



State of New Jersey

PHILIP D. MURPHY
McCabe Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
CENTRAL BUREAU OF WATER COMPLIANCE & ENFORCEMENT
Mail Code 44-03/P.O. BOX 420
Trenton, NJ 08625-0420
FAX: (609) 292-6450

CATHERINE R.
Commissioner

June 10, 2019

VIA EMAIL

Dr. Shing-Fu Hsueh, Utility Director
Trenton Water Works
333 Cortland St
P O Box 528
Trenton, NJ 08638

RE: Compliance Evaluation and Assistance Inspection
Trenton Water Works (TWW)
PROGRAM INTEREST ID # 1111001
Compliance Activity # SCI 190001
Trenton City, Mercer County

Dear Dr. Hsueh:

A Compliance Evaluation and Assistance Inspection of your facility was conducted from April 16, 2019 to April 18, 2019. Please address any items or concerns noted on the comments section of the attached report.

The items noted below and in the attached report with a compliance status of "OC" or "ON" have placed or may place your facility in violation of the New Jersey Safe Drinking Water Act, the New Jersey Water Supply & Wastewater Operators' Licensing Act (N.J.S.A. 58:11-64 et seq.), the Licensing of Water Supply and Wastewater Treatment System Operators regulations (N.J.A.C. 7:10A-1 et seq.), the Water Supply Management Act (58:1A-1 et seq.) and the Water Supply Allocation Permits regulations (N.J.A.C. 7:19-1 et seq.). Also, the items marked "ND" have the potential to place your facility out of compliance with the above listed regulations if not addressed. The Department has outlined all items of concern below and have requested a corrective action for each item.

Deficiencies noted during the inspection and associated corrective actions:

1. TWW has not yet completed the rehabilitation of the chlorine contact tanks, nor has the filter bed media been replaced. The Superpulsator units have been cleaned out. Until the chlorine contact basin and filter bed media replacement projects are completed, TWW will remain out of compliance with the Notice of Violation issued to TWW on April 5, 2018.
 - a. Provide the Department with a schedule to complete the above-mentioned projects.
2. Failure to take action to return the water quality within acceptable limits within one year of a Maximum Contaminant Level (MCL) violation for both Haloacetic Acids (HAA5) and Trihalomethanes (TTHM). Returning a system to compliance with the MCL for HAA5 and TTHM requires two consecutive quarters below the MCL by the one-year timeframe. TWW failed to return the system to compliance with the 12/8/18 deadline for HAA5 and the 3/5/19 deadline for TTHM. TWW has returned to compliance with HAA5 based on the 1st quarter 2019 sample results, and since the time of inspection, TWW has returned to compliance with TTHM on 5/9/19. TWW submitted a Disinfection By-product (DBP) Reduction Plan and has hired an engineering firm to evaluate the formation of DBPs within the filtration plant.
 - a. Provide the Department with the status of the Engineer' review/ evaluation in regard to the DBP Reduction Plan.
3. TWW failed to conduct continuous monitoring for filters 3E and 7W from 12:40am on 5/4/19 to 6:00pm on 5/4/19 while the beds were still online. Operators did not turn off beds even though readings were 0.0 NTU continuously. TWW failed to follow protocols for grab sampling for this event. A Notice of Non-Compliance (NONC) will be issued by the Bureau of Safe Drinking Water (BSDW) to address this violation.
 - a. All corrective actions will be addressed under the NONC; should TWW not follow the remedial actions set forth within the NONC, it will be referred to Enforcement for appropriate action.
4. TWW has not yet complied with the requirement of reducing the unaccounted-for water to less than 15%, TWW is currently at 31.9%. Also, during the time of the inspection, the American Water Works Association (AWWA) audit was not yet submitted but was due 4/30/19.
 - a. TWW must submit the AWWA Audit. TWW submitted a "Long-Range Plan to Reduce Unaccounted-for Water" to the Department. The Department is requesting quarterly updates on the status of this project; these updates can be included in the February 5, 2018 Operations Administrative Consent Order (ACO) monthly progress reports beginning with the July 2019 monthly progress report to be submitted before August 1, 2019.
5. During the time of inspection there were discrepancies with the water allocation logs for the raw water intake.
 - a. TWW must evaluate and ensure the calculations are correct for the months of March

2018, July 2018, August 2018, September 2018 and February 2019. Any corrections should be resubmitted to the Department within 30 days from receipt of this letter.

6. During the time of inspection, the Department could not determine compliance on whether TWW has metered all services pursuant to the requirements of the Water Supply Management Act. TWW is currently undergoing an extensive investigation of all connections to determine the universe that is potentially not metered.
 - a. TWW must include updates of this investigation within the February 5, 2018 Operations ACO monthly progress reports beginning with the July 2019 monthly progress report to be submitted before August 1, 2019.
7. A Tier 3 Public Notice (PN) is required to be conducted by January 17, 2020 for the Lead and Copper monitoring and reporting violation for failure to submit the sample results by the required deadline.
 - a. Ensure compliance with the deadline to conduct the PN and submit the certification form verifying compliance within 10 days following the completion of the PN.
8. During the time of inspection, the most recent storage tank interior and exterior inspection and evaluation reports were reviewed. It was observed that there were deficiencies noted for the tanks ie. a hole in the roof of the Mercerville tank, the Jones Farm tank needs sealant at the foundation, a mixer is needed due to poor mixing within the tank at Jones Farm and Hopewell tanks, corrosion present at the Mercerville tank, and sediment buildup in the Hopewell tank.
 - a. The Department is requiring TWW to provide the schedule and remedial actions to address the deficiencies noted within the reports and listed above.
9. During the time of inspection, the Whitehorse Tank foundation was breaking away from one of the stands and the Mercerville Tank had a loose bolt in the back.
 - a. Both of these items must be addressed within 30 days from receipt of this letter.
10. During the time of inspection, the Whitehorse Tank had a malfunctioning high-level sensor.
 - a. TWW needs to provide the Department with a schedule for replacement.
11. Due to the issues identified with the lead and copper sampling result for the 1/1/18-6/30/18 monitoring period, TWW must review the BSDW-56 form for the first half of 2018 and verify for accuracy.
 - a. Should TWW identify discrepancies in the form, TWW must resubmit the form within 30 days from receipt of this letter.

A written report concerning specific details of remedial measures to be instituted for these items, as well as an implementation timetable, must be submitted to this Bureau within thirty **(30)** calendar days of receipt of this correspondence.

You are advised that the New Jersey Safe Drinking Water Act (N.J.S.A. 58:12A-1 et seq.), the Water Supply & Wastewater Operators' Licensing Act (N.J.S.A. 58:11-64 et seq.) and the New Jersey Water Supply Management Act (N.J.S.A. 58:1A-1 et seq.) provides for substantial penalties in cases of permit violations. Therefore, your prompt attention to this matter is anticipated.

Note that you may also review your inspection report as well as many other DEP reports online at www.nj.gov/dep/inspections.

If you have any questions concerning the attached report, contact me at 609-273-9493 or at Jessica.sponaugle@dep.nj.gov.

