STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

November 4, 2014

NOTICE OF VIOLATION NUMBER 15747SW
CERTIFIED MAIL NUMBER 7014 1820 0001 6466 0817
RETURN RECEIPT REQUESTED

Mr. Gary V. Cover
Osage Water Company
P.O. Box 506
Clinton, MO 64735

RE: NPDES PERMIT NUMBER MO0123170

Dear Mr. Cover:

This letter is in response to sample results taken during the June 10, 2014 compliance inspection conducted by the Department of Natural Resources (department). Please find enclosed a Report of Laboratory Analysis for samples collected during the site visit. Notice of Violation number 15747SW is enclosed for effluent limit violations. The table below explains the violations that occurred:

SITE VISIT DATE	PARAMETER	OUTFALL	PERMIT LIMIT	REPORTED VALUE
6/10/2014	E. coli	001	126 colonies/100mL monthly avg. 630 colonies/100 mL daily max.	>2419.6

Exceeding this limitation is a violation of the Missouri Department of Natural Resources Regulation 10 CSR 20-7.015 "Effluent Regulations" and NPDES permit conditions. This Notice of Violation is for a major exceedance of one of the parameters identified above and shall serve as official notification of this noncompliance.

Since the inspection, the operator has sent in additional sample results that are within the permitted parameters. The sludge report for 2013 has also been received by the department.

Based on your response, the department wishes to acknowledge your return to compliance for violations cited in the abovementioned Notice of Violation and the previously sent Letter of Warning.

Please note that this letter does not relieve you from liability for violations noted during the department's original inspection, nor does it relieve you from liability as a result of any future non-compliance.

Please be reminded that you are required to maintain compliance with your Missouri State Operating Permit and all applicable statutes and regulations. If you have any questions or if we can be of assistance to you in your efforts to achieve compliance, please contact Ms. Laura M. Gerson, of my staff, by calling 573-348-4028 or via mail at Southwest Regional Office, 2040 West Woodland, Springfield, Missouri 65807-5912.

As always, the department seeks to achieve the highest level of environmental protection, to the ultimate benefit of this state and its citizens. We appreciate your attention to our environmental concerns and your return to compliance.

Sincerely,

SOUTHWEST REGIONAL OFFICE

Cynthia Davies
Regional Director

CD/lgk

Enclosure – Sample Results

c: Mr. Jim Heppler, Lake of the Ozarks Water and Sewer
Public Service Commission

029.wpcp.OsageWaterCoKK.mo0123170.x.2014.11.04.fy15.nov_rtc.15747SW.lmg

MISSOURI DEPARTMENT OF NATURAL RESOURCES

NOTICE OF VIOLATION

VIOLATION NUMBER
15747SW

DATE AND TIME ISSUED
11/04/2014

SOURCE (NAME, ADDRESS, PERMIT NUMBER, LOCATION)
Osage Water Company, KK WWTF
P.O. Box 506
MO0123170

MAILING ADDRESS	CITY	STATE	ZIP CODE
P.O. Box 506	Clinton	MO	64735

NAME OF OWNER OR MANAGER	TITLE OF OWNER OR MANAGER
Gary Cover	Receiver

LAW, REGULATION OR PERMIT VIOLATED
Missouri State Operating Permit (MSOP) MO0123170
Missouri Clean Water Law Section 644.076.1 and 644.051.1(3), RSMo.

NATURE OF VIOLATION — DATE(S): — TIME(S):

Permittee failed to comply with effluent limits contained in Part "A" of the Missouri State Operating Permit number MO0134244 by exceeding the limits set forth for *e. coli*.

SIGNATURE (PERSON RECEIVING NOTICE)	SIGNATURE (PERSON ISSUING NOTICE)
Sent Via US Mail	Laura Gerson Laura Gerson
TITLE OR POSITION	TITLE OR POSITION
	Environmental Specialist/SWRO

Schedule JC-S4

DISTRIBUTION: SOURCE CENTRAL OFFICE REGIONAL OFFICE

Missouri Department of Natural Resources
Environmental Services Program

Order ID 140610007 **Program, Contact:** WPC Brittnie Brauner

Report Date: 06/24/2014 **LDPR/JobCode:** FEINS

RECEIVED
JUN 25 2014
DEQ/SWRO

Schedule JCSM

Sample: AC28830

Customer #: 1410252

Facility ID: MO0123170 **Site:** Osage Water Comp. KK WWTF
County: Camden **Sample Reference ID:**
Collector: LAURA GERSON **Affiliation:** SWRO **Collect Date:** 6/10/2014 1:25:00PM
Entry Point:
Sample Comment: Grab; outfall 001.
Precision

UTM-Easting 0524891E **Northing** 4221573N

Test	Parameter	Result	Qualifier	Units	Method
Biochemical Oxygen Demand	Biochemical Oxygen Demand	20.5		mg/L	SM 5210-B
E. coli - IDEXX	E. coli - IDEXX	>2419.6		mpn/100ml	SM 9223B
Field Dissolved Oxygen	Field Dissolved Oxygen	3.02		mg/L	SM 4500-O-G
Field pH	Field pH	6.99		pH Units	EPA 150.1
Field Temperature	Field Temperature	21.6 C			EPA 170.1
Total Residual Chlorine	Total Residual Chlorine	0.05		mg/L	Field Dependent
Total Suspended Solids (TSS) / NFR	Total Suspended Solids (TSS) / NFR	6.00		mg/L	SM 2540-D

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S Environmental Protection Agency.

Lori Dunmire for Chris Boldt

Chris Boldt, Laboratory Manager
Environmental Services Program
Division of Environmental Quality

Qualifier Descriptions

01 Improper collection method
02 Improper preservation
03 Exceeded holding time
04 Analyzed by Contract Laboratory
05 Estimated value, detected below PQL
06 Estimated value, QC data outside limits
07 Estimated value, analyte outside calibration range
08 Analyte present in blank at > 1/2 reported value
09 Sample was diluted during analysis
10 Laboratory error
11 Estimated value, matrix interference
12 Insufficient quantity
13 Estimated value, true result is >= reported value
14 Estimated value, non-homogeneous sample
15 No Result - Failed Quality Controls Requirements
16 Not analyzed - related analyte not detected
17 Results in dry weight
18 Sample pH is outside the acceptable range
19 Estimated value
20 Not analyzed - Instrument failure
21 No result - spectral interference
22 pH was performed at the Laboratory
23 Contract Lab specific qualifier - see sample comments
24 No result - matrix interference
25 No Result: Excessive Chlorination
26 No Result: Excessive Dechlorination
ND Not detected at reported value

029. wpcp. Osage Water Comp KKWWTF. MO0123170 . x . 2014.06.25. ky14. sam. x a rcvd

140610007

Facility Name: Osage Water Company, KK

Permit Number: MO-0123170

Inspection Date: June 10, 2014

MoCWIS number: 23993
Concern Number:
ACE Number:

Report Date: November 4, 2014

Inspector Name: Laura M. Gerson

County: Camden

Unsatisfactory Features

Response Due: September 8, 2014

1. Missing sludge report
2.
3.
4.
5.
6.

Response Received:

Facility's Response

	Satisfactory	Unsatisfactory
1. Received sludge report	☒	☐
2.	☐	☐
3.	☐	☐
4.	☐	☐
5.	☐	☐
6.	☐	☐

RTC ☒ Admin Closed ☐ Referred to Jake ☐ Referred to Enforcement ☐ Date_____

Date Referred to Jake: _____

Comments: _____

_____

	YES	NO	N/A
MoCWIS updated	☒	☐	☐
Original copy of the facility's response attached	☐	☒	☐
Initialed/Highlighted concern form attached	☐	☐	☒
Electronic copy of this form on Tina's N drive	☒	☐	☐
RTC letter drafted	☒	☐	☐
Geohydrolic Evaluation Form/Lagoon checklist if applicable	☐	☐	☒

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
dnr.mo.gov

July 31, 2014

Mr. Gary Cover
Osage Water Company
P.O. Box 506
Clinton, MO 64735

Dear Mr. Cover:

Enclosed is the Report of Inspection for the community water system serving Eagle Woods Subdivision in Camden County. This report is believed to be self-explanatory and I trust you will direct your attention to the recommendations contained therein.

