

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

ORIGINAL

03-04-L

Entered: March 18, 2004

CASE NO. 03-0822-W-PC

MCDOWELL COUNTY PUBLIC SERVICE DISTRICT
General Investigation regarding quality of
water utility operations for the Community
of Iaeger, McDowell County, West Virginia.

FINAL
4-7-04

RECOMMENDED DECISION

On May 29, 2003, approximately 51 residents of Iaeger filed a petition with the Commission requesting that improvements be made to the McDowell County Public Service District's (Utility) water system at Iaeger. The petition indicated that there were significant problems with both water pressure and quality of water.

On July 16, 2003, Staff requested that the Commission initiate a general investigation into the Utility and its operations in Iaeger.

On July 23, 2003, the Commission initiated a general investigation. The Commission referred the matter to the Division of Administrative Law Judges. The current decision due date is April 19, 2004.

On September 18, 2003, the Utility indicated that it was in the process of trying to find funds to upgrade its water system at Iaeger. The Utility reported that it was continuing to perform regular sampling of the water and aggressively pursuing leaks on the system.

On January 8, 2004, Staff filed its report on the general investigation. Staff found chronic problems with poor water quality and low water pressure within the Iaeger system. Staff attributed the problems to the advanced age and poor condition of the Iaeger system, coupled with the relatively poor raw water quality. Staff found that the Utility was operating the Iaeger system in "an acceptable manner and appears to be responsive to the complaints of these customers."

Staff concluded that the Utility was prevented by both physical and financial constraints from solving all of the problems with the Iaeger system. Staff confirmed that the Utility is seeking funding to implement a major water system improvement for the Iaeger system.

The Iaeger water system was constructed by Iaeger Water Works around 1921. The antiquated system provides the only available water service to 180 customers representing Iaeger's entire population. Iaeger's population has been declining substantially with a 40% decline in the last ten years.

Raw water for the system is provided by one deep well constructed by the Utility in 1999. The well was constructed using emergency funding because the original well exhibited steadily-increasing levels of the toxic contaminant Barium. Staff found that the current well provided an adequate quantity of water, but that the raw water contained elevated levels of iron, manganese and sulfates. These secondary contaminants, though not presenting a health hazard, pose water quality problems related to color, taste and odor. The U.S. Environmental Protection Agency (EPA) recommends that raw water contain no more than .3 mg/l of iron and the water source contains 26.6 mg/l. The EPA recommends that raw water contain no more than .05 mg/l of manganese and the system's raw water contains .285 mg/l.

The Utility treats the water through aeration and chlorination. The aeration attempts to remove dissolved gases, predominately sulfur compounds, which pose severe odor and corrosion problems. Aeration also provides for partial oxidation of the iron.

The Iaeger system relies on a 100,000-gallon storage tank originally constructed in approximately 1921. Staff found that the tank had not been properly maintained or repainted and had severe corrosion. Rust has perforated the tank shell, resulting in leakage. Staff also feared that the structural integrity of the tank may be compromised by the combined effects of age, corrosion and leakage.

Staff found that the 32,000 foot distribution system ranged from small 3/4-inch galvanized steel service lines to 8-inch cast iron mains. The predominate age of the distribution system is in excess of eighty years. The small steel distribution lines are in very poor condition, exhibiting corrosion on both the exterior and interior surfaces. The lines have reduced carrying capacity due to internal corrosion and tuberculation. Staff found that the system was unable to deliver sufficient volumes of water at adequate pressure during peak demand.

The Utility's unaccounted-for water on the Iaeger system was calculated at 81% in May 2003. The three-month average for May 2003 to July 2003 was 76%.

Iaeger Water Works operated the system for 72 years making little investment in capital improvements and doing few repairs. Staff indicated that Iaeger Water Work's method of operation seemed to consist of taking capital out of the system by allowing the physical plant to slowly deteriorate over many decades. Once the system deteriorated to the point where extensive renovation was absolutely necessary, the system was sold to City Water, Inc., in 1993. In 1999, the system was transferred to the Utility pursuant to an Order of the Public Service Commission. Staff believes that the Utility inherited a worthless water system showing the impact of decades of neglect.

Staff found large amounts of iron and manganese which will cause discoloration of plumbing fixtures and clothing. Staff found that, during high flow events such as line breakages or fires, material is broken free from the inside of the distribution system causing episodes of "black water," as dark-colored precipitate flows through the system.

The water sometimes has an "earthy" or "musty" odor due to the sediments in the distribution system. Staff found that 44% of the customer complaints in the Utility log were attributable to low water pressure or lack of water. Staff found substantial pressure problems and reliability problems on the system.

Staff concluded that there were no easy or inexpensive means available to correct the deficiencies. Staff found that the only way to correct the chronic low pressure problems is the replacement of a significant portion of the distribution system.

