



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Memphis Environmental Field Office

8383 Wolf Lake Drive

Bartlett, TN 38133-4119

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November 25, 2019

Mayor William Cowan
Town of LaGrange
P.O. Box 621
Lagrange, TN 38046

Re: Sanitary Survey Report (Community Water System)
Town of LaGrange Water System
PWSID # 0000382
Fayette County

Dear Mayor Cowan:

On November 13, 2019, Mr. Gharib A. Khan from the Division of Water Resources (DWR) visited the Town of LaGrange Water System and performed a Sanitary Survey. The survey consisted of a records review to document the operational performance of the system and an on-site inspection of the water treatment and distribution system. The survey covered the time period from November 2017–November 2019. The Division would like to thank Mr. Bobby Hensley, Certified Operator, for his courtesy, willingness to work with the Division, and timely responses to the Division requests. In accordance with the Sanitary Survey Manual, the Town of LaGrange Water System earned 595 points out of a possible 599 points for a numerical score of ninety-nine percent (99%). This rating retains the Town of LaGrange Water System in the State's "**Approved**" category.

The following deficiencies, comments, and/or recommendations as outlined in the Sanitary Survey Rating Form were identified during the survey and should be addressed as applicable:

1. Section 4: Treatment

• **Subsection L: Maintenance of Equipment, Building, and Grounds**

All buildings and equipment used in and for the production and distribution of water must be well maintained and be reliable and fit for the purpose for which they are used. During the Sanitary Survey the following deficiencies were noted:

At the time of the survey, it was noted that all the pipes inside the high service pump building were rusted and need to be sandblasted and repainted. Additionally, the metal clearwell was covered with mildew and needs to be power washed.

2. Section 8: Distribution System and Cross Connection Controls

• **Subsection B: Flushing Program / Blow Offs**

All community water systems having more than 50 service connections shall establish and maintain an adequate flushing program. The flushing program established shall help ensure that dead end and low usage mains are flushed periodically, drinking water standards are met, sediment and air removal and the free chlorine residual specified under paragraph (4) of this rule is maintained. Records of each flushing are to be maintained by the water system as well. These records shall include date, time, location, person responsible and length of the flushing. In addition to the above information, free chlorine residual should be measured and recorded at the end of dead-end mains after being flushed. During the Sanitary Survey, records indicated that the Town of LaGrange Water System has not performed flushing for 2018 and 2019. The Town of LaGrange needs to establish and maintain an adequate flushing program. It is strongly recommended that the flushing program be documented in writing ensuring the program is adequately followed and in a timely manner. This deficiency was mentioned in the previous sanitary survey as well. Please refer to Rule 0400-45-01-.17(10) for additional information.

The following comments are general reminders:

1. The Town of LaGrange Water System now has 85 connections serving an estimated population of 225. The number of required bacteriological samples taken from the distribution system remains one (1) per month.
2. The Town of LaGrange Water System has completed its nitrate chemical monitoring for 2019. As a reminder, please be aware that the due date for 2020 nitrate chemical monitoring is prior to December 31, 2020. Also, as a reminder, the due date for Inorganics, Secondaries, Sodium, Lead and Copper and Volatile Organic chemicals monitoring is in the year 2020. Please refer to your waiver letter dated February 23, 2017, for more information.
3. During the Sanitary Survey Inspection, it was noted that the water system submitted an up-to-date distribution map to the Division as requested by the Division in the Sanitary Survey letter dated November 28, 2017.
4. During the Sanitary Survey Inspection, it was noted that the safety ladder shield on the 100,000 gallon elevated storage tank was locked as requested by the Division in the

Sanitary Survey letter dated November 28, 2017. Also, the 100,000 gallon elevated storage tank was inspected and painted by Hoffman Tank and Tower Company in 2015 and it appeared that recommended repairs were followed. As a reminder, this tank needs to be inspected again in 2020.

5. Records indicate that the LaGrange Water System's Emergency Operation Plan (EOP) was last updated in 2017. A copy was submitted to the Division as well. Please remember that the EOP needs to be updated every three years and therefore, should be updated again in 2020.
6. During the Sanitary Survey Inspection, it was noted that the LaGrange Water System's Wellhead Protection Plan (WHPP) was updated in 2018. A copy was submitted to the Division as well. Please remember that the WHPP needs to be updated every three years as well.
7. According to the Revised Total Coliform Rule (RTCR), which took effect on April 1, 2016, please be aware if the sample result is positive for total fecal or E. coli, it means the laboratory found bacteria. If this occurs then the system must submit three repeat samples marked R. Repeat samples must be collected within 24-hours of being notified of the positive results. If all repeat samples are negative it means that the water system is in compliance for that month. Please refer to Rule 0400 - 45-01-.07 and 0400-45-01-.41 for more information.
8. The Town of LaGrange Water System added new water well with a capacity of 300 gpm to its source water inventory. The new water well has been added to the Town's source water inventory and emergency operation plan as well.
9. As a reminder, no new construction or modification may be made without the approval of the Division. Also, the notice of construction start-up must be submitted to the Memphis Field Office before the actual construction start-up.