As an existing water system that is being signed up as a public water system, the integrity of the system and quality of water served is unknown and cannot be addressed by this initial inspection. As routine monitoring of this water system occurs, this information will be determined.

A *Compliance Agreement* will be mailed to Ms. Denise Jordan (well owner) in the near future to address the water system's well, which is not compliant with current state and federal regulations. The department has adopted a "Subdivision Policy" that provides water systems such as yours an opportunity to comply with Safe Drinking Water requirements. If you take advantage of this opportunity, the department will allow continued use of this non-compliant well. If you decide not to take advantage of this opportunity the department will require you to either construct a new well to state standards or connect to a department-approved water system. The department may also initiate legal action, including appropriate penalties if necessary, to obtain compliance with these requirements.

Unless otherwise requested within the report, all correspondence and questions should be directed to Mr. Darrell Barber of this office by calling 573-348-0875 or via mail at the Southwest Regional Office, 2040 West Woodland, Springfield, MO 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE

Mark Rader, Chief
Drinking Water Section

MDR/dbl

Enclosures

c: Mr. Jim Busch, Missouri Public Service Commission
Mr. Clinton Finn, Southwest Regional Office
Ms. Denise Jordan, Well Owner
Ms. Misty Lange, Public Drinking Water Branch
Mr. Chad Stout, Lake of the Ozarks Water and Sewer

MISSOURI DEPARTMENT OF NATURAL RESOURCES
REPORT OF INSPECTION
COMMUNITY PUBLIC WATER SYSTEM
EAGLE WOODS SUBDIVISION
CAMDEN COUNTY, MISSOURI
PUBLIC WATER SYSTEM ID NUMBER MO5030015

July 31, 2014

INTRODUCTION

A routine inspection was made of the community public water system serving Eagle Woods Subdivision by Mr. Darrell Barber of the Missouri Department of Natural Resources (department) Southwest Regional Office on June 11. Mr. Chad Stout and Mr. Jacob Cook, Operators, were present representing the facility during the inspection. The purpose of the inspection was to determine compliance with Missouri Safe Drinking Water Law and Regulations and to activate the system as a public water supply.

DISCUSSION

The system serves approximately 85 people in the Eagle Woods Subdivision through 34 residential connections. The system operates year round.

Well #1 is a multi-family well drilled in 1998 to a depth of 400 feet with 6-inch PVC casing to a depth of 100 feet. The well is equipped with a submersible pump. The water is disinfected with a liquid sodium hypochlorite solution. Storage is provided by two 4,500-gallon ground storage tanks. System pressure is maintained by two 5-horsepower booster pumps rated at 60 gallons per minute and three 119-gallon bladder tanks. The ground storage tanks are also equipped with a small recirculating pump located in the well house to prevent freezing or stagnation of the water in the ground storage tanks.

Eagle Woods Subdivision was developed by Mr. Ron Westenhaver of Summit Investments, LLC. Mr. Westenhaver constructed the distribution system, Well #1, and a second multi-family well, which is no longer used by the subdivision. In 2002, Eagle Woods discontinued using the two multi-family wells and contracted with Environmental Utilities, LLC to provide wholesale water service to Eagle Woods via the adjacent Golden Glade water system owned by Environmental Utilities. The two multi-family wells previously serving Eagle Woods were turned over to the two parcel owners where the wells are located. Wastewater treatment for Eagle Woods and Golden Glade subdivisions is provided by a single wastewater treatment facility owned by Osage Water Company. Mr. Greg Williams is a principle in Osage Water Company and Environmental Utilities, LLC. In August 2007, after the Missouri Public Service Commission (PSC) initiated a receivership case against Osage Water Company, Environmental Utilities discontinued providing water to Eagle Woods.

Mr. Gary Cover is the PSC-appointed receiver in charge of managing the assets of Osage Water Company. On August 22, 2007, Mr. Cover filed a petition in Camden County Circuit Court on behalf of Osage Water Company seeking a temporary restraining order against Environmental Utilities. The September 14, 2007, court docket entry states the parties reached an agreement for Environmental Utilities to continue supplying water to Eagle Woods until February 2008. Osage Water Company submitted an application for a construction permit on December 31, 2007, to add two 4,500-gallon ground storage tanks, two booster pumps and chlorination to one of the multi-family wells previously used by Eagle Woods. The application stated the modifications were temporary until funds could be raised to drill a new state-approved well. An approval to construct (Review No. 54366-07) was issued by the department on February 1, 2008. The temporary modifications approved by Review No. 54366-07 were still in use on June 11. It appears the department was not notified once modifications were constructed so a final construction inspection could be conducted. Please submit a Statement of Work Complete form to Mr. Clinton Finn at the Southwest Regional Office so a final construction inspection can be scheduled.

The multi-family well supplying water for Eagle Woods (Well #1) is owned by Ms. Denise Jordan. Osage Water Company pays a monthly lease to Ms. Jordan for the use of Well #1 and the land needed for the well house and storage tanks.

The system requires a DS-II operator's license. Mr. Chad Stout possesses the adequate DS-II operator's license needed.

Two drinking water samples were collected from the outside hose bib at 6425 Eagle Crossing and submitted for microbiological analysis. The samples tested Total Coliform positive or "not safe". The free chlorine entering the distribution system was below detection limits and the total residual chlorine level in the system was 0.12 mg/L at the time of the inspection. The operator had checked the chlorine residuals on June 10, all parameters were within acceptable ranges, and the equipment appeared to be functioning properly. However, upon our arrival on June 11, the chlorinator was no longer injecting chlorine into the system. The operator determined a check valve in the injector quill assembly was stuck and not allowing the chlorine solution to be injected into the water system. The operator repaired the faulty valve during the inspection.

The following unsatisfactory features were noted with comments and recommendations for correction, and are organized into categories as noted below.

UNSATISFACTORY FEATURES

The Ground Water Rule specifies eight elements integral to an effective inspection of a public water system. The eight elements are: Source (protection, physical components, and condition);

Treatment; Distribution System; Finished Water Storage; Pumps, Pump Facilities, and Control; Monitoring, Reporting, and Data Verification; Water System Management and Operations; and Operator Compliance with State Requirements. Your public water system was evaluated for compliance with these eight elements and the following list of deficiencies comprises the findings of this inspection.

Significant Deficiencies

Significant Deficiencies cause, or have the potential to cause, the introduction of contaminants into water delivered to customers.

1. No Significant Deficiencies were cited as a result of this inspection.

Violations of Missouri Safe Drinking Water Regulations

These violations can result in enforcement action if repeated or not corrected. Some violations are more serious than others, and this is explained in the comments.

