Variance File
TCK
15.2.4.2.1

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
LARRY J. WILSON, DIRECTOR

January 8, 1999

The Honorable Bernard Kult
Mayor of Cherokee
416 W. Main St.
Cherokee, Iowa 51012

RE: Wastewater Screening Facilities
Cherokee, Iowa
CS192127 01 and 02

Dear Mayor Kult:

The Iowa Department of Natural Resources has considered the December 18, 1998, submittal from Fox Engineering requesting a design variance from Design Standard 15.2.4.2.1. Design Standard 15.2.4.2.1 allows a clear spacing not less than 5/8 inch for a mechanical bar screen. The City of Cherokee is proposing a smaller bar spacing for its mechanical screens (0.25 inches) to remove any stringy material in the absence of primary clarification. A bypass channel with a manual screen will be provided as backup to the mechanical unit. The City of Cherokee recognizes that more screenings will be collected and handled prior to disposal once the system is installed. The proposed 0.25 inch clear spacing for the mechanical bar screens is substantially equivalent to the design standard. It is approved provided the City of Cherokee handles all screenings in a sanitary manner prior to disposal.

Should you have any questions, please contact Terry L. Kirschenman 515-281-8885.

Sincerely,

Darrell McAllister, Chief
Water Quality Bureau

cc: Fox Engineering, Ames
Kuehl and Payer, Ltd., Storm Lake
Field Office 3

✓ 9-8-06

VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date: January 8, 1999
2. Review Engineer: Terry L. Kirschenman
3. Date Received: December 21, 1998
4. Facility Name: Cherokee WWTP
5. County Number: 18
6. Program Area: CP (wastewater)
7. Facility Type : C04
8. Subject Area : 329, bar screen
9. Rule Reference: 567-64.2(9)a
10. Design Stds Ref: 15.2.4.2.1
11. Consulting Engr: Fox Engineering, Ames
12. Variance Rule: 567-64.2(9)c

13. **Decision:**
Date:

14. **Appeal:**
Date:

15. Description of Variance Request:
Allow the use of 1/4 inch spacing for mechanical bar screen rather than 5/8 inch spacing.

16. Consulting Engineer's Justifications

1. A majority of the flow will pass through a comminutor at the Beech Street lift station prior to reaching the plant.
2. Use of a screen with smaller opening to remove any stringy material is good design practice in the absence of primary clarification.
3. A significant removal of organics is not anticipated.
4. The technology of the equipment suppliers has developed to the point where it is reliable in this application.

17. Department's Justifications
This sizing (0.25 inches) has been used successfully at other locations.

18. Precedents Used
Clear Lake Sanitary District

19. Staff Reviewer: Terry Kirschenman Date: January 8, 1999
20. Supervisor: [signature] Date: 1/11/99
21. Authorized by: Darrell McAllister Date: 1/12/99