

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO ATTENTION OF ECW-15J

<u>VIA ELECTRONIC MAIL</u> RETURN RECEIPT REQUESTED

Dennis Traiteur, Responsible Operator in Charge Cahokia Heights 2525 Mousette Ln Cahokia Heights, IL 62206 dtraiteur@cahokiaillinois.org

Subject: Safe Drinking Water Act EPA Inspection Report

Dear Dennis Traiteur:

On October 18, 2022, the U.S. Environmental Protection Agency conducted a compliance evaluation inspection of Cahokia Heights Public Water System ("System"), PWSID IL1635000 located in Cahokia Heights, Illinois. The purpose of the inspection was to make observations about the site conditions, operation, and monitoring of the System to evaluate compliance with the Safe Drinking Water Act ("SDWA") and regulatory requirements. Please see the enclosed copy of our inspection report.

EPA appreciates the opportunity to work with you to provide drinking water that meets or exceeds national drinking water standards. Should you find anything in the report that you disagree with, or you wish to provide an update, please provide a detailed response within 30 days after receipt of the inspection report.

If you have questions or concerns regarding this letter or believe any part of the report is not accurate, please contact James Adamiec of my staff at (312-886-0815) or adamiec.james@epa.gov.

Sincerely,

Elizabeth Digitally signed by Elizabeth Murphy

Date: 2022.12.12 10:14:07-06'00'

Elizabeth Murphy Supervisor, Section 3

Water Enforcement and Compliance Assurance Branch

cc: Gayle Renth, IEPA
Elizabeth Murphy, EPA
Gillian Asque, EPA
Sharlin Pfeffer, Cahokia Heights



SEPA United States Environmental Protection REGION 5 Enforcement and Compliance Assurance Division

