

✓ 9-8-06

**VARIANCE REQUEST**

Iowa Department of Natural Resources

- |                      |  |               |                |
|----------------------|--|---------------|----------------|
| 1. Date:             | April 13, 1993                           | 13. Decision: | <i>Denied</i>  |
| 2. Review Engineer:  | Bill Graham                              | Date:         | <i>4/15/93</i> |
| 3. Date Received:    | April 7, 1993                            |               |                |
| 4. Facility Name:    | Tama WWTP                                | 14. Appeal:   |                |
| 5. County Number:    | 86                                       | Date:         |                |
| 6. Program Area:     | CP (wastewater)                          |               |                |
| 7. Facility Type:    | C 09 (sludge handling)                   |               |                |
| 8. Subject Area:     | 375                                      |               |                |
| 9. Rule Reference:   | 900-64.2(9)a                             |               |                |
| 10. Design Stds Ref: | 17.3.2.2.a.1 (aerobic sludge digestion)  |               |                |
| 11. Consulting Engr: | RUST Environmental & Infrastructure Inc. |               |                |
| 12. Variance Rule:   | 900-64.2(9)c                             |               |                |

**15. Description of Variance Request:**

Design Standard 17.3.2.2.a.1 (Aerobic Sludge Digestion, Air Requirements, Bottom Diffusers) requires that plants employing less than four independent tanks shall be designed to incorporate removable diffusers that can be serviced and/or replaced without dewatering the tank. The city is proposing fixed diffusers which are not removable without dewatering the tank.

**16. Consulting Engineer's Justifications**

The sludge handling facilities consist of the aerobic digester and two sludge storage tanks. The two sludge storage tanks can also be used as aerobic digesters by increasing the air flow to either of the tanks.

**17. Department's Justifications**

Departmental denial of the variance request is recommended for the following reasons:

1. The proposed alternative is not equivalent to the design standard requirement of four independent aerobic digestion tanks.
2. The sludge storage tanks may not be available for aerobic digestion if they are full of sludge.
3. Complying with the design standard would require a relatively simple design change, such as a swing arm coupler.

18. Precedents Used

No precedents were found for variance from the aerobic sludge digestion bottom diffuser design standard.

19. Staff Reviewer: *William Graham* Date: April 13, 1993

20. Supervisor: *Joe [unclear]* Date: 4/13/93

21. Authorized by: *Samuel Hallist* Date: 4/15/93