

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: C02 (Pumping)
8. Subject Area: 327 (Valve Pit)
9. Rule Reference: 567-64.2(9)a
10. Design Stds Ref: 13.10.4 (Valves)
11. Consulting Engr: Garden & Associates/Oskaloosa, IA
12. Variance Rule: 567-64.2(9)c

13. Decision: Denied
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 installation of buried shut-off valves for a submersible pump station in lieu of the separate valve chamber required by the Standards.

16. Consulting Engineer's Justifications

Cost savings, equivalent effectiveness. Adequate maintenance equipment and capabilities will be readily available to RUSS.

17. Department's Justifications




Recommend variance denial:

Previous variances granted for the pilot program using this alternative arrangement have not been entirely successful, possibly due to lack of a separate valve chamber in conjunction with other items. In particular, the City of Floris has had problems with air intrusion and the check valve(s) and clogging. A March 10, 1999 inspection report by Field Office 6 noted that the lift station pumps were not pumping design capacity because of air being trapped in the pumps as well as running more hours than intended due to plugging problems and a poor design. The cities of Tingley and Arispe (no valve chambers) have also had problems with higher than expected flows supposedly due to check valves sticking open. See attached 12/4/00 Department letter and 10/27/99 Small Community Pilot Project status report.

18. Precedents Used

Floris (Wapello RWA) - Approved 8/1/95
Arispe (Southern Iowa RWA) - Approved 7/15/96

Tingley (Southern Iowa RWA) - Approved 7/11/96

19. Staff Reviewer: 
20. Supervisor: 
21. Authorized by: 

Date: 5/31/01
Date: 6/5/01
Date: 6/8/01