INSPECTION REPORT

Opening Closing Site	Inspection Entry Date/Time:		October 18	3, 2022 / 8:30 AM	Announced: Yes	5			
Media: Water Statute(s)/Program(s): Safe Drinking Water Act, Illinois Administrative Code Title 35 Type of Inspection: CEI – Compliance Evaluation In-Person Inspection: Yes System Name: Cahokia Heights System Physical Address: 2525 Mousette Lane Facility Number (FRS ID) 11071196793 (City, state, zip code) Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: Yes PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug James Adamiec Lead Inspector/EPA 312-886- 8815 Thomas Swenson Inspector/EPA 312-886- 5265 Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 James Blessman Inspector, IEPA 618-346- 342-346-	Inspection Exit Date/Time:		October 18	3, 2022 / 12:00 PM	Access: Granted				
Safe Drinking Water Act, Illinois Administrative Code Title 35 Type of Inspection: In-Person Inspection: CEI – Compliance Evaluation Yes System Name: Cahokia Heights System Physical Address: 5252 Mousette Lane Facility Number (FRS ID) 11071196793 (City, state, zip code) Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: Yes PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Closing Conf. Conf. Walkthroug Walkthroug James Adamiec Lead Inspector/EPA 312-886- 0815 Adamiec.james@epa.gov Yes Yes Yes Yes Pes Yes Yes Yes	Weather:								
Type of Inspection: In-Person Inspection: Yes Cahokia Heights System Name: Cahokia Heights System Physical Address: 2525 Mousette Lane Facility Number (FRS ID) 11071196793 (City, state, zip code) Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: Yes PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Closing Conf. Conf. Walkthrouge Walkthrouge Walkthrouge Walkthrouge Walkthrouge Thomas Swenson Inspector/EPA 312-886- 0815 Swenson.thomas@epa.gov Yes Yes Yes Yes Yes Yes Scot Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights 138-315- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights 188-346- 319- 316- 316- 316- 316- 316- 316- 316- 316	Media:	1	Water						
System Name: Cahokia Heights System Physical Address: 2525 Mousette Lane Facility Number (FRS ID) 11071196793 (City, state, zip code) Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Closing Conf. Opening Conf. Conf. Walkthroug Walkthroug Walkthroug Site Walkthroug Site Walkthroug Walkthroug Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 James Blessman Inspector, IEPA Inspector, IEP	Statute(s)/Prog	gram(s):	Safe Drinki	ng Water Act, Illinois A	dministrative Co	de Title 35			
System Name: Cahokia Heights System Physical Address: 2525 Mousette Lane Facility Number (FRS ID) 11071196793 (City, state, zip code) Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: Yes PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug James Adamiec Lead Inspector/EPA 312-886- 8815 Thomas Swenson Inspector/EPA 312-886- 5265 Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 James Blessman Inspector, IEPA 618-346- 5120 Adamies.T.Blessman@Illinois.gov Yes	Type of Inspection:								
System Physical Address: 2525 Mousette Lane Facility Number (FRS ID) 11071196793 (City, state, zip code) Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: Yes PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug Site Walkthroug Site Walkthroug Conf. Conf. Walkthroug Site Site Site Site Site Site Site Site	In-Person Inspection:		Yes						
System Physical Address: 2525 Mousette Lane Facility Number (FRS ID) 11071196793 (City, state, zip code) Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: Yes PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug Site Walkthroug Site Walkthroug Site Site Site Site Site Site Site Site									
Facility Number (FRS ID) (City, state, zip code) (Cahokia Heights, IL 62206 County/Borough/Parish: St. Clair County Facility GPS Coordinates: N/A Environmental Justice Area: Ves PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Closing Conf. Conf. Walkthroug James Adamiec Lead Inspector/EPA 312-886- 0815 Adamiec.james@epa.gov Yes Yes Yes Yes Pes Yes Yes Yes	System Name:	(Cahokia Heights						
Cahokia Heights, IL 62206	System Physica	al Address:	2525 Mous	sette Lane					
County/Borough/Parish: St. Clair County N/A Environmental Justice Area: PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. James Adamiec Lead Inspector/EPA 312-886- 0815 Thomas Swenson Inspector/EPA 312-886- 5265 Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights Assistant Director, Cahokia Heights 618-337- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights 618-337- 3099 Speffer@cahokiaillinois.org Yes Yes Yes Yes Yes Yes Yes Ye	Facility Numbe	r (FRS ID)	110711967	793					
Facility GPS Coordinates: N/A Environmental Justice Area: Yes PWS ID: IL1635000 Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug Site Walkthroug Conf. Conf. Ves Ves Ves Ves Thomas Swenson Inspector/EPA 312-886- 5265 Swenson.thomas@epa.gov Yes Yes Ves Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Atraiteur@cahokiaillinois.org Yes Yes Ves Ves Ves Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 James Blessman Inspector, IEPA 618-346- 5120 James.T.Blessman@Illinois.gov Yes Yes Yes Ves Ves Ves Ves Ves Ves Ves Ves Ves V	(City, state, zip	code)	Cahokia He	eights, IL 62206					
PWS ID: IL1635000	County/Boroug	gh/Parish:	St. Clair County						
Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug James Adamiec Lead Inspector/EPA 312-886-0815 Swenson.thomas@epa.gov Yes Yes Yes Thomas Swenson Inspector/EPA 312-886-5265 Swenson.thomas@epa.gov Yes Yes Yes Dennis Traiteur ROIC, Cahokia Heights 618-337-3099 dtraiteur@cahokiaillinois.org Yes Yes Yes James Blessman Inspector, IEPA 618-346-5120 James.T.Blessman@Illinois.gov Yes Yes Yes Yes The Market Present in Opening Closing Conf. Walkthroug Walkthroug Conf. Walkthroug Walkthroug Conf. Walkthroug Walkthroug Conf. Walkthroug Conf. Walkthroug Walkthroug Conf. Walkthroug Walkthroug Conf. Walkthroug Walkthroug Conf. Walkthroug Conf. Walkthroug Conf. Walkthroug Walkthroug Conf. Walkthroug Conf. Walkthroug Conf. Walkthroug Walkthroug Conf. Walkthr	Facility GPS Co	ordinates:	N/A						
Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug James Adamiec Lead Inspector/EPA 312-886- 0815 Thomas Swenson Inspector/EPA 312-886- 5265 Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 James Blessman Inspector, IEPA 618-346- 5120 James.T.Blessman@Illinois.gov Yes Yes Yes Yes Yes	Environmental	Justice Area:	Yes						
Persons Participating in Inspection: Name Title/Organization Phone Email Present in Opening Conf. Conf. Walkthroug James Adamiec Lead Inspector/EPA 312-886- 0815 Thomas Swenson Inspector/EPA 312-886- 5265 Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 James Blessman Inspector, IEPA 618-346- 5120 Present in Opening Closing Site Walkthroug Present in Opening Closing Site Walkthroug Adamiec.james@epa.gov Yes Yes Yes Yes Yes Yes Yes No Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 James Blessman Inspector, IEPA 618-346- 5120 James.T.Blessman@Illinois.gov Yes Yes Yes									
Name Title/Organization Phone Email Present in Opening Conf. James Adamiec Lead Inspector/EPA James Swenson Inspector/EPA James Rolic, Cahokia Heights Dennis Traiteur Rolic, Cahokia Heights Rolic, Cahokia	PWS ID:],	L1635000						
Name Title/Organization Phone Email Present in Opening Conf. James Adamiec Lead Inspector/EPA James Swenson Inspector/EPA James Rolic, Cahokia Heights Dennis Traiteur Rolic, Cahokia Heights Rolic, Cahokia		-3-							
Opening Conf. Site Walkthroug James Adamiec Lead Inspector/EPA 312-886- 0815 Adamiec.james@epa.gov Yes Yes Yes Thomas Swenson Inspector/EPA 312-886- 5265 Swenson.thomas@epa.gov Yes Yes Yes Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 Assistant Director, Cahokia Heights 2376 Spfeffer@cahokiaillinois.org Yes Yes Yes No James Blessman Inspector, IEPA 618-346- 5120 James.T.Blessman@Illinois.gov Yes Yes Yes	Persons Partici	pating in Inspection	n:						
Thomas Swenson Inspector/EPA 312-886-5265 Swenson.thomas@epa.gov Yes Yes Yes Dennis Traiteur ROIC, Cahokia Heights 618-337-3099 dtraiteur@cahokiaillinois.org Yes Yes Yes Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 spfeffer@cahokiaillinois.org Yes Yes No James Blessman Inspector, IEPA 618-346-5120 James.T.Blessman@Illinois.gov Yes Yes Yes	Name	Title/Organization	Phone	Email	Opening	Closing	Present during Site Walkthrough		
Dennis Traiteur ROIC, Cahokia Heights 618-337- 3099 dtraiteur@cahokiaillinois.org Yes Yes Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 spfeffer@cahokiaillinois.org Yes Yes No James Blessman Inspector, IEPA 618-346- 5120 James.T.Blessman@Illinois.gov Yes Yes Yes	James Adamiec	Lead Inspector/EPA		Adamiec.james@epa.gov	/ Yes	Yes	Yes		
Sharlin Pfeffer Assistant Director, Cahokia Heights 2376 Spfeffer@cahokiaillinois.org Yes Yes No James Blessman Inspector, IEPA 618-346-5120 James.T.Blessman@Illinois.gov Yes Yes Yes	Thomas Swenson	Inspector/EPA		Swenson.thomas@epa.go	ov Yes	Yes	Yes		
Cahokia Heights 2376 James Blessman Inspector, IEPA 618-346- James.T.Blessman@Illinois.gov Yes Yes Yes 5120	Dennis Traiteur	ROIC, Cahokia Heights	- Proceedings	dtraiteur@cahokiaillinois	org Yes	Yes	Yes		
5120	Sharlin Pfeffer			spfeffer@cahokiaillinois.o	org Yes	Yes	No		
Lead Inspector:	James Blessman	Inspector, IEPA		James. T. Blessman@Illino	is.gov Yes	Yes	Yes		
Generalization of the proposition of the propositi	Lead Inspector	:							
James Adamiec JAMES Digitally signed by JAMES ADAMIEC	See to the the transfer of the second process of	Ť	JAMES						

