



TERRY E. BRANSTAD, GOVERNOR

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File Name South Panorama Sanitary District - Sewage  
Senders Initials NR

DEPARTMENT OF NATURAL RESOURCES

LARRY J. WILSON, DIRECTOR

November 17, 1987

Jason Beck  
South Panorama Sanitary District  
84 West Lake Panorama  
Panora, IA 50216

Project No.: S86-69  
File: South Panorama Sanitary District - Sewage  
SUBJECT: Wastewater Collection System

Gentlemen:

The Iowa Department of Natural Resources in accordance with Subrule 567--64.2(9)c of the Iowa Administrative Code has approved your request for a variance from Iowa Wastewater Facilities Design Standard 13.11 which requires provision of emergency power or pumping facilities for lift stations.

The engineering justification submitted substantially demonstrates that the conditions and circumstances which were considered in the adoption of the rule or standard are not applicable for the project in question and therefore the effective purpose of the rule will not be compromised if a variance is granted.

Sincerely,

DARRELL McALLISTER  
CHIEF  
SURFACE & GROUNDWATER PROTECTION BUREAU

DM/mjt/M320MJT.32

cc: McClure Engineering Company  
Field Office 4

DATA ENTERED					DATE	INITIALS
DATE RECEIVED	FACILITY NAME	COUNTY No.	PROGRAM AREA CODE	FACILITY TYPE CODE	SUBJECT AREA CODE	
3 11/9/87	4 South Panorama Sanitary District Sewage System	5 39	6 CP	7 C02	8 345	
RULE REFERENCE	DESIGN STANDARD REFERENCE	DECISION			APPEAL ACTION	
9 567-64.2(9)	10 13.11	11 Approved 11/13/87			12	
ENGINEER		VARIANCE Rule				
13 McClure Engineering Co.		14 64.2(9) "c"				

15. DESCRIPTION OF VARIANCE REQUESTED: \_\_\_\_\_

A request is made to not require the provision of emergency power or pumping facilities for the two lift stations included in the project.

16. ENGINEERS JUSTIFICATION: This is an innovative system to serve a small population (138 initially and 250 ultimately) with a combined STEP and gravity sewer system. All homes will be provided with STEP pumps; some will pump up into gravity sewers and the majority will pump into pressure sewers. The two pumping stations will discharge to pressure sewers and a force main will convey flow to the Panora STP for treatment. The engineer contends that on power failure all of the STEP pumps (providing 95 percent of the flow) will be immobilized, and there will be almost no flow to the lift stations to be pumped by emergency power. A standby pump or generator is of little value if there is no flow, or at least no appreciable flow.

17. DEPARTMENTS JUSTIFICATION:

We recommend approval of the variance.

The engineer has presented a valid case. Storage is available in individual septic tanks and in the pump station wet wells during periods of power outage when no appreciable flow can be expected. We think it is reasonable in this case to not require standby pumps or emergency power, on the basis that it is reasonably clear that the conditions and circumstances which were considered in the adoption of the rule or standard are not applicable for the project in question and therefore the effective purpose of the rule will not be compromised if a variance is granted.

18. PRECEDENTS USED: None could be found

19. STAFF REVIEWER:

Wynne T. Reed 11/12/87

20. SUPERVISOR:

Larry Hagg - approved 11/12/87

21. AUTHORIZED BY:

Daniel M. Allato 11/13/87



# McCLURE ENGINEERING COMPANY

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November 6, 1987

Mr. Wayne A. Reed, P.E.  
Wastewater Section  
Iowa Dept. of Natural Resources  
Henry A. Wallace Bldg.  
Des Moines, IA 50319

RE: South Panorama Sanitary District

Dear Mr. Reed:

Thank you for your review of our Plans and Specifications for the above project. In response to your numbered comments, I have made the following changes, corrections and additions:

1. Sewage Treatment Agreement: We still expect to have this in hand in the very near future. As soon as it is available, I will forward a copy to you.
2. Schedule B, Item 3: The design year BOD is now given as 21 lbs/day rather than 60 lbs/day. A revised copy is enclosed.
3. Schedule C: A copy of the completed Schedule C is enclosed.
4. Schedule E: The PHWW flows have been corrected to agree with item 3, Schedule B. A revised copy of Schedule E is enclosed.
5. Schedule E, Item 3: The pumps originally specified could not be made to conform to the desired head and pumping rate. I have, therefore, redesigned the pumping station around the "ORENCO" turbine type S.T.E.P. pumps. Copies of the manufacturer's literature are enclosed for your information. I have, therefore, changed this item to turbine rather than sewage.
6. Schedule E, Item 10: We would like to have a variance on this item. The justification being that at least 95 percent of the sewer connections will be from individual septic tank effluent pumps. This means that if there is a power failure the incoming flow to the two main pumping stations will virtually cease. A standby generator, or standby pump, is of little value if there is no appreciable flow.

Mr. Wayne A. Reed, P.E.

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7. Plan Sheet #1: Plan Sheets 4, 5 and 1 now show the same sewer on Donahey Drive.
8. Plan Sheet #2: The cleanout between Stations 17 and 18 is now shown on the Plans.
9. Plan Sheet #7: The valve at the upper end of Peterson Hill is now shown on the profile.
10. Plan Sheet #9: The bottom left elevation has been corrected to read 990.
11. Plan Sheet #12: The profile has been corrected to read 4" PVC.
12. Plan Sheet #14: As stated in item #5 above, we have redesigned the pumping stations to accommodate submersible turbine pumps rather than the originally specified self-priming pumps. A locking cover is now required, as shown on Plan Sheet 14.

In addition to the foregoing items, we have now added a flow measuring and recording system as shown on Plan Sheets 11 and 14, and as specified in Section DFM-1 to DFM-5. Also added to the Plan and Profile Sheets is a magnetic tape requirement to facilitate future location of the lines.

If you have any additional questions or comments, please let me know. I will send the treatment agreement as soon as it is available. Three copies of the revised Plans and Specifications are enclosed.

Thank you.

Very truly yours,

McCLURE ENGINEERING COMPANY



Thomas E. Nilles, P.E.

TEN:lg

Enclosures

cc: Field Office #4  
Jason Beck