

## VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date: September 24, 2007  
2. Review Engineer: Emy W. Liu  
3. Date Received: September 14, 2007  
4. Facility Name: Long Grove WWTP  
5. County Number: 82 (Scott)  
6. Program Area: CP(Wastewater Construction)  
7. Facility Type : C04(Physical Treatment)  
8. Subject Area : 369 (Bypass Channel Screen)  
9. Rule Reference: 567-64.2(9)a  
10. Design Stds Ref: 15.2.4.2.4 (channels)  
11. Consulting Engr: Missman Stanley & Associates  
12. Variance Rule: 567-64.2(9)c

13. Decision: *approved*

Date: *10/1/07*

14. Appeal:

Date:

15. Description of Variance Request:

The engineer requested a variance from the IA 15.2.4.2.4 that requires a bypass channel with gates to isolate flow from the mechanical screening unit.

16. Consulting Engineer's Justifications

1. The mechanical screen can be pivoted out of the flow channel for maintenance and can be removed from the building, if necessary. With the screen removed, the manual bar screen in the same channel will perform satisfactorily.
2. This variance provides for a cost-effective design since bypass channels or valves are not necessary and the building size is reduced.

17. Department's Justifications

Approval is based on the following reasons:

1. The bypass channel is required in IA 15.2.4.2.4 for a fixed mechanical screening unit which cannot be removed from the channel if any repair for the screen is needed. The mechanical screen in this design can be swung out of the water and be isolated from the flow.
2. The manual screen, which is usually kept in the screening building, can be installed in the screening channel in a convenient way to replace mechanical screen for a temporary period of time.
3. The design variance will result in the equivalent effectiveness while significantly reduce the cost.

18. Precedents Used

Dyersville (May 15, 2001), approval.

19. Staff Reviewer: Emy Liu

20. Supervisor:

21. Authorized by: *[Signature]*

Date: September 24, 2007

Date:

Date: *10/1/07*



# STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

September 24, 2007

The Honorable Jack L. Hill  
Mayor of Long Grove  
P.O. Box 210  
Long Grove IA 52756-0210

SUBJECT: Variance from IA 15.2.4.2.4

Long Grove, Iowa  
CS192327 01

Dear Mayor Hill:

The Iowa Department of Natural Resources in accordance with Subrule 567—64.2 (9) c of the Iowa Administrative Code has approved your September 13, 2007 request for a variance from the Department Rule 567—64.2 (9) b, I.A.C. and Chapter 15.2.4.2.4 of the Iowa Wastewater Facilities Design Standards, which requires a bypass channel and equipped with the necessary gates to isolate flow from any single mechanical screening unit. Based on the documentation presented by the design engineer, it is the determination of this Department that satisfactory justification has been presented to warrant the granting of a variance to the City of Long Grove for using a single screening channel for mechanical screen and manual screen.

This decision is based on our review of justification presented to support the request and our concurrence that the resulting project will provide substantially equivalent effectiveness as would be provided by technical compliance with the design standard on this issue.

Should you have any questions or comments, please contact me by phone at (515) 281-8509 or by email at [Emy.Liu@dnr.state.ia.us](mailto:Emy.Liu@dnr.state.ia.us).

Sincerely,

Emy W. Liu  
Project Manager  
Wastewater Section

*Sewage File : 6-8-25-10-01*  
c: Verbeke-Meyer Consulting Engineers, P.C., Davenport, IA  
Missman, Stanley & Associates, P.C., Rock Island, IL  
Field Office #6

WALLACE STATE OFFICE BUILDING / 502 EAST 9th STREET / DES MOINES, IOWA 50319-0034

515-281-5918 TDD 515-242-5967 FAX 515-281-6794 [www.iowadnr.gov](http://www.iowadnr.gov)



September 13, 2007

Emy W. Liu, Ph. D.  
Project Manager  
Environmental Services Division  
Iowa Department of Natural Resources  
502 East 9<sup>th</sup> Street  
Des Moines, IA 50319

Re: City of Long Grove  
Wastewater Treatment Plant  
Loan No. 192327 01  
Variance Request

Dear Ms. Liu:

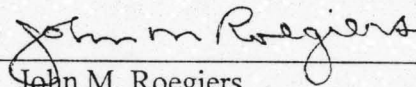
On behalf of the City of Long Grove, we hereby request a variance from the Iowa Wastewater Facilities Design Standards in Section 15.2.4.2.4 that requires a bypass channel with gates to isolate flow from the mechanical screening unit. We feel the request is justified due to the fact that the screen can be pivoted out of the flow channel for maintenance and can be removed from the building, if necessary. With the screen removed, the manual bar screen in the same channel will perform satisfactorily. The intent of Sec. 15.2.4.2.4 is to allow maintenance on a mechanical screen that is fixed in the channel. Instead of isolating flow from the screen, the screen is being isolated from the flow by removing it from the flow. This provides for a cost-effective design since bypass channels or valves are not necessary and the building size is reduced.

Based on the above, we are requesting that a variance from Sec. 15.2.4.2.4 be granted. If you have any questions, please let us know.

Sincerely,

MISSMAN, STANLEY & ASSOCIATES, PROF. CORP.

By

  
John M. Roegiers

JMR:g  
encl.

c: City of Long Grove  
Verbeke-Meyer Consulting Engineers

10501 SEP14'07 AM 9:43

1011 27<sup>th</sup> Avenue, P.O. Box 6040 • Rock Island, Illinois 61204-6040  
Phone: 309.788.7644 • Fax: 309.788.7691 • www.missman.com