Very truly yours,

Jessica R. Sponaugle
Environmental Specialist II

Attachment

c: Kristin Epstein, Assistant Utility Director
Mark Lavenberg, Licensed Operator, Operations Services
Andrew Pappachen, Licensed Operator, Operations Services
Division of Water Supply and Geoscience

Compliance Evaluation Summary (No Block/Lot)

Date Printed: 9/28/2022

Activity:	SCI 190001 *Standard Compliance Inspection (1111001)		
Title Description:	fy19		
Start Date/Time:	04/16/2019 9:00 AM	End Date/Time:	04/18/2019 12:00 PM
Program Interest:	TRENTON WATER WORKS 1111001 (SAFE DRINKING WATER) RT 29, TRENTON CITY, MERCER COUNTY		
Mailing Address:	333 CORTLAND ST Trenton NJ 08638		
<u>Responsibility Entity(s)</u>	<u>Program Interests included in Inspection:</u>		
Trenton City Dpw	1111001 (Safe Drinking Water)		
Trenton City Dpw	5187 (Water Allocation)		
<u>Lead Investigator</u>	<u>Other Investigators</u>	<u>Persons Interviewed</u>	<u>Witnesses</u>
Sponaugle, Jessica	Brennan, Jeffrey	Dr. Shing-Fu Hsueh, Utility Director, City of Trenton Kristin Epstein, Assistant Utility Director, City of Trenton Mark Lavenberg, T-4. Licensed Operator of Record, Operations Services	Andrew Pappachen, W-4 Licensed Operator of Record, Operation Taya Brown-Humphrey, Superintendent, City of Trenton Theresa Ponella, Engineer, City of Trenton Diasia Brooks, Chief Chemist, City of Trenton
	Carson, Heather		Andrew Pappachen, W-4 Licensed Operator of Record, Operation Taya Brown-Humphrey, Superintendent, City of Trenton Theresa Ponella, Engineer, City of Trenton Diasia Brooks, Chief Chemist, City of Trenton
	DiMeglio, Samantha		Andrew Pappachen, W-4 Licensed Operator of Record, Operation Taya Brown-Humphrey, Superintendent, City of Trenton Theresa Ponella, Engineer, City of Trenton Diasia Brooks, Chief Chemist, City of Trenton
	Stelmaszczyk, Patricia		Andrew Pappachen, W-4 Licensed Operator of Record, Operation Taya Brown-Humphrey, Superintendent, City of Trenton Theresa Ponella, Engineer, City of Trenton Diasia Brooks, Chief Chemist, City of Trenton

General Comments:

Three day inspection, 4/16/19-4/18/19.

TWW is currently under two Administrative Consent Orders (ACO). The first, executed on February 5, 2018, addresses system operations, staffing, emergency response and the covering of the finished water storage reservoir. The second, executed on July 26, 2018, addresses deficiencies with the Lead and Copper Rule.

Current/ Outstanding Violations that Require Action from TWW:

1. Failure to return to compliance with the one year deadline for TTHMs by the 3/5/19 deadline.
2. L&C monitoring and reporting violation for the 2nd half of 2018 sample results--requires a Tier 3 public notice (PN) by 1/17/20.
3. NOV issued to TWW on April 5, 2018, still effective until TWW replaces the filter bed media and completes rehabilitation on the chlorine contact tanks.

Inspection of the following facilities at TWW:

Filtration Plant
 Central Pump Station
 Reservoir Gatehouse
 Ewing Storage Tank
 Ewing Booster Station
 Whitehorse Storage Tank
 Mercerville Storage Tank

Items noted during the inspection:

- Ewing booster station pumps from the Ewing Tank to the Jones Farm Tank, only used to maintain pressure, no chlorine injection at this station.
- Following the installation of phase 1 of the corrosion control treatment project, the WQP plan must be re-evaluated.
- Superpulsator units 1 & 4 were online during the inspection , 3 was cleaned and ready to put into service when needed. 2 is currently being cleaned.
- Streetside CT basin offline for rehabilitation.
- TWW needs to resubmit the water utilization reports to reflect the water purchased by AQUA, still are not submitting them properly.
- TWW needs to resubmit the monthly intake flows to address discrepancies noted during the inspection.
- After the data review, TWW was given a list of items that the Department needed clarification on. TWW provided what was requested and submitted the following corrective actions:
 1. submitted the missing BWSE-16 form for the 1st half 2018 monitoring period
 2. submitted the correct L&C sample after it was discovered TWW submitted the wrong result for one of the addresses
 3. re-submitted the DR form to reflect the detected HPC sample
 4. DBP precursor reports were corrected and resubmitted for the incorrect values discovered by the Dept
- During the inspection the Department reviewed a few of the SOPs required by the February 5, 2018 ACO.
- Chlorine residuals were reviewed on SCADA for all of 2018, anytime the residual indicated zero was due to a plant shut down or the analyzer required maintenance. The Department ensured that if the plant was still operations and the analyzer was not properly reading that grab samples were taken.
- Reviewed daily operator reports for inconsistencies
- T-reports reviewed, It was discovered that on multiple occasions the potassium permanganate feed was not feeding, this problem should be corrected now that TWW installed a second feed line for redundancy

Inspection Attribute(s)

Quantity(s)

Number of Attributes: 0

Compliance Evaluation Report

Page 1 of 16

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaule, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: GSIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Pursuant to the New Jersey Water Supply & Wastewater Operators' Licensing Act (N.J.S.A. 58:11-64 et seq.), you are hereby directed to address the Operation and Maintenance (O&M) deficiencies identified during the inspection. These include, but not limited to, the Super Pulsator treatment units, Chlorine Contact Tanks, and evaluate/replace the Filter Bed Media within 90 days from the effective date of this document. [N.J.A.C. 7:10A- 1]	ON <input type="checkbox"/>	TWW has not yet completed the rehabilitation of the chlorine contact tanks, nor has the filter bed media been replaced. The Superpulsator units have been cleaned out. Until the chlorine contact basin and filter bed media replacement projects are completed, TWW will remain out of compliance with the NOV issued to TWW on April 5, 2018.	PEA180008 S
General System Info.	H <input type="checkbox"/>		Rules T
Indicate system contact person(s), phone number(s), and email address.	IC <input type="checkbox"/>	Dr. Shing-Fu Hsueh, Utility Director, 609-477-9076, shsueh@trentonnj.org Kristin Epstein, Assistant Director, 856-952-9359, kepstein@trentonnj.org	Rules T
Are there any discrepancies between the current NJEMS General Inventory Report and the actual system's inventory?	Y <input type="checkbox"/>	Changes within the following sections: 1. Demographics 2. Service Connections 3. Interconnections 4. Treatment Plant Processes	Rules T
Does the owner of the water system contract with another entity to operate the water system? .	Y <input type="checkbox"/>	Currently have operators from two contractors, BANC3 and Wade Trim (Operations Services), working within the water filtration plant. Both the T-4 and W-4 licensed operators of record are Wade Operations Services employees. TWW also contracts out to AGRA Environmental for a Chemist within the laboratory.	Rules T
Does the total population served change on a seasonal basis? If so, indicate when and total population served during these periods.	N <input type="checkbox"/>	All past literature provided by TWW stated 225,000 as their population, but TWW determined their new population to be 217,000 based on census data. Once approved by the Bureau of Safe Drinking Water, the population will be changed in Drinking Water Watch.	Rules T
When required, are the parameters analyzed using the appropriate analytical methods by laboratory(ies) certified in accordance with N.J.A.C. 7:18-1 et. seq.? . [N.J.A.C. 7:10- 5.3(b)]	IC <input type="checkbox"/>	AGRA (#14013) for rads (then outsourced to Benchmark Analytical), Iron and Manganese, Nitrates, VOs, Inorganics and TOC. Trenton (#11133) for chlorine, turbidity, alkalinity and pH. JR Henderson (#15083) for DBPs. Test America now for Lead and Copper.	Rules T
LICENSED OPERATOR.	H <input type="checkbox"/>		Rules T
Does the owner of the system employ a licensed operator(s) holding the appropriate VSWS, T and/or W class license(s) prescribed for this system?. [N.J.A.C. 7:10A- 1.10(a)]	IC <input type="checkbox"/>	System is a T-4, W-4 system, TWW employs the appropriate operators required by the system.	Rules T