2. The well is not equipped with a sample tap located prior to treatment for source water sampling as required by Safe Drinking Water Regulation 10 CSR 60-4.025(3)(E).

A sample tap is needed to collect samples directly from the well prior to treatment so that distribution and source problems can be distinguished from each other. Locating the sample tap at a point where positive pressure is maintained makes it possible to collect samples without starting the pump each time. Samples collected before treatment reveals the condition of the raw source water.

Install a source water sample tap, which must be located to insure that untreated well water can be collected. The best source water sample tap location has a check valve between it and the point of chlorination. If the tap is not isolated from the chlorine injection point, then only collect source water samples when the well is running.

3. The public water system dispensed water without obtaining a written permit to dispense water in violation of Safe Drinking Water Regulation 10 CSR 60-3.010.

All public water systems must obtain a permit to dispense water to the public. There is no permit fee. A public water system must submit a permit to dispense application and must meet bacterial and chemical monitoring and maximum contaminant level requirements.

Submit the completed application for a permit to dispense and all required documentation, including a deed to the well property, to: Missouri Department of Natural Resources, Public Drinking Water Branch, Infrastructure, Permits and Engineering Section, P.O. Box 176,

Jefferson City, MO 65102, Phone 573-751-5331, Fax: 573-751-3110.

4. The well was not constructed in accordance with the Design Guide, Part 3.2, as required by Safe Drinking Water Regulation 10 CSR 60-3.010(1) and was either drilled or made to serve as a community water system after the October 1, 1979, grandfather deadline. The water system is utilizing a multi-family well that was constructed in 1998. After a five year lapse in use, the multi-family well was placed back in operation in late 2007 or early 2008 and has been in continuous operation since that time.

Subdivision wells drilled after the October 1, 1979, grandfather date that do not meet Design Guide standards, and pre-October 1, 1979, wells that are not in continuous operation or not serving community water systems until after that date but before January 1, 2013, are considered non-compliant but can continue to be used to supply a community public water system if the water supplier enters into a *Compliance Agreement* with the department and routine bacteriological samples remain safe. If the maximum contaminant level is exceeded or monitoring violations occur, then according to this agreement the well must be replaced with a state-approved well meeting Design Guide standards, a state-approved treatment system must be installed, or connection to another department-approved water system must be established.

Sign and return the *Compliance Agreement*, which will be mailed in the near future, within 15 calendar days of the date it is received.

Additional Regulatory Requirements

In addition to the regulatory violations listed above, there are other specific regulatory requirements that the public water system will be expected to comply with. As a newly activated public water system, the water system had not had an opportunity to address these requirements at the time of the inspection. Failure to address the items listed below may result in the items being cited as violations during future inspections or enforcement actions being initiated.

5. The public water system must develop a written total coliform bacteria sample siting plan as required by Safe Drinking Water Regulation 10 CSR 60-4.020(1)(A).

The regulations require each system to have a written plan that outlines bacteriological sampling points. The Microbiological Sample Siting Plan enclosed with this report will guide you in completion of an approved sampling plan.

Submit a written coliform sample siting plan to this office and keep a copy in your permanent water records. If you have further questions regarding completion of a sample siting plan, contact the Southwest Regional Office for assistance.

6. The public water system must establish a cross-connection control program as outlined in Safe Drinking Water Regulation 10 CSR 60-11.010.

Public water systems shall be designed and maintained to prevent contamination from being introduced into the system from back-pressure or back-siphonage. This cross-connection control program should include a cross-connection ordinance for cities and towns, a cross-connection clause in the user agreement for private utilities, and an inspection of all potential cross-connection sources such as car washes, school laboratories, beverage bottling plants, sewage treatment plants, facilities with boilers or fire sprinkler systems, mortuaries, irrigation systems, hospitals, and industrial manufacturing plants.

Whenever an unprotected cross-connection is discovered, it must be corrected by the customer installing a department-approved air gap or backflow prevention device. Air gaps and backflow prevention devices must be tested annually by a certified tester, and results of these tests must be kept in the public water system records for a period of five years and made available to the department inspector during inspections.

Establish a cross-connection control program.

7. The public water system must establish a lead plumbing ban program as outlined in Safe Drinking Water Regulation 10 CSR 60-10.040.

Missouri Safe Drinking Water Regulations require that as of January 1, 1989, materials used in the construction, expansion, modification, or improvement of a public water system or customer water system shall be lead free. Solder and flux containing not more than 0.2% lead and pipe fittings containing not more than 8.0% lead shall be considered lead free. Each public water system should develop a lead plumbing ban program including a lead plumbing ban ordinance for cities and towns, a lead plumbing ban clause in the user agreement for private utilities, and an inspection of new plumbing to ensure compliance.

As of January 4, 2014, the definition of lead free concerning the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures has changed in the Federal Safe Drinking Water Act to allow no more than a weighted average of 0.25% lead (there has been no change to the definition of lead free concerning solder and flux). It is no longer legal to sell or install components that fail to meet the new definition of lead free. Excluded from this are components used exclusively for non-potable service and for distribution gate valves that are two inches or greater in diameter. This law also applies to plumbers, homeowners and others who may install or repair plumbing, which may require changes to local building or plumbing codes to ensure compliance. Missouri regulations do not currently include this update to Federal law; however, the department strongly encourages you to incorporate the federal changes into any lead plumbing ban established.

Included with this report is the most recent update of the Summary of The Reduction of Lead in Drinking Water Act and Frequently Asked Questions.

Establish a lead plumbing ban program.

8. The community public water system commenced operation after October 1, 1999 and therefore must establish minimum Technical, Managerial and Financial (TMF) capacity requirements as required by Safe Drinking Water Regulation 10 CSR 60-3.030.

Minimum Technical Capacity Requirements shall include: conforming to the department's Standards for Community Public Water Supplies; having a sufficient number of operators certified as required in 10 CSR 60-14 to provide proper operation and maintenance of the system; having and maintaining an updated distribution system map showing, at a minimum, the size and location of all waterlines, valves, hydrants, storage facilities, pumping facilities, and water sources.

Minimum Managerial Capacity Requirements shall include: having an organization chart that shows every position that provides any drinking water function; having a designated person(s) who will receive customer environmental concerns; having a written rate structure and service fees; holding at least one public meeting prior to changing the rate structure or service fees; designating a person(s) to deal with compliance-related issues in accordance with the public drinking water regulations in 10 CSR 60.

Minimum Financial Capacity Requirements shall include: adherence to standard accounting practices; developing and implementing a system of collection of water fees that includes disconnection of service for non-payment or other measures for obtaining payment of fees; developing an annual budget showing public water system revenues and expenditures prepared at the end of each fiscal year; preparing a five-year capital improvement budget and capital improvement plan that will be updated annually; developing an operating reserve equal to or greater than one-tenth of the annual operations and maintenance budget to be used for operating and maintenance expenses only.

Demonstrate compliance with minimum TMF capacity requirements. The enclosed checklist may be used as a guide for items required to demonstrate compliance.

9. The public water system must develop and implement an emergency operation plan as required by Safe Drinking Water Regulation 10 CSR 60-12.010.

