

DATE RECEIVED		FACILITY NAME		COUNTY No.	PROGRAM AREA CODE	FACILITY TYPE CODE	SUBJECT AREA CODE
3	6/3/88	4	Glidden	5	14	7	CP C04 325
RULE REFERENCE		DESIGN STANDARD REFERENCE		DECISION		APPEAL ACTION	
1	567-64.2(a)	10	16.3.1	11 Approved 6/15/88		12	
ENGINEER				VARIANCE RULE			
13 MER Engineering				14 567-64.2(a)c			

15. DESCRIPTION OF VARIANCE REQUESTED: _____

Modular final settling unit proposed as an innovative technology system which utilizes a 7.5 foot side water depth rather than a 12 foot depth as stipulated by the design standard.

16. ENGINEER'S JUSTIFICATION:

The proposed "Aero-Mod" treatment system, of which the settling module is a component of, meets the 15% life cycle cost savings over conventional systems and therefore qualifies as an innovative technology. The 12 foot depth required by the variance does not apply in this case because the proposed clarifier module is designed to allow adequate settling at the 7.5 foot effective depth.

17. DEPARTMENT'S JUSTIFICATION: The sidewater depth required in the design standard is assumed to be related to the settling characteristics of extended air flocs. The 12 foot depth assures that no solids will be carried over the weirs at normal flows. The proposed "Aero-Mod" clarifier module is designed such that a sludge blanket will not form in the settling tank to the extent of a conventional clarifier. Tube settlers are utilized also to enhance settling and prohibit solids from reaching the effluent withdrawal pipe located above the tube settlers. These modules are in operation in other areas of the country and are working well. These clarifier modules can be considered equivalently effective to conventional clarifiers in providing the required solids removal.

18. PRECEDENTS USED: Atalissa, IA grant project. Variance granted on 3/5/87

STAFF REVIEWER:

20. SUPERVISOR:

21. AUTHORIZED BY:

Dan Gunk 6/9/88
Robert J. Janssen 6/14/88
Dan M. Allst 6/15/88



PERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

LARRY J. WILSON, DIRECTOR

6/15/88

The Honorable Delbert D. Heuton:
Mayor of Glidden
108 Idaho Street
Glidden, IA 51443

SUBJECT: Wastewater Treatment Facilities
Glidden, Iowa
C190916 02

Dear Mayor Heuton:

On behalf of the city, MER Engineering, Inc., in a letter dated June 3, 1988, has requested a variance from Iowa Wastewater Treatment Facility Design standard 16.3.1. This standard stipulates that final clarifiers following extended air activated sludge treatment processes must have a minimum sidewater depth of 12 feet. The proposed "Aero-Mod" clarifier modules are supplied with an effective sidewater depth of 7.5 feet in the settling compartments.

Because the proposed clarifier modules are a component of an innovative type of treatment system and appear to be equivalently effective in comparison to the conventional type of clarifier we hereby grant the variance as requested. This approval does not release the city from the responsibility that the project will result in a facility which will ultimately meet all stipulated effluent limitations.

If you should have any questions, please contact Perry Gjersvik at 525/281-6010.

Sincerely,

DARRELL McALLISTER
BUREAU CHIEF
SURFACE AND GROUNDWATER PROTECTION BUREAU

DM:PG:ap

cc: Mer Engineering, Inc., Fort Dodge.
Field Office #4