans and Specifications

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

PROJECT: Rawlins 1985 Water Improvements, Carbon Co.

ARCHITECT OR ENGINEER: Jerry Miller, City of Rawlins  
P.O. Box 953, Rawlins, WY 82301

APPLICANT: City of Rawlins  
P.O. Box 953, Rawlins, WY 82301

WATER QUALITY DIVISION REFERENCE NUMBER: 85-174R

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

DATE OF REVIEW: May 2, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. Profiles or grade and invert elevation are required on the water lines. This is necessary to evaluate whether adequate cover is being provided and also if air release valves are required.
2. Details of sewer crossings are necessary to assure that minimum separations are met. If the minimum separation cannot be met, the plans must address that special construction is required. If these conditions are not shown on the plans, the contractor will not install the special construction.

TSN/nc

Review of Plans and Specifications

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

PROJECT: Rawlins 1985 Water Improvements, Carbon Co.

ARCHITECT OR ENGINEER: Jerry Miller  
P.O. Box 953, Rawlins, WY 82301

APPLICANT: City of Rawlins  
P.O. Box 953, Rawlins, WY 82301

WATER QUALITY DIVISION REFERENCE NUMBER: 85-174

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

DATE OF REVIEW: April 5, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. An application form is required (enclosed).
2. Only one set of the water improvements was submitted (three of the wastewater were received). Another copy is required.
3. Washington to Jefferson:
  - a. Profiles or grade and invert elevations are required on the water line.
  - b. Details of sewer crossings must be shown.
  - c. Is the existing 6-inch water line being abandoned? If so, why? The details should specify the old water main to be cut, plugged, and abandoned.
4. Bennett to Pershing:
  - a. Profiles or grade and invert elevations are required on the water line.
  - b. Details of sewer crossings must be shown.
  - c. Is the existing 4-inch water line being abandoned? If so, the details should identify the pipe as being cut, plugged, and abandoned.

If this line is being abandoned, what will happen to the 4" water main connections at Perry and Jackson Street? Where do these lines go?

The service connections and water main at Perry Street are shown connected to the gas main.

5. Specifications:

- a. Section 301, item 3 on page 10 of 17, describes items that are to be identified by the engineer. These items were not identified.
- b. Section 301, item 2 on page 6 of 17; the leakage formula is not the same as that required in AWWA Standard C601 and the 1984 Wyoming Public Works Specifications.
- c. Section 301.08 on page 16 of 17 describes the separation of water mains and sewers. This is not in agreement with the 1984 Public Works Specifications nor does it meet the Division's requirements.
- d. Due to your request for a quick review, the specifications you submitted will be acceptable if the above changes are made. Future submittals should include the 1984 Wyoming Public Works Standard Specifications as stated in our reply to your standard set of specifications (application #85-168).

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-175  
 \*Condition on Permit\*  
MA 14542

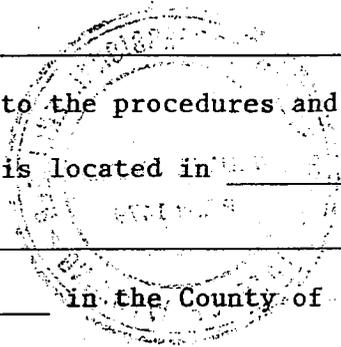
Town of Basin  
Flow Measuring Manhole for Sewage Lagoon Effluent  
 (Name of Facility)

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

Town of Basin  
Box 599  
Basin, WY 82410

to construct, install, or modify a parshal flume and flow measuring manhole for  
sewage lagoon effluent

\_\_\_\_\_ facility according to the procedures and conditions of the  
 application No. 85-175. The facility is located in  
Sec. 16, T51N, R93W



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

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

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

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

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



THE STATE OF WYOMING

85-176  
MA 14542

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*

*Water Quality Division*

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

April 23, 1985

City of Riverton  
ATTN: Bradley Nelson  
P.O. Box 1700  
Riverton, WY 82501

RE: Riverton Standard Specifications, 85-176R

Dear Bradley:

This office has completed a review of the City of Riverton Standard Specifications as amended for 1985.

The specifications meet the intent of the applicable Water Quality Division regulations and are therefore authorized for use.

Thank you for your cooperation during the review process.

Sincerely,

Jeff Hermansky  
Water Quality Evaluator

JH/jw  
copy: File

MEMORANDUM

TO: Plans, 85-176  
FROM: Jeff Hermansky *Jeff*  
SUBJECT: Phone review for Riverton Standard Specifications  
DATE: April 18, 1985

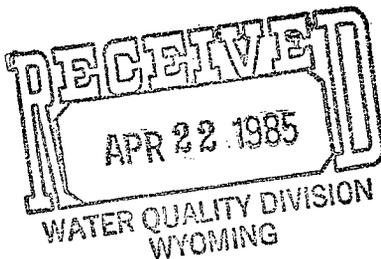
On April 17 and 18, 1985 I spoke with Bradley Nelson, the Riverton City Engineer, to review the proposed 1985 City of Riverton Standard Specifications.

I made the following comments to Bradley:

1. An Application form must be submitted.
2. Bradley said the only change in the specifications from the 1984 specifications that were authorized as permit no. 84-30R, was in the water and sewer crossing section.

The specifications proposed "specially supported" upper pipe at crossings or "sewer main is in conduit" where the sewer is above the water main or less than 18" vertically below.

I told Bradley that although his statements are correct, they are presented more as a regulation than a specification. I asked Bradley to clearly state how pipes are to be specially supported and how and with what material the sewer would be placed in a conduit.



AC



PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-179R  
 SEE CONDITION ON BACK  
 MA 14542

Golf Course Maintenance Facility  
 (Name of Facility)

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

Jordon Holland

90 CES/DEE

F.E. Warren AFB, WY 82005

to construct, install, or modify a small septic tank/leach field wastewater disposal facility according to the procedures and conditions of the application No. 85-179R.

The facility is located in Section 23, T14N, R67W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

August 26, 1985

Base Civil Engineer  
90 CSG/DE  
F.E. Warren AFB, WY 82005

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:	Warren AFB Golf Course Maintenance Facility, Septic System and Sediment Trench
DEQ/WQD Reference Number:	85-179
Engineering Consultant:	J. Holland, Civil Engineering Section, F.E. Warren AFB
DEQ/WQD Reviewing Engineer:	LeRoy C. Feusner, P.E.
Date of DEQ/WQD Review:	May 7, 1985

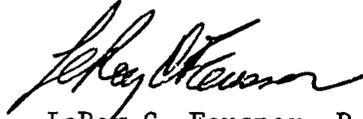
According to Chapter III of the Water Quality Rules and Regulations, Section 7 b. (2), "If an application is denied because of incompleteness necessitating a request for additional information, the applicant shall have a maximum of six months to comply with the request. If the applicant fails to provide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

Please indicate below the status of your application and return this form to our office:

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

You are reminded that the construction, installation, or modification of any sewerage system, treatment works, disposal system, or other facility capable of causing or contributing to pollution, or public water supply system without a Permit to Construct is a violation of Wyoming State Statutes. Unless the Water Quality Division reviewing engineer receives this information within 15 days of the receipt of this letter, follow-up action will be taken.

Sincerely,



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

LCF/nc

cc: J. Holland  
Civil Engineering Section  
F.E. Warren AFB, WY 82005

5-9-85

Review of Plans and Specifications

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

PROJECT: Golf Course Maintenance Facility, Laramie Co.

ARCHITECT OR ENGINEER: J. Holland, 90 CSG/DEE  
F.E. Warren AFB, WY 82005-5000

APPLICANT: Same

WATER QUALITY DIVISION REFERENCE NUMBER: 85-179

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

DATE OF REVIEW: May 7, 1985

ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The plans must carry the seal or signature of a professional engineer licensed in Wyoming.
2. Since wastewater treatment systems are being proposed within the existing boundary of the Cheyenne 201 Wastewater Planning Area and because the treatment systems are not being connected to existing sewer systems, an exemption must be obtained for these treatment systems from the Planning Boundary manager, the City Planning Office (Jon Erickson). This exemption must explain in detail the reasons for not connecting to any sewer system and must be endorsed by the City of Cheyenne.
3. What is the actual depth to groundwater and direction of groundwater movement at the proposed leach field site?
4. Provide an accurate characterization, including pH and chemical quality, of the aircraft cleaning soap/water solution to be used at the vehicle washing facility. If the wastewater is classified as, or determined to be hazardous and/or toxic and/or contain petroleum products, the applicant shall demonstrate to the administrator that any seepage from the wastewater treatment facility will not cause a violation to groundwaters of the State in accordance with Chapter VIII, Quality Standards for Wyoming Groundwaters. Pretreatment of the wastewater to remove any hazardous and/or toxic substances and/or petroleum shall be required prior to disposal if deemed necessary to protect groundwater.
5. Where will removed oil, grease, silt from the oil separator be disposed? Have local officials approved this disposal action at any of their facilities?
6. What kind preventive coating will be applied to seal the oil separator structure?
7. A six inch septic tank pump out pipe is recommended, rather than a four inch pipe.

8. What is the soil percolation rate at the leach field locations? Leach field design cannot be adequately designed or evaluated without percolation rates.
9. What is the amount of wastewater generated per day in the facility which will be disposed into the septic tank/leach field system?
10. Why not combine the two effluent streams for disposal into one leach field, depending upon the information supplied in review comment 4 above?

LCF/nc

4-25-85



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

Department of Environmental Quality

Water Quality Division

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: LeRoy Feusner

FROM: *ajm* A. J. Mancini

DATE: April 24, 1985

SUBJECT: Comments on permit application for waste disposal facility at F.E. Warren AFB, #85-179 (Golf Course Maintenance Facility)

I have noted that the drainfield pipes are to be a minimum of four feet above the high water table, but we haven't been told anything about existing groundwater. We do not know the characteristics of the waste which will result from using Aircraft Detergent to remove "grit and grime" from equipment.

We should request an accurate waste characterization, including pH, and information on depth to groundwater and direction of movement (in case monitor wells would be required). If the waste characteristics become a concern, we probably will want characterization of the natural shallow groundwater.

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 85-180

MA 14542

Saratoga Wastewater Improvements  
(Name of Facility)

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

Town of Saratoga

P.O. Box 486

Saratoga, WY 82331

to construct, install, or modify a municipal wastewater collection system facility according to the procedures and conditions of the application No. 85-180. The facility is located in Section 11, 12, T17N, R84W in the County of Carbon, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

PERMIT TO CONSTRUCT

New  
 Renewal  
 Modified

Permit No. 85-181R  
MA 14542

Wyoming Downs Water System  
(Name of Facility)

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

Wyoming Downs Limited Partnership  
808 Main Street  
Evanston, WY 82930

to construct, install, or modify a water supply, storage, and distribution  
system for racetrack and camper park

facility according to the procedures and conditions of the  
application No. 85-181R. The facility is located in

Sec. 2, T16N, R121W  
in the County of Uinta,

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

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

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

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

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

REVIEW OF PLANS AND SPECIFICATIONS

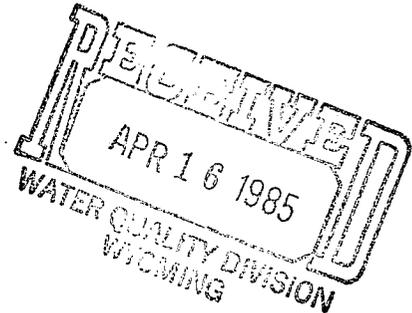
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Wyoming Downs Water System

ENGINEER: Uinta Engineering & Surveying, Inc.  
ATTN: Kenneth Walker  
P.O. Box 746  
Evanston, WY 82930

OWNER: Wyoming Downs  
P.O. Box 746  
Evanston, WY 82930



WATER QUALITY DIVISION REFERENCE NUMBER: 85-181

REVIEWING EVALUATOR: Jeff Hermansky

DATE OF REVIEW: April 11, 1985

ACTION: Not authorized.

COMMENTS:

Our review of the proposed Wyoming Downs Water System has been completed. The following questions and comments need to be addressed before a "Permit to Construct" can be issued:

1. Neither the plans nor specifications clearly indicate that the fire hydrant leads be at least 6" in diameter. I would suggest showing the fire hydrant tees and valves just as you have done for other appurtances in the system.

2. How is the water line to be terminated at the Grandstand?

3. The water service detail on sheet 2 of 3 shows the water main with a 5' minimum depth of bury while the specifications call for 6' minimum bury. Please correct the detail.

4. The 6" overflow pipe from the storage tank must have a splash pad.

5. What is the distance from the wells to the nearest sewer line and wastewater disposal facility?

6. The Wyoming Public Works Standard Specifications do not address well construction. Therefore, please address at least the following items relating to well construction:

a. A yield and drawdown test must be performed on each well. The test pump capacity, at maximum anticipated drawdown, shall be at least 1.5 times the design rate. The test shall provide for continuous pumping for at least 24 hours or until stabilized drawdown has continued for at least 6 hours when test pumped at 1.5 times the design pumping rate.

Please forward the test results to this office.

b. Each well must be tested for plumbness and alignment in accordance with AWWA A-100. The test method and allowable tolerance must be stated in the specifications.

c. Please include specifications on the well screen, gravel pack, and grout.

d. The well casing material must be specified.

e. How were or are the wells to be developed?

f. The electrical cable to the submersible pump must be firmly attached to the riser pipe at 20 foot intervals or less.

g. Include specifications for well disinfection. All well specifications must be in accordance with AWWA A-100.