Each community public water system must develop and implement a plan for assuring, to the extent practicable, continuous water service under emergency conditions. This emergency

operation plan must include designation of a coordinator and key personnel to be on call under emergency conditions, designation of personnel authorized to expend funds under emergency conditions, a list of quarterly updated home and office telephone numbers of the coordinator, key operational personnel, state and local assistance sources, a list of alternative water systems which could be made available if the basic system were incapacitated, an inventory of emergency equipment, and written emergency procedures including those for tank truck disinfection and protection, installation of emergency chlorinators, and disinfection of trucked water.

The emergency operation plan is located at: http://www.dnr.mo.gov/env/wpp/eop/. Please complete and submit to the Southwest Regional Office, Attn: Darrell Barber. For a hard copy, please contact our office by calling 417-891-4300.

10. The public water system must develop and implement a Disinfection Byproduct Monitoring Plan as required by Safe Drinking Water Regulation 10 CSR 60-4.090(3).

As of January 1, 2004, all community and non-transient non-community public water systems using groundwater that add a chemical disinfectant to the water must develop and implement a plan to monitor for total trihalomethanes and other disinfection by-products. These contaminants are a family of chlorinated and brominated chemicals produced when chlorine reacts with organic matter in water, and which are known to increase the risk of cancer. The current standards set by the department are associated with little risk and are the levels currently considered safe.

Work to identify location(s) within the distribution system that represent the maximum residence time of the water in distribution during the month of the warmest water temperature. It is at these locations that the greatest concentration of disinfection by-products will be found. If you have questions or need assistance, contact Mr. Todd Eichholz, Missouri Department of Natural Resources, Public Drinking Water Branch, P.O. Box 176, Jefferson City, MO 65102, or by calling 573-751-4090.

Department Recommendations

These deficiencies are important and the public water system should give serious consideration to correction. However, these deficiencies are not normally subject to enforcement action unless the department determines that these are contributing to the failure of the public water system to provide an adequate volume of safe water to customers at sufficient pressure.

11. The public water system failed to maintain a minimum free chlorine residual of 0.5 mg/L at the well and failed to maintain a minimum total chlorine residual of 0.2 mg/L in the distribution as required by the Safe Drinking Water Regulation 10 CSR 60-4.055.

Due to a malfunction of a check valve in the chlorinator injector quill assembly, there was no

detectable chlorine residual in the water system at the well house (after detention). The total chlorine residual was 0.12 mg/L at 6425 Eagle Crossing.

The operator repaired the malfunctioning check valve during the inspection. No further action is required.

12. The well is not equipped with a means of measuring water levels.

A well should be equipped with a means of measuring the water level, which is normally a draw down tube and gauge. The tube is blown free of water with an air tank or hand pump. The gauge will read the feet of water standing over the pump. When the pump is started, the gauge reading will decline as the well water level falls and the feet of water over the pump decreases. When the gauge stabilizes, this will represent the feet of water over the pump at pumping condition. If the depth of the pump setting is known, these readings can be converted to static water level and pumping water level. These water levels tend to decline during prolonged droughts and during periods of heavy pumping by all wells in the vicinity. Decline of an adequate water level over the pump may result in pumping of accumulated oil from oil lubricated vertical turbine pump and may result in pumping of air and ultimate pump failure. It is important to have wells equipped with draw-down tubes and gauges and to periodically measure and record the static and pumping water levels. Draw-down tubes can only be installed when the pump is pulled.

The department recommends installing a draw-down tube and gauge the next time the well pump is pulled for repair or replacement.

13. Dead end mains are not equipped with flush hydrants.

All dead end mains should be eliminated by looping where practical. If these cannot be eliminated, each dead end main should be equipped with a flush hydrant to allow stale or contaminated water to be eliminated.

The department recommends installing flush hydrants at each dead end main.

14. The public water system is not maintaining an adequate map of the distribution system and records on valves and hydrants.

The public water system should maintain a map showing the location of every main along with other buried utilities (sewers, gas lines, cables, etc.) that could affect excavation for repairs. The map should show the nominal size, material of construction, class, and SDR or DR for each main. Note that Class 200 AWWA C900 PVC pipe and Class 200 ASTM D2241 PVC pipe have different dimensions so different fittings are needed for repairs so each Class 200 PVC main

must be properly identified. The map should show the location of each valve, fire hydrant, and flush hydrant and each should be identified (numbered). Each valve should have a separate sheet showing the identifications, location, type, size, manufacturer, model number, number of turns to close, direction of rotation, and space to show exercising records, repairs needed, and repairs made with dates. Each hydrant should have a separate sheet showing identification, location, type, manufacturer, model number, nozzle sizes, fire flow rating, standard color and space to show testing, and repairs needed and repairs made with dates. The map, valve records, and hydrant records should be updated after every new addition. Ideally, a master map and records should be kept in the permanent public water system records and working copies (photo reduced if needed) provided to each employee who makes repairs.

Maintain an adequate distribution system map.

15. The public water system does not have an adequate tank interior inspection and cleaning program.

The public water system should have a tank interior inspection and cleaning program with the following elements: a) Each tank interior should be inspected and cleaned every two to five years depending on silt build up; b) the type and general condition of the interior paint should be determined, especially on any paint that appears to be high in lead or chromium; c) glass-coated interiors should be inspected for cracking, corrosion and other signs of coating deterioration (spalling, cracking, leaking, etc.); d) if rusting is present, determine the approximate percent of rusted area, the extent, nature and depth of pitting, and the condition of the remaining coating (chalking, blistering, loose, blotchy, etc.); and, e) concrete structures should be inspected for signs of deterioration (spalling, cracking, leaking, etc.). All work shall be conducted in a clean and sanitary manner, and all surfaces shall be thoroughly cleaned and disinfected before a storage facility is returned to service. It is the responsibility of the public water system to either conduct or require water quality tests to demonstrate the good sanitary condition of the tank interior before it is returned to service. Follow all environmental laws and rules to dispose of chlorinated water, sludge debris and other wastes.

Develop and institute an adequate tank interior inspection and cleaning program.

16. The storage tank piping is not sufficiently valved to permit bypassing. Specifically, the bladder tanks are not equipped with isolation valves.

The storage tanks should be designed and constructed to allow tanks and reservoirs to be taken offline, drained, cleaned, repaired, and painted without causing a loss of pressure in the distribution system. This should include bypass piping and sufficient valves to the storage tank to permit continuous operation of the system even with the tanks offline.

SUBMITTED BY:

Darrell Barber
Environmental Specialist

APPROVED BY:

Randy Bradley, Chief
Drinking Water Inspection Unit

Location: Eagle Woods Subdivision
Photographer: Darrell Barber
Photograph Date: June 11, 2014
Comments: Well, three 119-gallon bladder tanks and related piping.

Location: Eagle Woods Subdivision
Photographer: Darrell Barber
Photograph Date: June 11, 2014
Comments: Booster pumps (5-hp) and related piping.

Location: Eagle Woods Subdivision
Photographer: Darrell Barber
Photograph Date: June 11, 2014
Comments: Well house and two 4,500-gallon ground storage tanks.

Location: Eagle Woods Subdivision
Photographer: Darrell Barber
Photograph Date: June 11, 2014
Comments: Chem-Tech (Series 200) chemical feed pump, 25-gallon chlorine solution tank and related piping.

