

# VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date	: Jan 29, 1991	13. Decision:	Approved
2. Review Engineer	: Bob Graf	Date:	2-4-91
3. Date Received	: Jan 25, 1991		
4. Facility Name	: ANKENY	14. Appeal:	
5. County Number	: 77	Date:	
6. Program Area	: CP		
7. Facility Type	: COG		
8. Subject Area	: 334		
9. Rule Reference	: 64.2(9)		
10. Design Std. Ref.	: 17.31.1.C.2		
11. Consulting Engr.	: Veenstra and Kimm		
12. Variance Rule	: 64.2(9)		

## 15. Description of Variance Request

The above-referenced standard deals w/ ACCESS manholes to digesters. The applicable part of the standard deals specifically with side access manholes. The current design does not provide one.

## 16. Consulting Engineer's Justification

Both digesters are substantially buried in the ground. Each is at least buried 11 feet around the entire perimeter. This is above the minimum (empty) elevation. standards require 24"  $\phi$  access



TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
LARRY J. WILSON, DIRECTOR

File Name ANKENY S.E. Sewer  
Senders Initials RDG

January 29, 1991

Mr. Richard D. Ash  
Director of Community Services  
211 SW Walnut  
Ankeny, IA 50021

RE: Approval of Variance to Design Standards  
Southeast Water Pollution Control Plant Expansion-Phase 3  
Ankeny, Iowa  
C190790 11

Dear Mr. Ash:

The Iowa Department of Natural Resources has reviewed the response to comment number 2 of this department's January 24, 1991, comment letter on the design of the above-referenced project. Chapter 17.3.1.1.c.2 of the Iowa Wastewater Facilities Design Standards requires a side access manhole for all anaerobic digesters. The side access is to permit the use of mechanical equipment to remove grit and sand.

The design complies with the other aspect of this standard that requires two 24-inch diameter top access manholes. The design provides two 48-inch diameter top access manholes, large enough to provide access to the necessary mechanical equipment for which the standard was written. As a result of providing the larger top access openings, we have determined that the proposed design meets the equivalency test necessary to grant a variance to the standard.

If you have any questions or comments, please contact Bob Graf at 515/281-5917.

Sincerely,

DARRELL McALLISTER  
CHIEF  
SURFACE AND GROUNDWATER PROTECTION BUREAU

DMAc:RDG:ANKVAR.LET

cc: Veenstra and Kimm, Inc., West Des Moines, Iowa  
field office 5, Des Moines, Iowa

16. Consulting Engineer's Justification (cont.)

M.H.'s on cover. Design provides for 48"  $\phi$  openings. ENGR. says that if digester needs to be cleaned of Grit, submersible pumps can be lowered into the digester thru these cover openings. - - -

17. Department's Justification

The intent of side access is for cleaning. The standard has not been upgraded since 1979 and before that was in Ten states. The standard says the purpose for the side access is ~~for~~ to access the digester w/ mechanical equipment. ENGR says this can be done from TOP access. Equivalent effectiveness appears to be provided.

18. Precedents Used

W. UNION on 3/18/87 was granted a variance for digester access that provided less equivalency than this design

19. Staff Reviewer

:

Date: 1/29/90

20. Supervisor

:

Date: 1/29/91

21. Authorized by

:

Date: 2/4/91