



TERRY E. BRANSTAD, GOVERNOR

Winterset Sewage
TLK

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

August 6, 1992

Mr. Mark Nitchals
City Administrator
101 E. Jefferson
Winterset, Iowa 50273

RE: Design Variance - Bar Screen Spacing
Winterset, Iowa
C190743 02

Dear Mr. Nitchals:

The Iowa Department of Natural Resources has reviewed your request for a variance from design standard 15.2.4.2.1. Your bar screen proposal using a 1/2" rather than a 5/8" opening is approved provided the plans and specifications are modified to include a high water overflow directing all wastewater to adjacent channels should the mechanical bar screen malfunction for an extended period of time. This safe guard is not evident and should be provided for both bar screen systems, mechanical and manual.

Should you have any questions, please call. My telephone number is 515-281-8869.

Sincerely,

Darrell McAllister, Chief
Surface and Groundwater Protection Bureau

cc: Field Office 5
Vance and Hochstetler, Winterset
Snyder and Associates, Ankeny

VARIANCE REQUEST

Iowa Department of Natural Resources

✓ 9-8-06

1. Date	: 8-6-92	13. Decision:	Approved
2. Review Engineer	: Terry Kirschman	Date:	8/7/92
3. Date Received	: 8-4-92		
4. Facility Name	: Wintense +	14. Appeal:	
5. County Number	: 61	Date:	
6. Program Area	: cp		
7. Facility Type	: 005		
8. Subject Area	: 329		
9. Rule Reference	: 64.2(9)		
10. Design Std. Ref.	: 15.2.4.2.1		
11. Consulting Engr.	: Snyder and Associates		
12. Variance Rule	: 64.2(9) c		

15. Description of Variance Request

Use an opening width of $\frac{1}{2}$ inch
for a mechanical bar screen rather
than $\frac{5}{8}$ inch.

16. Consulting Engineer's Justification

More plastic material will be removed
from the wastewater thereby providing
better protection for the plastic media
trickling filters.

16. Consulting Engineer's Justification (cont.)

17. Department's Justification

The concern is valid. Ames has observed some plastic material on the surface of its trickling filters. Ames uses $\frac{1}{2}$ inch opening screens but grinds it up and sends it back to the wastewater. Ames has stated that tampons will be removed by a screen with a $\frac{1}{2}$ inch opening but they will still get through a $\frac{5}{8}$ inch opening.

The channel size will allow the use of a $\frac{5}{8}$ inch opening if it is ever desired at a future date.

18. Precedents Used

Stony City has a rotating screen with an opening of 0.06 inch.

Ames uses a $\frac{1}{2}$ inch opening but grinds up screened material and returns it to wastewater.

19. Staff Reviewer	: Terry Kinschman	Date: 8/6/92
20. Supervisor	: Gabe Jaramal	Date: 8/6/92
21. Authorized by	: David H. Albright	Date: 8/7/92



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SNYDER & ASSOCIATES, INC.

Terry Kirschenman, P.E.
Project Manager
Wastewater Permits Section
Iowa Department of Natural Resources
Wallace State Office Building
900 East Grand Avenue
Des Moines, IA 50319

RE: VARIANCE REQUEST
BAR SCREEN BAR SPACING
WASTEWATER TREATMENT PLANT IMPROVEMENTS
WINTERSET, IOWA
90-405-G

Dear Terry,

On behalf of the City of Winterset, we request a variance from your department's design standards for bar screen openings. The requested bar screen opening width is 1/2"; this is smaller than the minimum width of 5/8" of the current IDNR design standards.

The requested 1/2" openings have been used successfully at other Iowa facilities, including Ames. The 1/2" openings improve the removal of plastic materials which pass 5/8" openings. The removal of these plastic materials has been a concern of your department, as expressed in several letters to the City of Winterset.

The requested 1/2" openings offer improved performance at no significant cost difference than the 5/8" openings. We request your department's variance from the IDNR design standards on this requirement.

Please call the writer with any questions or requests for additional justification.

Sincerely,

SNYDER & ASSOCIATES, INC.

Russ Stammer, P.E.

RDS:sm

cc: Jim Hochstetler, Vance & Hochstetler, P.C.

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WP/LTR/71/90405G1/LTR