7. After the wells are developed and disinfected, samples must be tested for the primary drinking water parameters. Please forward these test results to this office and the EPA, Drinking Water Section in Denver.

8. Please supply information and specifications on the booster pump for the Grandstand sprinkler system.

I would also like to repeat the items we discussed regarding the water storage tank during our April 10, 1985 phone conversation:

1. I requested the storage tank base design and details. The soils report for the tank site must be included.

2. The tank vent must be screened with a minimum #24 mesh screen.

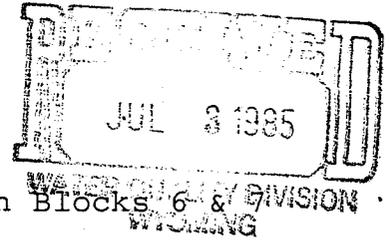
Please feel free to contact either Jack Bedessem or me if you have any questions.



REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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



PROJECT: Marbleton Sewer Line Extension in Blocks 6 & 7 DIVISION WYOMING

ENGINEER: Keith McNinch  
P.O. Box 633  
Big Piney, WY 83113

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

WATER QUALITY DIVISION REFERENCE NUMBER: 85-182R

REVIEWING EVALUATOR: Jeff Hermansky

DATE OF REVIEW: June 28, 1985

ACTION: Not authorized.

COMMENTS:

Thank you for your response to my May 19, 1985 phone review of the proposed sewer line extension in Blocks 6 and 7 in the Town of Marbleton.

In your response you noted that the Town of Marbleton "has been using fiberglass manholes for four or five years; they can be used in streets under traffic; and when backfilling, no large rocks are allowed near the manhole." Although this information is surely more than we had before, it is not the necessary design, material, and installation specifications and information that is required before we can permit the installation of fiberglass manholes.

I checked with other past and present DEQ engineers and found that no one has authorized fiberglass manholes. However, I did find a couple of cases where fiberglass manholes were installed without authorization. Specifically, fiberglass manholes were installed in Marbleton's Ball Second Addition in 1980.

The engineer involved requested information on the fiberglass manholes installed and received the enclosed information for Armco fiberglass reinforced plastic (FRP) manholes. Our engineer apparently accepted the "as built" construction at this time. However, I have no indication that fiberglass manholes were given "blanket" approval. Furthermore, the Wyoming Public Works Standard Specifications and Chapter XI of the DEQ regulations only specify concrete manholes.

Review of Plans & Specs.

Ref. No. 85-182R

Page Two

If fiberglass manholes are to be used for any project, they must be reviewed thoroughly as a new product. It must be proven that the product can satisfactorily perform for the intended use. Manholes must be water tight, provide safe and adequate access, be structurally sound under the maximum possible load conditions, and be durable.

Since fiberglass manholes are apparently very dependent upon proper installation procedure if they are to meet the necessary performance standards, a very thorough and complete set of installation specifications must be included with any application.

I believe you may be able to get information about fiberglass manholes from Wyoming Waterworks Sales in Casper.

Please feel free to contact me if you have any questions.

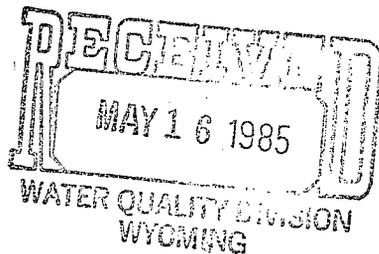
JH/jw

MEMORANDUM

TO: Plans, 85-182  
FROM: Jeff Hermansky *JH*  
SUBJECT: Phone Review  
DATED: May 13, 1985

On May 9, 1985 I conducted a phone review of Marbleton's sewer line extension in Blocks 6 & 7, with Keith McNinch. I made the following comments:

1. Using "Marbleton's practices" as a construction specification is unacceptable since the DEQ has not authorized these practices. Please remove this reference from the notes.
2. Clearly specify the type of sewer pipe to be used for the sewer lines, i.e., ASTM D3034.
3. Submit material, sizing and installation specifications for the fiberglass manholes.



Ac

DEPARTMENT OF ENVIRONMENTAL QUALITY

STATE OF WYOMING

GROUNDWATER POLLUTION CONTROL PERMIT  
AUTHORIZATION TO DISCHARGE INTO UNDERGROUND RECEIVERS  
(Permit to Inject)

(X ) New

Permit Number:

( ) Modified

GPC 85-183  
UIC Class V

MA 14542

In compliance with the Wyoming Environmental Quality Act (W.S. 35-11-101 through 1104, specifically 301(a)(i) through (iv), Laws 1973, Ch. 250, Section 1) and Water Quality Rules and Regulations Chapter IX (September 4, 1980),

Northern Improvement Company  
ATTN: Mr. Virgil Hardy  
Box 2846  
Fargo, ND 58108

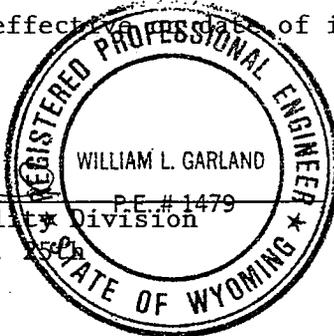
is authorized to operate

Injection wells for the purpose of backfilling of abandoned underground mine voids in the City of Rock Springs, Sweetwater County, Wyoming

according to procedures and conditions of the application GPC 85-183 and requirements and other conditions of this permit.

This permit shall become effective on the date of issuance.

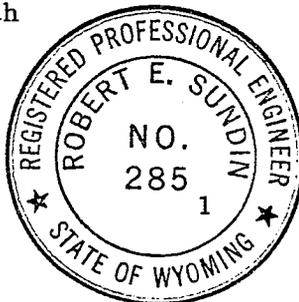
*William L. Garland*  
Administrator - Water Quality Division  
Herschler Building, 122 W. 25th  
Cheyenne, WY 82002  
Phone: (307) 777-7781



*April 18, 1985*  
Date

*Robert E. Sundin*

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



*April 19, 1985*  
Date

A. Discharge (Injection) Zone and Area of Review

Injection is authorized into mine voids in the Rock Springs Formation of the Mesaverde Group through open injection wells (60-185 feet deep depending on surface topography). Injection of the backfill slurry into any other formation is prohibited.

This permit does not authorize the discharge of any waste into the wells, or slurry to the surface, in violation of any other issued or required permit.

The area of review encompasses Sections 26, 35 and 36 in T19N, R105W and Sections 1 and 2, T18N, R105W, in Sweetwater County.

B. Groundwater Classification

Groundwater in the injection zone is Class IV. This classification is based on a water quality analysis submitted with the application under the state classification system contained in Water Quality Rules and Regulations, Chapter VIII.

C. Authorized Operations

The permittee is authorized to inject a slurry mixture of recycled Rock Springs Formation water from the same mine void and clean sand into the flooded and dry coal mine voids within the area of review in the Rock Springs Formation. Injection will be through open well casing with no perforations with the well completed in the Rock Springs Formation mine voids.

The proposed injection rate is anticipated to be 406 tons per hour and at least 5,684 tons per day with an overall approximated 1,269,383 tons of solids being introduced as backfill material.

Injection pressures entering the mine voids will be less than atmospheric due to the sudden drop into the mine, however, injection pressure will be monitored so that when positive pressure begins to build the slurry will be transferred to a new injection hole. This should preclude excessive positive pressure buildup and eliminate the potential for fracturing.

No other use for or by the injection wells is authorized by this permit.

Permittee shall notify the Administrator or his representative 48 hours before injection is to start and shall provide written notification within seven (7) days after injection commences of the date and time of commencement.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit.

D. Proper Operation and Maintenance

The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the Administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge (injection) authorized by permit shall be consistent with the conditions and content of the permit; any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.

E. Entry and Inspection

The permittee shall allow the Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

F. Environmental Monitoring Program for Groundwaters of the State

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least three (3) years after closure of the facility.
3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The name(s) of individual(s) who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. Names of individuals who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
4. The prescribed program for this permitted activity is as follows:

All known wells in the area will be monitored during the backfill operations to determine if any cross-contamination between aquifers and/or other formations is occurring. Specific formations of interest are the overlying Ericson Formation of the Mesaverde Group and the underlying Blair Formation of the Mesaverde Group. If monitoring indicates that cross-contamination has or is occurring, backfill operations will cease until remedial/corrective action has been determined. The Department of Environmental Quality, Water Quality Division, will be notified within 24 hours should this situation develop. Written notification shall follow within five (5) days, accompanied by a description of the approved corrective action plan.

G. Requirements for Monitoring the Discharge

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

Injection pressure shall be monitored continuously to determine when positive pressure buildup is occurring in the injected slurry.

Average and maximum daily injection rate (volume) shall be reported on a monthly basis. Accumulative injection volume shall be reported at the same time.

Note "Signatories Requirement" on page 9 of this permit.

All data shall be reported within thirty days after the end of the reporting period. Information shall be reported to:

Department of Environmental Quality  
Water Quality Division  
Groundwater Section  
Herschler Building, 4 West, 122 West 25th  
Cheyenne, WY 82002

Each report shall be accompanied by a completed Form GPC 7.

H. Test Procedures

Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.

I. Records and Reports

1. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the report or application.
2. The permittee shall give notice to the Administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
3. The permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
4. Monitoring results shall be reported at intervals specified elsewhere in the permit.
5. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
6. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:
  - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable Groundwater of the State.
  - b. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable Groundwaters of the State.

A written submission shall be provided within five (5) days of the time the permittee becomes aware of the circumstances. This written submission

shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 6. above.
8. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Administrator, it shall promptly submit such facts or information.
9. The permittee shall retain all records concerning the nature and composition of injected fluids until five (5) years after completion of any specified plugging and abandonment procedures. The Administrator may require the owner/operator to deliver the records to the Administrator at the conclusion of the retention period.
10. A subsurface discharge (injection) well may not commence subsurface discharge (injection) until, following public notice and an opportunity for hearing, a Groundwater Pollution Control Permit has been issued by the Department for the proposed operation, and:
  - a. Well construction is complete and the permittee has submitted notice of completion of construction to the Administrator, and
  - b. The Administrator has inspected or otherwise reviewed the subsurface discharge (injection) well and finds it in compliance with the conditions of the permit; or the permittee has not received notice from the Administrator of intent to inspect or otherwise review the facility within thirteen (13) days of the notice of a. above, in which case prior inspection or review is waived, and
  - c. Well mechanical integrity testing has been proven or demonstrated to the satisfaction of the Administrator.

Item I.10. is not applicable to this permit.

11. Annual reports shall be submitted to the Administrator within thirty (30) days following the anniversary date of the permit.
12. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the Administrator within thirty (30) days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

J. Permit Actions

After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:

1. Violation of the permit;
2. Obtaining a permit by misrepresentation or failure of the discharge well or system.

Each permit is reviewed at least once every five (5) years, and may be reviewed more frequently.

A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit is issued.

A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the Council.

This operation (permit) can be terminated by authority of the Administrator for one or more permit violations.

Public notice of the permit review and request for public comment will be made every ten (10) years by the Administrator.

Public notice prior to issuance of this permit is not required.

Existing regulations do not require public notice of the permit review and request for public comment every ten (10) years for this discharge.

K. Mechanical Integrity

Each discharge well and associated discharge facilities is required to have mechanical integrity which demonstrates the unimpaired condition of the well and facilities. The approved procedures for demonstrating the mechanical integrity for the well and facilities handling the discharge authorized by this permit consist of:

This section is not applicable for permit issuance for this discharge.

The operation (discharge) of any well or system will terminate immediately if mechanical integrity of the well or system fails and/or a leak or unauthorized fluid movement occurs. The discharge shall be discontinued until mechanical integrity has been restored and permission to continue the discharge has been obtained from the Administrator.

L. Abandonment

The permittee shall notify the Administrator at least 180 days before well abandonment. Immediately following the permanent cessation of subsurface discharge or related activity, or where a well has not been completed, the applicant/permittee shall notify the Director and follow the procedures prescribed by the Director for plugging and abandonment or the discontinuance of related activities:

The Water Quality Division requires at a minimum that the injection zone be permanently isolated from overlying and underlying aquifers; that interaquifer communication be permanently prohibited; and that the wells be permanently secured against the injection or disposal of anything after abandonment.

Specific standards for plugging and abandonment are covered in Water Quality Rules and Regulations, Chapter XI, Part G.

If scheduled permitted operations will not allow 180 day prior notice of proposed well(s) abandonment, permittee shall submit plan of abandonment as soon as practical and at least thirty (30) days prior to well(s) abandonment.

M. Duties of the Permittee

It is a duty of the permittee to:

1. Comply with all permit conditions;
2. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions;
3. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;
4. Furnish to the Administrator within a reasonable time, any information which the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit; and furnish to the Administrator, upon request, copies of records required to be kept by this permit.

N. Financial Responsibility

The permittee is required to maintain financial responsibility and resources in form approved by the Director, to close, plug and abandon the discharge operation in a manner prescribed by the Director.

Not applicable.

O. Special measures the Director finds necessary:

The operations authorized by this permit must commence within one year of permit issuance date or the permit is invalid.

P. Special permit conditions:

Pollution or waste which migrates into an aquifer containing a usable groundwater of the State is a violation of the permit.