	Region 5		Adamiec.james@epa.gov	312-886-0815	
Supervisor Review:					
Elizabeth Murphy	Elizabeth Murphy	Digitally signed by Elizabeth Murphy Date: 2022.12.12 10:14:30 -06'00'			
	Region 5		Murphy.elizabeth@epa.gov	312-3534227	

SECTION I - INTRODUCTION

This Section describes the site entry, authority, purpose of the inspection, and the system.

Site Entry and Inspection Objectives

EPA inspectors arrived at Cahokia Heights Public Water System (the "System"), located at 2525 Mousette Lane, Cahokia Heights, Illinois 62206, at 8:30 AM on October 18, 2022, for an announced inspection. James Adamiec presented credentials to System representatives, Dennis Traiteur and Sharlin Pfeffer and informed them that this was a Region 5 inspection to determine compliance with the Primacy Agency requirements and the Safe Drinking Water Act (SDWA). The inspection was conducted under the authority of the SDWA Section 1445. This report is based on information supplied by Cahokia Heights representatives, observations made by the Region 5 inspector(s), and records and reports maintained by the System and Region 5 including: direct observations made by the Region 5 inspector(s), photographs taken by Region 5 inspector(s), physical evidence collected by the Region 5 inspector(s), measurements taken by Region 5 inspector(s), verbal or written statements made by information supplied by Cahokia Heights representatives during or subsequent to the on-site Inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the Region 5 inspector(s) by Cahokia Heights representatives during or subsequent to the on-site Inspection. In addition, information gathered prior to or subsequent to the Inspection from a review of USEPA, State, and public records may be included in this report.

The scope of the inspection was an onsite review of the water source, facilities, equipment, operation, maintenance, and monitoring compliance of a public water supply (PWS) to evaluate the adequacy of the PWS, its sources and operations, and the distribution of safe drinking water. The inspection was focused on verifying compliance with the SDWA Section 1431 Unilateral Administrative Order, dated August 2, 2021 (the "UAO").

System Description

The Illinois Environmental Protection Agency maintains the Drinking Water Watch website which provides a record of the System's owner, operator, and size. According to Illinois Drinking Water Watch, the System is owned by the City of Cahokia Heights, serves a population of approximately 13,888 people and has 5,600

service connections. It is a community water system as defined by 40 C.F.R., Part 141 Subpart A. EPA did not confirm the information from Drinking Water Watch with the System.

The system is a consecutive system that purchases finished surface water directly from Illinois American - East St. Louis (PWSID IL1635040). The System is a municipality serving both business and residential customers including schools. The System employs one certified drinking water operator, Dennis Traiteur, and has two additional operators in training.

System Information

System information was collected through a records review or statements made by System representatives during the inspection. This information is organized into discussion topics and the topics are designated with a reference number. Each entry then indicates whether the discussion topic is an Area of Concern (AOC). AOCs are further discussed in Section V.

