



TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

STATE OF IOWA

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

October 21, 2013

City of Garner
Randy Lansing
135 West Fifth St.
Garner, IA 50438

RE: Earthen Sludge Storage Lagoon Project
City of Garner
DNR Project No. S2014-0029

Subject: Variance Request from 567 IAC 64.2(9) and Design Standards Section 17.5.3

Dear Mr. Lansing:

After careful and thorough consideration, the Department has approved your October 4, 2013 request for a variance from Iowa Administrative Code Subrule 64.2(9) and Chapter 17.5.3 of the Iowa Wastewater Facilities Design Standards, which requires installation of aeration equipment in sludge holding lagoons to ensure adequate mixing.

Based on the documentation presented by your Engineer, it is the determination of this Department that satisfactory justification has been presented to warrant the granting of a variance for sludge storage without aeration equipment. The requested variance is deemed to be reasonable and necessary pursuant to the Iowa Code section 455B.181.

The facts presented for the project present unique circumstances and the variance is therefore justified to provide the narrowest exception possible to the provisions of the rule in accordance with Rule 561 IAC 10.5. Since the project planning and construction may last more than one year, the variance is considered to be of a permanent nature. The validity of this variance approval shall last for a period of one year from the date of the construction permit in accordance with Rule 561 IAC 10.5.

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

This variance approval is subject to the following **conditions and requirements**:

1. Should the Department determine that nuisance odors are occurring, then aeration equipment shall be installed per 17.5.3.

Please feel free to call Laura Knispel at 515-281-7953 or email her at laura.knispel@dnr.iowa.gov if you have any further questions.

Sincerely,

A handwritten signature in purple ink that reads "Shelli Grapp". The signature is written in a cursive, flowing style.

Shelli Grapp
Water Quality Bureau Chief

Cc: Tim Moreau - Veenstra & Kimm (Mason City)
DNR FO #2
DNR Sewage File 6-41-30-0-01
DNR Legal Services

VARIANCE REQUEST
Iowa Department of Natural Resources

1. Date: 10/8/13
2. Reviewer/Engr.: Laura Knispel
3. Date Received: 10/4/13
4. Facility Name: Garner STP
5. Facility Number: 6-31-30-0-02
6. County Number: 41 (Hancock)
7. Program Area: CP (Wastewater)
8. Facility Type: C05 (Biological Treatment)
9. Subject Area: 366
10. Rule Reference: 567-64.2(9) a
11. Design Std. Ref.: 17.3.5.3
12. Consulting Engr.: Veenstra & Kimm
13. Variance Rule: 567-64.2(9) c

14. Decision: *Approved*
Date: *10-28-13*

15. Appealed:
Date:

16. Description of Variance Request:

The City of Garner has recently upgraded their wastewater treatment facility to an SBR with aerobic sludge digestion. The sludge digester has roughly 6 – 8 months worth of storage capacity. The City has had problems finding landowners willing to accept land application of the sludge in the spring, and determined that it needs at least 12 months of storage to enable them to land apply the sludge during the fall when landowners are more agreeable.

The City is proposing to construct an open sludge storage lagoon inside one of their existing equalization basins and requests a variance from the Iowa Wastewater Facility Design Standards 17.3.5.3 requirements for mixing and air requirements for sludge holding lagoons. The proposed design does not include a permanently installed mixing or aeration system for the sludge storage lagoon as required by the Design Standards.

17. Applicant's/Consulting Engineer's Justification:

The lagoon will be used for storage of treated sludge only. The sludge will have been completely digested in the aerobic digester before it is transferred to the holding lagoon, so aeration and mixing should not be necessary. The sludge will be thoroughly mixed by the sludge hauler prior to land application.

18. Department's Justification:




Recommend variance approval (with condition):

Approval is recommended based on the stability of the generated sludge, but a condition will be included in the construction permit that will require installation of aeration/mixing equipment per IA 17.3.5.3 if nuisance odors result.

19. Precedents Used:

City of Evansdale – 4/12/02
City of Walford (Reduced Aeration) – 6/25/03
City of Riverside -1/25/06

LWB
10/10/13

20. Staff Reviewer:		Date:	10/10/13
21. Supervisor:		Date:	10/25/13
22. Authorized by:		Date:	10-28-13