Mechanical integrity -- operations terminate immediately if mechanical integrity of well or system fails and/or a leak or unauthorized fluid movement occurs.

Q. Signatories Requirement

All reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;

For a municipality, State, Federal or other public agency -- by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

1. The authorization is made in writing by one of the described principals;
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
3. The written authorization is submitted to the Administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the

information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

R. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification or planned changes or anticipated noncompliance, does not stay any permit condition.

S. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the Department Director.

T. Responsibilities

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

U. Property Rights

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

V. Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

4-22-85



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 18, 1985

Mr. Virgil Hardy  
Vice President  
Northern Improvement Company  
Box 2846  
Fargo, ND 58108

RE: Permit GPC 85-183, Backfilling of Abandoned Underground Mine Voids in  
Rock Springs, Sweetwater County, Wyoming

Dear Mr. Hardy:

Enclosed are two copies of permit GPC 85-183, authorization to commence injection of slurry related to the referenced project. Please note that you are expected to notify this office 48 hours before injection is to commence (see item C., Authorized Operations).

Also enclosed are a dozen copies of Form GPC 7. One copy of the form is to accompany each written report required by the permit. Additional copies of the form can be obtained from this office upon request. You may reproduce the form if you wish.

Note item L., Abandonment. We anticipate that you will submit an appropriate plan of abandonment as required. Item I. requires either an annual report or a termination report, submitted within 30 days following the anniversary date of the permit or termination of the project.

Contact this office if you have any questions concerning the permit or this letter.

Sincerely,

William L. Garland  
Administrator

WLG/AJM/nc  
Enclosures

Norma



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

September 19, 1985

Mr. Carroll Aamold  
Board of Public Utilities  
P.O. Box 1469  
Cheyenne, WY 82003

RE: City of Cheyenne, Wyoming, EPA Grant No. C560243-21, Plans and Specifications, Sunnyside-North Cheyenne, Wyoming Reference Numbers 85-184RRR, 85-185RRR, 85-186RRR, 85-187RRR and 85-188RRR

Dear Mr. Aamold:

The plans and specifications for the subject projects have been authorized by the Department of Environmental Quality. Please note the conditions of approval included with permit numbers 85-184RRR, 85-185RRR and 85-186RRR. It should also be noted that revised sheets 7 and 11 were included with the revisions for 85-186RRR but the changes incorporated on those sheets were not referenced in the project addendums. Contractors bidding on the project may therefore not be aware of these changes required on the water system. Addendums number 1, 2, and 3 were included with and authorized as part of these permits.

The biddability and constructibility comments review were addressed during the review of these projects. Some uncertainties still remain concerning the biddability review comments. These do not have to be addressed further at this time. The city should be aware, though, that the EPA program does not participate in the costs associated with the resolving bid discrepancies, if they arise. EPA participates in the actual costs associated with the installation or construction of the EPA eligible improvements.

The eligibility of the improvements proposed under schedule C of these projects are addressed in a separate letter. It is noted that only those improvements covered under schedule C are proposed for EPA participation. The city will need to closely monitor the construction under schedule C for compliance with the federal regulations. Grantees under this program are required to monitor the regulations such as the Davis-Bacon wage rates and address and satisfactorily resolve any questions that may arise during the project. The city will be required to make the project performance certification one-year after project completion as required by the grant conditions.

Bids were opened August 15, 1985. Authorization of these plans and specifications does not constitute approval to award the project. This approval can only be given upon completion of the review of bid documents by EPA.

Mr. Carroll Aamold  
September 19, 1985  
Page 2

One set of authorized specifications and two sets of plans is forwarded herewith for the city. The extra set of plans is forwarded because of the involvement of the City Engineer's Office for the S.I.D.'s. One set of authorized plans and specifications is also forwarded herewith for Engineering Inc.

If you have any questions, please contact this office at (307) 777-6351.

Sincerely,

*Alan Edwards*

Alan Edwards  
Engineering/Grants Evaluator

AE/nc  
Enclosures

cc: George Barnes, Cheyenne City Engineer  
Cheyenne-Laramie County Regional Planning Office  
Roger Reich, Engineering Inc.  
EPA, Denver, Region VIII



*Memo*



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality  
Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

February 24, 1986

Mr. Jim Willey  
Engineering Inc.  
45 E Loucks, Suite 301  
Sheridan, Wyoming 82801

RE: Cheyenne, Wyoming, EPA Grant No. C560243-21,  
S.I.D.1984-4, Wy Reference  
No.85-184RRR, proposed alignment  
change in Sunnyside Addition

Dear Mr. Willey:

This office has reviewed the data submitted with your letter of February 4, 1986 regarding the sewer alignment change. We have the following comments:

1. Sheet A-1 references "8 "EPA sewerline-see sheet 27." Should this be a reference to sheet 29 or is there also a revised sheet 27 which was not submitted?
2. A review of the plans indicates that sheets 5 and 27 would also need to be revised. These revised sheets should also be submitted.
3. The new alignment also needs to be reflected on sheets 3 and 9 of SID 1984-5.
4. Sheet A-does not indicate the manhole at station 16+50 on Cheyenne Street.
5. The sewer elevation at station 17+43.5 on Cheyenne St. under SID 1984-5 is 97.55 feet. The sewer in Cheyenne Street also runs from west to east. Is the sewer being lowered in Cheyenne St. under SID 1984-5? If so, a revised sheet should be submitted and the costs reflected in the change order. If the sewer in Cheyenne St. runs from west to east, how can the sewer at manhole station 0+00 be higher leaving the manhole to the east be 5.09 feet (97.16-92.07) higher than the sewer entering the manhole from the north?
6. A drop manhole would be required for any manhole with a drop of more than two feet.

Mr. Jim Willey  
February 24, 1986  
Page 2

7. It is indicated that the water line has also been added in the easement. Has the water line been deleted from McCann Avenue? The 24-inch water line is not shown on the plan view in Charles St. on Sheet A-1. Services and hydrants are not shown for the water line in Sunny Place. Are water services to be installed on the water line in the easement south of Charles St.? The sheets for Charles Street have not been amended to show the revised connection to the water line.
8. It is recommended that any sheets that are revised be noted on the sheet as being revised to avoid later confusion.
9. It has been decided that the proposed change in alignment of the sewer could be handled as a change order to the contract. A revised permit to construct will not be necessary.
10. The Water Quality Division District Engineer should be notified of any changes to the permit to construct, such as the placement of an added water line in the easement.
11. Any change to the plans and specifications, time, or cost on the EPA sewers must be processed as a change order under the grant. No change order documents or supporting information was submitted with your letter. Copies of our contract change checklist and the EPA publication "Management of Construction Change Orders" are included for your review to assist you in the preparation of these documents.

If you have any questions on the above, please contact this office at (307) 777-6351.

Sincerely,



Alan Edwards  
Engineering/Grants Evaluator

AE/ad  
Enclosures

cc: Carroll Aamold, Cheyenne Board of Public Utilities  
George Barnes, Cheyenne City Engineer  
Tom Norman, DEQ  
Grant File  
85-184RRR











*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

August 15, 1985

Mr. Carroll Aamold  
Board of Public Utilities  
P.O. Box 1469  
Cheyenne, WY 82003

RE: City of Cheyenne, Wyoming, EPA Grant No. C560243-21, Plans and Specifications, Sunnyside-North Cheyenne, Wyoming Reference Numbers 85-184RR, 85-185RR, 85-186RR, 85-187RR and 85-188RR

Dear Mr. Aamold:

Revised specifications and plan sheets as received by this office on July 25, 1985 have been reviewed by Tom Norman and this office. Some minor comments or items remain unresolved. These were discussed with Roger Reich on August 12, 1985. These comments are as follows:

- 1. Air release valves were not shown at all high points on the revised plan sheets. High points without air release valves are:

<u>STD #</u>	<u>Sheet #</u>	<u>Station</u>
1984-4	17	5+00
	20	12+50
1984-5	2	14+25
	7	31+00
1984-6	2	2+40

Air release valves would not be necessary if the high points in the line are moved to a service connection or hydrant tee.

- 2. On sheet 32 of SID #1984-4, the sewer and 24-inch water line crossings are not shown on the profile. The 24-inch crossing is a major crossing and would be expected to be at the same elevation as the proposed water line. It is recommended that the crossings be shown to avoid conflicts during construction. If the crossing is not shown, the location and depth of the 24-inch water line should be located well in advance of construction to allow for the crossing to be planned with the Board of Public Utilities.
- 3. There does not appear to be a complete plan and profile for the storm sewer along Pershing identified on sheet 5 of SID #1984-5. The storm sewer would not be covered in the DEQ permit to construct and is not being funded by EPA. Therefore, a plan and profile cannot be required but is recommended for this line.

Mr. Carroll Aamold  
August 15, 1985  
Page 2

4. The letter from Engineering Inc. dated July 24, 1985 indicated that the gravel surfacing reference for Rock Springs Street in SID 1984-4 was changed to base course to correspond to the bid proposal. The revised plan sheet received by this office indicates that the plans still note this as gravel surfacing for which there is no bid item.
5. The special conditions identify the liquidated damages as being 300 but does not identify what.
6. The required completion date for the water and sewer under SID 1984-7 of November 30, 1985 seem unrealistic when the length of time between bid opening and bid award could be up to 60 days. EPA reserves up to 60 days for bid package review. All bidding documents must be reviewed by EPA for each district and approved before authorization to award the bids can be given. As you are aware from the EPA funded projects at the treatment plans, contractors must submit the MBE/WBE information with the bid package. Since there are five separate projects, it is unknown how long the review will take. It is recommended that consideration be given to changing the completion date.
7. The permit to construct is issued for the final complete plans and specifications that are to be used for bidding. The July 24, 1985 letter indicated that revisions may have been made to some plan sheets for which revised sheets were not submitted to DEQ. DEQ will need to be assured of having the plans and specifications with the latest revisions for the permit to construct to be issued. This office will need 5 sets of revised plan sheets for each SID and 3 sets of specifications.

If you have any questions on the above, please contact this office at (307) 777-6351.

Sincerely,



Alan Edwards  
Engineering/Grants Evaluator

AE/nc

cc: Roger Reich, Engineering Inc. (w/enclosure)  
City Engineer, Cheyenne (w/enclosure)  
Cheyenne-Laramie County Regional Planning Office (w/enclosure)  
Tom Norman DEQ/WQD (w/enclosure)  
Grant File (w/enclosure)

7-19



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

July 18, 1985

Mr. Carroll Aamold  
Board of Public Utilities  
P.O. Box 1469  
Cheyenne, WY 82003

RE: City of Cheyenne, Wyoming, EPA Grant No. C560243-21, Plans and Specifications, Sunnyside-North Cheyenne, Wyoming, Reference Numbers 85-184RR, 85-185RR, 85-186RR, 85-187RR and 85-188RR

Dear Mr. Aamold:

The subject plans and specifications for this as received on July 2, 1985 have been reviewed by Tom Norman and me. Some minor comments remain with respect to the plans. The major questions remaining concern the specifications. These primarily concern the ability to separate the EPA eligible versus non-eligible costs. More specifically, the comments are as follows:

PLANS

A. General - All Plans

1. The separation of water and sewer is not shown on all plans. On some plans, the horizontal offset from the property line to either the water or the sewer is shown on the plan view but not to both. The offset is what determines where the utility will be staked and located in the field. If the offset to both are not shown, how will the contractor know where to install the water and sewer and maintain the 10 foot minimum separation?
2. In some areas such as SID 1984-6, the only utilities shown on the plans are the water, sewer, and storm sewer. Other utilities such as gas, electricity, telephone and cable are not generally shown. It is felt that the notes on the plans and in the specifications adequately protect the project against contractor claims for increased work if significant conflicts are encountered with these utilities?
3. Air release valves are not provided at all high points.

B. SID 1984-4 (85-184RR)

1. Sheet 4 - The stub-outs to the south at 20+30 is not shown on the profile.

2. Sheet 5 - Why is a 90° bend noted at McCann and Sunnyplace?
3. Sheet 7 - The casing is not indicated on the profile at North College Drive for the waterline.
4. Sheet 12
  - a. On Laramie Street, the offsets of 30' and 18' are both shown to the waterline.
  - b. The plan view at Monroe shows a cross but this is noted as a tee on the profile.
  - c. The edge of pavement line at Monroe does not extend across the street. This makes it appear to be a waterline stubout.
  - d. Your letter noted that a plan and profile for the waterline east of Cleveland was shown but it could not be located on the plans.
5. Sheet 15 - Your letter noted that the abandoned sewer line would be plugged at the manhole but this was not noted on the plans.
6. Sheet 29 - The gas line crossing is not indicated on the profile.
7. Sheet 32 - The sewer line and 24" waterline crossings were not indicated on the profile.

C. SID 1984-5 (85-185RR)

1. Sheet 5 - Your letter stated that the casing was 80 feet but the plans show 70 feet. Also, is there a plan and profile for the storm sewer to the west? There is a chain link fence along the school property along the north side of the drainage easement. This could be a construction constraint and should be noted on the plans.
2. Sheet 12 - The reference to the intermediate platform on page D-2 should be D-3.