Mr. Chad Stout
Lake of the Ozarks Water and Sewer
840 Thunder Mountain Road
Camdenton, MO 65020

Ms. Denise Jordan
6507 Red Fox Lane
Osage Beach, MO 65065

Missouri Department of Natural Resources
Environmental Services Program

Order ID 140610007 **Program, Contact:** WPC Brittnie Brauner

Report Date: 06/24/2014 **LDPR/JobCode:** FEINS

RECEIVED
JUN 25 2014
DEQ/SWRO

Schedule JC-S4

Sample: AC28830

Customer #: 1410252

Facility ID: MO0123170 **Site:** Osage Water Comp. KK WWTF
County: Camden **Sample Reference ID:**
Collector: LAURA GERSON **Affiliation:** SWRO **Collect Date:** 6/10/2014 1:25:00PM
Entry Point:
Sample Comment: Grab; outfall 001.
Precision

UTM-Easting	Northing
1524891E	4221573N

Test	Parameter	Result	Qualifier	Units	Method
Biochemical Oxygen Demand	Biochemical Oxygen Demand	20.5		mg/L	SM 5210-B
E. coli - IDEXX	E. coli - IDEXX	>2419.6		mpn/100ml	SM 9223B
Field Dissolved Oxygen	Field Dissolved Oxygen	3.02		mg/L	SM 4500-O-G
Field pH	Field pH	6.99		pH Units	EPA 150.1
Field Temperature	Field Temperature	21.6 C			EPA 170.1
Total Residual Chlorine	Total Residual Chlorine	0.05		mg/L	Field Dependent
Total Suspended Solids (TSS) / NFR	Total Suspended Solids (TSS) / NFR	6.00		mg/L	SM 2540-D

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S Environmental Protection Agency.

Lori Dunmire for Chris Boldt

Chris Boldt, Laboratory Manager
Environmental Services Program
Division of Environmental Quality

Qualifier Descriptions

01 Improper collection method
02 Improper preservation
03 Exceeded holding time
04 Analyzed by Contract Laboratory
05 Estimated value, detected below PQL
06 Estimated value, QC data outside limits
07 Estimated value, analyte outside calibration range
08 Analyte present in blank at > 1/2 reported value
09 Sample was diluted during analysis
10 Laboratory error
11 Estimated value, matrix interference
12 Insufficient quantity
13 Estimated value, true result is >= reported value
14 Estimated value, non-homogeneous sample
15 No Result - Failed Quality Controls Requirements
16 Not analyzed - related analyte not detected
17 Results in dry weight
18 Sample pH is outside the acceptable range
19 Estimated value
20 Not analyzed - Instrument failure
21 No result - spectral interference
22 pH was performed at the Laboratory
23 Contract Lab specific qualifier - see sample comments
24 No result - matrix interference
25 No Result: Excessive Chlorination
26 No Result: Excessive Dechlorination
ND Not detected at reported value

029. wpcp. Osage Water Comp KK WWTF. MO0123170 . x . 2014.06.25. ltr14. sam. x . rcvd

140610007

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
dnr.mo.gov

June 21, 2016

Osage Water Company
PO Box 506
Mr. Gary Cover
Clinton, MO 64735

Dear Mr. Cover:

Missouri State Operating Permit (MSOP) MO0123170 was issued to Osage Water Company for the Osage Water Company-KK in Camden County. This permit sets forth specific effluent limitations, monitoring requirements, and specific permit conditions regarding the facility. Review of your Discharge Monitoring Report(s) for the **monitoring period(s) ending in January to March 2016** shows that the effluent limitations established in your MSOP have been exceeded. An exceedance of the effluent limitations established in your permit is a violation of the Missouri Clean Water Law (MCWL), Sections 644.051.1(3) and 644.076.1; Clean Water Commission Regulations 10 CSR 20-7; and your MSOP. The violations are listed on the enclosed Discharge Monitoring Report Exceedance List.

By **July 26, 2016**, please submit a written response to the address below which explains the reason(s) for the violation(s) and what steps you have taken or will take to prevent further violation(s) of the MCWL. As always, the department is willing to meet with you to discuss the violation(s) and the actions necessary to bring your facility into compliance. If you would like to schedule a meeting or have questions, please contact water pollution staff at 417-891-4300, by mail at 2040 W. Woodland, Springfield, MO 65807-5912, or by email at ronda.crabtree@dnr.mo.gov.

If you have already provided this information, the department appreciates your efforts to return your facility to compliance.

Sincerely,

SOUTHWEST REGIONAL OFFICE

Kevin Hess, Chief
Water Pollution Section

KH/rck

Enclosure: Discharge Monitoring Report Exceedance List

029.wpcp.OsageWaterCoKK.mo0123170.x.2016.06.21.fy16.dmrexcmd.x.ryc

Osage Water Company-KK
Camden County
MO0123170

DISCHARGE MONITORING REPORT EXCEEDANCE LIST

Outfall	Monitoring End Date	Parameter	Units	Permit Limitations	Reported Values
001	3/31/2016	Nitrogen, ammonia total (as N)	mg/L	1.9 - Monthly Avg.	4.89

MISSOURI DEPARTMENT OF NATURAL RESOURCES
PUBLIC DRINKING WATER PROGRAM
COMPLIANCE & OPERATIONAL INSPECTION

CLASS 2 INSPECTION FORM

INTERVIEWED >	Jim Heppler - Operator	DATE 4-27-2017
ID NUMBER MO5030015	SYSTEM NAME Eagle Woods Subd.	COUNTY Camden

ADDRESS | CITY | STATE | ZIP CODE | TELEPHONE NUMBER

COMMENTS AND RECOMMENDATIONS FOR CORRECTION
The following comments are referenced to the applicable checklist items attached to this form.

101. - PWS does not have a permit to dispense water
106. - PWS does not have an Emergency Operations Plan
108. - PWS does not have a Cross Connection Control Program
135/136. - Need distribution system map & valve records
143. - TMF
201/203. - Non-compliant well - successfully completed NCWA 1/22/2015
222. - Well is not equipped with drawdown measuring equipment
229. - PWS does not have a source of emergency power
315. - Booster pumps are not equipped with isolation valves
406. - Improper design of vents on ground storage tanks
410. - Exteriors of ground storage tanks need painted
416. - Tank inspection & cleaning program needed
420. - Trees & brush growing around tanks (honeysuckle vine on ladder)
435. - Bladder tanks aren't equipped with isolation valves
103. - Final Construction Inspection needed for Ground Storage tanks, booster pumps & Chlorination system installed in 2008

Free Chlorine at well House 0.72 mg/L

Bacti sample collected from site 01 (6425 Eagle Crossing) was safe. Free Chlorine & Total Chlorine residuals noted below

FREE & TOTAL CHLORINE RESIDUAL 0.67 & 0.79 mg/l ☑ Sample Collected & LOCATION 6425 EAGLE CROSSING

INSPECTOR'S SIGNATURE	TITLE
Darrell G. Bell	ENV. SPEC. III

COMPLIANCE & OPERATIONAL CHECKLIST

Fill in the appropriate box and if "C", explain in the comment section on the front of this form.