Staff found that the Utility acted with due regard to the concerns of its customers, responding to most complaints within twenty-four hours. Staff concluded that creating significant improvements to the water quality is beyond the financial ability of the Utility, unless it can find some outside sources of grant funding or subsidized low interest loans.

Staff found that the Utility was operating the Iaeger system in an acceptable manner and presently meeting all of the applicable West Virginia Bureau of Public Health standards. Staff believed that the boil water advisories issued from time-to-time were not excessive.

Staff commended the Utility for its timely action concerning planning and funding of major improvement projects for the system. The Utility promptly retained an engineering firm once it acquired the system to conduct a preliminary assessment of the system and develop recommendations for improvement. The Utility filed an application with the Infrastructure Council in August of 2002. The Utility has not been able to obtain full funding of the proposed project and could not obtain the Small Cities Block Grant it sought to build the project. Staff recommended that the Utility continue to actively pursue the remaining funding necessary for the project.

Staff made several specific recommendations to the Utility, including: (1) the Utility should immediately undertake inspection of the storage tank by a qualified engineer; (2) the security at the treatment plant should be improved; (3) the Utility should continue to periodically sample the raw water and verify that Barium levels are stabilized; (4) the Utility should immediately implement a program to reduce its high unaccounted-for water rate; (5) the Utility should insure that the tank level control system is properly operating and that the tank level controls are set to maintain the highest possible water level in the storage tank; (6) the Utility should consider installing automatic alarms to provide early warnings of problems on the Iaeger system; (7) the Utility should analyze the existing distribution system for bottlenecks and begin systematically replace those lines using in-house crews; (8) the Utility should implement routine flushing of its system and evaluate the use of sequestering agents; (9) the Utility should continue to pursue actively the funding of the project; and (10) the Utility should consider other options of financing if the Small Cities Block Grant continues to be unavailable.

On February 5, 2004, the Utility filed its response to the Staff Report. The Utility indicated that it contacted Stafford Consultants to complete an inspection of the water tank, with the inspection due to be

conducted on February 12, 2004. The Utility indicated that the doors to the treatment plant have been secured and that it now checks the plant twice a day. Water samples are being regularly pulled to insure water quality. The Utility reported that Barium levels have stayed below 1.2. The Utility continues to locate leaks in the system and has contacted Public Service Commission Assistance Staff to help develop a better leak detection program. The Utility daily checks the tank levels. The Utility reported that automatic alarms and telemetry are part of the proposed replacement system. The Utility believes that the Red Bird and Lick Branch areas of the system are "bottlenecks" and indicated that it will begin replacing 2,000 feet of 2-inch line in that area. The Utility indicated that it routinely flushes the lines four times per year, but will increase line flushing as often as necessary to try to improve water quality. The Utility promised to begin using sequestering agents, but is waiting on water sample results to determine exactly what sequestering agents to use and how much to use. The Utility committed to actively pursue the funding and indicated that it will request that the McDowell County Commission, once again, apply for a Small Cities Block Grant on its behalf.

It appears from the Staff Report and the Utility's response that the Utility inherited a system that was in such poor condition that it would be impossible to operate the system in such a way as to provide quality service. It also appears that the Utility is doing its very best. It appears that the Utility is pursuing all the various particular Staff recommendations that might help the situation in the interim. The Utility continues to pursue replacement of the Iaeger system. There is no reason to believe that the Utility is dragging its feet or failing to act aggressively in trying to remedy the pathetic conditions found at Iaeger.

By Procedural Order issued March 5, 2004, all parties were given ten days to object to the dismissal of the complaint with the requirement that the Utility hold a public meeting in order to inform its customers about the seriousness of the problems on the system and to educate its customers that the Utility is doing all it possibly can do to remedy the problems of the system.

No party filed an objection to the proposal.

FINDINGS OF FACT

1. On May 29, 2003, approximately 51 residents of Iaeger filed a petition with the Commission requesting that improvements be made to the Utility's water system at Iaeger. (See petition).
2. The Commission initiated a general investigation of the Utility's Iaeger water system on July 23, 2003. (See Commission Order).
3. The Iaeger water system experiences chronic problems with poor water quality and low water pressure, because of the advanced age and poor condition of the system, along with a relatively poor raw water quality. (See Staff Report filed January 8, 2004).

4. The Iaeger water system was constructed by Iaeger Water Works around 1921, and provides service to the entire population of Iaeger amounting to about 180 customers. (Id.).

5. Raw water for the system is provided by a deep well constructed by the Utility in 1999, which contains elevated levels of iron, manganese and sulfates. (Id.).

6. The system's only storage tank (constructed in 1921) is leaking and is severely corroded. (Id.).

7. The predominant age of the distribution lines is in excess of eighty years and the lines are in very poor condition. (Id.).

8. The Utility's unaccounted-for water rate ranges from the mid-seventy percent level to the lower eighty percent level. (Id.).

9. The Utility inherited the Iaeger system from the previous owner when the system was in a state of neglect and needed replacement. (Id.).

