

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

1. Date: May 31, 2001  
2. Review Engineer: Larry Bryant  
3. Date Received: November 8, 2000  
4. Facility Name: Kinross WWTF (RUSS)  
5. County Number: 54 (Keokuk)  
6. Program Area: CP (Wastewater Construction)  
7. Facility Type: C05 (Biological Treatment)  
8. Subject Area: 350 (Number of Lagoon Cells)  
9. Rule Reference: 567-64.2(9)a  
10. Design Stds Ref: 18C.5.1 (Number of Cells)  
11. Consulting Engr: Garden & Associates/Oskaloosa, IA  
12. Variance Rule: 567-64.2(9)c

13. Decision: *Approved*  
Date: 6/8/01  
14. Appeal:  
Date:

**15. Description of Variance Request:**

**Project Background**

The City of Kinross is an unsewered community with a 2000 Census population of 80 people. Regional Utility Service Systems (RUSS), an intergovernmental organization of six southeast Iowa counties, is proposing a centralized gravity sewer system and controlled discharge lagoons for the City. Design and project costs are to be funded through a IDED block grant, a USDA-RD grant and user fees. RUSS will own, operate and maintain the system in conjunction with a service agreement with Wapello RWA. In order to minimize the financial impact of the project to the community, RUSS and the engineer are requesting multiple variances (similar to those granted for the small unsewered community pilot program) for the collection and treatment system.

**Variance Request**

A request to allow a two-cell controlled discharge lagoon system with approximately 1.2 acres of total surface area. The Standards require a minimum of three cells for all facilities greater than one acre total surface area.

**16. Consulting Engineer's Justifications**

Cost savings, equivalent effectiveness. BOD loading on the primary cell will be less with the two-cell arrangement. The 60-day storage capacity in the secondary cell will provide adequate capacity to store and treat wastewater if the primary cell is taken out of service for repairs or maintenance.

**17. Department's Justifications**

**Recommend variance approval:**

The total surface area exceeds the maximum allowed for two cells in the Standards by only 0.2 acres. No problems due to variance-approved two-cell configurations have been reported for the pilot projects. Design basis minimum equivalents, total effective storage, and maximum organic loadings will be maintained per the Standards. See attached 12/4/00 Department letter and 10/27/99 Small Community Pilot Project status report.

**18. Precedents Used**

Persia (Shelby County RWA) - Approved 7/3/95	Tingley (Southern Iowa RWA) - Approved 7/11/96
Arispe (Southern Iowa RWA) - Approved 7/15/96	Floris (Wapello RWA) - Approved 8/1/95
Exline (Wapello RWA) - Approved 1/3/97	Unionville (Rathbun RWA) - Approved 2/19/98

19. Staff Reviewer:

Date: 5/31/01

20. Supervisor:

Date: 6/5/01

21. Authorized by:

Date: 6/8/01