

✓ 9-8-06 15.2.4.2.1

VARIANCE REQUEST
Iowa Department of Natural Resources

1. Date: February 6, 1996	13. Decision:
2. Review Engineer: Bill Graham	Date:
3. Date Received: January 11, 1996	
4. Facility Name: Sully WWTF	14. Appeal:
5. County Number: 50, Jasper	Date:
6. Program Area: CP (wastewater)	
7. Facility Type: C04	
8. Subject Area: 329, bar racks	
9. Rule Reference: 567-64.2(9)a	
10. Design Stds Ref: 15.2.4.2.1, bar spacing	
11. Consulting Engr: Shive-Hattery Engrs., Iowa city, Iowa	
12. Variance Rule: 567-64.2(9)c	

15. Description of Variance Request:

The variance request is for a 1/2 inch clear space between bars for a manually cleaned bar rack. Design standards require a minimum clear space of 1 inch for manually cleaned screens.

16. Consulting Engineer's Justifications

Better screening than that provided by a 1 inch clear space is needed since there is no primary clarifier preceding the Biolac activated sludge treatment system. Should the screen clog, the wastewater would back up to the flow measurement/diversion structure where it would be diverted to equalization basins with 10 million gallons storage capacity.

17. Department's Justifications

Recommend approval since a backup caused by a clogged screen would be automatically diverted to the equalization basins which have a 15 day storage capacity at peak flow. Screens with a clear space greater than 1/2 inch will not catch smaller plastics.

18. Precedents Used

Tama mechanical bar screen approved for 3/8 inch clear space while standards require a minimum clear space of 5/8 inches. Reason was to eliminate plastics.

19. Staff Reviewer: William Graham

Date: 2-6-96

20. Supervisor: 

Date: 2/8/96

21. Authorized by: 

Date: 2/9/96

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TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

February 9, 1996

Honorable Gordon Yarrington, Mayor
City of Sully
PO Box 217
324 Sixth Avenue
Sully, IA 50251-0217

Subject: Bar Screen Variance, Wastewater Treatment Project

Dear Mayor Yarrington:

The Iowa Department of Natural Resources has reviewed your variance request for a clear space of 1/2 inch for a manually cleaned bar screen in your proposed wastewater treatment improvement project. The minimum clear space allowed for manually cleaned bar screens in Design Standard 15.2.4.2.1 is one inch. Your request for a variance from Design Standard 15.2.4.2.1 is approved based on the provision of an overflow to the equalization lagoons should the bar screen become clogged. The city must also ensure that stored screenings do not become a nuisance and that diversion of wastewater to the equalization basins from a clogged bar screen does not become a regular occurrence.

If you have any questions or comments on this project, please call Bill Graham at (515) 281-5917.

Sincerely,

Darrell McAllister, Chief
Water Quality Bureau

cc: Shive Hattery Engineers, PO Box 1050, Iowa City, Iowa 52244-1050
Field Office 5