

VRS ✓ 9-11-06
VARIANCE REQUEST

Iowa Department of Natural Resources

13.10.4

1. Date	: 10/18/94	13. Decision:	Denied
2. Review Engineer	: Billy Chen	Date:	10/20/94
3. Date Received	: 10/7/94		
4. Facility Name	: City of Lamoni	14. Appeal:	
5. County Number	: 27	Date:	
6. Program Area	: CP		
7. Facility Type	: CO2		
8. Subject Area	: 327		
9. Rule Reference	: 64.2(9)		
10. Design Std. Ref.	: 13.10.4		
11. Consulting Engr.	: V&K		
12. Variance Rule	: 64.2(9) C		

15. Description of Variance Request

Our design standards requires that valves for submersible pumps shall be located in a separate valve pit. The city is proposing to use submersible pumps with check valve as an integral part of the pumps, which can be removed with the pumps for servicing. The city, therefore, proposing to bury the positive closure valves in lieu of providing a separate valve pit.

16. Consulting Engineer's Justification

1. Valve pit is for providing access to the check valve and shutoff valve for maintenance. Historically, the check valve has required the most maintenance. With the proposed check valves as an integral part of pumps. It will not be necessary to provide access to

16. Consulting Engineer's Justification (cont.)

the low maintenance shutoff valve.

2. Lamoni municipal Utilities has agreed excavate the valves if they require maintenance.
3. This type of valve arrangement has been approved by the DNR in Sigourney and Gladbrook.

17. Department's Justification

We recommend the requested variance to delete a separate valve pit be denied for the reasons of

1. Additional time would be required to uncover the valves for servicing, and, therefore, would not provide for at least equivalent or improved effectiveness.
2. We do not have record on Gladbrook project. We did approve Sigourney Variance ^(11/1/94) after ^(11/1/94) he said we approved it. It was approved because it serves an industrial area that has adequate non-use period to permit maintenance or replacement of buried shutoff valve.
3. We have denied all other variance request on this ~~stop~~ subject area.

18. Precedents Used

City of Chillicothe	— denied	5/10/90
Oak Ridge Estate	— denied	5/26/89
City of Rome	— denied	8/6/92
City of Mystic	— denied	7/16/86

19. Staff Reviewer

: *Billy*

Date: 10/17/94

20. Supervisor

: *Donna*

Date: 10-18-94

21. Authorized by

: *Daniel McAllister*

Date: 10/20/94

Lamoni, Sewage



FERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

LARRY J. WILSON, DIRECTOR

October 21, 1994

Mr. Robert A. Moore
Lamoni Municipal Utilities
111 South Chestnut Street
Lamoni, Iowa 50140

Re: Variance Request Denied
A-Z Pumping Station
Lamoni, Iowa

Dear Mr. Moore:

The city's consulting engineer, in a letter dated October 7, 1994, requested on behalf of the Lamoni Municipal Utilities, a variance from Iowa Wastewater Facilities Design Standard 13.10.4. This standard requires a separate valve chamber outside submersible pump stations for the location of the check valves and shutoff valves on the discharge lines from the submersible pumps.

Your request of burying a shutoff valve and a valve box adjacent to the wet well has been denied. A separate valve chamber will be required for this project. We could allow the check valves to be located in the wet well if they are specially designed as a component of the submersible pump which can be lift out with the pump for servicing. We would, however, still require a separate valve chamber be provided for the shutoff valves to prevent the need of digging valves out for maintenance.

If you have any questions concerning this letter, please do not hesitate to contact Mr. Billy Chen of this office at 515/281-4305.

Sincerely,

DARRELL MCALLISTER, CHIEF
SURFACE & GROUNDWATER PROTECTION BUREAU

cc: Region 5
V & K - West Des Moines



VEENSTRA & KIMM, INC.

October 7, 1994

Billy Chen
Iowa Department of Natural Resources
Wallace State Office Building
900 East Grand Avenue
Des Moines, Iowa 50319

LAMONI MUNICIPAL UTILITIES
A-Z SANITARY SEWER, PUMPING STATION AND FORCE MAIN
PUMPING STATION DESIGN CONSIDERATIONS

This letter is in response to our recent telephone discussion regarding the pumping station for the A-Z Sanitary Sewer, Pumping Station and Force Main project. During the conversation, questions were raised about the absence of a valve manhole and the availability of standby power.

VALVE MANHOLE

A valve manhole is not being proposed for this project. It is our understanding the purpose of the valve manhole is to provide access to the check valves and shutoff valves for maintenance. Historically, the check valve has required the most maintenance because of the constant movement and wear on the disc. Because of the small size of the pumps for this project, it is possible to install the check valves in the wet well in such a manner that they are removable with the pumps from the ground surface. With the check valve removable with the pump, the only reason for the valve manhole would be to provide access to the low maintenance shutoff valves. We are proposing to direct bury the shutoff valves as is done for numerous water main shutoff valves across Iowa. Lamoni Municipal Utilities has agreed to excavate the valves if they require maintenance and they have the equipment necessary to perform the excavation work.

This type of valve arrangement has been approved by the Iowa Department of Natural Resources for other projects throughout the state. The projects we are aware of as reported by the pump suppliers for this project include Industrial Park Improvements for Sigourney, Iowa, CDBG 93-PF-001 as designed by French-Reneker and a project in Gladbrook as designed by Fox Engineering.

A valve manhole is also a confined space as defined by OSHA. Removal of the valve manhole eliminates a potentially dangerous environment from the site.

Billy Chen
October 7, 1994
Page 2

The Lamoni Municipal Utilities is requesting a variance from paragraph 13.10.4 of the IDNR Wastewater Facilities Design Standards requiring a valve manhole because the valve manhole is not necessary and is a potentially dangerous environment.

STANDBY POWER

Lamoni Municipal Utilities owns and operates its own electrical service for the City of Lamoni. Lamoni Municipal Utilities has sufficient backup generator capacity at the electrical plant to provide electrical service for the entire City. In the event of a localized power outage, the pump station is equipped with an alarm and the Lamoni Municipal Utilities has the manpower and resources to respond quickly to that alarm to reinstate electrical service to the pump station.

If you have any questions or comments, please contact us at 225-8000.

VEENSTRA & KIMM, INC.

A handwritten signature in dark ink, appearing to read "Forrest Aldrich". The signature is fluid and cursive, with the first name "Forrest" written in a larger, more prominent script than the last name "Aldrich".

Forrest Aldrich

FSA:jgt
13846
cc: Robert A. Moore, LMU