IC - In Compliance
PV - Potential Violation
DC - Data Collection

ND - Compliance Not Determined
NC - No Obvious Concern
WN - Warning

OC - Out of Compliance
ON - Out of Compliance, Non-referred

NA - Not Applicable
Y - Yes

NI - Not Inspected
N - No

Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaule, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Reqt. Type
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Subject Item: G SIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Verify name(s), license(s) held, contact numbers and email address for the system's licensed operator(s).	IC <input type="checkbox"/>	Mark Lavenberg, Filtration Plant Licensed Operator (T-4), 609-680-7326, mlavenberg@operationservices.com Andrew Pappachen, Distribution System Licensed Operator (W-4), 201-401-3955, apappachen@trentonnj.org Both Operations Services employees.	Rules T
How many hours per month is the licensed operator(s) on-site conducting duties pertaining to operation of the system? .	IC <input type="checkbox"/>	T-4: onsite 40 hrs/wk W-4: onsite 35 hrs/wk	Rules T
For T3/T4 systems is the licensed operator present for at least 35 hours a week?. [N.J.A.C. 7:10A- 1.10(g)]	IC <input type="checkbox"/>	See above. Also on call. If on call the operator must be able to get to the filtration plant within 20 minutes.	Rules T
Name of backup operator and licenses held?.	DC <input type="checkbox"/>	Taya Brown-Humphrey, Filtration Plant Superintendent, 609-213-3238, tbhumphrey@trentonnj.org, holds a T-4 license Tim London, Water Repairer II, tlondon@trentonnj.org, holds a W-3 license.	Rules T
Does the licensed operator conduct and document routine inspections and schedule preventative maintenance tasks which will be undertaken to ensure that the system is operated and maintained properly?. [N.J.A.C. 7:10A- 1.12(a)]	IC <input type="checkbox"/>	Since the execution of the February 5, 2018 ACO, TWW's routine inspection and preventative maintenance program has improved. Pursuant to paragraph 10(A) of the ACO, TWW provided the Department with logs and schedules of all routine inspections and preventative maintenance. TWW currently has an asset management software in place that has all assets inventoried and can schedule preventative maint. Within the filtration plant the operators conduct the routine inspections, and the water repairers conduct the routine maintenance. TWW also currently contracts with Municipal Maintenance for pump maint, Lockwood Electric for mixer maint, Scott Testing for electrical testing and ACS for calibrations.	Rules T
Has the licensed operator developed a protocol to ensure employees conducting operation and maintenance of the water system are aware of and completing said operation and maintenance?. [N.J.A.C. 7:10A- 1.12(a)2i]	IC <input type="checkbox"/>	Under paragraph 9(A) of the February 5, 2018 ACO, TWW was required to train all employees on their responsibilities and obligations within the system. This included all SOPs for Operation and Maintenance (O&M). Since the execution of the ACO, TWW has improved in employee trainings for O&M.	Rules T
Did the licensed operator or owner of a Public Water Treatment System submit monthly operating reports in the manner required by the Department before the 10th day of the month following the month in which the data was collected?. [N.J.A.C. 7:10A- 1.12(d)]	IC <input type="checkbox"/>	2018 T-Reports were reviewed onsite. The Dept documented any time there was a gap in the chemical feed and required TWW to respond with an explanation by 5/16/19. TWW provided an explanation.	Rules T

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N - No

Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: G SIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

WATER SYSTEM OPERATIONS, MAINTENANCE & EMERGENCIES.	H <input type="checkbox"/>		Rules T
Have there been any modifications or additions to any source, treatment or storage unit since the previous inspection? If so, were permits obtained prior to commencement of construction?. [N.J.A.C. 7:10-11.5(a)]	IC <input type="checkbox"/>	TWW obtained a permit to install Phase 1 of the Corrosion Control Treatment Project effective January 9, 2019 under WCP180009. TWW also has a permit to cover the finished water reservoir, which under paragraph 17(L) of the February 5, 2018 ACO will be covered by January 14, 2023. This permit is effective April 4, 2017 and under permit WCP160007.	Rules T
Have any new or repaired components of source, treatment, storage and distribution mains been disinfected according to AWWA guidance prior to placing the components into service? . [N.J.A.C. 7:10-11.6(d)]	IC <input type="checkbox"/>	When needed for water main breaks. An engineering tech from the Engineering Office oversees the disinfection and the Construction and Maintenance Office conducts the replacements of the broken pipes.	Rules T
Was a CCC submitted to the Department for all issued permits at the completion of construction? . [N.J.A.C. 7:10-11.10]	IC <input type="checkbox"/>	TWW submitted the CCC for the sodium hypo conversion project at the filtration plant and reservoir gatehouse on 5/16/18. A disinfection profile and benchmark study was also conducted for this change in disinfection. CCCs for all water main extensions fall under the master permit and TWW submits the CCC for all completed projects with the annual master permit renewal application to the Bureau of Water Systems Engineering.	Rules T
Does the system have a program for inspecting and exercising valves? Are isolation valves maintained and exercised on a regular basis? Are all valves inventoried?.	Y <input type="checkbox"/>	Pursuant to paragraph 17(D) of the February 5, 2018 ACO, TWW is required to exercise and evaluate all large diameter valves (greater than 8") by May 31, 2019. Ongoing program for inspecting and exercising all valves. Note TWW also must remain in compliance with the Water Quality Accountability Act (WQAA) for valve exercising, evaluation and replacement. Currently inventoring all valves. TWW has 50 isolation valves.	Rules T
Are all service connections metered, if the system serves 500 or more connections?. [N.J.A.C. 7:19- 6.5(a)5]	ND <input type="checkbox"/>	TWW has implemented a new program which conduct an ongoing investigation to meter all services to aid in the reduction of unaccounted-for water.	Rules T

