

Inspection Date(s):	11/06/2025	
Media Program:	Drinking Water	
Regulatory Program(s)	Safe Drinking Water Act (SDWA)	
System Owner:	Oklahoma City	
System Name:	Oklahoma City Public Water System	
System Physical Location:	500 W Main St	
(city, state, zip code)	Oklahoma City, OK 73102	
Mailing address:	500 W. Main Street, STE 101	
(city, state, zip code)	Oklahoma City, OK 73102	
County/Parish:	Oklahoma County	
System Phone Number	405-482-4649	
System Contact:	Leigh Ann Kitsmiller	Regulatory Compliance Manager
	leigh.kitsmiller@okc.gov	
System Classification	Community Water System (CWS)	
PWS ID:	OK1020902	
Media Identifier Number:	N/A	
NAICS:	221310	
SIC:	4941	
Personnel participating in inspection:		
Daniel Kim	EPA Region 6	Lead Inspector
Mimi Phillips	EPA Region 6	Inspector
Jeff Bolden	Oklahoma City Water Utilities Trust	Superintendent
Brook Bennett	Oklahoma City Water Utilities Trust	Assistant Superintendent
Leigh Ann Kitsmiller	Oklahoma City Water Utilities Trust	Regulatory Compliance Manager
Brett Musgrove	Oklahoma City Water Utilities Trust	Business Systems Manager
Jared Johnston-Cox	Oklahoma City Water Utilities Trust	SCADA Manager
Jerome Espiritu	OKC IT Department	Information Security Analyst
Isaac Sparks	Oklahoma Department of Environmental Quality (ODEQ)	Engineering and Enforcement Representative
Felisha Lester	ODEQ	District Coordinator
EPA Lead Inspector Signature/Date	DANIEL KIM Digitally signed by DANIEL KIM Date: 2025.12.09 08:41:33 -06'00'	
	Daniel Kim	Date
Supervisor Signature/Date	RUBEN ALAYON-GONZALEZ Digitally signed by RUBEN ALAYON-GONZALEZ Date: 2025.12.19 08:31:23 -06'00'	
	Ruben Alayon-Gonzalez	Date

Section I - INTRODUCTION

PURPOSE OF INSPECTION

On November 6, 2025, United States Environmental Protection Agency (EPA) Region 6 conducted an announced Compliance Evaluation Inspection under Section 1445 of the Safe Drinking Water Act (SDWA), 42 U.S.C. §300j-4, of Oklahoma City Public Water System (referred to as the System or Oklahoma City) (OK1020902). The inspection process began at approximately 8:00 a.m. on November 6, 2025, and finished at approximately 4:10 p.m.

Daniel Kim of EPA Region 6 presented their SDWA inspector credentials to System representatives during the opening conference. The EPA inspection team informed the System representatives that this was an EPA inspection to determine compliance with SDWA Section 1433, which requires community water systems that serve more than 3,300 people to complete a Risk and Resilience Assessment (RRA) and develop an Emergency Response Plan (ERP). The EPA Inspection Team also informed System representatives that they would be conducting a cybersecurity evaluation alongside the Section 1433 review. To facilitate the inspection process, the EPA inspection team used a checklist outlining the requirements of SDWA Section 1433 during the document review. Members of the Oklahoma Department of Environmental Quality (DEQ) also attended the inspection. Refer to Appendix 1, Opening Conference Sign-in Sheet.

SYSTEM DESCRIPTION

According to Drinking Water Watch (DWW), the System is owned by the City of Oklahoma City, serves a population of approximately 644,000 residential customers and 470,000 wholesale customers. The system has 254,388 service connections. The EPA inspection team reviewed the above information with the System during the inspection process via conversations. It is a community water system as defined by 40 C.F.R., Part 141 Subpart A. The System serves the Oklahoma City plus fourteen other consecutive systems:

- Edmond PWA (OK1020723), which receives water through three consecutive connections from Oklahoma City.
- Norman Utilities Authority (OK1020801)
- Canadian Co Water Authority (OK3000903)
- Oklahoma City Zoo EM (OK8005510)
- Piedmont Municipal Authority (OK2000909)
- Okla NATL Stockyards (OK6005527)
- Bethany EM (OK2005519)
- Moore Public Works Authority (OK2001412)
- Mustang (OK2000922)
- Newcastle (OK2004704)
- Lake Forest MHP (OK3005557)
- Blanchard (OK3004710)
- Yukon (OK2000910)
- El Reno (OK2000902)

The consecutive connections operate as one-way connections, with water flowing solely from Oklahoma City to the consecutive connections.

