



TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
LARRY J. WILSON, DIRECTOR

October 10, 1996

David Reit, Utilities Superintendent  
City of Emmetsburg  
PO Box 417  
Emmetsburg, IA 50536

SUBJECT: Wastewater Pumping Design Variances  
Emmetsburg Hydraulic Design Improvements

Dear Mr. Reit:

The Iowa Department of Natural Resources has reviewed a variance request for the City of Emmetsburg wastewater treatment plant hydraulic capacity improvements project. Your request for a variance from Design Standard 13.4.1, *Pumping Rate and Number of Units* for sewage pumping stations, is approved. This approval is conditioned on the provision of an uninstalled pump at the wastewater plant as provided for in the submitted plans and specifications.

Should you have any questions please call Bill Graham at (515) 281-5917.

Sincerely,

Darrell McAllister, Chief  
Water Quality Bureau

cc: DGR Engineering, 315 First Ave., Rock Rapids, IA 51246  
Field Office 3

6-74-28-0-02  
wsj  
dz

## VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date: October 8, 1996  
2. Review Engineer: Bill Graham  
3. Date Received: August 30, 1996  
4. Facility Name: Emmetsburg WWTF  
5. County Number: 74, Palo Alto  
6. Program Area: CP (wastewater)  
7. Facility Type : C04  
8. Subject Area : 315, no. of pumps  
9. Rule Reference: 567-64.2(9)a  
10. Design Stds Ref: 13.4.1  
11. Consulting Engr: DGR Engineers, Rock Rapids  
12. Variance Rule: 567-64.2(9)c

13. Decision: *Approved*  
Date: *10/11/96*

14. Appeal:  
Date:

### 15. Description of Variance Request:

The variance request is for increasing the design hydraulic capacity of the city's wastewater treatment plant pumping station without increasing the installed firm pumping capacity. Design standards require that PHWW pumping capacity be provided with the largest pump out of service. The city has proposed having an uninstalled pump at the site in lieu of design standard requirements.

### 16. Consulting Engineer's Justifications

The existing pump station is structurally integral to the fine screens, there are 3 fine screens and 3 pumps. The proposed construction project consists of the replacement of the three existing 4 foot static screens with three 6 foot screens. To provide capacity during PHWW flows, all three pump and screen combinations must be operating. Providing firm capacity at PHWW flow would require major reconstruction of the pump station, screen building, etc. Since the existing pumps are of the submersible type with quick disconnects and guide rails, they can be quickly replaced in an hour or two.

### 17. Department's Justifications

Recommend approval since the uninstalled pump can replace the existing pumps quickly if there is a replacement pump on site as proposed. Providing installed PHWW flow capacity would require significant plant reconstruction.

### 18. Precedents Used

Johnston, approved, uninstalled pump provided.

19. Staff Reviewer: William Graham

20. Supervisor:

21. Authorized by:

Date: 10-8-96

Date: *10/8/96*

Date: *10/9/96*