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCII90001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: GSIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Is auxiliary power equipment available for all indispensable source, pumping, and treatment units?. [N.J.A.C. 7:10-11.6(I)]	IC <input type="checkbox"/>	2 new NG generators at central pump station and reservoir gatehouse. These can kick on almost instantly. 1 diesel generator for the plant and redundant PSEG lines. Generators do not kick on immediately to prevent a surge, typically takes 30 min, but can vary. When plant is shutdown, the system is fed entirely by the reservoir. TWW experiences brown outs, TWW must implement an SOP for operators to address brown outs and returning the plant to normal operations. TWW is currently looking into energy resiliency and electrical stability with PSEG. And looking into conducting live drills to address brown outs.	Rules T
Did the purveyor notify the Department within 6 hours of any emergency that may tend to lessen the quality or pressure of delivered water or increase the likelihood of delivery of water that does not meet the standards?. [N.J.A.C. 7:10- 2.4(b)]	IC <input type="checkbox"/>	No emergency events since the 2018 inspection. Plant was shut down before any impact to water quality. NJDEP is notified, however TWW needs to be more descriptive with notifications. These notifications are required for events which include, but are not limited to, power outages/surges, chemical feed pump failures/disruptions, turbidity events, mechanical maintenance that takes a basin or mixer offline, etc.	Rules T
Do all drinking water additives or water system components comply with the appropriate ANSI/NSF standards?. [N.J.A.C. 7:10- 8.2(b)]	IC <input type="checkbox"/>	Reviewed onsite, chemicals had ANSI/NSF label.	Rules T
Does the system maintain a boil water advisory log?.	Y <input type="checkbox"/>	Kept by the W-4 licensed operator.	Rules T
Does the system maintain a log of events that may impact water quality?.	Y <input type="checkbox"/>	Logs kept if DEP is notified.	Rules T
Did the purveyor, if serving more than 3,000 residents or requested by the Department, develop and submit an Emergency Response Plan?. [N.J.A.C. 7:19-11.2(a)]	ND <input type="checkbox"/>	Requirement under paragraph 14(A) of the February 5, 2018 ACO. The Department is still determining compliance with this milestone. A fourth Dept response letter requesting additional information is in DRAFT.	Rules T

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: GSIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Did the purveyor provide public notice as required by the state regulations?
[N.J.A.C. 7:10- 7.4]

ND

☐

A Tier 2 Public notice (PN) was required and completed for the following violations:
 - 1st quarter 2018 TTHM and HAA5 MCL exceedance
 - 2nd quarter 2018 HAA5 MCL exceedance
 - 3rd quarter 2018 TTHM and HAA5 MCL exceedance
 - 4th quarter 2018 TTHM MCL exceedance
 - Failure to return the system to compliance within the one-year deadline for TTHMs and HAA5s
 - Failure to replace 7% of the lead service lines (LSLs) by the required deadline of June 30, 2018.

Rules

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A Tier 3 PN is required to be conducted by January 17, 2020 for the Lead and Copper monitoring and reporting violation for failure to submit the sample results by the required deadline. TWW has not yet conducted this PN, although indicated it would be included in the CCR going out in 2019.

Did the purveyor provide public notice in accordance with CFR 141.201 et seq. of the federal regulations? [N.J.A.C. 7:10- 5.5(a)]

IC

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No RTCR violations in 2018, state is more stringent than the federal regulations.

Rules

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Did the purveyor prepare and distribute a Consumer Confidence Report (CCR) to its customers with a copy to the BSDW annually prior to July 1st as required by CFR 141.155(c)? [N.J.A.C. 7:10- 5.1]

IC

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TWW submits a draft of the CCR to the Department for approval before distribution. It is recommended by the Department that the CCR to be mailed out this year contain the Tier 3 PN requirement for the L&C monitoring and reporting violation. Should TWW not but the PN within the CCR, TWW must go out with a separate mailing to all persons served by the water system.

Rules

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Did the purveyor submit a CCR Certification form to the BSDW certifying that the report was accurate and distributed to each customer annually by October 1st as required by CFR 141.155(c)? [N.J.A.C. 7:10- 5.1]

IC

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Submitted in 2018

Rules

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If the backwash water is discharged to sanitary sewer, is it discharged via an above-ground air gap and not through a direct connection and does the system have written approval from the appropriate sewerage authority to do so?
[N.J.A.C. 7:10-11.14(e)]. [N.J.A.C. 7:10-11.14(e)4]

IC

☐

Filters backwashed roughly every 60 run hours but based on increasing turbidity in the beds and pressure. Backwashing takes about 45 min. Backwashed to the Mechanical Dewatering Facility (MDF), not connected to sanitary. From MDF the water is returned to the head of the plant and solids are removed under TWW's NJPDES Residuals permit #NJ0224952.

Rules

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FINISHED WATER STORAGE.

H

☐

Rules

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaule, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: G SIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Does the system have adequate total storage capacity? If not, does the water system have an effective storage waiver issued by the Department?. [N.J.A.C. 7:19- 6.7(b)]	IC <input type="checkbox"/>	Whitehorse Tank: 1 MG Mercerville Tank: 1 MG Lawrence Tank: 1 MG Ewing Tank: 1 MG Jones Farm Tank: 1.35 MG Hopewell Tank: 0.6 MG Reservoir: 100 MG, 78 MG usable. Roughly a 3 day supply for the service area.	Rules T
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Has the interior of the storage tank(s) been cleaned/inspected in the last 5 years?.	ND <input type="checkbox"/>	Whitehorse Tank: interior inspection in 2017 coupled with valve and mixer installation. Mercerville Tank: inspection in 2018, resulted in the need to obtain a mixer and pump and altitude valve. However the report also says corrosion present. Lawrence Tank: inspected in 2018 Ewing Tank: inspected in 2016 when replaced hole Jones Farm Tank: inspected in 2018, however the report says poor mixing in the tank Hopewell Tank: inspected in 2018, however the report says that the tank isn't circulating properly and that there is sediment buildup in the tank and it needs to be sand blasted. While TWW has inspected the interior of all tanks, the Department is requiring TWW to provide the schedule to address the deficiencies noted in the reports.	Rules T
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Has the exterior of the tank been inspected/maintained in the last year?.	ND <input type="checkbox"/>	Whitehorse Tank: exterior inspection in 2017. Mercerville Tank: inspection in 2018, however a hole in the roof was found. Lawrence Tank: painted in 2017. Ewing Tank: painted in 2017. Jones Farm Tank: inspected in 2018, however the report says the foundation needs sealant. Hopewell Tank: inspected in 2018. While TWW has inspected the exterior of all tanks, the Department is requiring TWW to provide the schedule to address the deficiencies noted in the reports.	Rules T
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Do the air vents, roof vents, overflow, and hatches have screens? . [N.J.A.C. 7:10-11.11(c)5]	IC <input type="checkbox"/>	During this inspection, only the Ewing, Mercerville and Whitehorse Tanks were inspected. Could not observe roof vents, but reports indicated they were present, overflow hatches all had screens.	Rules T
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Are there visible problems with the foundation for the tank? (settling, cracks, deterioration etc.).	Y <input type="checkbox"/>	At the Whitehorse Tank the foundation is breaking away from one of the stands, needs to be remediated immediately. The Mercerville Tank had a loose bolt in the back, needs to be tightened.	Rules T
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Are there visible problems on the exterior coating of the tank? (rust, pitting, corrosion, leaks etc.).	Y <input type="checkbox"/>	Corrosion and coloring observed on the Mercerville Tank. Provide the Department with a schedule for addressing the problems with the exterior of this tank.	Rules T
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IC - In Compliance
PV - Potential Violation
DC - Data Collection

