

VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date: September 25, 2013
2. Review Engineer: Suresh Kumar
3. Date Received: September 24, 2013
4. County Number: 11, Buena vista
5. Facility Name: Rembrandt Industrial WWTP
6. Program Area: CP (Wastewater)
7. Facility Type: CO2
8. Subject Area: Wastewater Storage Cell
9. Rule Reference: 567-64.2(9)a
10. Design Stds Ref: 21.1.7.1 and 21.1.7.2
11. Consulting Engr: DGR Engineering
12. Variance Rule: 567-64.2(9)c

13. Decision: *Approved*
Date: *9-26-13*

14 Appeal:
Date:

15. Description of Variance Request:

The Rembrandt Industrial Wastewater Treatment facility has requested a variance to the design standard 21.1.7.2 that requires the maximum total water depth of a storage lagoon shall not to exceed 10 and the minimum draw-off shall be at the two feet level. The requested variance is to allow the facility to operate the storage lagoon at maximum total water depth of 12 feet.

16. Consulting Engineer's Justifications

The existing aerobic lagoon treatment system will provide adequate treatment to the wastewater and thus maintain quality of public health, safety and welfare. All three cells of the treatment system are aerated and designed to provide 2.0 pounds of oxygen per each pound of BOD treated. The industry has similar wastewater treatment system, East Lagoon Facilities, at the same industry location and has been in operation for ten years period and the storage lagoon has 12 feet water depth. This facility has been in compliance with Iowa Wastewater Land Application Operating Permit requirements.

17. Department's Justifications

The existing wastewater treatment system is an aerobic lagoon and was designed and constructed in accordance with the Iowa Wastewater Facilities Design Standards Chapter 18 C. All three lagoon cells are designed to provide 2.0 # of oxygen/ #of BOD treated. Therefore, the lagoon becoming anaerobic at the requested 12 feet of maximum operating total water depth may not be a concern, provided the facility is maintained and operated as required by the approved facility's design.

Based on the above justifications we are recommending the variance to be **approved**.

1. 18. Precedents Used City of Johnston WWTP, March 10, 1993.

19. Staff Reviewer: *Suresh Kumar*
20. Supervisor: *Satya Chennappa*
21. Authorized by: *Shelli Dapp*

Date: *9/26/13*
Date: *9/26/2013*
Date: *9-26-13*



STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

September 26, 2013

Mr. Don Keller,
Rembrandt Enterprises, Inc.
1419 480th Street
Rembrandt, IA 50576

RE: Rembrandt Enterprises, Inc. (REI) Industrial Wastewater Treatment Facility

SUBJECT: Variance Request from 567 IAC 64.2(9) and Iowa Wastewater Facilities Design Standards Chapter 21.1.7.2

Dear Mr. Keller:

The Iowa Department of Natural Resources (IDNR) has reviewed the variance request for the REI Industrial Wastewater Treatment Facility submitted by your consulting engineer on September 24, 2013. The request is for a variance from the Iowa Wastewater Facilities Design Standards Chapter 21.1.7.2 that requires the maximum total water depth of a storage lagoon shall not to exceed 10 and the minimum draw-off shall be at the two feet level. The requested variance is to allow the facility to operate the land application wastewater storage lagoon at maximum total water depth of 12 feet.

The supporting documentation and justification provided by your engineer was deemed to be reasonable in granting the above mentioned variance. The existing wastewater treatment and disposal system is an aerated lagoon system followed by land application disposal mechanism with no permitted surface water discharge. The facility will have a total storage capacity of 215 days per Iowa Wastewater Facilities Design Standards Chapter 21.1.7.1 and will maintain the facility's approved design aeration requirements at all times to all three lagoon cells in order to prevent lagoons becoming anaerobic at any time.

Therefore, based on the information submitted to support your request we concur that due to the specific nature of your wastewater treatment and disposal system substantially equivalent and effectiveness is provided. Your request for a variance from the Iowa Administrative Code (IAC) Chapter 567-64.2(9) has been **approved**.

If you have any questions or comments contact me at (515) 281-4582 or Shelli.Grapp@dnr.iowa.gov.

Sincerely,

A handwritten signature in red ink that reads "Shelli Grapp". The signature is written in a cursive style with a large, looped initial "S".

Shelli Grapp
Water Quality Bureau Chief

Iowa DNR Field Office 3
REI sewage file-6-11-00-1-06
DGR Engineer