SPECIFICATIONS

A. General

1. There is still a question concerning the split in costs between the EPA eligible and non-eligible project costs. You indicated in your letter that details on how some items were to be paid were included with your letter. These were not received however. It is still therefore not known how the quantities were estimated or how the contractor is to compute the quantity splits for payment and reimbursement. For instance, does the contractor know how to split his construction payment requests for such items as unclassified excavation, excavation and surface restoration. The items that are common to all schedules would be the most difficult to split, not only for estimating but also for preparing monthly payments. Typical cross-sections for these items showing how the quantities are split would

be beneficial to the contractor, the engineer, and this office. It would possibly aid the contractor by identifying the split regarding the service wyes. Under schedule C, only the work related to the installation of the wye would be included. The excavation, materials and related cost to install the service would be included in schedule A.

B. Advertisement for Bid

1. The amount of the bid bond and time to enter a contract were noted in the previous specifications and elsewhere within these specifications. These spaces are left blank in these revised documents, however.

C. Instructions to Bidders

1. The section on "Acceptance and Rejection of Bids" has been revised to note that each SID will be awarded on an individual basis. It is recommended that consideration be given to further expanding on this section. This is noted because of the statement later in the specifications that the paving section of the contracts may not be awarded. To serve the intent of the contract documents, it might be appropriate to consider adding that the award would be made on the basis of the cumulative amount of all bid schedules within each SID and that later reduction of all or portions of any schedule would not affect the bid award. The main reason that this is suggested is to reduce the potential of contractor protest at a later date if schedules are dropped. This problem has presented itself on previous EPA projects and is difficult to resolve after bid opening.
2. The amount of deposit for plans and specifications obtained from the engineer is not included on page IB-4.

D. Bid Proposal

1. There is not item included for trench excavation below 4' for the storm sewer but there are some sections of the storm sewer over 4' deep.
2. Does an item for excavation of the waterline need to be included in schedule 3.
3. The measurement and payment section of the Wyoming Public Works Standard Specifications states that surface restoration would be paid as a cost per lineal foot. The bid schedule identifies this as a cost per square foot or square yard. Is there a pay width established for surface restoration that is used to compute the amount of restoration for which payment will be made.
4. The plans do not indicate where curb and gutter replacement will be required.
5. The plans for SID 1984-4 indicate that gravel surfacing would be provided on Rock Springs Street. No bid item is included for this.

6. Gravel base material is identified as a line item for SID 1984-4 but no surfacing is identified. It was assumed that gravel base would be installed under new paving.
7. The Wyoming Public Works Standard Specifications identifies two types of excavation (types 1 and 2) and two types of backfill (types A & B). The plans identify open field and in street trench sections in the details. Do these need to be cross-referenced to the specifications? Would alleys be type A or B backfill? This is significant for determining level of effort. Also, since a greater compactive effort is required for the type B or street section, should these types of backfill be separated for bidding purposes?

E. Special Conditions

1. The time of completion has not been noted. Would the contract include time for normal winter weather or would winter-shut down be granted?
2. The amount of liquidated damages is not identified.
3. The EPA apprentice program as identified in section 33 would only apply to EPA funded portion of the project. The remainder of the project would be required to conform to the state requirements.

F. Special Provisions

1. The governing specifications have been identified in section 13. This does not identify how such items as the special provisions or supplemental specifications will apply. As an example, the Wyoming Public Works Specifications Trench Excavation and Backfill section references the AASHTO compaction specifications whereas the supplemental special conditions references ASTM. The Wyoming specifications state the density would be 90% of modified proctor density as determined by AASHTO designation T-180.

G. Details

1. There is a detail for polyethylene encasement of ductile iron pipe. This is not identified in the specifications. Is it intended to be used on the project?
2. The EPA considers surface restoration to match the condition of the existing surface to be a grant eligible expense. The surface restoration details provided in the plans represent pavement sections that are in excess of the existing conditions. EPA will participate in the cost to match the existing condition. The portion that exceeds this will have to be separated for reimbursement purposes.

Most of the above comments relate to the biddability/constructability of the project and should be addressed. If changes are to be made to the plans, it will only be necessary to provide 5 copies of each revised sheet. Three copies of revisions to the specifications could be forwarded. These will be included in the sets already on file in this office.

Mr. Carroll Aamold  
July 18, 1985  
Page 5

If you have any questions on the above, please contact this office at (307) 777-6351.

Sincerely,



Alan Edwards  
Engineering/Grants Evaluator

AE/nc

cc: Roger Reich, Engineering Inc.  
City Engineer, Cheyenne  
Cheyenne-Laramie County Regional Planning Office  
Tom Norman DEQ/WQD  
Grant File

1-9



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

July 9, 1985

Mr. Roger Reich  
Engineering, Inc.  
P.O. Office Bldg., Suite 301  
45 E. Loucks  
Sheridan, WY 82801

RE: City of Cheyenne, Wyoming, EPA Grant No. C560243-21, DEQ/WQD Reference No.'s 85-184RR, 85-185RR, 85-186RR, 85-187RR, 85-188RR, Sunnyside and North Cheyenne Collection Sewers

Dear Mr. Reich:

The Wyoming Occupational Health and Safety office has completed their review of the subject plans. Enclosed herewith is a copy of their comments. Please review these and incorporate the necessary changes into the plans and specifications.

If you have any questions, please contact this office at (307) 777-6351.

Sincerely,

*Alan Edwards*

Alan Edwards  
Engineering/Grants Evaluator

AE/nc

Enclosure

cc: Carroll Aamold, Cheyenne Board of Public Utilities (w/enclosure)  
Cheyenne City Engineer (w/enclosure)  
Cheyenne-Laramie County Regional Planning Office (w/enclosure)  
Grant File (w/enclosure)

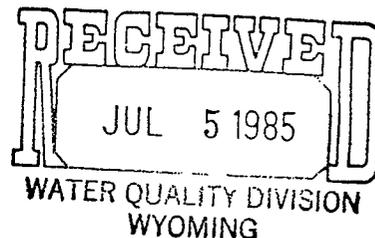


# Occupational Health and Safety

CHEYENNE, WYOMING 82002

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

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



TO: Alan Edwards, Water Quality Division

FROM: <sup>973</sup> Joe Borghi, Manager, TA & Consultation

SUBJECT: Changes to Book of Specifications for SID 4, 5, 6, 7, & 9.

DATE: July 3, 1985

I recommend the following changes:

Page 19, Project Safety, Para. 2 - add after Part 1926, "Code of Federal Regulations, Wyoming Occupational Health and Safety Rules and Regulations (General) and Wyoming Occupational Health and Safety Rules and Regulations for Construction."

Page 3, Supplemental Specifications, Para. 4 - add to last line, "In excavations which employees may be required to enter, excavated or other material shall be effectively stored and retained at least 2 or more feet from the edge of the excavation, WOHS Rules for Construction, Chapter XVI, Section 2.i."

Sheet S-3, Sheet 1 of 3, 2 of 3 and 3 of 3

18" at bottom of ladder and 24" maximum do not meet requirements of WOHS General Rules, Chapter IV, Section 7.b.(1)(b) not to exceed 12" and uniform spacing throughout the ladder.

Sheet S-6,

Spacing from ladder rung appears to be 6". WOHS General Rules, Chapter IV, Section 7.c.(4) requires 7" to back of ladder.

Safety hand hold or grab bar on S-6 shows 3"; WOHS General Rules, Chapter IV, Section 7.c.(5) requires no less than 4" of clearance from C.L. of grab bar to wall.

(2)

The plans for the S.I.D. do not have any details which would be under our jurisdiction.

Please let me know if I can be of any further assistance.



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality  
Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

June 24, 1985

Mr. Carroll Aamold  
Board of Public Utilities  
P.O. Box 1469  
Cheyenne, WY 82003

RE: City of Cheyenne, Wyoming, EPA Grant No. C560243-21, Plans and Specifications, Sunnyside-North Cheyenne, Wyoming Reference Numbers 85-184R, 85-185R, 85-186R, 85-187R and 85-188R

Dear Mr. Aamold:

This office has reviewed the plans and specifications for the subject projects. The plans and specifications were reviewed jointly by Tom Norman and me. The review comments from both offices are included herein for your consideration. The same set of specifications apply to all of the above referenced projects. The plans were also similar because the nature of the construction is the same for all of the projects. The comments for all of the projects are therefore combined into one response. It is also felt that this will allow you to expedite your response to these comments.

For your records, the State of Wyoming application numbers related to the SID numbers are as follows:

<u>SID No.</u>	<u>Wyoming Application No.</u>
1984-4	85-184R
1984-5	85-185R
1984-6	85-186R
1984-7	85-187R
1984-9	85-188R

Our comments are as follows:

PLANS

A. General - All Plans

1. All plan views should show the horizontal distance between water and sewer lines.
2. Air relief mechanisms are required at all high points in the water lines. For 6 and 8 inch water lines, this may be a fire hydrant or an active service tap.

3. Some intersections are cluttered and it is difficult to determine what construction is to be performed. A larger detail would be helpful for these areas.
4. Is there a notice to the contractor as to the requirements for tying proposed curbs into the existing roads? As is the case of the curbs at Rock Springs and No. College Drive on SID #1984-4, there is a large difference between the proposed and existing elevations.
5. Manhole invert elevations are not indicated uniformly on all sheets. An example is sheet 4 of SID #1984-4.
6. Plugs and blocking for water lines are not consistently shown.
7. In some instances, it is not clear if new tapping tees will be required or tees exist for the contractor to connect to.
8. Are the borings and casings in conformance with highway department specifications? A copy of their requirements is attached. It is required that "boring pits shall be located so that the face of the boring pit shall not be within 15 feet of the constructed roadway section." Would this mean that the bore and casing would have to be longer than shown? Have the boring details been approved by the highway department?

B. SID 1984-4 (Application No. 85-184R)

1. Sheet 1
  - a. The sewer crossing of North College on Rock Springs is not shown.
  - b. Water and sewer locations on Sunny Place are different than shown on sheet 5.
2. Sheet 3
  - a. A larger scale detail is recommended for this intersection of Wills Road and Rock Springs Street.
  - b. The sewer crossing at station 7+00 was not shown on the profile view.
3. Sheet 4
  - a. The sewer crossing of North College on Rock Springs is not shown on sheet 1.
  - b. There is no drop indicated across manhole station 16+88.
  - c. The surface grade on the gravel street east of station 27+12.2 is indicated as being for the existing grade, not finished grade.
  - d. The gate valve at station 20+50 is not shown on the profile.
  - e. The 8 inch water and sewer stub-outs at station 23+26 are not noted to be plugged.

- f. A larger scale detail is recommended for the intersection of Monroe and Rock Springs.
4. Sheet 5
    - a. There is no note to plug and block the ends of the water line.
    - b. It is noted that the future extension of the water line at Cleveland would have to cross the existing 30 inch outfall line which is at about the same elevation. Can the water line be adjusted now to accommodate the future crossing?
    - c. The fire hydrant at station 3+50 is indicated as being connected either to the sanitary sewer or the right of way line.
    - d. For Sunny Place, the locations of the water and sewer are reversed from sheet 1.
    - e. New gravel is shown at 0.5% on sheet 4 but it is not extended onto this sheet.
    - f. The culvert crossing is not indicated at station 32+50. Do these conflict with the water or sewer line? If this culvert crossing is for Dry Creek drainage, will the water and sewer be affected by future channelization?
  5. Sheet 6
    - a. Is the hydrant at station 14+00 new?
  6. Sheet 8
    - a. Water line plugging not noted.
    - b. On the plan view west of station 31+00, the water service to the north is shown at 10 feet east of the match line. Another water service is shown just west of the match line on sheet 7. Are two services to be installed?
  7. Sheet 12
    - a. Water line plugging not noted.
    - b. Is there a plan and profile of the line in Laramie east of Cleveland to station 36+49.10? Will the line include any valves or hydrants?
    - c. Should it be an 8" x 12" cross at stations 33+14.1?
    - d. Doesn't a new water line extend south on Cleveland?

9. Sheet 13

- a. The end of the pavement at Robitaille and McCann is shown as dashed lines when others are shown as solid lines.

10. Sheet 14

- a. Water line plugging not noted.

11. Sheet 15

- a. The water line tie is not shown on the cross-section at station 3+10.
- b. The abandoned sewer line must be plugged out of manhole station 6+29.

12. Sheet 17

- a. Only 3 manholes are shown on this line on sheet 1.

13. Sheet 19.

- a. The horizontal and vertical separation is questionable on most of this sheet.

14. Sheet 20

- a. Is a water line cross needed at station 13+08?

15. Sheet 21

- a. The sewer south of manhole station 19+78.9 is not shown on the profile.

16. Sheet 23

- a. This "invert in" elevations should be identified as to which sewers they apply to.

17. Sheet 25

- a. The slope is given incorrectly after the last manhole.

18. Sheet 26

- a. The reference of 8 inch water line see sheet 20 should be to sheet 4.
- b. The water line crossings at station 23+20 and 24+80 are not shown.

19. Sheet 27

- a. The stationing of the manhole at Rock Springs and Cleveland should be 33+16.8.

- b. Is the distance and slope between manhole station 33+16.8 and 30+29.2 given correctly?
- c. The distance between manhole station 6+40 and 3+32 should be 308 feet.

20. Sheet 29

- a. The storm sewer crossing is not shown at station 3+40.
- b. The water crossing is not shown at station 13+20.

21. Sheet 30

- a. The water crossing is not shown at station 6+50.

22. Sheet 31

- a. The water crossing is not shown at station 19+70.

