



# STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

November 3, 2003

Mr. Scott P. Langel  
City Administrator  
City of LeMars  
40 Central Ave. SE  
P.O. Box 1130  
LeMars, Iowa 51031-1130

Subject: Variance Request from IA 17.3.5.3  
LeMars, Iowa  
Wastewater Treatment Improvements  
CS192214-01

Dear Mr. Langel:

The Iowa Department of Natural Resources in accordance with Subrule 567—64.2(9)c of the Iowa Administrative Code has approved your October 23, 2003 request for a variance from the Department Rule 567—64.2(9)b and Chapter 17.3.5.3 of the Iowa Wastewater Facilities Design Standards, which requires a minimum aeration rate for mixing of 20 cubic feet per minute (cfm) per 1,000 cubic feet of volume for sludge holding lagoons. Based on the documentation presented by the design engineer, it is the determination of this Department that satisfactory justification has been presented to warrant the granting of a variance to the City of LeMars for eliminating the aeration rate required for mixing. However, in the future if the Department determines that the proposed facility is causing any odor or other operational problems due to the absence of aeration and mixing, the City shall obtain a construction permit and install aeration equipment as required by paragraph 17.3.5.3 of the Iowa Wastewater Facilities Design Standards within 18 months of written notification.

This decision is based on our review of justification presented to support the request and our concurrence that the resulting project will provide substantially equivalent effectiveness as would be provided by technical compliance with the design standard on this issue.

If you have any questions, please call Jim Hallmark at 515-281-7767.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne Farrand", written over a horizontal line.

Wayne Farrand, P.E.  
Supervisor  
Wastewater Section

cc: Bolton & Menk, Inc.  
Field Office #3  
DNR File

9-8-06

**VARIANCE REQUEST****Iowa Department of Natural Resources**

1. Date: November 3, 2003  
 2. Review Engineer: James A. Hallmark  
 3. Date Received: October 23, 2003  
 4. Facility Name: City of LeMars STP  
 5. County Number: Plymouth (75)  
 6. Program Area: CP (Wastewater Construction)  
 7. Facility Type: C05 (Biological Treatment)  
 8. Subject Area: 320  
 9. Rule Reference: 567-64.2(9)a  
 10. Design Stds Ref: 17.3.5.3  
 11. Consulting Engr: Bolton & Menk, Inc.  
 12. Variance Rule: 567-64.2(9)c

13. Decision: *approved*Date: *11/3/03*

14. Appeal:

Date:

15. Description of Variance Request: The City of LeMars is constructing a new biosolids storage lagoon in lieu of a storage tank and has requested a variance to eliminate the aeration requirements for mixing as required by IA 17.3.5.3.

16. Consulting Engineer's Justifications

- The Facility is in a remote location.
- The sludge should be well stabilized prior to discharge to the lagoon.
- The storage lagoon provides the same effective function as a tank and provided about three times the storage volume at the same cost as a storage tank.
- Means are provided for mixing using a portable PTO driven mixer and tractor prior to land application.

17. Department's Justifications

- A condition in the construction permit will require that the mixing and aeration equipment will be installed per Chapter 17.3.5.3 of the Iowa Wastewater Facilities Design Standards, if odors become a nuisance in the future.
- Solids will be stabilized prior to being placed in the lagoon.

18. Precedents Used

City of Sully, City of Maquoketa, City of Ames, City of Evansdale, City of Walford

19. Staff Reviewer: *James A. Hallmark*Date: *11/3/03*

20. Supervisor:

Date:

21. Authorized by: *Don Janssen*Date: *11/3/03*



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