☐ NA **ITEM #1 ADMINISTRATION**

C ok NA

- ☑ ☐ ☐ **101. Permit to Dispense status** 10CSR60-3.010
- ☐ ☑ ☐ **102. Construction permits** 10CSR60-3.010(1)(A)
- ☑ ☑ ☐ **103. Final approvals** 10CSR60-3.010(1)(B)
- ☐ ☐ ☑ **104. Owner supervised program** 10CSR60-10.010(2)(C)
- ☐ ☑ ☐ **105. Certified Chief Operator** 10CSR60-14.010(4)
- ☑ ☐ ☐ **106. Emergency operations plan** 10CSR60-12.010
- ☐ ☑ ☐ **107. Lead ban ordinance** 10CSR60-10.040
- ☑ ☐ ☐ **108. Backflow prevention program** 10CSR60-11.010
- ☐ ☐ ☑ **109. Backflow device records** 10CSR60-11.010(7)(B)
- ☐ ☑ ☐ **110. Primacy fees** 10CSR60-16.010
- ☐ ☑ ☐ **111. Laboratory & administration fees** 10CSR60-16.030
- ☐ ☑ ☐ **112. Coliform sampling plan** 10CSR60-4.020(1)(A)
- ☐ ☑ ☐ **113. Pb/Cu Sampling plan** 10CSR60-15.070
- ☐ ☐ ☑ **114. Turbidity reporting** 10CSR60-7.010(4)
- ☐ ☑ ☐ **115. Disinfection reporting** 10CSR60-7.010(5)
- ☐ ☑ ☐ **116. Private lab coliform results** 10CSR60-7.010
- ☐ ☑ ☐ **117. Public notification requirements** 10CSR60-8.010
- ☐ ☐ ☑ **118. Exemption/ variance requirements** 10CSR60-6.030
- ☐ ☐ ☑ **119. Sludge management permit or plan** 10CSR20-8.170
- ☐ ☐ ☑ **120. NPDES Permit on plant discharge** 10CSR20-6.010(5)
- ☐ ☑ ☐ **121. Monitoring reports due by 10th** 10CSR60-7.010(1)
- ☐ ☑ ☐ **122. Reporting regulation violations** 10CSR60-7.010(2)
- ☐ ☐ ☑ **123. Reporting DBP & IESWTR** 10CSR60-7.010(6)
- ☐ ☐ ☑ **124. Enhanced Filtration & Disinf. Reporting** 10CSR60-7.010(7)
- ☐ ☑ ☐ **125. DBP Monitoring Plan** 10CSR60-4.090(3)
- ☐ ☑ ☐ **126. Reporting for Lead & Copper** 10CSR60-7.020(4)
- ☐ ☑ ☐ **127. Coliform results (5 yrs)** 10CSR60-9.010(1)(A)

C ok NA

- ☐ ☑ ☐ **128. Operational records** 10CSR60-9.010(1)(A)
- ☐ ☑ ☐ **129. Chemical results (10 yrs)** 10CSR60-9.010(1)(A)
- ☐ ☑ ☐ **130. Violation actions (3 yrs)** 10CSR60-9.010(1)(B)
- ☐ ☑ ☐ **131. Inspection Reports (10 yrs)** 10CSR60-9.010(1)(C)
- ☐ ☐ ☑ **132. Variance/exemption records (5 yrs)** 10CSR60-9.010(1)(D)
- ☐ ☑ ☐ **133. CCR** CFR 141.153
- ☐ ☑ ☐ **134. Any system records requested** 10CSR60-9.010(2)

- ☑ ☐ ☐ 135. Updated distribution map
- ☑ ☐ ☐ 136. Individual valve records
- ☐ ☐ ☑ 137. Individual fire hydrant records
- ☐ ☑ ☐ 138. Individual flush hydrant records
- ☐ ☑ ☐ 139. Main Brk/Leak Repair Program
- ☐ ☑ ☐ 140. Valve Maintenance Program
- ☐ ☑ ☐ 141. Main Flushing Program
- ☐ ☑ ☐ 142. Operational/Maint. records
- ☑ ☐ ☐ 143. Other TMF

ITEM #2 SOURCE

☐ NA **Groundwater**

C ok NA

- ☑ ☐ ☐ **201. Source of supply approved** 640.115(1)
- ☐ ☑ ☐ **202. Well driller's permit (drilled after 1987)** 10CSR23-1.090
- ☑ ☐ ☐ **203. Construction requirements** 10CSR60-10.010
- ☐ ☑ ☐ **204. Sanitary construction defects** 10CSR60-4.080(5)
- ☐ ☑ ☐ **205. Siting requirements** 10CSR60-10.020
- ☐ ☑ ☐ **206. GWUDI determination** 10CSR60-4.055(1)
- ☐ ☑ ☐ **207. Plugging abandoned wells** 10CSR23-3.110

- ☐ ☑ ☐ 208. Adequate number of wells
- ☐ ☑ ☐ 209. Weather protection
- ☐ ☑ ☐ 210. Security
- ☐ ☑ ☐ 211. Floor Drain
- ☐ ☑ ☐ 212. Heating/venting/dehumidification
- ☐ ☑ ☐ 213. Lighting
- ☐ ☑ ☐ 214. Chemicals in well house
- ☐ ☑ ☐ 215. Top of well at least:
  - *4' above flood level
  - *above floor 12" min.
  - *above ground 18" min.
  - *approved casing & grout

C ok NA

- ☐ ☐ ☑ 216. Grand fathered
- ☐ ☑ ☐ 217. Vent screen/down turned
- ☐ ☑ ☐ 218. Vent 18" above floor
- ☐ ☑ ☐ 219. Vent adequate size
- ☐ ☑ ☐ 220. Pump capacity
  - _____ gpm @ _____ psi
  - _____ gpm @ _____ psi
- ☐ ☑ ☐ 221. Well meter, operable
- ☑ ☐ ☐ 222. Drawdown measuring equip.
- ☐ ☑ ☐ 223. Pressure Gauge-operable
- ☐ ☑ ☐ 224. Shutoff Valve
- ☐ ☑ ☐ 225. Check Valve
- ☐ ☑ ☐ 226. Wellhead sealed
- ☐ ☑ ☐ 227. Piping condition
- ☐ ☑ ☐ 228. Raw water sample tap past check valve
- ☑ ☐ ☐ 229. Auxiliary power supply
- ☐ ☐ ☑ 230. Pitiless Unit, no adapter
- ☐ ☐ ☑ 231. Valve vault adequate size, drained, & provide safe access
- ☐ ☐ ☑ 232. Vertical Shaft Turbine Pumps Air Release - screened, down turned, 18" above floor
- ☐ ☑ ☐ 233. Security
- ☐ ☐ ☐ 234. Other _____

☒ NA **Reservoirs**

C ok NA

- ☐ ☐ ☐ **235. Source of supply approved** 640.115(1)
- ☐ ☐ ☐ **236. Dam safety permit (dams >35' tall)** 10CSR22-2.020(4)
- ☐ ☐ ☐ **237. Dam maintenance & monitoring** 10CSR22-3.030(1)(B)
- ☐ ☐ ☐ **238. Recreational use plan** 10CSR60-10.030
- ☐ ☐ ☐ **239. Siting requirements** 10CSR60-10.020

- ☐ ☐ ☐ 240. Quality of water
- ☐ ☐ ☐ 241. Capacity adequate for drought
- ☐ ☐ ☐ 242. Does system have storage curves
- ☐ ☐ ☐ 243. Stadial marker & weekly records
- ☐ ☐ ☐ 244. Siltation control structure condition
- ☐ ☐ ☐ 245. Watershed management plan
- ☐ ☐ ☐ 246. Algae control program
- ☐ ☐ ☐ 247. Dam maintenance (mowing, brush, rodents)
- ☐ ☐ ☐ 248. Erosion control
- ☐ ☐ ☐ 249. No flow obstructions in spillway entrance
- ☐ ☐ ☐ 250. Condition of spillway
- ☐ ☐ ☐ 251. Spillway discharge condition

COMPLIANCE & OPERATION CHECKLIST

Fill in the appropriate box and if "C", explain in the comment section on the front of this form.