The raw water source is primarily surface water from Lake Hefner, Lake Draper, and Lake Atoka. Lake Draper and Lake Atoka are connected by a pipeline, allowing for water transfer between the two lakes based on demand. Lakes used for source of water are open to the public only for boating and fishing. System representative stated that swimming in the lakes is prohibited, and the Oklahoma City Police regularly patrols the lakes to enforce this regulation. A warning sign is posted on the intake structure, indicating that it is a water intake structure, and that watercraft are prohibited from approaching within 500 feet.

System consists of two water treatment plants, which are Lake Hefner water treatment plant (WTP) and Lake Draper WTP. Lake Hefner WTP receives water from Lake Hefner and has the capacity treat 100 million gallons per day (MGD) of drinking water. Water from Lake Atoka is pumped into Lake Draper and treated at Lake Draper WTP. The Draper WTP has the capacity to treat 150 MGD of drinking water to the customers. All parts of the system are owned and operated by Oklahoma City PWS. System representative stated that the interconnect project for the Oklahoma City water systems is currently under construction and had not been completed at the time of the inspection. This project is designed to ensure that if one of the plants goes offline, Oklahoma City can still provide sufficient water to its customers.

All raw water is treated at the two water treatment plants using coagulation, flocculation, filtration, and disinfection processes. The treated water is then pumped into the distribution system through five high service pumps at Lake Hefner WTP and ten high service pumps at Lake Draper WTP. Oklahoma City Public Water System (PWS) employs approximately 145 staff members. The water treatment plants operate continuously and are staffed 24 hours a day. All components of the system are integrated into a Supervisory Control and Data Acquisition (SCADA) system. Through SCADA, licensed operators monitor raw water turbidity, pH, and temperature, and record any changes. Additionally, Oklahoma City staff visit all pump stations, booster chlorination facilities, and storage facilities daily, except on weekends and holidays, while maintaining detailed records of their observations.

System representative stated that system exercises its valves annually and maintains an inventory of all valves within the plants to facilitate the replacement of any valves deemed inoperable. According to System representative, Oklahoma City's distribution system has isolation valves. It allows System to better isolate sections of the water distribution system for main repairs and limit the need for future system-wide shut down events during main repairs.

Section II- INSPECTION ACTIVITY SUMMARY

Water Treatment Plant Site Visit

The EPA inspection team proceeded to Lake Hefner Water Treatment Plant and began a walkthrough of various sections of the facility starting at 1:00 PM local time. Photographs taken during the visit to the water treatment plant are presented in Appendix 2, Photograph Log. EPA team visited a water intake structure in Lake Hefner. The EPA team observed that access to the intake structure was protected with several door locks (Appendix 2, Photograph 1). System representative stated that Oklahoma City staff visit the structure on a weekly basis, and operation of pumps in the water intake is monitored and controlled through SCADA system. At the time of the inspection, 2 out of 5 gates were open (Appendix 2, Photograph 2). The intake structure has A warning sign indicating that it is a water intake structure, and that watercraft are prohibited from approaching within 500 feet (Appendix 2, Photograph 3). Several buoyant are placed near the intake structure to provide protection (Appendix 2, Photograph 4).

Water from intakes flows into two ozone contact basins for disinfection ([Appendix 2, Photograph 5](#)). After the disinfection process, ferric sulfate for coagulation, Lime for softening, and polymer for flocculation are injected. Then, water move to 5 clarifiers. Sludge generated from the clarifiers is treated to reduce its water content ([Appendix 2, Photograph 6](#)). The sludge is converted into lime sludge with a water content of 45 percent and then transported off-site for disposal or other purposes ([Appendix 2, Photograph 7](#)). Water goes two recarbonation basins, and it treated with carbon dioxide and fluoride for pH adjustment and dental health. After this process, water proceeds to filters. System representative stated that Lake Hefner WTP is equipped with 22 granular activated carbon (GAC) filters. According to system representative, if turbidity exceeds 0.25 Nephelometric Turbidity Units (NTU), the system automatically ceases operation. After filtration, zinc orthophosphate is added for corrosion control, and gas chlorine along with liquid ammonia is injected for disinfection. The treated water is stored in three clearwells. One clearwell has a storage capacity of 10 million gallons, while the other two can each store 5 million gallons. System representative stated that tank inspection for clearwells is conducted once a year. All treated water in Lake Hefner is pumped to the distribution system with five finished water pumps.

System is equipped with backup generators sufficiently sized to run all water treatment plant equipment and finished water pumps ([Appendix 2, Photograph 8](#)). The backup generators at Lake Hefner can operate for up to 2 days with on-site fuel, while the Lake Draper WTP backup generator can provide power for up to 7 days without refueling. Additional fuel requirements can be met by the fleet department, based on their agreement. Lake Hefner WTP utilizes trailer-mounted backup generators, and once a backup generator is connected to one of their docking locations, the entire system can be operated using the backup generator ([Appendix 2, Photograph 9](#)). System representative stated that Lake Draper WTP uses permanently mounted backup generators.