Additionally, during this Sanitary Survey, Mr. Bobby Hensley was observed performing the daily process control laboratory tests listed in the water treatment plant's Drinking Water Monitoring Program, and appeared to conduct the monitoring activities correctly.

We appreciate the courtesy shown to members of our staff during the survey. If you have any questions about this letter, please contact Mr. Gharib A. Khan at (901) 371-3015 or by email at Gharib.Khan@tn.gov.

Mayor William Cowan
November 25, 2019
Page 4

Sincerely,



Gharib A. Khan
Environmental Protection Specialist
Division of Water Resources
Memphis Environmental Field Office

| Enclosures: Drinking water monitoring program and Sanitary Survey Rating form-

cc: TDEC/DWR/MEFO: file
TDEC/DWR/Nashville Central Office

Mr. Bobby Hensley
P.O. Box 129
Grand Junction, TN 38046

Sanitary Survey Rating

PWSID: TN0000382

Water System Name: LaGrange Water System

Survey Date: 13-Nov-19

System Category (Points): 421
488
599

421 - Consecutive Systems/Distribution Only
488 - Treatment Systems/Wholesalers
599 - Both Treatment and Distribution

1. System Management and Operation (94)

	Requirement	Points Range	Deduction	Comments
A.	Record Keeping 0400-45-01-.20	(0)	Narrative	OK
B.	Construction Projects 0400-45-01-.05, 0400-45-01-.17	(1-5)		OK
C.	Submission of Monthly Operations Reports 0400-45-01-.17	(0)	Narrative	OK
D.	Reporting Requirements 0400-45-01-18	(4-30)		OK
E.	Public Notification 0400-45-01-.19	(3-10)		OK
F.	Facility Maintenance Fee	(0)	Narrative	OK
G.	Enforcement - TCA §68-221-701 et seq	(4-10)		OK
H.	Emergency Operations Plan 0400-45-01-.17	(3)		OK
Deficiency Subtotal			0	

2. Operator Compliance (23)

	Requirement	Points Range	Deduction	Comments
A.	Certified Operator – Plant and Distribution System 0400-45-01-.17(1) and 0400-49-01-04	(3-15)		OK
Deficiency Subtotal			0	

3. Source (25)

	Requirement	Points Range	Deduction	Comments
A.	Source Adequacy 0400-45-01-.02, .05, .16, .17(13) and .34(3)	(3-5)		OK
B.	Intake 0400-45-01-.05, .17	(2)		OK
C.	Wellhead/Springbox Construction 0400-45-01-.05(12), 16 and 17(3) and (16)	(2)		OK
D.	Source Protection Plans 0400-45-01-.34	(1-2)		OK
Deficiency Subtotal			0	

4. Treatment (153)

	Requirement	Points Range	Deduction	Comments
A.	Aerator 0400-45-01-.05, .17	(2)		OK
B.	Chemicals / Chemical Feeders 0400-45-01-.05 (8) and .17,36	(2)		OK
C.	Mixing 0400-45-01-.02, .05, .17	(2)		OK
D.	Flocculation 0400-45-01-.02, .05, .17	(2)		N/A
E.	Sedimentation 0400-45-01-.02, .05, .17	(2)		N/A
F.	Filtration / Alternative Technology 0400-45-01-.17(12) and (27)	(2-30)		N/A
G.	Re-Wash / Filter-to-Waste 0400-45-01-.17(35)	(2)		N/A
H.	Turbidimeters / Calibration 0400-45-01-.05(11), .17, .31, .39	(2-4)		N/A
I.	Disinfection/Calibration 0400-45-01-.02, .17, .31, .36	(2-30)		OK
J.	Disinfection Contact Time 0400-45-01-.02, .17,31	(2-4)		OK
K.	Master Meter 0400-45-01.17(2) and (3)	(1-2)		OK
L.	Maintenance of Equipment, Buildings and Grounds 0400-45-01-.02, .17(3), (17) and (19)	(1)	1	High service pumps pipes were rusted. Clearwell was covered with mildew.
M.	Laboratory Facilities 0400-45-01-.02, .14, .17(3)	(1-3)		OK
N.	Safety 0400-45-01-.02	(2)		OK
O.	Sludge Handling/Backwash Handling 0400-45-01-.05	(2)		N/A
P.	Sanitary Conditions 0400-45-01-.17(17)	(2)		OK
Q.	Fluoridation Techniques 0400-45-01-.06, .12, .17	(2)		N/A
R.	Design Capacity 0400-45-01-.05(10)	(2-4)		OK
S.	Filter Backwash Recycling 0400-45-01-.31(9)	(1)		N/A
Deficiency Subtotal			1	

