Variance not needed - see letter to Engineer dated 3/25/92

VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date	: 2/27/92	13. Decision:	
2. Review Engineer	: Fred Evans	Date:	
3. Date Received	: 12/13/91		
4. Facility Name	: City of Oelwein	14. Appeal:	
5. County Number	: 33	Date:	
6. Program Area	: CP		
7. Facility Type	: CO8		
8. Subject Area	: 371		
9. Rule Reference	: 64.2(9)		
10. Design Std. Ref.	: 20.8.2 & 20.8.3		
11. Consulting Engr.	: Brice, Petrides-Donohue		
12. Variance Rule	: 64.2(9)c		

15. Description of Variance Request

The City of Oelwein is under Administrative Order to comply with permitted effluent limitations for total residual chlorine (TRC). The City presently has facilites for disinfection by chlorine gas but does not have dechlorination facilities. Brice Petrides-Donohue has been retained by the City for engineering of facilities to comply with the A.O. A Letter report, dated 10/11/91 was prepared for such facilities. In their investigation, the designing engineers have noted that the existing chlorine contact tank does not have adequate detention time available for the plant flows and that the tank does not provide a length to width ratio as required by our design standards. In this regard the engineers note in the report that the existing tank has an 8.6 minute detention time at the design maximum day flows and a 4.1 minute detention time at peak hourly wet weather flows as compared with detention times of 30 minutes and 15 minutes respectively in the design standards. Also the length to width ratio is only 9:1 as compared with a required 40:1 ratio. The mayor of Oelwein has requested variances from these two design requirements to permit continued use of existing chlorine tank only whereas the designing engineers advise that a new chlorine contact tank will need to be added to increase the chlorine detention times to meet existing state code requirements.

16. Consulting Engineer's Justification

The variance request for continued use of only the existing chlorine contact tank has been submitted by the mayor of Oelwein on behalf of the City of Oelwein and no engineering justification has been submitted. The only justification submitted by the mayor is an opinion that "we (city) feel sufficient kill of the

6. Consulting Engineer's Justification (cont.)

fecal coliform bacteria will be achieved with the existing chlorine tank

7. Department's Justification

It is recommended that the requested variances for chlorine contact period and length to width ratio of the tank to permit continued use of only the existing chlorine contact tank be denied since justification has not been submitted to demonstrate that the continued use of this facility alone will provide for substantially equivalent or improved effectiveness as required by our variance rules. Also the art of disinfection of wastewater is well established and there are not any unique circumstances involved which would justify the significant reduction in chlorine contact tank capacity or length to width ratio as would occur if the requested variances were granted.

. Precedents Used

None

). Staff Reviewer	:	Fred Evans	Date: 2/27/92
). Supervisor	:		Date:
. Authorized by	:		Date:

City of Oelwein
20 - 2nd Avenue SW
Oelwein, IA 50662

ATTENTION: The Honorable Mayor Gene M. Vine

RE: Variance Request
Disinfection Facilities
Oelwein, Iowa

Dear Mayor Vine:

We have completed our review of your variance request of December 3, 1931, from Paragraphs 20.8.2 and 20.8.3 of the Iowa Wastewater Facilities Design Standards. These paragraphs of the design standards pertain to the required chlorine contact time in the chlorine contact tank and the length-to-width ratio of the tank to reduce possible short circuiting. The variances were requested in order to permit use of the existing chlorine contact tank as is without constructing additional chlorine contact tank capacity to meet our design standards and as recommended

in the letter report of your designing engineer dated October 11, 1991.

The Iowa Department of Natural Resources in accordance with Subrule 567--64.2(9)c of the Iowa Administrative Code has ~~de~~ denied the request for these variances. (use Departments' justification in variance request)

(May want to indicate a new schedule here)

Sincerely

Darrell McAllister
Chief
Surface and Groundwater Protection Bureau

cc
(Engineer -?)
Field Office