According to system representative, Oklahoma City has approximately 30 days of chemical storage at the water treatment plant. System has a state-certified laboratory located at Lake Hefner WTP. Additionally, both plants have process laboratories to support their operations. Oklahoma City can provide coliform sample analysis, total organic carbon, alkalinity, pH, chlorine residual, and UV254 analysis for the water system for process control purposes. According to the system's safety sign, the laboratory has worked for 3,705 days without an OSHA recordable injury on the job measures ([Appendix 2, Photograph 10](#)).

The water treatment plant is secured with fencing and a locked gate ([Appendix 2, Photograph 1](#)). System is in the process of installing video cameras at their facilities to enhance security measures ([Appendix 2, Photograph 11](#)). Once the project is completed, water treatment plant operators will be able to view the video feed from inside the SCADA room. The water treatment plant is staffed 24 hours a day. Additionally, the SCADA room can be accessed by authorized staff using login credentials to make necessary changes measures ([Appendix 2, Photograph 12](#)). Oklahoma City staff stated that all water system buildings are equipped with intrusion alarms. According to the system's safety sign, Lake Hefner WTP has worked for 2,520 days without an OSHA recordable injury on the job measures ([Appendix 2, Photograph 13](#)).

Document Review

The EPA inspection team reviewed the System's Risk and Resilience Assessment (RRA) and Emergency Response Plan (ERP) onsite. According to the EPA's Shared CROMERR Services (SCS) database, the System initially certified the completion of its RRA and ERP on January 13, 2020. The System developed its RRA in collaboration with a contracted engineering firm and created a list of critical asset threat-

pairs. Additionally, a separate RRA for cybersecurity was also prepared. At the time of inspection, the EPA team reviewed hardcopies of RRAs recertified to EPA on December 4, 2024, on site.

The System maintains hardcopies of its ERP. The ERP addressed responses to the critical asset threat-pairs identified in the RRAs. System contact information for the ERP was updated. System representative stated that the contact information was regularly updated. The ERP contained maps, checklists, and other notice templates. The System recertified the updated ERP to EPA on December 4, 2024.

Section III – RECOMMENDATIONS

- 1) **Manual Valve Exercise:** Even though all valves are operated by an automatic system, manual valve exercise is recommended to ensure functionality in emergency situations.
- 2) **RRA Updates:** The Risk and Resilience Assessment (RRA) should be updated to reflect system improvements.
- 3) **ERP Upgrades:** The Emergency Response Plan (ERP) should be updated to incorporate upgrades to the water treatment plant, SCADA system, and security measures (e.g., installing video cameras), as well as contact information updates to reflect current staff, once these improvements and updates are completed.

Section IV – CLOSING CONFERENCE

The EPA inspection team held a closing conference with System personnel at 3:45 PM on November 6, 2025, at Lake Hefner water treatment plant conference room. The EPA inspection team discussed preliminary observations identified during the field component of the inspection. This inspection report may include observations that were not identified at the time of the closing conference. The EPA inspection team also informed that inspection report timeframe, and opportunity to confer with EPA regarding the inspection report. Recommendations are described in Section III. RECOMMENDATIONS regarding the cybersecurity practices were shared with the System verbally. The inspection concluded at approximately 4:10 PM. Refer to Appendix 3, Closing Conference Sign-In Sheet.

Section V- LIST OF APPENDICES

Appendix 1: Opening Conference Sign-in Sheet

Appendix 2: Photograph Log

Appendix 3: Closing Conference Sign-in Sheet

Appendix 1

Opening Conference Sign-in Sheet

Oklahoma City Public Water System (OK1020902)

Date: November 6, 2025

U.S. EPA SDWA Inspection Opening Conference Sign-in Sheet

Name	Affiliation	Title	Email Address	Phone Number
Daniel Kim	U.S. EPA Region 6	inspector	kim.daniel@epa.gov	214-665-6674
Leigh Ann Ktmiller	OKC Utilities	Reg Comp Mgr	leigh.ktmiller@okc.gov	405 482 4649
Jeff Bolden	OKC WQ	Superintendent	jeffrey.bolden@okc.gov	405-297-3731
Brett Musgrove	OKC UES	Bus. Systems Manager	Brett.Musgrove@OKC.gov	405-297-1275
Jared Johnston	OKC UES	scada manager	jared.johnston@okc.gov	405 297-3281
ISAAC SPARKS	Oklahoma DEQ	Eng. & Enf. Representative	isaac.sparks@deq.ok.gov	405-702-8103
Felecia Lester	ODEQ	DIST Coord	Felecia.Lester@deq.ok.gov	405-702-8175
Jerome Espino	OKC GRC	Information Systems Analyst	Jerome.Espino@okc.gov	7175929654
Mimi Phillips	EPAR6	Inspector	phillips.mimi@epa.gov	214-665-7136
Brock Bennett	OKC	Asst Superintendent	brock.bennett@okc.gov	405-835-0192

