

9-11-06

13.4.2

**VARIANCE REQUEST**

Iowa Department of Natural Resources

1. Date:
2. Review Engineer: Suresh Kumar
3. Date Received: April 16, 2001
4. County Number: 43
5. Facility Name: Logan
6. Program Area: CP (Wastewater)
7. Facility Type: C02
8. Subject Area: 344, LS Trash Baskets
9. Rule Reference: 567-64.2(9)a
10. Design Stds Ref: 13.4.2.
11. Consulting Engr: Veenstra & Kimm, Inc.
12. Variance Rule: 567-64.2(9)c

13. Decision:

Date:

14 Appeal:

Date:

**15. Description of Variance Request:**

The city of Logan is requesting a variance from the design standard that requires trash baskets for all lift stations handling raw wastewater to protect them from clogging. The proposed lift station will have two 50 hp identical submersible chopper pumps.

**16. Consulting Engineer's Justifications**

1. The proposed lift station will be equipped with chopper type submersible pumps that chop and macerate waste solids that will prevent any clogging on the pumping system.
2. The specific pumps for this project will have six-blade impellers that will reduce waste solids to particles 1/2-inch to 3/4-inch in size.

**17. Department's Justifications**

We are recommending the variance request to be approved based on the above justifications and the following reasons:

1. The literature review for the proposed chopper pumps relates equivalent efficiency as grinder pumps. Trash baskets are generally exempted where grinder pumps are in operation.
2. The proposed pumps with six-blade impellers that are capable of chopping solids to less than an inch in size provides substantially equivalent and effectiveness to trash baskets.

**18. Precedents Used**

19. Staff Reviewer: Suresh Kumar
20. Supervisor:
21. Authorized by:

Date: July 18, 2001

Date:



13.4.2

## STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

July 18, 2001

Honorable Mayor  
City of Logan  
202 E. 7<sup>th</sup> Street  
Logan, Iowa 51546

*Subject: City of Logan Wastewater Treatment Facility- Lift Station.*

Dear Mayor:

The Iowa Department of Natural Resources (IDNR) has received and reviewed the variance request for the lift station for the City of Logan submitted by the city's consulting engineer. The request is to construct a new lift station without trash baskets. IDNR Design Standards Chapter 13.4.2 requires all pumping stations handling raw wastewater to have protection against clogging.

Based on the information submitted to support your request we concur that the proposed chopper pumps will provide substantially equivalent and effectiveness to trash baskets. Your request for a variance from IDNR Design Standards Chapter 13.4.2 has been approved.

If you have any questions or comments contact Suresh Kumar of the IDNR at (515) 281-4527 or e-mail him at [suresh.kumar@dnr.state.ia.us](mailto:suresh.kumar@dnr.state.ia.us).

Sincerely,



Jack Riessen, Chief  
Water Quality Bureau

cc: Veenstra & Kim Inc.  
Iowa DNR Field Office 4