Reference #: IN-001 Topic: Staffing AOC	C: No
---	-------

In May 2021, several smaller communities merged to become the City of Cahokia Heights, which then became its own PWS. During the reorganization period, drinking water staffing levels were adjusted to eight designated drinking water staff. This includes a field director and certified water operator plus seven maintenance staff. Two of those maintenance staff are in training to become certified water operators. The System reported that they will be taking a certification test in December 2022.

Reference #: IN-002	Topic: EPA Compliance Advisor	AOC: No
---------------------	--------------------------------------	---------

EPA offers a compliance advisor program where technical staff visit a system and can offer expertise in developing SOPs, training documents, report templates, and public outreach. A compliance advisor team provided an in-person consultation for the System in mid-2022 and continues to provide ongoing assistance remotely. Most recently, the advisor team assisted the system with developing a staffing recommendation and a nitrification action plan in August 2022.

Reference #: IN-003	Topic: LCR Monitoring	AOC: No
---------------------	------------------------------	---------

The System conducts monitoring for compliance with the lead and copper rule every six months at 60 sites. While the system does not have a history of lead or copper violations, it also lacks a completed lead service line inventory. The System is in the process of compiling an inventory and has contacted customers with questionnaires about the plumbing in their homes. To date, the customer response rate has been low at roughly 12%. From those responses, no lead service lines have been identified. For residents that have not responded to the questionnaire, System staff plan to go door to door to try to get responses. During the inspection, the System was unable to project when a complete lead service line inventory would be available because it is so dependent on customers. 40 CFR 141.84(a)(1) requires an initial inventory to be developed and submitted to the primacy agency by October 16, 2024.

Reference #: IN-004	Topic: O&M - Flushing	AOC: No	
---------------------	-----------------------	---------	--

In coordination with their upstream water provider, Illinois American - East St. Louis, the System conducted city wide flushing in June and August 2022. The exact dates for flushing vary year to year depending on river conditions of the source water. The flushing this year coincided with Illinois American - East St. Louis's treatment switch from chloramines to free chlorine at that time. The UAO cited a failure to conduct system wide flushing as a significant deficiency. The System now reports that they have worked to further develop this program to address that significant deficiency.

Reference #: IN-005 Topic: Monitoring AOC: No

Since the UAO was issued in August 2021, the System added four additional bacterial sampling stations to their state approved RTCR Sample Site Plan. These additional locations are sampled on a routine monthly basis and after each sanitary sewer overflow. The System has also installed continuous pressure monitors at four locations in Cahokia Heights.

Reference #: IN-006 **Topic:** O&M - Treatment **AOC:** Yes

The System purchases finished water from Illinois American - East St. Louis. Illinois American - East St. Louis uses chloramines as a disinfectant while the Cahokia Heights public water system's only treatment includes the addition of booster chlorine at the Springs booster station. The System adds booster Chlorine as a disinfectant during the summer months, typically June-September and System staff stated it was necessary to add in order to maintain a chlorine residual in the furthest ends of their system. To add this booster chlorine, the chlorine feed rate is automatically adjusted based on chlorine readings taken at the feed site using a digital analyzer. The digital analyzer does not monitor ammonia levels. The System does not currently have the capability to also add ammonia (chloramines). Improvements to the disinfection system, including upgrades to allow for treatment with chloramines, are included in CH's Capital Improvement Plan (the CIP), dated November 5, 2021. As of the inspection date, a contracted engineering group has begun work on design plans for the disinfection system upgrade. However, the System is unable to estimate when actual construction may take place and continues to add chlorine only, without ammonia.

Reference #: IN-007 Topic: Storage AOC: Yes

The System has three storage tanks. The condition of the tanks, such as rust or inability to fill, was noted as a significant deficiency in the UAO:

- 1. Springs tank: This is a ground level tank that has not been in service for at least 20 years. An active chlorine booster station for chlorine is located at this site. Prior to returning the tank to service, it would likely need extensive repairs. System representatives stated that the tank will either be rehabbed or rebuilt in order to increase their storage capacity, however, this is not a priority issue for them. As of the inspection date, the System is unable to estimate when such repairs would take place.
- 2. Road tank: The tank is an elevated water tank that the System has been unable to completely fill since 2000 when a pump broke. This tank had an exterior inspection in late 2021. Following that inspection, some repairs were completed in November 2021. The tank interior was then inspected in December 2021. The System is planning a full rehab of the tank and expects this to be completed sometime 2023.

Mullens tank: This is an elevated storage tank that had an interior and exterior inspection in late 2021. An inspection report was issued on October 15, 2021. Following the inspection report, some repairs were made from March - May 2022 to address critical issues. Additional repairs are awaiting funding and there is no definitive projection on when these might be completed.

SECTION II – OBSERVATIONS

This section describes the various areas of the water system toured by EPA and the observations made by visual inspecting sites and assets.