10. The system's chronic low pressure problems can only be corrected by replacing most of the distribution system. (Id.).

11. The Utility acts with due regard to the concerns of its customers and responds to most complaints within twenty-four hours. (Id.).

12. Significant improvements to the Iaeger system are beyond the financial ability of the Utility unless it can obtain outside sources of grant funding or subsidized low interest loans. (Id.).

13. The Utility is operating the Iaeger system in an acceptable manner and is presently meeting all the applicable West Virginia Bureau of Health standards. (Id.).

14. Once the Utility acquired the Iaeger system, it promptly retained an engineering firm to conduct a preliminary assessment of the system and to develop recommendations for improvements. (Id.).

15. The Utility filed an application with the Infrastructure Council in August of 2002 for a project regarding the Iaeger system, but was not able to obtain the Small Cities Block Grant it sought for the project. (Id.).

16. Staff of the Commission made ten specific recommendations for the Utility on how it could respond to the dismal situation facing the Iaeger water system. (Id.).

17. The Utility responded to the Staff recommendations agreeing to implement the various recommendations of Staff. (See Utility filing of February 5, 2004).

CONCLUSION OF LAW

The general investigation should be closed and the Utility should be required to hold a public meeting in an effort to educate its Iaeger water system customers about the seriousness of the problems on the system and of its efforts to correct the problems.

ORDER

IT IS, THEREFORE, ORDERED that the McDowell Public Service District hold a public meeting in or near Iaeger within sixty (60) days of the date that this Recommended Decision becomes final. The purpose of the meeting is to attempt to inform its customers of the seriousness of the problems with the Iaeger water system and inform the customers of the various steps and efforts made by the Utility to address the problems.

IT IS FURTHER ORDERED that the McDowell County Public Service District publish a copy of the attached Notice once a week for two (2) consecutive weeks, in a newspaper published and of general circulation in McDowell County. The second publication should be completed at least one week before the date of the public hearing. The McDowell County Public Service District shall fill in the information on the attached public notice related to the place of the hearing and the exact timing of the hearing. The hearing shall be held in the evening.

IT IS FURTHER ORDERED that the McDowell County Public Service District file an affidavit of publication concerning the required publication with the Commission within twenty days of the date of publication. The McDowell County Public Service District shall also inform Commission Staff assigned to this proceeding the information regarding the location and time of the meeting as soon as possible.

IT IS FURTHER ORDERED that the general investigation initiated by the Commission on July 23, 2003, be, and hereby is, closed.

The Executive Secretary is hereby ordered to serve a copy of this order upon the Commission by hand delivery, and upon all parties of record by United States Certified Mail, return receipt requested.

Leave is hereby granted to the parties to file written exceptions supported by a brief with the Executive Secretary within fifteen (15) days of the date this order is mailed. If exceptions are filed, the parties filing exceptions shall certify to the Executive Secretary that all parties of record have been served the exceptions.

If no exceptions are filed, this order shall become the order of the Commission, without further action, five (5) days following the expiration of the fifteen (15) day time period, unless it is ordered stayed by the Commission.

Any party may request waiver of the right to file exceptions to an Administrative Law Judge's Order by filing an appropriate petition in writing with the Secretary. No such waiver will be effective until approved by order of the Commission, nor shall any such waiver operate to

make any Administrative Law Judge's Order the order of the Commission sooner than five (5) days after approval of such waiver by the Commission.



Keith A. George
Administrative Law Judge

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APPENDIX A

**PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON**

CASE NO. 03-0822-W-PC

MCDOWELL COUNTY PUBLIC SERVICE DISTRICT
General Investigation regarding quality of
water utility operations for the Community
of Iaeger, McDowell County, West Virginia.

NOTICE OF PUBLIC MEETING

On July 23, 2003, the Commission initiated a general investigation into the Iaeger water system of the McDowell County Public Service District (PSD). Staff of the Commission thoroughly investigated the Iaeger water system and found serious problems with the water system. Staff of the Commission attributed the problems to the advanced age and poor condition of the system as it existed when the PSD took the system over. Staff found that the PSD promptly sought to engage in a project to replace the system, but is financially unable to do so unless it can obtain certain grants or low interest loans. Staff found that the PSD was operating the system in an acceptable manner and appeared to be responsive to customer complaints. Staff made ten specific recommendations for the PSD related to its Iaeger water system.

The PSD has been ordered to hold a public meeting to discuss with its customers the results of the general investigation, including the seriousness of the problems on the Iaeger water system and the PSD's efforts to resolve the problems.

The meeting has been set for (date of meeting) at (hour of meeting), in (location of meeting). Individuals may attend the public meeting to obtain additional information about the results of the general investigation into the PSD's Iaeger water system and to find out information regarding the PSD's efforts to correct the problems of the system. Individuals may also voice their concerns about the system at the meeting.

MCDOWELL COUNTY PUBLIC SERVICE DISTRICT