ND - Compliance Not Determined
NC - No Obvious Concern
WN - Warning

OC - Out of Compliance
ON - Out of Compliance, Non-referred

NA - Not Applicable
Y - Yes

NI - Not Inspected
N - No

Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI90001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: G SIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Do all tanks >100,000 gallons have an operable water level indicator? . [N.J.A.C. 7:10-11.11(a)6]	ON <input type="checkbox"/>	Whitehorse Tank needs to replace the high-level sensor, it is reading higher in SCADA. Needs to be replaced immediately.	Rules T
Is a low level alarm present and functioning for all storage tanks?. [N.J.A.C. 7:10-11.11(a)5]	IC <input type="checkbox"/>	Alarms are through the SCADA system at the filtration plant.	Rules T
INTERCONNECTIONS.	H <input type="checkbox"/>		Rules T
If the system is interconnected to any other water system via an interconnection of six inches or more in diameter, is there a written agreement specifying the conditions for its use and has said written agreement been approved by the Department?. [N.J.A.C. 7:19- 6.9(g)]	IC <input type="checkbox"/>	Interconnection agreements were addressed under paragraph 12 of the February 5, 2018 ACO. TWW provided the agreements for the 2 interconnection with NJAW, and the 4 with AQUA (3 for Hamilton and 1 for Lawrence).	Rules T
Does the system regularly purchase water under normal (non-emergent) operating conditions? If yes, indicate source(s) of interconnection(s), annual amounts (MGY), and months utilized.	N <input type="checkbox"/>	TWW sells to AQUA, however the flows are not being reported accurately on the water utilization reports. TWW is required to correct the reports and resubmit for 2018 and 2019.	Rules T
If the purveyor is a Class 2 (10,001-50,000 persons) or Class 3 (over 50,000 persons) purveyor, were interconnection flow tests conducted on an annual basis on all interconnections six inches or more in diameter? Were the results of such tests submitted to the Department by the end of each calendar year?. [N.J.A.C. 7:19- 6.9(d)]	IC <input type="checkbox"/>	Addressed under paragraph 11 of the February 5, 2018 ACO, TWW provided the results of the flow tests on 12/31/19. These flow tests are an annual requirement.	Rules T
DISTRIBUTION SYSTEM MONITORING, PLANS AND DOCUMENTATION.	H <input type="checkbox"/>		Rules T
If the system serves at least 10,000 people, did it analyze one iron and one manganese sample? Was one additional sample each taken for every 50,000 population served to a maximum of 5 samples each annually? (Not required for Non-Community Water Systems). [N.J.A.C. 7:10- 7.3(c)]	IC <input type="checkbox"/>	TWW takes 5 samples a year. Results were confirmed during the inspection.	Rules T
REVISED TOTAL COLIFORM RULE.	S <input type="checkbox"/>		Rules T
Has the water purveyor developed a revised total coliform rule sample siting plan in accordance with the Federal Regulations 40 CFR 141.853?. [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	On January 18, 2019, TWW recieved approval from the Department regarding their RTCR sampling plan. System is required to take 150 samples per month effective 10/1/18.	Rules T
Is the water purveyor collecting coliform samples at locations specified with the Revised Total Coliform Rule sample siting plan?. [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	Reviewed Chain of Custody (COC) cards during the time of the inspection.	Rules T

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NA - Not Applicable
Y - Yes

NI - Not Inspected
N - No

Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: GSIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Are repeat sampling locations identified within the Revised Total Coliform Rule sample siting plan?. [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	Repeat sampling locations outlined in the RTCR plan.	Rules T
For surface water systems or ground water systems serving >4,900 people, are the routine coliform samples being collected at regular time intervals throughout each month?. [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	Taken throughout the month. If multiple samples are taken from the same location they are spaced out over the month.	Rules T
Are the Total Coliform Rule sample sites evenly distributed? .	Y <input type="checkbox"/>	Approved in the new RTCR plan.	Rules T
LEAD & COPPER RULE.	S <input type="checkbox"/>		Rules T
Does the water system have a written lead and copper sampling plan that identifies a pool of targeted sampling sites which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples as required, whether on standard or reduced monitoring?. [N.J.A.C. 7:10- 5.1]	ND <input type="checkbox"/>	Approved by the DEP on 12/8/16, however the L&C plan has been recently updated to reflect the new sampling sites that meet the tier criteria. The Department has not reviewed or approved the latest change to the L&C plan.	Rules T
For the most recent sampling event, did the water system sample from the targeted sampling pool identified in the lead and copper sampling plan? .	Y <input type="checkbox"/>	All non-compliance samples taken were reported on the BWSE-16 form when instructed by the Dept to do so.	Rules T
During the most recent lead and copper sampling event, did the water system submit Form BSDW-56 as notification for all sample site changes between monitoring periods in accordance with 40 CFR 141.90(a)(1)(v)?. [N.J.A.C. 7:10- 5.1]	ND <input type="checkbox"/>	Submitted on 2/27/19 for the 2nd half of 2018 monitoring period. TWW must review the 56 form for the first half of 2018 sampling period and verify for accuracy. Should discrepancies arise TWW must resubmit the form.	Rules T
Does the water system have any lead service lines? If yes, were at least 50% of the sites sampled during the most recent sampling event from lead service lines?. [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	On 9/26/19 TWW came in to meet with the Department regarding L&C sampling. During this meeting the Department assisted TWW in ensuring this requirement was met with the sites selected.	Rules T
If the system had lead service lines, does the system maintain an inventory of these lead service lines and update the inventory as they are replaced?.	N <input type="checkbox"/>	To date, TWW has not provided the Department with an initial Lead Service Line (LSL) inventory reflecting the TWW side material AND the homeowner side. TWW is currently out of compliance with the July 26, 2018 L&C ACO milestone for providing an inventory and have been liable for stipulated penalties since the deadline of the milestone. TWW created their own internal milestone of 7/15/19 to provide a better inventory, however until an initial LSL inventory is provided TWW will continue to accrue penalties.	Rules T

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Y - Yes

NI - Not Inspected
N - No

Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaule, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: GSIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Has the system developed a plan for replacing annually at least 7 percent of the initial lead service lines if corrosion control treatment is installed and the lead action level is exceeded? .	N <input type="checkbox"/>	LSL replacement requirements were set forth in the July 26, 2018 ACO. TWW failed to meet the deadline for 7% replacement by 6/30/18 and will continue to not meet the annual deadline for replacement of the 14% and 21% replacement. TWW is currently evaluating the lines replaced under emergency circumstances to determine if any qualify for a full replacement; however, TWW was not keeping records of both sides of the service line. This has resulted in TWW not being able to see how many have been replaced to qualify for the 7% and has caused TWW to incur a NONC for failing to sample the lines that were only partial replacements. This violation will be addressed under separate cover.	Rules T
Does the water system have a water quality parameter sampling plan, for monitoring water quality parameters under the lead and copper rule, that indicates sampling sites are representative of the entire distribution system?.	Y <input type="checkbox"/>	Distribution System: alkalinity 50 samples/6 months and pH 50 samples/6 months. Treatment Plant: alkalinity 1 sample/2 wks, pH 1 sample/2 weeks. Central Pump Station: alkalinity 1 sample/2 wks, pH 1 sample/2 weeks. The WQP plan must be updated following the installation of orthophosphate for CCT.	Rules T
If the system has corrosion control treatment, does the system have records of maintenance, and for chemical feed corrosion control system? Does the system maintain dosage records and purchasing records for the chemical?.	Y <input type="checkbox"/>	Currently, TWW only uses lime for pH adjustment for their CCT. TWW obtained a permit to install phase 1 of the CCT project for orthophosphate within the high pressure service area only. The gravity fed area will not receive orthophosphate until the reservoir is covered in 2023.	Rules T
STAGE 2 DBPR / Disinfection.	S <input type="checkbox"/>		Rules T
Is a chlorine residual taken for every total coliform sample? . [N.J.A.C. 7:10-5.1]	IC <input type="checkbox"/>	Reviewed COCs for TC samples to ensure residual is being taken, residual is noted on the COC. If residual is <.05 they take a Heterotrophic Plate Count (HPC), but not consistent in recording HPC result on the COC card. Keep HPC results in a log book.	Rules T
Is the water system ensuring the delivered water is microbiologically safe by disinfecting the water at the point of entry in compliance with the regulations found under N.J.A.C. 7:10-11.16 and maintaining a detectable chlorine residual in at least 95% of the monthly distribution system samples?. [N.J.A.C. 7:10- 4.1(a)]	IC <input type="checkbox"/>	TWW maintains a HPC log book to track how many samples have a DR of non-detect. Did not observe during our review that TWW had months that had >5% non-detect. The 6/8/19 TC card was negative for TC, residual was 0.01/0.05 and the HPC was 7/8. TWW must re-submit the Disinfection Residual (DR) form to reflect this, as the one TWW submitted for this sample does not reflect the detected HPC levels.	Rules T

