

Variance File: Chap 15.2.4.2.1 Eml



STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

August 21, 2002

The Honorable Marvin D. Steffen  
Mayor of Corning  
601 6<sup>th</sup> Street  
Corning, Iowa 50841-1503

SUBJECT: Variance from IA 15.2.4.2.1

Corning, Iowa  
CS192206 01

Dear Mayor Steffen:

The Iowa Department of Natural Resources in accordance with Subrule 567—64.2 (9) c of the Iowa Administrative Code has approved your March 20, 2002 request for a variance from the Department Rule 567—64.2 (9) b, I.A.C. and Chapter 15.2.4.2.1 of the Iowa Wastewater Facilities Design Standards, which requires a minimum of 5/8-inch opening for the mechanical screen. 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 Corning for using a minimum clear opening of 1/4-inch for the mechanical 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.

If there are any questions, please feel free to contact Emy Liu at 515/281-8509.

Sincerely,



Jack Riessen, P.E., Chief  
Water Quality Bureau

c: Howard R. Green Company, Des Moines  
Field Office 4

✓ 9-8-06

## VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date: August 21, 2002  
2. Review Engineer: Emy W. Liu  
3. Date Received: March 20, 2002  
4. Facility Name: Corning WWTP  
5. County Number: 02(Adams)  
6. Program Area: CP(Wastewater Construction)  
7. Facility Type : C04(Physical Treatment)  
8. Subject Area : 329 (bar racks and screens)  
9. Rule Reference: 567-64.2(9)a  
10. Design Stds Ref: 15.2.4.2.1 (bar spacing)  
11. Consulting Engr: Howard R. Green Company/Des Moines  
12. Variance Rule: 567-64.2(9)c

13. Decision: *Approved*  
Date: *8/26/02*

14. Appeal:  
Date:

15. Description of Variance Request:

Utilize a mechanical screen with 1/4-inch openings as opposed to the minimum 5/8-inch clear openings required by Iowa Design Standards.

16. Consulting Engineer's Justifications

1. A fine screen is proposed because of the requirement of the following Aero-Mod process unit.
2. This type of screen has been operated successfully in at least nine towns in Iowa.
3. If the screen becomes totally blinded, the flow will back-up and be pumped to the equalization basin.

17. Department's Justifications

1. Mechanical screens with openings less than 5/8-inch are an accepted engineering design practice and have been proved by numerous Iowa wastewater treatment facilities.
2. Ten State Standards (1997) do not include a minimum sizing for the traditional mechanical bar screens.

18. Precedents Used

Cherokee, Humbolt, Wellman, West Liberty, Altoona, Osage, Nora Springs, Clear Lake, Waukee, etc.

19. Staff Reviewer: *Emy W. Liu*  
20. Supervisor: *[Signature]*  
21. Authorized by: *J. Kleschen*

Date: *Aug 21, 2002*  
Date: *8/29/02*  
Date: *8/26/02*