ITEM #2 SOURCE (CONT.)

NA **Groundwater**

C ok NA

- 252. Discharge stream erosion
- 253. Discharge stream obstructions
- 254. Emergency spillway condition
- 255. Other _____

NA **Rivers & Streams**

C ok NA

- **256. Source of supply approved** 640.115(1)
- 257. Quality of Water
- 258. Capacity during drought
- 259. Raw water storage capacity & condition
- 260. Coffer dam condition
- 261. Intake protection
- 262. Vandalism control
- 263. Other _____

NA **Intakes**

C ok NA

- 264. Adequacy of water withdrawal levels
- 265. Capacity of water inlets
- 266. Water Inlets screened
- 267. Condition of intake control valves
- 268. Intake tower condition
- 269. Safety cable on intake hoses
- 270. Floats properly anchored
- 271. Wench and cable condition
- 272. Discharge pipe capacity
- 273. Vandalism control
- 274. Intake protected from flood damage
- 275. Zebra mussel control program
- 276. Other _____

ITEM #3 PUMPING STATIONS

NA **Raw & Finish Water Pumping**

C ok NA

- 301. Pumping capacity
- 302. Adequate number of pumps
- 303. Pump operable during flooding
- 304. Sized for pump maintenance
- 305. Pump room access
- 306. Adequate safety equipment
- 307. Heating and venting
- 308. Drains and sumps
- 309. Lighting (int&ext)
- 310. Power supply
- 311. Telemetry & pump control
- 312. Pressure Gauges
- 313. Metering-operable
- 314. Pump piping condition
- 315. Other ISOLATION VALVES FOR PUMPS

NA **Finished Water Pumping**

C ok NA

- 316. Pressure _____ psi
- 317. Flow _____ gpm
- 318. HP _____; Phase 3__ or 1__
- 319. Other _____

ITEM #4 STORAGE

NA **Unpressurized Storage**

C ok NA

- **401. Storage covered & vented** 10CSR60-4.080(7)
- **402. Approved chemicals, materials, & coatings** 10CSR60-4.080(8)
- **403. Sanitary Defects** 10CSR60-4.080(5)
- 404. Adequate capacity
- 405. Overflow *12" to 24" above ground *Screened or flap valve
- 406. Vent screened (IMPROPER VENT)
- 407. Access hatch locked 2" overlap, 4" to 6" curbing
- 408. Manway
- 409. Access ladder & appurtenances condition
- 410. Exterior paint condition
- 411. Unsealed openings
- 412. Security
- 413. Isolation for maintenance
- 414. Roof watertight & properly drained
- 415. Adequate drain
- 416. Inspection Program
- 417. Protection-vandalism, animals, etc.
- 418. Condition of valve vault
- 419. Sample Tap
- 420. Trees/Brush cleared
- 421. Other _____

NA **Pressure Tanks**

C ok NA

- 422. Drain
- 423. Water sight glass
- 424. Manway
- 425. Pressure Gauge
- 426. Compressor
- 427. Air blow off
- 428. Controls
- 429. Exterior paint condition
- 430. Capacity No. of Tanks 3, Dia.____, Circ. ___, Ht/Length ___/___ Volume Ea. 119 gal
- 431. Total Capacity 357 gal
- 432. Water logged
- 433. Exterior paint condition
- 434. Bladder tank drawdown Capacity _____ ea. _____ gal Capacity _____ ea. _____ gal Capacity _____ ea. _____ gal
- 435. Other ISOLATION
- 436. Other _____

NA ***ITEM #5 DISTRIBUTION***

C ok NA

- **501. Minimum Pressure** 10CSR60-4.080(9)
- **502. New mains & repairs disinfected** 10CSR60-4.080(6)
- **503. Main & sewer separation** 10CSR60-10.010(2)
- **504. Approved Chemicals, materials, & coatings** 10CSR60-4.080(8)
- 505. Water loss ≤ 10%
- 506. Adequate cleanouts, valves, and hydrants to flush system
- 507. Individual customer meter
- 508. Portable shoring available
- 509. Other _____

NA ***ITEM #6 MCL/MONITORING***

C ok NA

- **601. Microbiological MCL** 10CSR60-4.020(7)
- **602. Total Coliform Monitoring** 10CSR60-4.020
- **603. Inorganic chemicals** 10CSR60-4.030
- **604. Nitrates/Nitrites** 10CSR60-4.030(2)(C) & (D)
- **605. Synthetic organic chemicals** 10CSR60-4.040
- **606. Monthly turbidity MCL** 10CSR60-4.050(2)(A)1 small or 10CSR60-4.050(3)(B)1 large
- **607. Acute turbidity MCL** 10CSR60-4.050(2)(A)2 small or 10CSR60-4.050(3)(B)2 large
- **608. Report acute turbidity MCL** 10CSR60-4.050(2)(D) small or 10CSR60-4.050(3)(D) large
- **609. Continuous turbidity monitoring** 10CSR60-4.040(3)(E)1
- **610. Disinfection Profiling** 10CSR60-4.055(6)(C)
- **611. Radio- nuclides** 10CSR60-4.060
- **612. Secondary contaminants** 10CSR60-4.070

COMPLIANCE & OPERATIONAL CHECKLIST

Fill in the appropriate box and if "C", explain in the comment section on the front of this form.

☐ ☐ ☑ **613. Fluoride supplementation** 10CSR60-4.080(11)

☐ ☑ ☐ **614. Disinfection By-Products (DBP) TTHM & HAA5** 10CSR60-4.090(3)(B)

☐ ☑ ☐ **615. DBP Chlorite** 10CSR60-4.090(3)(B)2

☐ ☑ ☐ **616. DBP Bromate** 10CSR60-4.090(3)(B)3

☐ ☑ ☐ **617. DBP Precursors TOC & Alkalinity** 10CSR60-4.090(3)(D)

☐ ☑ ☐ **618. Volatile organic chemicals** 10CSR60-4.100

☐ ☑ ☐ **619. Unregulated chemicals** 10CSR60-4.110

☐ ☑ ☐ **620. Exceed Pb/Cu levels** 10CSR60-15.020-15.050

☐ ☑ ☐ **621. Operational Monitoring** 10CSR60-4.080(3)

☐ ☑ ☐ **622. Disinfection Requirements** 10CSR60-4.055

☐ **NA** ***ITEM #7 DISINFECTION***

C ok NA

☐ ☑ ☐ **701. Minimum residual - entry** 10CSR60-4.055(3)

☐ ☑ ☐ **702. Maximum residual - Dist. System** 10CSR60-4.055(5)

☐ ☑ ☐ **703. Minimum residual - Dist. System** 10CSR60-4.055(4)

☐ ☑ ☐ **704. Cl_2 Monitoring - Dist. System** 10CSR60-4.055(4)(E)

☐ ☑ ☐ **705. Monitoring frequency** 10CSR60-4.055(3)(F)

☐ ☑ ☐ **706. Low residual reporting** 10CSR60-4.055(3)(E)