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N - No

Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: GSIN - General System Info New Feb 2018

Operating Status: No status specified.

Comments: No comments added.

Has the water purveyor updated the Stage 2 DBPR plan following operation changes, or have they changed sampling locations only after approval was received by the Department? (40CFR141.622). [N.J.A.C. 7:10- 5.1]

IC

☐

On 12/20/18, the Department required TWW to select an additional DBP sample site (totaling 9 sites) in the Hopewell service area. 800 Denow Rd in Pennington was selected and approved by the Department. The site was labeled ST2ADD, and became effective 2/1/19 for quarterly sampling per the requirements. TWW must ensure their DBP plan onsite was updated to reflect this change.

Rules
T

MCL VIOLATIONS.

H

☐Rules
T

Did the water supplier notify the Department of all MCL exceedances in a timely manner?. [N.J.A.C. 7:10- 5.4(c)]

IC

☐

Department notified based on the requirements.

Rules
T

Did the water supplier take all necessary actions to return the water system to compliance within one year of receiving the results that caused an MCL violation to occur?. [N.J.A.C. 7:10- 5.7(a)]

ON

☐

Failure to take action to return the water quality within acceptable limits within one year of a MCL violation for both HAA5s and TTHMs. Returning a system to compliance with the DBP MCL requires two consecutive quarters below the MCL within the one-year timeframe. TWW failed to return the system to compliance with the 12/8/18 deadline for HAA5 and the 3/5/19 deadline for TTHM. TWW has returned to compliance with HAA5 based on the 1st quarter 2019 sample results. TWW has not yet returned to compliance with TTHMs as of the time of this inspection. TWW submitted a DBP Reduction Plan Evaluation and has hired an engineering firm to address DBPs within the filtration plant.

Rules
T

Subject Item: NSW1 - New Surface/ GUDI Water Treatment Rule & POE Mon. Req 01

Operating Status: No status specified.

Comments: No comments added.

SURFACE / GUDI WATER TREATMENT RULE & POE MONITORING REQUIREMENTS 01.

H

☐Rules
T

Indicate the Surface / GUDI Treatment Plant Facility ID number, local name and type of filtration (conventional, direct, or other).

DC

☐

Rt 29 Water Filtration Plant, conventional treatment.

Rules
T

Are transmission lines in place that can bypass treatment? If yes, since the last inspection has the system ever bypassed treatment? If yes, when and why? . [N.J.A.C. 7:10- 2.4(a)]

NA

☐

No piping in place to bypass treatment within the plant.

Rules
T

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: NSW1 - New Surface/ GUDI Water Treatment Rule & POE Mon. Req 01

Operating Status: No status specified.

Comments: No comments added.

DBP PRECURSOR REMOVALS.	H <input type="checkbox"/>		Rules T
Was a paired treated/source water TOC sample collected from the surface water treatment plant on a monthly basis in order to measure the DBP levels in accordance with 40 CFR141.132? . [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	TOC samples analyzed by JR Henderson Labs, reviewed DBP precursor reports for 2018.	Rules T
Was the running annual average of monthly TOC removal results 1.0 or greater? (40CFR141.133(d)). [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	2018: 1.39	Rules T
Was an alkalinity sample taken at the same time & location as the source water TOC sample? (40 CFR141.132). [N.J.A.C. 7:10- 5.1]	IC <input type="checkbox"/>	Taken by TWW at the source.	Rules T
Is chlorination the last treatment process in a treatment plant with multiple treatment processes? If no, is it allowed by a permit? . [N.J.A.C. 7:10-11.16(a)2]	IC <input type="checkbox"/>	Sodium hypochlorite injection is last step, also added after Super Pulsator units before the chlorine contact basins for CT, then flows to the filters. Residual goal leaving the plant is between 0.8-1.2 mg/L.	Rules T
TREATMENT PROCESSES.	H <input type="checkbox"/>		Rules T
Is the water system performing jar testing? If so at what frequency?.	Y <input type="checkbox"/>	Daily jar test, every shift and every 4 hours, run a flash mixer test every 2 hours, and run jar test every hour during a storm event. Dosage based off of jar tests. As of 2019 TWW has a Zetasizer to assist in assessing coagulation; however, they need to add a screen on it because it keeps clogging with solids and debris.	Rules T
When was the last time the active basin(s) (flocculation, sedimentation, etc.) were inspected/maintained?.	IC <input type="checkbox"/>	Currently inspecting and rehabbing the Chlorine Contact basins, have to address one at a time. Riverside is currently online and the streetside is down for maint and repairs. Sand separators are down, act as just basins now, one of those basins is down, and before bringing it back online TWW must clean it out. There is a film growing on it. TWW indicated they have a PO out to investigate why the sand separators aren't working and to remediate the problem. Since the last inspection, the Department ordered TWW to address the Superpulsator treatment units. TWW has since cleaned out 1,3 and 4 and currently cleaning 2. TWW has increased their maintenance and clean outs of the units per the Department's order. TWW has 2 mixing basins which do no get inspected. These units should be assessed through TWW's asset management plan for life cycle analysis to ensure long term viability of the units.	Rules T

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaule, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: NSW1 - New Surface/ GUDI Water Treatment Rule & POE Mon. Req 01

Operating Status: No status specified.

Comments: No comments added.