23. Sheet 32

- a. The gate valve at station 3+20 is not shown on the profile.
- b. The sewer crossing is not shown at station 3+16.
- c. Is the 24 inch water line connected to the 8 inch water line?

C. SID 1984-5 (Application No. 85-185R)

1. Sheet 2

- a. Water line plugging not noted.

2. Sheet 3

- a. Water line plugging not noted.
- b. The 8 inch water line stub-out to the south on Monroe appears to go through a storm sewer manhole.

3. Sheet 5

- a. The water line cross is not shown on the profile at station 6+50.
- b. The plan view shows 70' bore and casing across Pershing for the storm sewer but the profile shows 70' for the water line. It should be clarified that both will be cased.

4. Sheet 6

- a. Is there an existing 24 inch tee on the water line at Charles and Cleveland or is it a 24 inch by 90° bend?

b. A larger scale detail of the intersection of Charles and Cleveland is recommended?

5. Sheet 7

a. Is the size of the tap and water line at Cox Street identified elsewhere?

b. Is it noted elsewhere to plug the sewer stub-outs at Cox Street and at the south end of the sewer?

6. Sheet 8

a. The slope on the line east of manhole station 13+57.5 is shown as 3.01 but is shown as 3.04 on sheet 9.

7. Sheet 9

a. The boring and casing is not indicated at North College Drive.

b. A storm sewer is noted on the profile on sheet 10 but not on sheet 9.

8. Sheet 10

a. The water line crossing is not shown at station 33+12.

b. A larger scale detail of the intersection of Cheyenne and Cleveland is recommended.

9. Sheet 11

a. The slope between manhole stations 6+37.9 and 3+50 computes to be 0.36 which is less than the 0.40 minimum.

10. Sheet 12

a. Manhole station 29.77 is not shown on the plan view.

b. The water line crossing is not shown at station 26+50.

11. Sheet 13

a. The water line crossing is not shown at station 32+93.

D. SID 1984-6 (Application No. 85-186R)

1. Sheet 2

a. A larger scale detail of both intersections is recommended.

b. The gate valve is not shown on the profile at station 13+45.

c. Directions should be provided for inverts at manhole station 13+62.

- d. The profile shows connecting to the existing water line at about station 2+40 but plan view shows connecting at about station 3+40.
  - e. Manhole station 6+62.8 is shown at station 6+00 on plan view.
  - f. Manhole station 10+12.83 is shown at station 10+00 on plan view.
  - g. Sheet 5 shows the sewer going north on Moccasin from Cody but this does not show on this sheet.
2. Sheet 3
    - a. The slope is shown incorrectly from station 5+14 to 8+16.
3. Sheet 4
    - a. The sewer crossing is not shown at station 0+20.
4. Sheet 6
    - a. The 12 inch water line stub and plug on the north end of Osage is not indicated on the profile.
    - b. Is there a water line cross at about station 15+97?
    - c. A larger scale detail of the intersection is recommended.
5. Sheet 8
    - a. A valve is shown on the water line at station 6+65 on sheet 2 but it is not shown here.
    - b. A tee is not shown on the profile at station -0+25.
6. Sheet 9
    - a. The invert out is not shown at manhole station 1+85.
    - b. The water line crossing is not shown at station 3+90.
7. Sheet 10
    - a. The lower slope is noted incorrectly.
    - b. A future manhole lift station is indicated as being on the water line. Is this a future sanitary lift station or water system booster pumping station?
8. Sheet 11
    - a. The slope is shown incorrectly from station 26+16 to 26+58.
    - b. The sewer crossing is not shown on the profile at station 29+60.

9. Sheet 12

- a. A larger scale detail is recommended for the intersection of Prairie Hills and Osage.
- b. The inverts do not identify direction.
- c. The water line tee at Osage and Mandanis noted as a 12 X 8 tee on the plan view but 8 x 8 tee on profile. No note is given to plug the tee.

10. Sheet 13

- a. The slope is noted incorrectly from station 13+50 to 14+56.

11. Sheet 14

- a. The inverts should be noted as to direction.

12. Sheet 15

- a. The invert at manhole station 0+00 are not all identified.
- b. The slope is shown incorrectly from station 7+40 to 9+75.
- c. Sheet 18 indicates the sewer runs north of Custer on Osage.
- d. The plan view does not indicate where the sewer goes from manhole station 0+00.

13. Sheet 16

- a. The water line crossing is not shown at station 4+75.

14. Sheet 17

- a. The slope from station 0+00 to 2+50 is 0.62 based upon the elevations shown.

E. SID 1984-7 (Application 85-187R)

1. Sheet 2

- a. The slope is indicated incorrectly from manhole 6+40 to the existing sewer.

F. SID 1984-9 (Application 85-188R)

1. Sheet 2

- a. The indicator arrow for EPA sewer line incorrectly goes to the water line.

- b. Five manholes are indicated on Marshall but only four are shown on sheet 1.
  - c. The sewer stub-out and plug at manhole station 15+03.48 is not shown on the profile.
2. Sheet 3
- a. The valve at station 16+40 is shown in a different location on the plan view.
3. Sheet 4
- a. The water line tee is not shown at station 12+90 and 6+40 on the profile.
4. Sheet 5
- a. What happens if there is not 18 inches separation between the existing water line and the proposed sewer? How would the relocation be handled and negotiated?

SPECIFICATIONS (ALL PROJECTS)

A. General

Several questions were noted during the review of the specifications. Many of these relate to the relationship between the project specifications, the Wyoming Public Works specifications, and the City of Cheyenne specifications. It is recognized that portions of the Wyoming Public Works specifications and the City specifications have been approved by the Department of Environmental Quality. There is no objection to their use. The questions involve cross-references between the three documents. It also involves additional specifications that are required to supplement the referenced documents. The questions indicate that some of the specification sections may not be complete which could result in bidding and construction problems. The review comments below more specifically address these questions:

- B. The Time of completion will need to be included in the final documents.
- C. The federal wage rate that would apply for the EPA work would be the May 17, 1985 heavy and highway decision. A copy of this is attached for inclusion with the final documents.
- D. Instructions to Bidders, IB-9

The contractor is referred to the General Conditions for the insurance requirements. Are the general conditions referenced those that are included in the Public Works specifications? It is noted that the insurance is more specifically addressed in the Special Conditions.

E. Bid Proposal

It is noted that there are three bid schedules for each SID. There is no measurement and payment section that identifies what all of these items are. As an example, unclassified excavation and gravel base are not defined. There are two types of drop manholes identified in the standard drawings but it is not specified which one will be bid. Since the EPA participates in the wye only and not the service lateral, it should be defined for the contractor where the EPA work ends so he can make the appropriate bidding splits. The bedding gravel is identified as type 2 but the standard details for pipe bedding show types A, B, C and concrete. Is there a pay width and cross-section for excavation that defines or limits the excavation that will be reimbursed? Is there a pay width set for asphalt and concrete paving removal and replacement? Does the amount of curb and gutter have to be approved by the engineer for payment? As an example, if the contractor does not control his excavation and has to replace more curb and gutter than estimated, does he automatically get paid for this work? The bid schedule identifies sewer construction, excavation, and surface restoration but backfill is not identified as being included with any of these items. These questions are general and apply to each SID. These questions would seem to affect the contractors ability to correctly break out his bid.

F. Instructions to Bidders

It is noted that the "Owner reserves the right to accept the bid which, in its judgment, is the lowest and best bid ..." The specifications do not clearly identify however if the bids are to be awarded individually for each SID on the bases of the lowest and best bid or if one contract is to be awarded for the lowest total of the five SID's.

G. Special Conditions

1. The Wyoming Public Works Specifications and the Cheyenne Board of Public Utilities Specifications are referenced in section 1.03. Since conflicts could arise between these, the bidding specifications and the standard EPA inserts, it should be noted which govern. On the EPA portion of the project, the EPA regulations govern. It is also recommended that the source and cost of the referenced documents be noted for the benefit of all contractors.
2. It is stated that the labor laws of the State of Wyoming must be conformed to. It needs to be noted that the federal labor laws and wages apply to all EPA funded work.
3. It should be clarified who pays for tests and re-tests.
4. Construction could disrupt mail delivery during extended periods especially when mailboxes must be moved for construction. Has consideration been given to alternate forms of mail delivery should this occur?
5. The contractor is allowed to use available space belonging to the owner. It is noted that right-of-way has not been acquired in all cases such as for Monore Avenue. It must be noted that EPA can make no construction reimbursement until a site title opinion has been submitted indicating that

the city owns, has right-of-way or other guaranteed access for construction and maintenance.

6. As well as a project schedule, EPA requires a schedule of values to be submitted. This schedule is the contractors estimate for the pay draw on the EPA funded work. This is used to schedule or plan for future EPA disbursements.
7. The specifications require the contractor to furnish at least one experienced craftsman for each trade. It should be noted that any apprentices employed on the project will need to conform to the federal labor standards. Questions relating to this can be made to the Department of Labor Bureau of Apprenticeship and Training, P.O. Box 1126, Cheyenne, Wyoming 82001. The phone number is (307) 772-2448.
8. The progress payments section identifies that a 10% retainage will be held. Federal regulations allow for reducing this to 5% after 50% completion if the contractor is performing satisfactorily.

#### H. Special Provisions

1. It is noted that the street improvement project may not be awarded if funds are not available. It should be noted what rights the city reserves if this were to happen and what the contractor would be required to do.
2. It is noted that the contractor will be provided corporation stops by the city for each block of water line only after completion of testing. The line would have to be at least partially backfilled for testing. This method would seem to result in additional cost to re-excavate and install the corporation stops. Will the contractor be required to retest after installing the services and will disinfection be performed before or after the installation of the water services?
3. Section 11 is incomplete. There needs to be a clear identification made as to the splits between EPA and non-EPA work. As an example, the contractor will need to know when such items as the federal labor standards and wages will begin to apply and when he must keep records for reporting such as certified payrolls and safety meeting minutes. It also needs to be noted clearly so the contractor can separate his costs between the different schedules.
4. It is noted that the Wyoming Highway Department shall be contacted prior to boring on North College Drive. Boring problems have been noted on other construction projects relating to required setbacks for the boring pits. A copy of the utility construction requirements is included for reference. The face of boring pits are required to be at least 15 feet from the constructed roadway section. The highway department should be contacted regarding this requirement.
5. The Wyoming Public Works Specifications include requirements for several types of paving. The bidding documents need to identify which pavement and base course gradations and specifications apply to this project. This question also applies to the gravel surfacing requirements.

I. Supplemental Specifications

1. Who will establish what the optimum compaction will be as identified under the section on moisture control.
2. The beginning of the section on site grading and utilities is unclear. Also, the contractor needs to contact the Department of Environmental Quality, Water Quality Division, regarding permitting for construction dewatering discharge points.

J. Standard Details

1. It has not been noted what classes of concrete will be used for the work under this project. The Public Works specifications identify three classes but do not stipulate where they will be used.
2. Standard detail W-5 shows three classes of backfill (A, B and C) and concrete encasement but the bid proposal calls for type 2.
3. Standard detail W-6 indicates a minimum cover of 5 feet for water lines but the plans call for 6 feet.
4. Standard detail W-10 indentifies the testing and chlorination requirements. It is our understanding that this will be performed by the contractor but he must first attend a course or school on this. This should be identified if required. Also, will there be a charge to the contractor for the bacteriological testing?
5. Will there be instances where the service will not be extended to the property line and plugged as shown on standard detail S-1? If so, this should be noted.
6. Who would determine when perforated PVC underdrain will be used as in detail S-2? Does this detail comply that the sewer can be connected at the manhole using perforated PVC pipe? If an underdrain is installed, where would it extend to?
8. Will locking devices be required as shown on detail S-9?
9. The boring and casing detail indicates a 5 foot minimum depth for water lines but the plans call for 6 foot.
10. Will a section be provided identifying required submittals such as precast concrete manholes, air release structures and "approved mechanical water tight seal" for casings?

K. EPA

1. A site title opinion will need to be submitted before any EPA reimbursement for construction can be made.

2. Information needs to be submitted to establish how the project was broken out into schedules for bidding purposes. As an example, how was the excavation separated where EPA eligible sewers and non-eligible water lines are being installed in the same street? This break-out and typical payment cross-sections or details need to be submitted to identify the final construction cost eligible for EPA reimbursement. This information will have to be submitted and the cost break-out approved by this office before the authorization to award the construction contract can be given.
3. The EPA regulations require a project performance certification one year after the completion of the construction. Since this project only involves conventional sanitary sewers, the only certification that will be required is that the sewers will be capable to serving the design population for the areas which they were intended to serve. The certifications must be made by the owner of the facilities.
4. The costs for all work, including engineering, for the EPA funded sewer lines will need to be broken out when submitted for reimbursement. The costs for the EPA ineligible items would also need to be submitted to identify how the costs are split. This would need to be done for each separate project.
5. Since federal funds are involved with this project, the Wyoming contractor's preference law may not be used.
6. EPA requires a minimum bidding period of thirty (30) days.

As noted above there are several questions relating to the biddability/constructability of this project. As a result, this office is not in a position at this time to authorize the advertisement for the bids. A copy of these plans and specifications will be forwarded to the Wyoming Occupational Health and Safety Office for their review. Their comments will be forwarded upon our receipt of them.