Area(s)

EPA conducted a tour of the system and visually inspecting the following areas:

Area	Description
Main Office Warehouse	This location is used to store bottled water.
Springs Booster Station	The System adds booster chlorine to finished water at this point.
Distribution System Monitoring Stations	These locations are used to collect bacterial samples or conduct continuous pressure monitoring.
Mullen Water Tower	An elevated water tower used for finished water storage within the distribution system.
Road Water Tower	An elevated water tower used for finished water storage within the distribution system.

Observations(s)

The EPA inspection team made observations by visually the areas identified above. All observations grouped by the areas inspected and are designated with a reference number. Each entry then indicates whether the observation is an Area of Concern (AOC). AOCs are further discussed in Section IV. A photograph log can be found in <u>Appendix A</u>. Observations may not be in sequential order in which they were observed.

Area: Main Office Warehouse			
Reference #: OB-001	AOC: No		
The main building of the public works department houses a main storage warehouse. The warehouse is used to store bottled water Alternative Water Source Plan, created in response to the UAO. In the revised total coliform rule, or a water emergency, bottled was customers within the City of Cahokia Heights.	er in accordance with the System's in the event of pressure loss, a violation of		
Photo(s): Appendix A Photo # 1-3			

Area: Falling Springs Booster Station

Reference #: OB-002 AOC: Yes

At the booster station, the System adds additional chlorine to finished water from the upstream provider, Illinois American - East St. Louis. Illinois American - East St. Louis uses chloramines as a disinfectant.

At the time of inspection, the digital chlorine analyzer displayed a chlorine concentration of 3.2 PPM and no booster chlorine was being added. In order to maintain a chlorine residual in the furthest points of the system, the operator sets the chlorine feed to activate when the value is at 1.75 ppm. The chlorine storage totes appeared to be in good condition and were held in an area with secondary containment.

Photo(s): Yes

Appendix A Photo # 4-14

Reference #: OB-003 AOC: Yes

The Springs booster station is contained within a fenced off area. The UAO identified two significant deficiencies in this area, 1) abandoned chlorine cylinders and 2) overgrown and damaged fencing. The chlorine cylinders were removed on August 4, 2021, resolving one significant deficiency. However, portions of the site fencing still appeared to be overgrown with vegetation during the inspection.

Photo(s): Yes

Appendix A Photo # 15-16

Area: Distribution System Monitoring Stations

Reference #: OB-004

During the inspection, multiple bacterial sample stations were observed. The System uses these locations to collect both routine monthly samples and samples collected immediately following an SSO. System staff verified chlorine residual levels at these locations using a Hach SL1000. Chlorine residuals and locations are detailed in Section IV – Sampling and Field Monitoring Activities. EPA inspectors also observed a site used for continuous pressure monitoring. The pressure monitor was located below ground and appeared to be connected to the water main. System representatives confirmed that the monitor was functioning correctly and was in good condition with no current maintenance trouble.

Photo(s):

Appendix A Photo # 17-23

Area: Spring Mullen Water Tower

Reference #: OB-005

The UAO cited the condition of this tower as a significant deficiency. The tower underwent maintenance in May 2022 to address this and other critical maintenance issues. These repairs included replacing the weir box and fixing the overflow pipe, tightening windage rods, replacing the interior access ladder, replacing the roof vent, performing interior sediment cleanout and disinfection, and reweld the overflow pipe. Repaired welds on connection joints on the tower's exterior as well as newly installed overflow screening were observed.

The fencing surrounding this site near the entrance appeared damaged and no longer completely encloses the site.

Photo(s): Yes

Appendix A Photo # 24-31

Area: Church Road Water Tower

Reference #: OB-006 AOC: Yes

The UAO cited the condition of this tower as a significant deficiency. Since then, the tower has been inspected and some critical maintenance items corrected. The System is planning a full rehab of the tank to resolve all remaining maintenance items both inside and outside of the structure. This rehab project is currently in the planning and bidding stage and work is expected to begin sometime in 2023. During the inspection, site fencing appeared to be overgrown with vegetation.

Photo(s): Yes

Appendix A Photo # 34-37

SECTION III - RECORDS

The section identifies the records EPA reviewed before and during the inspection. All records are designated with a reference number. Each entry then indicates whether the record reviewed is an AOC. AOCs are further discussed in Section V. Records may not be in sequential order in which they were reviewed.

Record: System email to EPA dated August 4, 2021

AOC: No

Reference #: RR-001

On August 4, 2021, Mark Scoggins, an attorney representing the System emailed EPA's James Adamiec confirming that the System intended to comply with the UAO.

Record: SSO Notification Records AOC: No

Reference #: RR-002

The UAO requires the System to submit a notification to EPA each time there is an SSO. EPA inspectors reviewed these notifications from August 2021 - September 2022

Record: Continuous Pressure Monitoring Data AOC: No

Reference #: RR-003

The UAO requires the System to submit continuous pressure data on a monthly basis. EPA inspectors reviewed this data from September 2021 - September 2022. During that time, there were several water main breaks that resulted in low pressure. In those cases, the System consulted with IEPA and issued boil orders to affected customers.