Have any basins been taken out of service since last inspection for reasons other than routine maintenance?.	Y <input type="checkbox"/>	Rehabilitation of the chlorine contact tanks are ongoing. TWW also is obtaining a contract to replace the filter bed media for all 24 filters.	Rules T
Are basins free of cracks, peeling paint (in need of routine maintenance)?.	N <input type="checkbox"/>	Sand separator basin needs to be cleaned prior to returning to service as a basin.	Rules T
FILTRATION.	H <input type="checkbox"/>		Rules T
Are any filters out of service?.	Y <input type="checkbox"/>	Filters 4E, 6E, 2W and 12W are out of service for repairs. 4E and 6E are waiting on parts. Filters run for about 60 hours before backwashed. Will be replacing filter bed media of all 24 filters.	Rules T
Type of filters (Gravity: constant or declining rate; Pressure; GAC; or Membrane: Pressure or vacuum).	DC <input type="checkbox"/>	Constant filter based on settled water level. No air scour, and its a 3 process backwash. Surface and two under washes. First under wash is 5 gpm, second under wash is 18-19 gpm. Backwash rate is based on bed expansion and changes with the seasons.	Rules T
Filter media type (single, dual, multi).	DC <input type="checkbox"/>	dual, anthracite sand	Rules T
When was the last time the filter media was replaced?.	DC <input type="checkbox"/>	TWW currently has a contract out to replace all 24 filters, the evaluation of the beds were required by the Department following the March 2018 inspection and Notice of Violation (NOV).	Rules T
Dates that each filter was cored?.	DC <input type="checkbox"/>	Cored in 2018 per the Department's order, will lead to a replacement of the media.	Rules T
TURBIDITY REMOVAL.	H <input type="checkbox"/>		Rules T
Did the water system calibrate turbidimeters as specified by the manufacturer (direct/conventional filtration only) [40 CFR141.174(a) & 40 CFR141.560]. [N.J.A.C. 7:10- 9.1]	IC <input type="checkbox"/>	Turbidimeters calibrated by ACS every 3 months, logs kept. Chlorine analyzers calibrated every 6 months by ACS.	Rules T
Was continuous turbidity monitoring being conducted for combined filter effluent (CFE) and individual filter effluent (IFE)? . [N.J.A.C. 7:10- 9.6(a)]	ON <input type="checkbox"/>	TWW failed to conduct continuous monitoring for filters 3E and 7W from 12:40am on 5/4/19 to 6:00pm on 5/4/19 while the beds were still online. Operators did not turn off beds even though readings were 0.0 NTU continuously. TWW failed to follow protocols for grab sampling for this event. NONC will be issued by the BSDW to address this violation.	Rules T

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaule, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Reqt. Type
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Subject Item: NSW1 - New Surface/ GUDI Water Treatment Rule & POE Mon. Req 01

Operating Status: No status specified.

Comments: No comments added.

Were all individual filter records maintained for at least 3 years in accordance with 40 CFR 141.571? (direct/conventional filtration only) . [N.J.A.C. 7:10-9.1]	IC <input type="checkbox"/>	Maintained within SCADA system.	Rules T
Were IFE turbidity monitoring results recorded every 15 minutes in accordance with 40 CFR 141.174 and 40 CFR 141.560? (conventional/direct filtration only). [N.J.A.C. 7:10- 9.1]	ON <input type="checkbox"/>	Failure of systems to record the results of individual filter monitoring every 15 minutes. Results were not recorded for filters 3E and 7W during the 5/4/19 incident. TWW failed to follow protocols for grab sampling for this event. NONC will be issued by the BSDW to address this violation.	Rules T
Were turbidity measurements of the combined filter effluent (CFE) recorded at a minimum every 4 hours in accordance with 40 CFR 141.173 & 40 CFR 141.551? . [N.J.A.C. 7:10- 9.1]	IC <input type="checkbox"/>	No CFEs were reported down or not functioning in 2018 by TWW.	Rules T
Were the recorded CFE turbidity measurements less than or equal to 0.3 NTU in at least 95% of the samples taken in any month in accordance with 40 CFR 141.173 & 40 CFR 141.551? . [N.J.A.C. 7:10- 9.2(a)3]	IC <input type="checkbox"/>	Reviewed during the inspection on SCADA.	Rules T
Were daily turbidity grab samples taken to verify the accuracy of all continuous turbidity analyzers/recorders? . [N.J.A.C. 7:10- 9.6(b)]	ON <input type="checkbox"/>	Failure to verify the accuracy of the performance of each analyzer/recorder required pursuant to (a) above by taking a grab sample of the effluent at least once in every 24-hour period. No daily grab sample taken for these filters on 5/4/19. TWW failed to follow protocols for grab sampling for this event. NONC will be issued by the BSDW to address this violation.	Rules T
If the turbidity monitoring device failed, did the water system take a grab sample at least once every four hours? . [N.J.A.C. 7:10- 9.6(b)]	ON <input type="checkbox"/>	Failure to take a grab sample at least once every four hours during the period in which the analyzer/recorder is out of service, in the case of analyzer/recorder failure. No grab samples were taken during the 5/4/19 event for either filter that had a turbidimeter down. TWW failed to follow protocols for grab sampling for this event. NONC will be issued by the BSDW to address this violation.	Rules T
Were the CFE turbidity measurements reported monthly on the appropriate state forms? . [N.J.A.C. 7:10- 9.1]	IC <input type="checkbox"/>		Rules T
Was any recorded CFE sample greater than 1NTU? If yes, did the water system contact the state no later than the end of the next business day in accordance with 40 CFR 141.175 & 141.551? (conventional/direct filtration systems only) . [N.J.A.C. 7:10- 9.1]	NA <input type="checkbox"/>	None reported or observed in 2018.	Rules T
For systems with a population of 10,000 or greater did an individual filter exceed >0.5 NTU in two consecutive 15 minute measurements (after the first four hours of operation) or exceed >1.0 NTU in two consecutive 15 minute measurements (during any time of operation)? If so did the purveyor complete a filter profile within 7 days in accordance with 40 CFR 141.175? . [N.J.A.C. 7:10- 9.1]	NA <input type="checkbox"/>	None reported or observed in 2018.	Rules T

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: NSW1 - New Surface/ GUDI Water Treatment Rule & POE Mon. Req 01

Operating Status: No status specified.

Comments: No comments added.

Did the water system exceed >1.0 NTU in two consecutive 15 minute measurements (during any time of operation) in three consecutive months? If so did the purveyor produce an individual filter self-assessment report within 14 days in accordance with 40 CFR 141.75 & 40 CFR 141.563 [N.J.A.C. 7:10-9.1]. [N.J.A.C. 7:10- 9.1]	NA <input type="checkbox"/>	None reported or observed in 2018.	Rules T
Did the water system exceed > 2.0NTU (during any time of operation) in two consecutive months? If so, did the water purveyor conduct and report the results of a comprehensive performance evaluation within 90 days (for systems 10,000 or greater) or 120 days (for systems <10,000) in accordance with 40 CFR 141.175 & 40 CFR 141.563?. [N.J.A.C. 7:10- 9.1]	NA <input type="checkbox"/>	None reported or observed in 2018.	Rules T

Subject Item: WXAP - Prenjems Water Allocation Permit

Operating Status: No status specified.

Comments: No comments added.