Upon completion of the final plans and specifications, this office will need to receive five sets of plans and three sets of specifications for each project. One set of approved plans and specifications will be returned to the city and to the engineer.

Mr. Carroll Aamold  
June 24, 1985  
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If you have any questions on the above, please contact this office at (307) 777-6351.

Sincerely,



Alan Edwards  
Engineering/Grants Evaluator

AE/nc

cc: Roger Reich, Engineering Inc. (w/enclosure)  
City Engineer, Cheyenne (w/enclosure)  
Cheyenne-Laramie County Regional Planning Office (w/enclosure)  
Public Land Office  
Tom Norman DEQ/WQD (w/enclosure)  
Grant File (w/enclosure)

UTILITY CONSTRUCTION REQUIREMENTS ON HIGHWAY RIGHTS OF WAY

Underground Installations

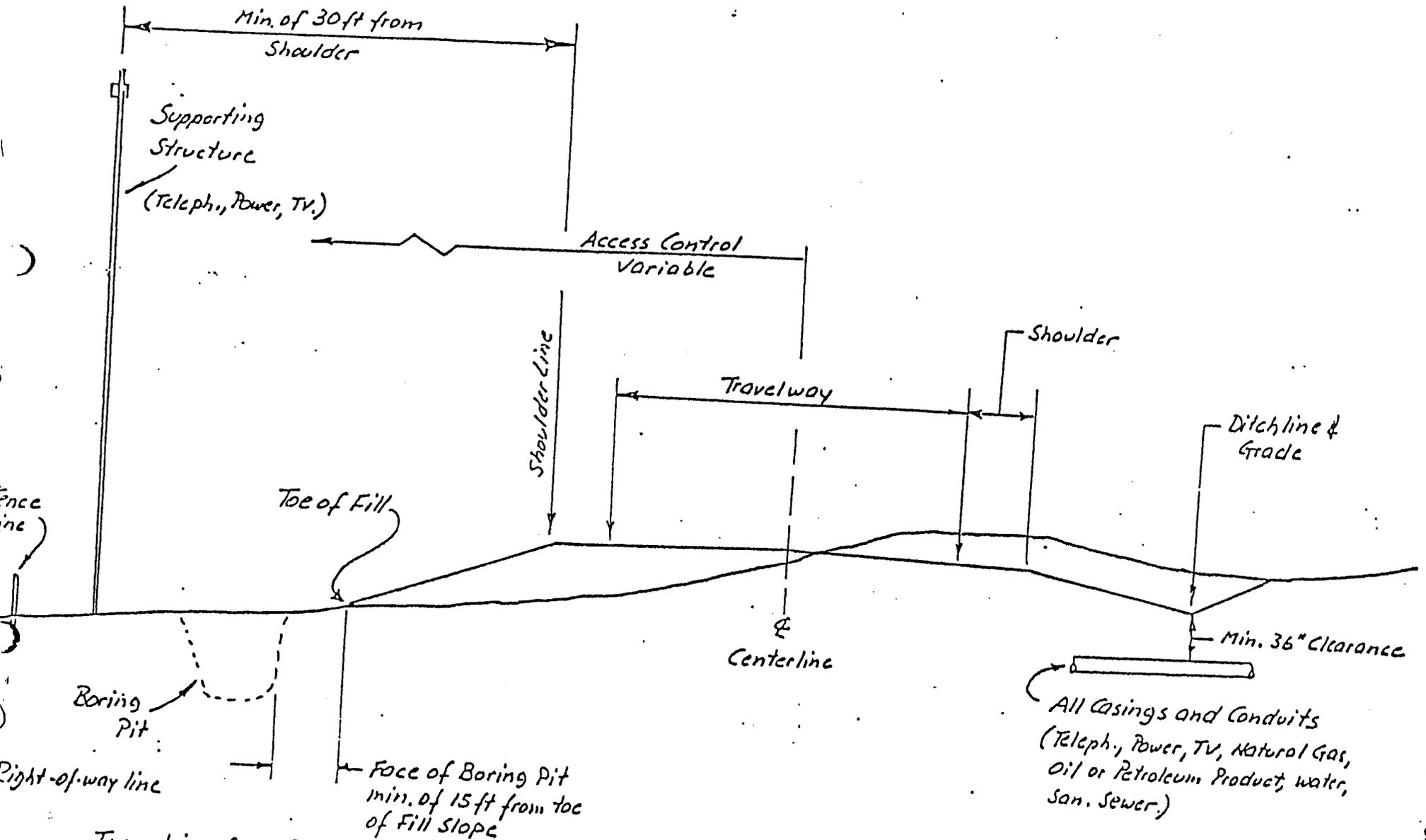
1. All natural or other gas pipe lines and all petroleum product pipe lines shall be installed in accordance with Part 192 in Title 49, Code of Federal Regulations (F.R. Volume 35, No. 161), and Part 195 in Title 49, Code of Federal Regulations (F.R. Volume 35, No. 191), as amended from time to time.
2. Boring pits shall be located so that the face of the boring pit shall not be within 15 feet of the constructed roadway section.
3. All apparent voids shall be grouted as directed by the Engineer.
4. Open cuts will not be allowed through any concrete or bituminous surfaced travelway without the written consent of the Engineer.
5. All casing vents shall extend underground to risers at the right of way line. All risers shall be marked with the utility's name and a telephone number to be called in case of emergency.
6. Proposed operating pressures and pipe design criteria shall be noted on all permits or on plats attached to permits.
7. Incomplete bores shall be backfilled and plugged as directed by the Engineer.
8. Cutting heads of augers for underground bores shall not be sized more than 5 percent larger than the OD of the carrier or casing pipe being placed.
9. Cathodic protection shall be applied to all steel carrier lines placed in the highway right of way, and all such lines shall have all girth welds non-destructively tested. This requirement shall apply to all transmission-type lines and shall include all gathering lines, flow lines and water injection lines.

The following stipulations which have been checked are applicable to the attached license:

- \_\_\_\_\_ The maintenance foreman at \_\_\_\_\_ shall be notified before any work is begun and after work is completed.
- \_\_\_\_\_ All disturbed areas are to be returned to their original condition. All surface debris, boulders, etc. as a result of construction activity are to be removed from the right-of-way.
- \_\_\_\_\_ The licensee shall be responsible for any damage to the highway and its appurtenances as a result of this installation at any time such damage occurs.
- \_\_\_\_\_ The minimum depth of placement is to be **36** inches below the bottom of ditch.
- \_\_\_\_\_ All pedestals, vents, etc. are to be installed at the right-of-way line.
- \_\_\_\_\_ Subsequent leakage of any ditches breached by this installation which results in damage to the roadway and/or appurtenances or results in drainage problems on the right-of-way, are the responsibility of the licensee, and will be promptly repaired upon notification by the W.H.D.
- \_\_\_\_\_ Crossing of the roadway is to be made by jacking, dry boring or mining \_\_\_\_\_ from the roadway edge.
- \_\_\_\_\_ Crossing of all paved approaches encountered along the route of the installation shall be \_\_\_\_\_.
- \_\_\_\_\_ Casing type and joints shall be approved by the D.M.E. at \_\_\_\_\_ prior to installation and shall be capable of withstanding the load of the roadbed. The casing or conduit shall be installed in a manner to prevent the formation of a waterway under the highway.
- \_\_\_\_\_ Where casing ends are below ground they should be suitably installed to protect the entrance of foreign matter which would prevent removal of the carrier.
- \_\_\_\_\_ An open trench method of installation is approved.
- \_\_\_\_\_ The trench is to be backfilled and compacted daily, no open trenching is to be left overnight.
- \_\_\_\_\_ The backfill is to be compacted to 95 percent density as shown on the enclosed diagram and resurfaced as indicated. Temporary surfacing may be installed as needed but must be brought up to standard upon completion of the work.
- \_\_\_\_\_ Gravel surfaces in paved travel lanes must be surfaced within three days.

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- \_\_\_\_\_ All anchors and pole locations must be installed outside the highway right-of-way.
- \_\_\_\_\_ Minimum vertical clearance for overhead crossing will be 18 feet for all crossings 600 volts or less.
- \_\_\_\_\_ A letter specifying the name and location of an individual who will be representing the licensee on the job and is capable of instituting immediate changes in traffic control or work operation to bring them into compliance with the terms of the license.
- \_\_\_\_\_ No materials or equipment will be stockpiled or parked (within the R/W) (within 30' of the traveled way)
- \_\_\_\_\_ No work will be conducted from the roadway surface.
- \_\_\_\_\_ A preconstruction conference must be scheduled with \_\_\_\_\_ prior to commencing work.
- \_\_\_\_\_ The electrical lines must be marked as indicated on the attached sheet.



Trenching from Rlw line to Boring Pit at the option of the WHD Engineer.

Highways

SUPERSEDEAS DECISION

STATE: Wyoming COUNTY: Statewide  
 DECISION NUMBER: WY85-5025 DATE: Date of Publication  
 Supersedes Decision No. WY84-5009 dated April 6, 1984 in 49 FR-50432

DESCRIPTION OF WORK: Heavy and Highway Projects

	Basic Hourly Rates	Fringe Benefits		Basic Hourly Rates	Fringe Benefits
<b>LABORERS:</b>					
CARPENTERS	11.66		Group 1	8.23	
CEMENT MASONS	11.90		Group 2	8.33	
IRONWORKERS:			Group 3	8.48	
Structural	14.11		Group 4	8.75	
Reinforcing	10.32		Group 5		
PAINTERS:			(a)	8.71	
Brush and Spray	10.99		(b)	8.55	
LINE CONSTRUCTION:			(c)	8.98	
All work over 34.5 KV all			(d)	8.82	
work on steel towers					
and/or multiple wood			<b>POWER EQUIPMENT OPERATORS:</b>		
structures, all cross			Group 1	10.74	
country underground			Group 2	10.79	
communications work, and			Group 3	10.84	
all motor traffic con-			Group 4	10.88	
trolling, streets and			Group 5	10.91	
highway lighting:			Group 6	10.96	
Cable Splicer	16.00		Group 7	11.00	
Linemen	16.00		Group 8	11.02	
Equipment Operators	14.39		Group 9	11.13	
Groundman	10.60		Group 10	11.19	
All work 34.5 KV and			Group 11	11.21	
under			Group 12	11.39	
Linemen	16.00		Group 13	11.43	
Line Equipment Operator	13.74		Group 14	11.50	
Groundman	10.60		Group 15	11.56	
Line Construction Fringe			Group 16	11.73	
Benefits \$1.75-1-1/2%			Group 17	12.07	

DECISION NO. WY85-5025

TRUCK DRIVERS

	Basic Hourly Rates	Fringe Benefits
Pick-up Truck Drivers (when used for hauling)	\$ 9.16	
Dump Trucker Drivers (water level capacity box):		
7 cu. yds. and less	9.21	
Over 7 cu. yds. to and including 10 cu. yds.	9.36	
Over 10 cu. yds. to and including 13 cu. yds.	9.46	
Over 13 cu. yds. to and including 20 cu. yds.	9.96	
Over 20 cu. yds. to and including 25 cu. yds.	9.96	
Over 25 cu. yds. to and including 30 cu. yds.	10.06	
Over 30 cu. yds. to and including 35 cu. yds.	10.11	
Over 35 cu. yds. to and including 40 cu. yds.	10.16	
Over 40 cu. yds. to and including 45 cu. yds.	10.21	
Over 45 cu. yds. (to be negotiated prior to use)		
Snow Plow Truck Drivers (the cu. yd. rate of the truck driver classification):		
Pilot Car Drivers	9.16	
Gravel Spreader	9.21	

TRUCK DRIVERS: (Cont'd)

	Basic Hourly Rates	Fringe Benefits
Flat Rack Material Truck Drivers:		
Less than 2 tons	9.21	
2 tons to 5 tons	9.36	
Over 5 tons	9.46	
Low Boy and Tandem Axle Float Drivers	9.96	
Gang Truck Drivers	9.21	
Stringing Truck Drivers:		
Single axle type truck	9.21	
Multiple axle type truck, semi	9.96	
Winch Trailer Truck Drivers (cable and hoist)	9.46	
Utility Winch Truck Drivers	9.46	
"A" Frame Truck Drivers	9.46	
Transit Mix or Wet Mix Truck Drivers:		
Less than 5 cu. yds.; single axle	9.46	
Over 5 cu. yds. to and including 10 cu. yds.; Tandem axle	9.56	
Over 10 cu. yds.	9.66	
Power Broom Drivers and/or Operator	9.36	

TRUCK DRIVERS: (Cont'd)

	Basic Hourly Rates	Fringe Benefits
Water Truck Drivers:		
2500 gallons or less (straight truck)	9.21	
2500 gallons or less (semi truck)	9.36	
Over 2500 gallons to and including 3600 gallons (straight truck)	9.46	
Over 3600 gallons (straight truck)	9.56	
Over 3600 gallons (semi truck)	9.66	
Heavy Duty (Euclids, electric or similar type)	9.96	
WELDERS: Receive rate prescribed for craft performing operation to which welding is incidental		