☐ ☐ ☑ **707. CT study done** 10CSR60-4.055(2)(D)

☐ ☐ ☑ **708. Meeting CT requirement** 10CSR60-4.055(2)(C)

☐ ☐ ☑ **709. Add Cl prior to ammonia** 10CSR60-4.055(3.A)

☐ ☐ ☑ **710. Add Cl prior to filters** 10CSR60-4.055(3.C)

☐ ☑ ☐ **711. Operated/Supervised adequately/Operational Monitoring** 10CSR60-4.080(5)

☐ **NA** **Liquid Chlorinator**

C ok NA

☐ ☑ ☐ 712. Physical condition of feeder

☐ ☑ ☐ 713. Adequate detention

☐ ☑ ☐ 714. Corrosion in room

☐ ☑ ☑ 715. Adequate feed control

☐ ☑ ☑ 716. Adequate venting, heating, lighting

☐ ☑ ☐ 717. Security

☐ ☐ ☐ 718. Other _____

☒ **NA** **Gas Chlorinator**

C ok NA

☐ ☐ ☐ 719. Adequate detention

☐ ☐ ☐ 720. Separate Cl_2 room

☐ ☐ ☐ 721. Interior wall view window

☐ ☐ ☐ 722. Panic bar door

☐ ☐ ☐ 723. Fan suction near floor

☐ ☐ ☐ 724. Inlet near ceiling

☐ ☐ ☐ 725. Chains n Cl_2 cylinders

☐ ☐ ☐ 726. Cylinders on scales

☐ ☐ ☐ 727. Exterior fan/light switch

☐ ☐ ☐ 728. SCBA

☐ ☐ ☐ 729. Ammonia bottle

☐ ☐ ☐ 730. Leak detection/repair kit

☐ ☐ ☐ 731. Shower & eye wash

☐ ☐ ☐ 732. Hydrocarbons in room

☐ ☐ ☐ 733. Sample tap Past Cl_2

☐ ☐ ☐ 734. Condition of room

☐ ☐ ☐ 735. Security

☐ ☐ ☐ 736. Other _____

☒ **NA** **Other Types**

C ok NA

☐ ☐ ☐ 737. _____

☐ ☐ ☐ 738. _____

☐ ☐ ☐ 739. _____

☒ **NA** ***ITEM #8 TREATMENT***

C ok NA

☐ ☐ ☐ **801. Approved chemicals, materials & coatings** 10CSR60-4.080(8)

☐ ☐ ☐ **802. Aeration** 10CSR60-4.080(5)

☐ ☐ ☐ **803. Chemical Application** 10CSR60-4.080(5)

☐ ☐ ☐ **804. Corrosion Control Treatment** 10CSR60-15.010(4)

☐ ☐ ☐ **805. Mixing** 10CSR60-4.080(5)

☐ ☐ ☐ **806. Settling** 10CSR60-4.080(5)

☐ ☐ ☐ **807. Filtration** 10CSR60-4.080(5)

☐ ☐ ☐ **808. H.S. pumps** 10CSR60-4.080(5)

☐ ☐ ☐ **809. Other pumps** 10CSR60-4.080(5)

☐ ☐ ☐ **810. Control equipment** 10CSR60-4.080(5)

☐ ☐ ☐ **811. Plant water storage** 10CSR60-4.080(5)

☐ ☐ ☐ **812. Operational Monitoring** 10CSR60-4.080(5)

☐ ☐ ☐ **813. Carbon feed room separate/explosion proof** 10CSR60-4.080(5)

☒ **NA** **Fluoride**

C ok NA

☐ ☐ ☐ **814. Sample submittal** 10CSR60-4.080(11)

☐ ☐ ☐ 815. Adequate lab equipment

☐ ☐ ☐ 816. Fluoride pump operable

☐ ☐ ☐ 817. Sample tap 100 pipe dia. past feed

☐ ☐ ☐ 818. Day tank

☐ ☐ ☐ 819. Vented to outside

☐ ☐ ☐ 820. Other _____

☒ **NA** **Ion Exchange Softening**

C ok NA

☐ ☐ ☐ 821. Adequate size

☐ ☐ ☐ 822. Condition of softener

☐ ☐ ☐ 823. Metered for bypassing

☐ ☐ ☐ 824. Condition of salt storage

☐ ☐ ☐ 825. Other _____

☒ **NA** **Aeration**

C ok NA

☐ ☐ ☐ 826. Capacity

☐ ☐ ☐ 827. By-passing for maintenance

☐ ☐ ☐ 828. Side access & drainage

☐ ☐ ☐ 829. Access to inlet distributor

☐ ☐ ☐ 830. Condition of air screens

☐ ☐ ☐ 831. Access for screen cleaning

☐ ☐ ☐ 832. Condition of media or trays

☐ ☐ ☐ 833. Condition fan & drive motor

☐ ☐ ☐ 834. Condition support structure

☐ ☐ ☐ 835. Condition of paint

☐ ☐ ☐ 836. Other _____

☒ **NA** **Rapid Mixing**

C ok NA

☐ ☐ ☐ 837. Mixing detention

☐ ☐ ☐ 838. Adequate mixer capacity

☐ ☐ ☐ 839. Condition of mixer

☐ ☐ ☐ 840. Mixer maintenance

☐ ☐ ☐ 841. Other _____

☒ **NA** **Flocculation**

C ok NA

☐ ☐ ☐ 842. Adequate capacity

☐ ☐ ☐ 843. Provisions for cleaning

☐ ☐ ☐ 844. Provisions for draining

☐ ☐ ☐ 845. Mixer condition

☐ ☐ ☐ 846. Mixer capacity

☐ ☐ ☐ 847. Mixer access for maintenance

☐ ☐ ☐ 848. Short circuiting thru basin

☐ ☐ ☐ 849. Condition of basin

☐ ☐ ☐ 850. SS testing at taps

☐ ☐ ☐ 851. Other _____

☒ **NA** **Sedimentation**

C ok NA

☐ ☐ ☐ 852. Pre-sed. condition & capacity

☐ ☐ ☐ 853. Regular sed. purpose & cap.

☐ ☐ ☐ 854. Condition of structure

☐ ☐ ☐ 855. Maintain units w/ continuous operation

☐ ☐ ☐ 856. Condition Inf. & Eff. facilities

COMPLIANCE & OPERATIONAL CHECKLIST

Fill in the appropriate box and if "C", explain in the comment section on the front of this form.

857. Short circuiting in basin	NA / C ok NA — **Filtration**	NA / C ok NA — **Plant Information**
858. Adequacy of sludge removal	862. Appropriate type	870. General Condition
859. Condition of sludge equipment	863. Adequate number for continuous operation	871. Proper Lab equipment
860. Adequacy of sludge lines	864. Condition of media	872. Calibration standards
861. Other _____	865. Maintenance Plan	873. Tests according to directions
	866. On-line Turbidimeters on each filter/calibrated	874. Other _____
	867. Backwash rate & duration	875. Other _____
	868. Adequate backwash method	876. Other _____
	869. Other _____	

System Information for 12 Months

Number of Active Services 34
Avg. Daily Produced 4,500 gal/Purchased _____ gal
Max. Daily Produced _____ gal/Purchased _____ gal
Water Loss _____ %

Population Served 85
Avg. Daily Supplied to Secondary Systems 0 gal
Max. Daily Supplied to Secondary Systems 0 gal
Total Storage 9,000 gal