Apply for a Major Modification: within 30 days of receipt of this document for the increase in intake pump capacity from 25 MGD to 30 MGD. [N.J.A.C. 7:19- 1]	IC <input type="checkbox"/>	Minor Modification effective 12/1/18 for increased raw intake pump capacity.	PEA180008 S
Submit Water Conservation and Drought Management Plan: within 30 days of receipt of this document. [N.J.A.C. 7:19- 2]	IC <input type="checkbox"/>	Recieved 5/4/18.	PEA180008 S
Submit Proof of Flow Meter Calibration: within 30 days of receipt of this document for the intake flow meter. [N.J.A.C. 7:19- 2]	IC <input type="checkbox"/>	Calibrated 4/5/18.	PEA180008 S
WATER ALLOCATION PERMIT.	H <input type="checkbox"/>		Rules T
Did the person obtain a Water Allocation Permit or a Temporary Dewatering Permit prior to diverting water either from a single diversion source or from combined diversion sources at a rate in excess of 100,000 gallons of water per day?. [N.J.A.C. 7:19- 1.10]	IC <input type="checkbox"/>	#5187, minor modification effective 12/1/18.	Rules T
Did the permittee submit an application for renewal of the current permit three months prior to the expiration of the permit?. [N.J.A.C. 7:19- 2.4(a)]	IC <input type="checkbox"/>	Due 12/31/26.	Rules T
Did the permittee divert water solely for purposes authorized by the permit?. [N.J.A.C. 7:19- 2.14(a)14]	IC <input type="checkbox"/>	Public Community Water System	Rules T
OPERATION AND MAINTENANCE.	H <input type="checkbox"/>		Rules T

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PV - Potential Violation
DC - Data Collection

ND - Compliance Not Determined
NC - No Obvious Concern
WN - Warning

OC - Out of Compliance
ON - Out of Compliance, Non-referred

NA - Not Applicable
Y - Yes

NI - Not Inspected
N - No

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Req. Source Ref # Req. Type
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Subject Item: WXAP - Prenjems Water Allocation Permit

Operating Status: No status specified.

Comments: No comments added.

Did the permittee provide a totalizing flow meter for all diversion sources? [N.J.A.C. 7:19- 2.14(a)4]	IC <input type="checkbox"/>	Flow is calculated using the totalizing flow meter and subtracting the recycled water flows from the MDF which are added before the totalizing flow meter.	Rules T
Did the permittee calibrate each meter at least once every five years? [N.J.A.C. 7:19- 2.14(a)4]	IC <input type="checkbox"/>	Calibrated on 4/5/18, following the NOV issued to TWW from the March 2018 DEP inspection.	Rules T
Did the permittee receive approval from the Bureau of Water Allocation prior to increasing the pumping equipment capacity?. [N.J.A.C. 7:19- 1.5(a)5]	IC <input type="checkbox"/>	Minor modification recieved following the NOV issued to TWW from the March 2018 DEP inspection.	Rules T
If the facility is a Public Community Water System, did the permittee meter all existing services?. [N.J.A.C. 7:19- 6.5(a)5]	ND <input type="checkbox"/>	TWW is currently undergoing an extensive investigation of all connections to determine the universe of those not metered.	Rules T
Did the permittee protect each source from vandalism, tampering, and contamination at all times?. [N.J.A.C. 7:19- 2.14(c)]	IC <input type="checkbox"/>	Surface water intake. Inspected twice a shift.	Rules T
Did the permittee obtain written permission from the Department prior to a change in plans and specifications?. [N.J.A.C. 7:19- 2.14(a)]	IC <input type="checkbox"/>	Minor modification recieved in 2018, no intention for changes in 2019.	Rules T
Did the permittee keep a copy of the permit at the work site and exhibit it upon request?. [N.J.A.C. 7:19- 2.14(a)]	IC <input type="checkbox"/>	Available onsite.	Rules T
Was a log book of month end meter readings for each diversion source maintained on site?. [N.J.A.C. 7:19- 2.14(a)]	ON <input type="checkbox"/>	Reviewed onsite, discrepancies with what was reported and what was reviewed by the Dept. Re-evaluate and resubmit if errors.	Rules T
Has the permittee complied with all of the specific conditions of the permit?. [N.J.A.C. 7:19- 2.14(a)]	ON <input type="checkbox"/>	TWW has not yet complied with the requirement of reducing the unaccounted for water to less than 15%, currently at 31.9%.	Rules T
COMPLAINT INVESTIGATION, REPORTING AND MITIGATION.	H <input type="checkbox"/>		Rules T
Did the permittee investigate any valid complaints by users of wells or surface water supplies within the zone of influence of this diversion?. [N.J.A.C. 7:19- 2.14(a)11]	IC <input type="checkbox"/>	WQ complaint log reviewed during the inspection. Complaints are logged and information regarding date, customer, and actions taken by TWW onsite. Recent compliants include chlorine smell, color and odor.	Rules T
Did the permittee repair or replace any well or surface water supply that has been rendered unusable as a result of the permittee's diversions?. [N.J.A.C. 7:19- 2.14(a)11]	NA <input type="checkbox"/>		Rules T

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Compliance Evaluation Report

Start Date: 4/16/2019

Activity: SCI190001 *Standard Compliance Inspection

Lead Investigator: Sponaugle, Jessica

1111001 TRENTON WATER WORKS, Trenton City (SAFE DRINKING WATER)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Req. Type
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Subject Item: WXAP - Prenjems Water Allocation Permit

Operating Status: No status specified.

Comments: No comments added.

WATER CONSERVATION AND DROUGHT MANAGEMENT PLAN.	H <input type="checkbox"/>		Rules T
Did the Water Allocation Permittee adopt and implement, to the satisfaction of the Department, a Water Conservation and Drought Management Plan as required by the permit?. [N.J.A.C. 7:19- 2.14(a)10]	IC <input type="checkbox"/>	provided 5/4/18, due 5/31/2020.	Rules T

Subject Item: WSIN72380 - DELAWARE RIVER

Operating Status: No status specified.

Comments: No comments added.

Did the permittee divert water only from the approved source at the maximum rate specified in the permit?	Y <input type="checkbox"/>	Have 3 intake pumps, 30 MGD.	WAP180001 2 L
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Subject Item: WSWA72381 - 5187 WA PERMIT - ALL DIVERSION SOURCES

Operating Status: No status specified.

Comments: No comments added.

Maximum Diversion Rate <= 41667.0 Gallons Per Minute (2 pumps @ 30 mgd each). [N.J.A.C. 7:19- 2.14(a)2]	IC <input type="checkbox"/>		WAP180001 9 L
Water Diverted <= 1350.0 Million Gallons Per Month. [N.J.A.C. 7:19- 2.14(a)2]	ND <input type="checkbox"/>	2018: highest in July 2018 based off Dept calculations, TWW's logs do no reflect this. Need to evaluate logs and re-submit reports in necessary.	WAP180001 11 L
Water Diverted <= 16200.0 Million Gallons Per Year. [N.J.A.C. 7:19- 2.14(a)2]	ND <input type="checkbox"/>	TWW needs to evaluate and re-submit logs to reflect annual diversions.	WAP180001 12 L
The permittee shall reduce unaccounted-for water to less than 15% by the expiration date of this permit. A detailed annual report shall be submitted outlining the measures taken to reduce the unaccounted-for water to below 15% and should included but not be limited to: identified areas of water loss; methods utilized for leak detection; leaks repaired; meters added/replaced, and updated unaccounted-for water calculations. In addition, copies of the AWWA Water Audit submittal to DRBC should be provided to the Bureau. Submit Report as Described: before starting 4/30/2018 the end of each year by April 30th of each year. [N.J.A.C. 7:19- 2]	ON <input type="checkbox"/>	TWW's unaccounted-for water is at 31.9%, annual report provided 3/29/19. The AWWA audit is due 4/30/19.	WAP180001 24 S

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