✓ ✓ 9-8-06

VARIANCE REQUEST
Iowa Department of Natural Resources

1. Date:	May 27, 2003	13. **Decision:**	Denied
2. Review Engineer:	Boris Eliosov	Date:	5/29/03
3. Date Received:	May 5, 2003		
4. Facility Name:	Coralville	14. **Appeal:**	
5. County Number:	52	Date:	
6. Program Area:	CP (Wastewater Construction)		
7. Facility Type :	C05 (Biological Treatment)		
8. Subject Area :	314		
9. Rule Reference:	567-64.2(9)a		
10. Design Stds Ref:	13.10.4		
11. Consulting Engr:	MMS Consultants		
12. Variance Rule:	567-64.2(9)c		

15. Description of Variance Request:

Russell Gerdin has submitted a project that includes construction of a lift station with two submersible pumps. Design Standard 13.10.4 requires valves to be located in a separate valve chamber. MMS Consultants, Inc. requests a design variance to allow check valves to be located in a wet well.

16. Consulting Engineer's Justifications

The proposed design incorporates ball check valves attached to submersible pumps. Each valve can be accessed by lifting the associated pump from the wet well.

17. Department's Justifications

Recommend variance denial:

This design has been previously approved only for pilot projects in small communities. Some of those previous installation were not successful (e.g., Floris, Arispe, Tingley) indicating that the proposed design does not provide an equivalent or improved efficiency required by 567 IAC 64.2(9).

18. Precedents Used

Floris – Approved 8/1/1995, Arispe - Approved 7/15/1996, Tingley - Approved 7/11/1996,
Mt. Vernon – Denied 5/24/1989, Lamoni – Denied 10/20/1997, Kinross – Denied 6/8/2001

19. Staff Reviewer: BEliosov Date: 5/27/03

20. Supervisor: Date: 5/28/03

21. Authorized by: J Riessen (Denied) Date: 5/29/03

Fields of Opportunities

STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
JEFFREY R. VONK, DIRECTOR

May 27, 2003

Russell Gerdin
2777 Heartland Drive
Coralville, IA 52241

RE: Heartland Plaza Part 8

Dear Mr. Gerdin:

The Iowa Department of Natural Resources received your engineer's variance request from Design Standard 13.10.4. This design standard requires valves to be located in a separate valve chamber. According to the proposed design, check valves are attached to submersible pumps and located in a wet well and gate valves are buried.

Your engineer's letter indicates that each check valve can be accessed and serviced by lifting the associated pump from the wet well.

According to 567 IAC 64.2(9)c, variance from Iowa Design Standards shall provide for substantially equivalent or improved effectiveness and can be approved when there are unique circumstances not found in most project. In the judgement of the Department, the proposed design does not meet these requirements. Therefore, the requested design variance has been denied.

Pursuant to Section 567.64.2, Code of Iowa, you have the right to appeal this decision to the Environmental Protection Comission.

If you have any questions, please contact Boris Eliosov at 515/281-7953. My telephone number is 515-281-5029.

Sincerely,

Jack Riessen, Chief
Water Quality Bureau

c.: MMS Consultants, Inc.
Field Office # 6

WALLACE STATE OFFICE BUILDING / 502 EAST 9th STREET / DES MOINES, IOWA 50319
515-281-5918 TDD 515-242-5967 FAX 515-281-6794 www.state.ia.us/dnr

MMS CONSULTANTS, INC.

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Duane A. Musser	L.A.
Randy L. Williams	M.C.P.
Paul V. Anderson	P.E.
Edward H. Brinton	P.E.
Kelly J. Beckler	P.E.
Mark A. Stein	L.S.
Cary J. Solberg	P.E.
Lucas C. Newton	L.A.

CIVIL ENGINEERING LAND SURVEYING LAND PLANNING LANDSCAPE ARCHITECTURE ENVIRONMENTAL SPECIALISTS

May 5, 2003 0672-062

Mr. Boris Eliosov
Iowa DNR Wastewater Section
Wallace State Office Bldg.
Des Moines, IA 50319-0034

RE: Wastewater Construction Permit
Heartland Plaza Part Eight, Coralville

Dear Boris:

In response to our April 30 phone conversation, I included three items for your review and approval.

1. We revised sheet 4 of the construction plans to show a lift station roof vent. The attached sheet 1 is an addendum to the plans previously submitted for your review.

2. We revised the attached Schedule B to note service area for the proposed lift station. Sheet 2 presents supporting calculations which translate the service area to population, and subsequently a design flow.

3. We request a variance from Iowa DNR Wastewater Design Standards section 13.10.4. Our design incorporates use of a ball check valve attached directly to each submersible pump. Details for the check valve are shown on sheets 3 and 4. Each check valve can be accessed by lifting the associated pump from the wet well. This configuration functions identically to a configuration which locates the check valves in a valve chamber prescribed by section 13.10.4. If a check valve malfunctions, we believe our design will be easier to repair since the valve is detached from the discharge piping when it is removed from the wet well. Our design also avoids additional costs and constraints associated with construction of the separate valve vault. Please consider our variance request and permit use of the ball check valves as shown.

We trust these responses will allow you to issue the construction permit for this project. Please call me if you have any questions.

Sincerely,

MMS Consultants, Inc.

Cary J. Solberg, P.E.

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