## LABORERS

Group 1: Axeman and Hand Faller; Concrete Worker (wet or dry); Concrete Worker (curing and drying); Dumpman; Erector and Installer (includes the installation and erection of fences, snow fences, guard rails, median rails, median posts, signs and right-of-way marker); Form Stripper; General Labor; Heater Tender; Material Handler (lumber, rods, cement, concrete); Nozzlemán, air and water; Pre-watering, pre-wetting and pre-irrigation (all work); Riprap Man; Sandblaster Pot Tender; Signal Men, Grade Concrete, etc.; Scissor Man or Hopper Man; Stake Jumper for equipment; Tar and Asphalt Pot Tender; Wrecking and demolition crews

Group 2: Asphalt Baker and Tamper; Bin Wall Installer; Bituminous Curb Builder; Cement Mason or Finisher and Tender; Chuck Tender; Form Setter; Hand operated Vibratory Roller; Landscaper; Mortar Man on Stone Riprap; Operator of pneumatic, electric, gas tamper and similar mechanical tools; Pipe Setter (corrugated culvert pipe, sectional, multiplate and similar type); Pipe Setter; Pipelayer (non-metallic); Pipe Wrapper, Power type concrete buggy (push or ride); Power Saw Operator (clearing); Vibrator - concrete

Group 3: Concrete Saw; Gunite Nozzlemán; High Scaler (using air tools from Bos's Chair, Swing Stage, Lift Belt or Block and Tackle, shall receive \$1.20 per hour more than the classified rate); Jackhammer and Pavement Breaker; Sandblaster Nozzlemán; Sewer Pipe Installer (non-metallic), clay, concrete, etc. (Caulker, Collarman, Joiner, Mortarman, Rigger, Jacker)

Group 4: Powderman and Blaster; Wagon Drill, Air-trac, Diamond and other drills for blasting powder or grouting

Group 5: Tunnel and Underground Work:

- (a) Brakeman; Swamper, Vibrator Man
- (b) Bull Gang; Dumpman; Mucker; Trackman
- (c) Miners (Drillers); Machine Men; Timbermen; Steelmen; Drill Doctor, Form Setter and Mover; Spader; Tuggers spilling and/or Caisson Workers; Powderman; Jackhammer-men Finishers
- (d) Nipper; Chucktender; Topman; Toploader

## POWER EQUIPMENT OPERATORS

Group 1: Auger Machine Operator (post holes, etc.); Batch Bin Weighman, Scissorsman or Hopperman; Brakeman; Crusher Oiler; Oiler Utility; Screed Operator; Tractor Operators (farm, crawler or wheel type, 60 HSP - drawbar) or less with or without use of power attachments, except for use of Backhoe or Bucket)

Group 2: Broom Operators, self-propelled; Cableway; Signalman (Ballboy); Concrete Saw (self-propelled); Fireman; Power Loader, belt and bucket type

Group 3: Air Compressor over 315 cu. ft. capacity; Chip Spreader Operator; Form Grader Operator; Joint Machine Operator; Longitudinal Float Operator; Mixer Operator Concrete (under one yard); Roller Operators, self-propelled (pneumatic, rubber tired, sheep foot vibratory or combination type); Tire Repairman

Group 4: Pump Operator (all others)

Group 5: Conveyor Belt Operator; Fork Lift and Lumber Stacker; Screening Plant Operator

Group 6: A-Frame Truck; Tractor Operators (farm, crawler or wheel type, over 60 HSP - drawbar) without use of power attachments

Group 7: Oiler, Lead Utility

Group 8: Gunnite and Grout Machine Operator; Mulching Machine Operator; Oil Distributor

Group 9: Front End Loader (up to and including 14 cu. yds.); Pavement Breakers, Hydro-tamper and similar type machines; Pumps, well points

Group 10: Hoist Operator (one drum)

Group 11: Haulage Motorman and Industrial type Motorman; Motor Patrol Operator (all others); Pump Operator (in tunnels, shafts, raises); Hydro type Cranes (up to 15 tons)

## POWER EQUIPMENT OPERATORS (Cont'd)

Group 12: Air Compressor, two or more machines or tunnels, shafts, raises of Plant Operator; Asphalt Plant Operator; Bituminous Laydown Machine Operator; CMI Machine or similar; Concrete Batch Plant; Concrete Finish Machine Operator; Concrete Multi Blade Span Saw (Hunt process or similar); Concrete Spreader and Paver Operator; Crusher Operator; Drilling Machine, integrated (Core, Rotary, Caisson, Diamond); Elevating Grader; Front End Loader (over 1 1/2 cu. yds.); Jumbo Form Operator; Mixer Operator, base course pug mill type; Mixer Bituminous Operator (travel plant); Mixer Operator Concrete (over one yard); Motor Patrol Operator (finish); Mucking Machine Operator (all types); Pneumatic Guns; Pumpcrete Operator; Roller Operator (Tandem steel wheel, three axle or three wheel); Scraper Equipment (all types); Shovels, Draglines, Cranes, Piledrivers, all truck mounted cranes (manufacturers' rating) up to 1 1/2 yds., all attachments; Hydro type cranes (15 ton and over); Shuttle Car Operator; Subgrade Machine Operator (power); Tractor Operator, all with use of power attachments and including Push-cat, Dozer, Tournadozer, etc. (The use of power attachment shall not include disking, pulling or rollers, and similar unskilled actions); Trenching Machine Operator; Wash Plant Operator

Group 13: Welder, Machine Doctor

Group 14: Hoist Operator (two or more drums of shafts or raises); Repairman; Mechanics; Machine Doctors, Welders, Heavy Duty Mechanic, Machine Doctor

Group 15: Cableway Operators; Mixer Dual Drum; Cranes, (Whirley, Gantry, Stiffleg, Overhead traveling)

Group 16: Shovels, Draglines, Cranes, Piledrivers, all truck mounted cranes manufacturer's rating) 3 1/2 yds. to 7 cu. yds., all attachments; Wheel Excavator Operator

Group 17: Shovels, Draglines, Cranes, Piledrivers, all truck mounted Cranes, (manufacturer's rating) 7 cu. yds. and over, all attachments

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR, 5.5(a)(1)(ii)).

[FR Doc. 85-11763 Filed 5-16-85; 8:45 am]

BILLING CODE 4810-27-C



*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

MEMORANDUM

TO: Donald Owsley, Administrator  
Occupational Health and Safety

FROM: *AAG* Alan Edwards, Engineering/Grants Evaluator  
Water Quality Division

DATE: June 25, 1985

SUBJECT: Review of Plans and Specifications, City of Cheyenne, WY, Dry Creek  
Sludge Drying Beds, DEQ/WQD Ref. No. 85-243R and Sunnyside-North Chey-  
enne Sanitary Sewers, DEQ/WQD Ref. No.'s 85-184R, 85-185R, 85-186R,  
85-187R and 85-188R

Forwarded herewith please find one set of the subject documents. These are forwarded for review and comment by your office. A single set of specifications applies to all plans for the Sunnyside-No. Cheyenne Project. Therefore, only one set of specifications for that project is included.

Your review of these documents would be appreciated. The City of Cheyenne is anxious to advertise these projects so an early review would be appreciated. Any comments you may have will be included in the bidding documents.

If you have any comments, please contact this office at (307) 777-6351.

AE/nc

cc: Grant File



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

April 22, 1985

Mr. Carroll Aamold  
Board of Public Utilities  
P.O. Box 1469  
Cheyenne, WY 82003

RE: City of Cheyenne, Wyoming, EPA Grant No. C560243-21, North Cheyenne and Sunnyside, Plans and Specifications, DEQ/WQD Ref. Nos. 85-184 through 85-188

Dear Mr. Aamold:

This office has conducted a preliminary review of the plans and specifications for the collection sewers for the Sunnyside and North Cheyenne areas. The proposed work is covered under five Special Improvement Districts. This office has assigned the following application for permit to construct numbers for these Districts:

<u>SID No.</u>	<u>Application No.</u>
1984-4	85-184
1984-5	85-185
1984-6	85-186
1984-7	85-187
1984-9	85-188

Plans and specifications were submitted for every SID except number 1984-4.

The review of the plans and specifications indicate that they are very incomplete. Major sections have been excluded from the specifications. These are sections such as piping material and placement, disinfection, testing, pavement materials and placement, backfill specifications, bid schedule and payment section. The plans do not provide stationing for valves, do not show all bored and cased crossings and do not clearly distinguish between EPA eligible and ineligible work.

It is the understanding of this office after our telephone conversation of April 19, 1985, that the City also still has major review questions on these documents. Your review is still on-going. As we discussed, in an effort to eliminate a duplication of review of the preliminary documents, this office will not conduct any further review at this time. We will await updated documents and a request from the City to begin our biddability/constructability review. Also, applications for Permit to Construct need to be submitted for each project.

Mr. Carroll Aamold  
April 22, 1985  
Page 2

We need to point out some major concerns that this office has that will need to be addressed during the preparation of the plans and specifications. It is now noted that the construction of the EPA eligible collection sewers is to be completed under five separate construction projects. Each project will include both EPA eligible and ineligible work. The bidding documents must very clearly separate between the eligible and ineligible work. The bidding documents need to provide separate bid schedules, if necessary, to allow a determination of EPA reimbursements and to track all EPA eligible work. If it is intended to exclude the EPA ineligible work such as paving and water lines from the Federal provisions such as Davis Bacon, a very clear separation of the requirements must be made.

The review time for this office must take into account the fact that there are now five separate projects proposed. This office will have to review all of the documents for each of the five projects. Also eligibility separations will have to be made for each project. Our review is anticipated to take a minimum of three weeks, possibly four or more, not including response time to our questions. This time should be considered when scheduling the project. Because of the complexity of the multiple projects and eligibility considerations, it is recommended that advertising for bids not begin until the plans and specifications have been approved.

If you have any questions on the above, please contact this office at (307) 777-6351.

Sincerely,



Alan Edwards  
Engineering/Grants Evaluator

GAE/nc

cc: Jim Willey, Engineering, Inc.  
Jon Arason, Cheyenne-Laramie Co. Regional Planning Office  
Jim Murphy, DEQ/WQD, Cheyenne  
Tom Norman, DEQ/WQD, Cheyenne  
Mike Hackett, DEQ/WQD, Cheyenne  
Grant File



REVIEW OF PLANS AND SPECIFICATIONS

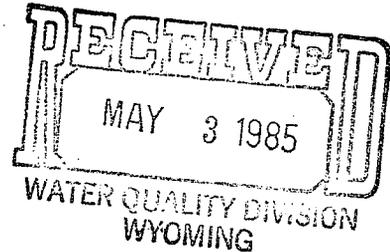
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Sublette Energy Building

ENGINEER: William H. Smith & Associates  
P.O. Box 820  
Green River, WY 82935  
ATTN: Kenneth Dorr

OWNER: D & S Partners  
P.O. Box 820  
Green River, WY 82935



WATER QUALITY DIVISION REFERENCE NUMBER: 85-189

REVIEWING EVALUATOR: Jeff Hermansky

A handwritten signature in black ink that reads "Jeff Hermansky".

DATE OF REVIEW: May 1, 1985

ACTION: Not authorized.

COMMENTS:

This office has conducted a review of the proposed septic tank/leach field for the Sublette Energy Building.

The main concern with your design has to do with the projected wastewater flow rate for the dormitory section of the building. Since the flow rate table in the regulations does not give specific rates for dormitory rooms, you apparently used the rate for single bed motel rooms, or 40 gallons/single bed/day. This is a good reference point but I don't feel it takes into account the wastewater that could be generated by the small kitchen and the single washing machine provided in the dormitory.

To address this additional flow, it seems reasonable to increase the flow per bed to 50 gallons per day. Please adjust your design and plans to provide for this flow rate.

In addition to the flow rate, there are some other lesser items that also need to be addressed before a permit to construct can be issued:

1. Please submit a total of four copies of the plans and specifications. When the plans are permitted, copies are sent to Archives in Cheyenne, one retained in Lander, one sent to Sublette County to use during their inspection, and a stamped copy returned to the engineer.

2. How is the proposed leach field area to be protected from traffic, parking and storage?

ABC

May 1, 1985

Review of Plans & Specs.

Ref. No. 85-189

Page Two

3. The sewer line from the building to the septic tanks should be sloped at a minimum of 2%. Only if there is no possible way to achieve 2% slope will 1% be permitted.

4. Please show a detail of the proposed sewer line cleanouts.

5. How do you propose to split the influent evenly between the two septic tanks? If you elect to use a distribution box, please show a detail. It may be easier to run the septic tanks in series.

6. How far is the well from the proposed leach field? Are there any other wells on adjacent lots?

Please feel free to contact Jack Bedessem, Steve Gerber or me if you have any questions.

PERMIT TO CONSTRUCT

New CORRECTED

Permit No. 85-190R

Renewal

Modified

15th Street Water Improvements  
(Name of Facility)

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

Cheyenne Board of Public Utilities

2100 Pioneer Avenue

Cheyenne, WY 82001

to construct, install, or modify a municipal water distribution facility according to the procedures and conditions of the application No. 85-190R. The facility is located in Section 32, T14N, R66W in the County of Laramie, in the State of Wyoming.

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

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

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

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

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



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

July 8, 1985

Cheyenne Board of Public Utilities  
2100 Pioneer Avenue  
Cheyenne, WY 82001

RE: Permit to Construct #85-190R

Gentlemen:

Enclosed please find the corrected permit to construct for the 15th Street water improvements. The permit previously sent you should be destroyed as it has been brought to our attention that we inadvertently put the wrong county on it. We hope this has not caused you any inconvenience.

