

VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date:	July 12, 2011	14. Decision:	7/14/11 Denied
2. Review Engineer:	Dinbandhu Gupta	Date:	
3. Date received :	October 23, 2009		
4. Facility name:	City of Ollie		
5. Facility number:	6-54-60-0-01		
6. County Number:	54(Keokuk)	15. Appealed:	
7. Program Area:	CP(Wastewater)	Date:	
8. facility Type:	C05 (biological treatment)		
9. Subject Area:	344 (pump coggng protection)		
10.Rule Reference:	567-64.2(9) a		
11.Design Standard Ref:	13.4.2		
12. Consulting Engr.:	Garden and Associates, LTD.		
13 Variance Rule:	567.64.2(9) c		
16. <u>Description of Variance Request:</u> The City of Ollie is an Unsewered community with a total population of 224. Garden and Associates on behalf of Rural Utilities Service Systems (RUSS) is requesting a variance from the Iowa Wastewater Facilities Design Standards Chapter 13.4-Iowa Standard for Pumps and Pnuematic ejectors-13.4.2-protection against clogging. The Iowa Wastewater Facilities Design Standards Chapter 13.4.2 requires all pumping station handling raw wastewater shall have provision of screening to protect the pump form clogging or damage. RUSS has requested a variance to allow grinder pumps station handling the raw wastewater from Ollie, Iowa and to be exempt from requirement to provide screening.			
17. <u>Applicant's /Consulting Engineer Justification:</u> The Engineer has an opinion that a duplex grinder pump station supplied without a trash basket can effectively function and serve similarly small populations. Grinder pumps have functioned very reliably in similar applications (Kinross, Hamilton, Lincoln, and Morrison) without trash basket; grinder pumps are designed to macerate materials that are drawn into the pump; large objects those that cannot be drawn into the cutting assembly are expected to be remain in the wet well until a cleaning occurs. Excessive quantities of cloth and other fibrous based flexible materials have necessitated more frequent cleaning of the Kinross system, but it is questioned if a conventional screening device (trash basket) would have retained these objects.			
18. <u>Department's Justification:</u> Recommend variance: denial Note: The pumping station in question would be handling raw w/w from a conventional gravity sewer system - not STEP/STEG or LPS The variance has been denied in the past for Unsewered communities. The omission for trash basket is not unique and does not provide adequate protection to the pumps. Variances for chopper type pumps which have a no-clogging and reversal mechanism to eliminate clogging. Fibrous material, cloth, and other debris are known to clog grinder pumps and cause problems and determined to be providing no equivalent effectiveness, and has been recommended for denial.			
19. <u>Precedents Used :</u> City of Promise City on 10/30/2008 Halbur on 05/06/2005 Keswick on 11/23/2004			
20. Staff Reviewer:	<i>[Signature]</i>	Date:	7/13/2011
21. Supervisor:	<i>[Signature]</i>	Date:	7/14/2011
22. Authorized by :	<i>[Signature]</i> Katherine WQ BC	Date:	7/14/11

LWB
7/14/11