Record: Bacterial Sampling Records AOC: No

Reference #: RR-004

The System collects microbial samples as a routine monthly practice and following each sanitary sewer overflow. These records include measurements of total chlorine residual and the presence or absence of E. Coli and total coliforms. Microbial records were reviewed from September 2021 - September 2022, including records submitted to EPA and lab results available on Drinking Water Watch, a website maintained by IEPA. There were no violations resulting from excess coliform or E. Coli during this time.

Record: Employee Training Records

AOC: No

Reference #: RR-005

EPA inspectors reviewed training records for newer employees. These included trenching, flagger awareness, lock out tag out, and confined spaces training.

Record: System Emails to EPA Regarding Previously Identified Significant Deficiencies

AOC: No

Reference #: RR-006

The UAO noted the presence of open water maintenance pits with the City of Cahokia Heights. In November and December 2021, the System provided photos showing that these pits had been filled and reseeded with grass as needed.

Record: RTCR Sample Site Plan

AOC: No

Reference #: RR-007

The UAO required the system to add additional sample locations to their RTCR sample site plan. The System's most recent RTCR sample site plan, dated January 5, 2022, five sample sites that had been added to the system's sampling pool since the issuance of the UAO. These additional sites are located near locations that have historically experienced sanitary sewer overflows.

Record: Finished Water Storage Tank Records

AOC: No

Reference #: RR-008

EPA reviewed inspection reports and repair invoices created by Pittsburgh Tank and Tower Group for the System. These water towers are used to store finished water and their general condition was noted as a significant deficiency in the UAO.

Record: Emergency Water Response Plan

AOC: No

Reference #: RR-009

As required by the UAO, the System developed an Emergency (Alternative) Water Source Plan, dated August 26, 2021. The plan describes the location of stored water and the quantity that will be distributed to customers in the event of an emergency.

Record: LCR Customer Survey

AOC: No

Reference #: RR-010

On August 2, 2022, the System mailed a letter to customers asking them to identify their home's water service line material. Customer responses will be used to create a lead service line inventory.

Record: Cross Connection Customer Survey

AOC: No

Reference #: RR-011

From April 28, 2022, through May 26, 2022, the System mailed letters to customers with information on cross connections. The reverse side of the letter included a survey to identify possible cross connections. Customers were asked to fill out this letter and return it to the System.

Record: Operations and Maintenance Plan

AOC: No

Reference #: RR-012

The System completed the development of an Operations and Maintenance Plan in August 2022. The document contains a summary of assets, vendor contact information, O&M tasks to be completed daily, weekly, monthly, or annually, sampling and reporting requirements, lab information, public notice and boil order procedures, and alternative water source plan guidance.

Record: Operations and Maintenance Plan - Maintenance Checklists AOC: Yes

Reference #: RR-013

The development of the August 2022 Operation and Maintenance Plan is an encouraging sign that the System continues to improve their operations. Included in the plan are routine tasks that need to be completed either daily, weekly, monthly, or annually. These include tasks such as completing security checks, inspecting chemical feed pumps, and exercising valves.

While work orders or other records are generated for large projects such as water main repairs or system wide flushing, completion of routine tasks is not documented, and the list of tasks is not being used as a checklist in the field.

SECTION IV – SAMPLING AND FIELD MONITORING ACTIVITIES

The section describes sampling and field monitoring activities. All samples are designated with a reference number.

Cahokia Heights staff member Dennis Traiteur collected all water samples using a HACH SL1000 Portable Pocket Analyzer to verify total chlorine levels. All samples were collected withing the City of Cahokia Heights and results were recorded in real time. EPA inspectors did not collect comparison samples.

		Sampling Data S	ummary Table	e	
Sample Date:Time	Reference #	Sample Location	Parameter	Results (mg/L)	Regulatory Limit (mg/L)
10/18/22: 1003	SA-001	Ex 7f (Water Infra) Ave.	Total Cl	3.10	4.0 mg/L maximum
10/18/22: 1015	SA-002	Ex 7f (Water Infra)	Total Cl	3.12	4.0 mg/L maximum

SECTION V - AREAS OF CONCERN

This section provides AOCs identified during the inspection. All AOCs are grouped by the areas inspected, when relevant. The presentation of AOCs does not constitute a formal compliance determination or violation. AOCs may not be in sequential order.

Area: O&M - Treatment

AOC Reference #: IN-006, OB-002

Regulation:

35 Illinois Administrative Code Section 604.725(c)

Community water supplies must not mix water sources with free chlorine and combined chlorine residual.

AOC: The System is mixing water with a free chlorine residual into water utilizing chloramines. The System is also practicing "breakpoint" chlorination, the addition of free chlorine until a free chlorine residual is established. The chlorine feed rate is automatically adjusted based on chlorine readings taken at the feed site using a digital analyzer. This practice has the potential to alter the ratio of chlorine to ammonia, which could cause a drop in disinfectant residuals or increased taste and odors.