Sincerely,

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

Thomas S. Norman  
Water Quality Engineer

TSN/nc  
Enclosures

5-14-85

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-190R  
MA 14542

15th Street Water Improvements  
(Name of Facility)

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

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

to construct, install, or modify a municipal water distribution facility according to the procedures and conditions of the application No. 85-190R. The facility is located in Section 32, T14N, R66W in the County of Carbon, in the State of Wyoming.

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

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

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

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

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

PERMIT TO CONSTRUCT

Permit No. 85-191

MA 14542

- New
- Renewal
- Modified

Phase II Water System Improvements  
 (Name of Facility)

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

South Cheyenne Water & Sewer District

908 Drew Court

Cheyenne, WY 82001

to construct, install, or modify a public water supply distribution system facility according to the procedures and conditions of the application No. 85-191. The facility is located in Sections 8 and 9, T13N, R66W in the County of Laramie, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

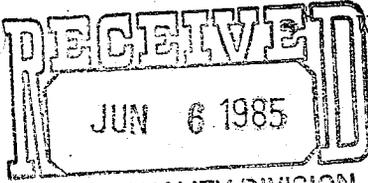
The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

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

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



REVIEW OF PLANS AND SPECIFICATIONS



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

WATER QUALITY DIVISION  
WYOMING  
PROJECT:

Special Improvement District No. 65  
City of Sheridan, Wyoming

ARCHITECT OR ENGINEER: William Mentock  
Engineering Inc. of Wyoming  
45 East Loucks, Suite 301  
Sheridan, Wyoming 82801

WATER QUALITY DIVISION  
REFERENCE NUMBER: 85-192R

REVIEWING ENGINEER: Susan Holmes *SH*

DATE OF REVIEW: June 4, 1985

ACTION: Not Authorized

COMMENTS:

- 1) Manholes 3, 4, 5, 6, and 7 need invert elevations shown for the 8-inch stubs where they tie to the manhole. Are any of these drop manholes?
- 2) Manhole 8 needs a slope, length and invert elevation shown for the 8-inch stub to the north.
- 3) Manhole 10 needs an invert elevation shown on the 8-inch stub.

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Special Improvement District No. 65  
City of Sheridan, Wyoming

ARCHITECT OR ENGINEER: William Mentock  
Engineering, Inc. of Wyoming  
45 East Loucks, Suite 301  
Sheridan, Wyoming 82801

WATER QUALITY DIVISION  
REFERENCE NUMBER: 85-192

REVIEWING ENGINEER: Susan Holmes *SH*

DATE OF REVIEW: April 22, 1985

ACTION: Not Authorized

COMMENTS:

- 1) An engineering design report should be submitted that documents the design of the proposed improvements. The water main extension must be able to provide service at approximately 35 psi minimum pressure under normal operating demands. The maximum allowable pressure is on the order of 100 psi. The system must be capable of providing fire flow to the proposed schools, plus peak day demand and maintain at least 20 psi at all points in the system. Please submit the demand information for the schools, as well as pressure analysis of the proposed water system. Estimated wastewater flows from the schools and any other facility connected to the sanitary sewer should be provided. The sanitary sewer should be sized for 200 percent of the maximum daily flow from these facilities.

Information for the high school can be obtained from TSP Engineering. Demands for the elementary school must be generated and provided in the report.

- 2) A detail of the 3-inch water blow-off valve is needed.
- 3) The maximum distance between water valves is 800 feet. Additional valves are needed along Hill Pond Drive.

Review of Plans and Specifications

85-192, April 22, 1985

Page Two

- 4) A check valve is required on the 3-inch water service line shown on Sheet 4 of 8 for back flow prevention.
- 5) The maximum horizontal and vertical separation between water mains and sewers needs to be identified.
- 6) The maximum deflection of the water main pipe should be identified. If the change in direction is greater than allowed, bends should be installed.
- 7) The intersection of Hill Pond Drive and North Heights Drive as shown on Sheet 4 does not match with what is shown on Sheets 5 and 6. Are the facilities to be stubbed to the south?
- 8) MH 8 at Hill Pond and Long Drives, and MH 12, need to be identified on the plans as drop manholes.
- 9) The following manholes need additional information shown regarding the length and slope of pipes stubbed out: MH 3, MH 4, MH 5, MH 6, MH 7, MH 8, and MH 10. If any of these are to be drop manholes, they should be identified on the plans.
- 10) The pipe connecting the existing manhole on Hill Pond Drive is shown as a storm sewer. Is this correct?
- 11) Why is there a Boring Detail shown on Sheet 8?
- 12) The application must be signed by a representative of the City, not the engineer.



REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: New Sheridan High School  
Sheridan County School District No. 2  
Sheridan, Wyoming

ARCHITECT OR ENGINEER: Dan Allen  
TSP Two, Inc.  
One South Scott Street  
Sheridan, Wyoming 82801

WATER QUALITY DIVISION  
REFERENCE NUMBER: 85-193

REVIEWING ENGINEER: Susan Holmes <sup>SA</sup>

DATE OF REVIEW: April 23, 1985

ACTION: Not Authorized

COMMENTS:

- 1) The water services entering the building must have check valves installed at the meter or in the service line.
- 2) I could not find a material specified for the four inch water service.
- 3) Due to the number of water and sewer crossings, it may be a good idea to include a vertical crossing detail. A thrust block detail for vertical bends should be shown.
- 4) Where does the wastewater from the Boiler Plant go?



Norma

REVIEW OF PLANS AND SPECIFICATIONS

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

PROJECT: Coffee Cup Fuel Stop Septic System

ARCHITECT OR ENGINEER: Edward Scott  
Professional Consulting Associates  
P.O. Box 2185  
Gillette, Wyoming 82716

WATER QUALITY DIVISION  
REFERENCE NUMBER: 85-194

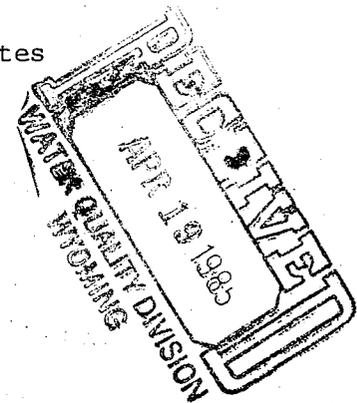
REVIEWING ENGINEER: Susan Holmes SA

DATE OF REVIEW: April 18, 1985

ACTION: Not Authorized

COMMENTS:

- 1) The depth to the seasonal high groundwater or to bedrock or impermeable layer must be shown on the plans. The seasonal high groundwater table must be at least four feet from the bottom of the absorption field stone. Refer to Section 36 (c)(ii) of Chapter XI of the Water Quality Rules and Regulations for additional requirements on groundwater protection. An explanation of how this level was determined should be provided.
- 2) Is Tract A going to be used for parking? If so, the area above the absorption field must be designated as no parking. Absorption systems cannot be located beneath parking lots, roadways or similarly compacted areas.
- 3) The length to width ratio on the septic tank cannot be less than 2:1.
- 4) The baffle on the septic tank outlet must extend into the middle third of the water depth. Please show a dimension.
- 5) An area designated for future expansion or replacement of the absorption bed should be shown on the site plan. This area must meet the same offset distance requirements from other utilities as the original installation.
- 6) The inlet and outlet pipe to the septic tank should be specified as Schedule 40 PVC.





5-14-85

PERMIT TO CONSTRUCT

- New
- Renewal
- Modified

Permit No. 85-196  
 SEE CONDITION ON BACK  
 MA 14542

True Drilling Company  
 (Name of Facility)

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

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

to construct, install, or modify a municipal water distribution facility according to the procedures and conditions of the application No. 85-196. The facility is located in Section 5, T33N, R79W in the County of Natrona, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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



REVIEW OF PLANS AND SPECIFICATIONS

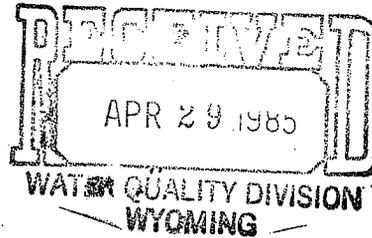
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

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

PROJECT: Smith Subdivision

ENGINEER: Inberg-Miller Engineering  
ATTN: Tom Axthelm  
124 E. Main Street  
Riverton, WY 82501

OWNER: E & M Partnership  
228 Railway Plaza  
Riverton, WY 82501



WATER QUALITY DIVISION REFERENCE NUMBER: 85-197

REVIEWING ENGINEER: Ed Baruth *Ed*

DATE OF REVIEW: April 25, 1985

ACTION: Not authorized.

COMMENTS:

1. On page 12 of our Chapter 11 Rules and Regulations the definition of a sewage collection line is given:

"(c) Collection piping design, construction and testing. A sewage collection line is any conduit that carries wastewater that originates from two or more separate buildings or from a single building that generates more than 2,000 gpd (7.6 m<sup>3</sup>/d) of average daily flow."

All sewage collection lines must be shown in both plan and profile views. Please provide this information and show separation distances from all water mains (or services).

2. Page 75 of our Chapter 12 Rules and Regulations require that "All irrigation connections, whether as a direct service tap or from a residential service, shall be provided with back flow prevention employing one of the following methods:

1. A double check valve approved by the Cross-Connection Control Foundation of University of Southern California in the system line.

2. An approved reduced pressure principal backflow prevention device in the system line.

3. An approved Pressure Vacuum Breaker Valve located at an elevation at least 12" above the highest sprinkler head, or flood level, and a spring loaded check valve downstream of the vacuum valve."

*AC*

April 25, 1985  
Review of Plans and Specs.  
Ref. No. 85-197  
Page Two

further "commercial connections which have no water use other than for domestic purposes must provide a check valve at the meter or in the service line. Commercial connections using water for any use beyond domestic purposes or which employ any chemicals or hazardous materials in their business operations must provide the cross-connection protection as listed in the Industrial Connections Section."

EB/jw



THE STATE OF WYOMING

ED HERSCHLER  
GOVERNOR

*Department of Environmental Quality*  
*Water Quality Division*

HERSCHLER BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE 307 777-7781

December 20, 1985

Mr. Keith Lundine  
City Engineer  
P.O. Box C  
Laramie, WY 82070

RE: Liner for Alum Feed Tank, DEQ/WQD Permit No. 85-198

*Per. No.  
(85-607)*

Dear Mr. Lundine:

This is to confirm our telephone conversation of December 19, 1985. With regards to changing the liner in the Alum feed tank (DEQ/WQD Permit No. 85-198), an additional permit to construct is not required. The application is being returned to you and the information submitted will be filed with the approved plans and specifications. If you have any questions, please contact this office.

Sincerely,

Christian G. Norman  
Engineering Evaluator

CGN/nc

PERMIT TO CONSTRUCT

Permit No. 85-198

MA 14542

- New
- Renewal
- Modified

Laramie Water Treatment Plant - Alum Feed System  
(Name of Facility)

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

City of Laramie

P.O. Box C

Laramie, WY 82070

to construct, install, or modify a liquid alum feed system at municipal water treatment plant according to the procedures and conditions of the application No. 85-198.

The facility is located in Section 23, T14N, R76W in the County of Albany, in the State of Wyoming. This permit shall be effective for a period of two (2) years (five (5) years maximum) from the date of issuance of this permit.

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

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

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

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

Review of Plans and Specifications

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

PROJECT: Laramie Water Treatment Plant Improvements, Albany Co.

ARCHITECT OR ENGINEER: Wesley Bressler, City of Laramie  
P.O. Box C, Laramie, WY 82070

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

WATER QUALITY DIVISION REFERENCE NUMBER: 85-198

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

DATE OF REVIEW: April 30, 1985

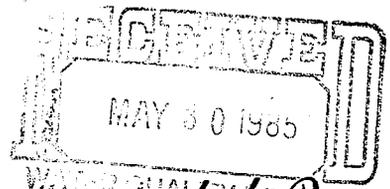
ACTION: NOT AUTHORIZED FOR CONSTRUCTION

COMMENTS:

1. The plans and specifications were not signed by a professional engineer.
2. Three copies of the submittal are necessary.
3. No specifications were provided on the alum pump.
4. What controls will be used to run the pump?
5. A design report needs to be submitted explaining the rationale for the proposed modification.



*Norma*



ED HERSCHLER  
GOVERNOR

Department of Environmental Quality

Water Quality Division

210 LINCOLN STREET

LANDER, WYOMING 82520

TELEPHONE 307-332-3144

May 22, 1985

*85-199  
end  
85-200*

Black Butte Coal Company  
ATTN: Scott Kamber  
P.O. Box 98  
Point of Rocks, WY 82942

RE: Applications for ST-4 and Squawfish Ponds

Dear Mr. Kamber:

I have reviewed your applications for permits to construct the proposed ST-4 and Squawfish water holding ponds.

Since the quality of the water to be contained in each of the ponds is generally of a higher quality than the nearest groundwater, I agree with your assessment that permits to construct are not required.

I also agree with your future policy of submitting the necessary information for Water Quality Division review for any "storage type" ponds that are proposed by Black Butte Coal. Such coordination may help to avoid any potential misunderstanding regarding what does or doesn't need to be permitted.

Thank you for the opportunity to review the ST-4 and Squawfish ponds proposals.

Sincerely,

Jeff Hermansky  
Water Quality Evaluator

JH/jw

copy: John Erickson, DEQ/LQD, Lander  
Bruce Grewcock  
File