5. Monitoring, Data Verification and Compliance (175)

	Requirement	Points Range	Deduction	Comments
A.	Laboratory-Process Monitoring (excluding Turbidity and Chlorine Residual) 0400-45-01-17(3)	(2-4)		OK
B.	Bacteriological Monitoring	(3-6)		OK
C.	Bacteriological Compliance 0400-45-01-.06	(4-7)		OK
D.	Turbidity Monitoring	(2-3)		N/A
E.	Turbidity Compliance	(4-7)		N/A
F.	Chlorine Residual Monitoring 0400-45-01-.17,31,36, 40	(2-3)		OK
G.	Primary Chemicals Monitoring	(2-3)		OK
H.	Primary Chemicals Compliance	(4)		OK
I.	Lead and Copper Monitoring 0400-45-01-.33	(2-3)		OK
J.	Lead and Copper Action Level 0400-45-01-.33	(3-5)		OK
K.	Disinfection/Disinfection By-Products and Precursors Monitoring 0400-45-01-.36, .37, .38	(2-3)		OK
L.	Disinfection/Disinfection By-Products and Precursors Compliance 0400-45-01-.06, .36	(2-30)		OK
M.	Secondary Chemicals 0400-45-01-.12	(2)		OK
N.	Secondary Chemicals Compliance 0400-45-01-.12	(3)		OK
O.	Cryptosporidium Monitoring 0400-45-01-.39	(0)	Narrative	N/A
Deficiency Subtotal			0	

6. Finished Water Storage (25)

	Requirement	Points Range	Deduction	Comments
A.	Adequate Storage 0400-45-01-.17(14)	(3-15)		OK
B.	Inspection and Maintenance of Reservoirs, Tanks and Clearwell 0400-45-01-.17(16), (17), (33) and (34)	(1-10)		OK
Deficiency Subtotal			0	

7. Pumps, Pump Facilities and Controls (18)

	Requirement	Points Range	Deduction	Comments
A.	Pump Facilities 0400-45-01-.17(9) and (13)	(1-4)		OK
B	Maintenance of Pumping Equipment 0400-45 - 01-.17(13)	(1-3)		OK
Deficiency Subtotal			0	

8. Distribution System and Cross Connection Controls (86)

	Requirement	Points Range	Deduction	Comments
A.	Notification, Inspection, Disinfection and Sample Collection of New or Existing Facilities 0400-45-01-.17(8), (19)	(3-5)		OK
B	Flushing Program / Blow Offs 0400-45-01-.17(10) and (23)	(3-4)	3	Failure to maintain an active flushing program.
C.	Fire Hydrants 0400-45-01-.17(18)	(0)	Narrative	OK
D.	Adequate Pressure 0400-45-01-.17(9)	(5)		OK
E.	Map of Distribution System 0400-45-01-.17(15)	(3)		OK
F.	Approved Cross Connection Policy or Ordinance and Plan 0400-45-01-.17(6)	(4)		N/A
G.	Working Cross Connection Program 0400- 45-01-.17(6)	(3-9)		N/A
H.	Percent Estimated Water Loss(real loss/water produced)	(0)	Narrative	OK
Deficiency Subtotal			3	

Rating

- 95% - 100% Approved
- 90% - 94% Provisionally Approved
- 0% - 89 % Unsatisfactory

Total Deficiency Points	-4
Overall Rating	595
	99.33%

Inspectors Signature



Additional Comments/Explanation:

1. The Town of LaGrange Water System now has 85 connections serving an estimated population of 225. The number of required bacteriological samples taken from the distribution system remains one (1) per month.
2. The Town of LaGrange Water System has completed its nitrate chemical monitoring for 2019. As a reminder, please be aware that the due date for 2020 nitrate chemical monitoring is prior to December 31, 2020. Also, as a reminder, the due date for Inorganics, Secondaries, Sodium, Lead and Copper and Volatile Organic chemicals monitoring is in the year 2020. Please refer to your waiver letter dated February 23, 2017, for more information.
3. During the Sanitary Survey Inspection, it was noted that the water system submitted an up-to-date distribution map to the Division as requested by the Division in the Sanitary Survey letter dated November 20, 2017.