The System's long-term goal is to add its upgrade its own treatment to have the ability to add chloramines, but it is unknown when the System will have this capability.

Adding booster chlorine without ammonia to chloraminated water was also described as a significant deficiency in paragraph 55(j) of the UAO.

Area: Finished Water Storage

AOC Reference #: IN-007

Regulation:

35 Illinois Administrative Code Section 604.1330(a)

Finished water storage tanks must have metal surfaces protected by paints or other protective coatings, by cathodic protective devices, or by both.

AOC: The system must continue to make interior and exterior repairs as recommended in their finished water storage tank inspection reports. Some progress on storage tank improvements have been made since the UAO was issued, such as the full rehab of the Road elevated tower planned for 2023. Until repairs are completed, the finished water storage will remain as an area of concern.

The condition of finished water storage tanks was also described as a significant deficiency in paragraph 55(a)-(c) of the UAO.

AOC Reference #: IN-007, OB-003, OB-005, OB-006

Regulation:

35 Illinois Administrative Code Section 604.170

(a) each community water supply well, well house, raw water intake structure, pumping stations, treatment plant buildings, and treated water storage reservoirs must be protected to prevent vandalism and entrance by animals or unauthorized persons; and (b) fencing, locks on tank access hatches, or other necessary precautions must be provided to prevent trespassing, vandalism, and sabotage

AOC: The Springs booster station is contained within a fenced off area. Portions of the site fencing appeared to be overgrown with vegetation during the inspection (See photos 15-16).

The Mullen water tower is contained within a fenced off area. Fencing near the site entrance gate appeared damaged and other sections were overgrown with vegetation during the inspection (see photos 24-25).

The Road water tower is contained within a fenced off area. Portions of the site fencing appeared to be overgrown with vegetation during the inspection (see photos 35-37).

Site security and fencing was also described as a significant deficiency in paragraph 55(c) of the UAO.

Area: Operations and Maintenance Plan - Maintenance Checklist Record				
AOC Reference #: RR-013				
Regulation:	N/A			

N/A

AOC: The System has an Operation and Maintenance Plan outlining routine tasks that need to be completed either daily, weekly, monthly, or annually. These include tasks such as completing security checks, inspecting chemical feed pumps, and exercising valves. While work orders or other records are generated for large projects such as water main repairs or system wide flushing, completion of routine tasks is not documented and the list of tasks is not being used as a checklist in the field.

Similar areas of concern regarding maintenance were described as significant deficiencies in paragraph 55(h), (i), (k), and (l) of the UAO.

SECTION VI – CLOSING CONFERENCE AND FOLLOW UP

This section describes the closing conference, records that were requested to be provided following the inspection and provides a log of communication following the inspection.

Closing Conference

EPA Inspectors held a closing conference with System personnel at 11:50 AM on October 18, 2022, for the inspection. During the closing conference, James Adamiec discussed the observations and stated he would be evaluating those to identify Areas of Concern. Areas of Concern have not yet been evaluated for a formal compliance determination.

Follow Up

At the time of the inspection, EPA did not request any follow up documents.

Communication Log

Because the UAO requires the System to submit weekly updates to EPA, EPA has had continuous correspondence with the System since August 2021. Communications and records exchange has occurred both before and after the inspection, however, there have been no additional communications specifically regarding this inspection. EPA received additional information following the inspection.

LIST OF APPENDICES AND ATTACHMENTS APPENDICES

1. Photo Log

APPENDIX 1: PHOTOLOG

Cahokia Heights EPA Inspection 10-18-2022 All photos taken by Thomas Swenson, Inspector, U.S. EPA



1: RIMG1564

Description: Emergency Bottled Water

Location: 2525 Mousette Lane, East St. Louis, Illinois 62206



Description: Emergency Bottled Water Location: 2525 Mousette Lane, East St. Louis, Illinois 62206



3: RIMG1566

Description: Emergency Bottled Water

Location: 2525 Mousette Lane, East St. Louis, Illinois 62206

Date/Time: 10-18-2022



4: RIMG1567

Description: Chlorinate Addition Station

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206



Description: Chlorinate Addition Station

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206

Date/Time: 10-18-2022



6: RIMG1569

Description: Chlorinate Addition Station

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206



Description: Chlorinate Addition Station

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206

Date/Time: 10-18-2022



8: RIMG1571 Description:

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206



9: RIMG1572 Description:

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206

Date/Time: 10-18-2022



10: RIMG1573

Description:

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206

Date/Time: 10-18-2022



11: RIMG1574

Description:

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206

Date/Time: 10-18-2022

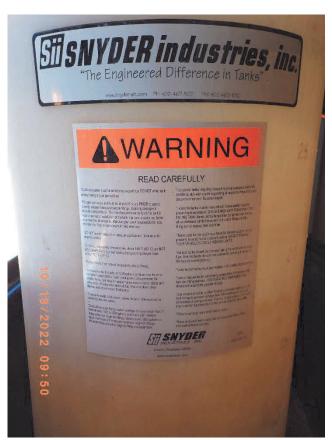


12: RIMG1575

Description:

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206

Date/Time: 10-18-2022



13: RIMG1576 Description:

Location: Springs Booster Station-Ex 7f (Water Infra) Road Cahokia, Illinois 62206



14: RIMG1577 Description:

Location: Springs Booster Station-Ex 7f (Water Infra Road Cahokia, Illinois 62206

Date/Time: 10-18-2022



15: RIMG1578

Description: Fencing and Vegitation Surrounding

Location: Springs Booster Station Ex 7f (Vvater Infra Road Cahokia, Illinois 62206



16: RIMG1579

Description: Fencing and Vegitation Surrounding

Location: Springs Booster Station Ex 7f (Water Infra Road Cahokia, Illinois 62206

Date/Time: 10-18-2022



17: RIMG1580

Location: Avenue, Cahokia, Illinois 62206



Description: Sampling Site 1 Location: Ex 7f (Water Infra) Avenue, Cahokia, Illinois 62206

Date/Time: 10-18-2022



19: RIMG1582

Description: Hidrent at Sampling Site 2 (Cahokia High School)

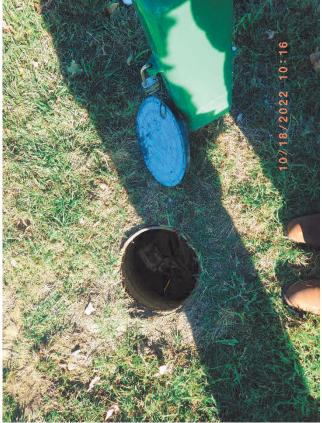
Location: Lane, Cahokia, Illinois 62206



Description: Hidrent at Sampling Site 2 (Cahokia High School) Location: Ex 7f (Water Infra), Cahokia, Illinois 62206



Description: Hidrent at Sampling Site 2 (Cahokia High School) Location: Ex 7f (Water Infra), Cahokia, Illinois 62206



Description: Sampling Site 2 (Cahokia High School) Location: Ex 7f (Water Infra), Cahokia, Illinois 62206



23: RIMG1586

Description: Sampling Site 2 (Cahokia High School) Location: Exampling Site 2 (Cahokia, Illinois 62206



24: RIMG1587

Description: Street and Avenue 0.5- MG Elevated Storage Tank

Location: Street, Cahokia, Illinois 62206

Date/Time: 10-18-2022



25: RIMG1588

Description: Street and Avenue 0.5- MG Elevated Storage Tank

Location Street, Cahokia, Illinois 62206

Date/Time: 10-18-2022



26: RIMG1589

Description: Street and Avenue 0.5- MG Elevated Storage Tank Location: Street, Cahokia. Illinois 62206

Date/Time: 10-18-2022



27: RIMG1590

Street and Avenue 0.5- MG Elevated Storage Tank Description:

Location: Street, Cahokia, Illinois 62206

Date/Time: 10-18-2022



28: RIMG15 1

Street and Avenue 0.5- MG Elevated Storage Tank Street, Cahokia, Illinois 62206 Description: Location:



Description: Street and Avenue 0.5MG Elevated Storage Tank Overflow Pipe Weld

Location: Street, Cahokia, Illinois 62206



Description: Street and Avenue 0.5MG Elevated Storage Tank Overflow Pipe Weld

Location: Cahokia, Illinois 62206

Date/Time: 10-18-2022



31: RIMG1594

Description: Street and Avenue 0.5MG Elevated Storage Tank Overflow Pipe Screen

Location: Street, Cahokia, Illinois 62206



Description: Street and Avenue Sampling Station

Location: Street, Cahokia, Illinois 62206

Date/Time: 10-18-2022

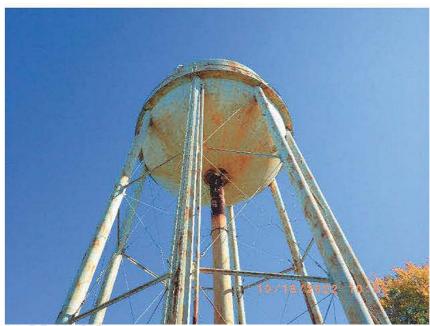


33: RIMG1596

Description: Street and Avenue Sampling Station

Location: Street, Cahokia, Illinois 62206

Date/Time: 10-18-2022



34: RIMG1597

Description: 0.5-MG Road Elevated Storage Tank

Location: Road, East St. Louis, Illinois 62207

Date/Time: 10-18-2022



35: RIMG1598

Location:

Description: Fencing and Vegitation Surrounding 0.5-MG

Road Elevated Storage Tank Road, East St. Louis, Illinois 62207

Date/Time: 10-18-2022



36: RIMG1599

Description: Fencing and Vegitation Surrounding 0.5-MG Street Elevated Storage Tank

Location: Road, East St. Louis, Illinois 62207



37: RIMG1600

Description: Fencing and Vegitation Surrounding 0.5-MG Street Elevated Storage Tank Location: Road, East St. Louis, Illinois 62207