Appendix 2

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 1

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma

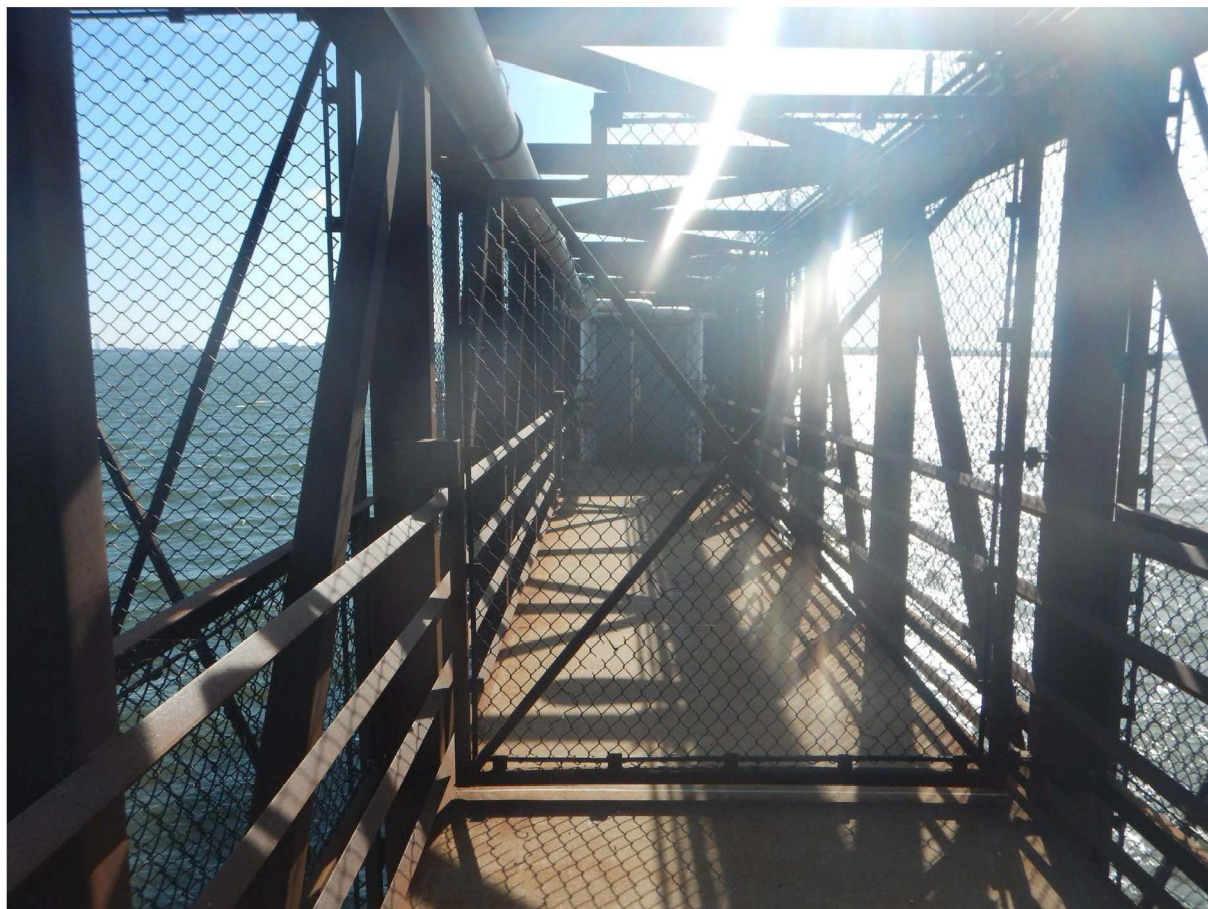


Photo File Name: DSCN6080.JPG

Date of Photo: 11/06/2025

Time of Photo: 1:16 PM

Photographer: Daniel Kim

Description: The aisle leading to the water intake structure is protected by several doors and locks.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 2

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6090.JPG

Date of Photo: 11/06/2025

Time of Photo: 1:21 PM

Photographer: Daniel Kim

Description: The water intake structure has five gates. At the time of inspection, two of these gates were open.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 3

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6084.JPG

Date of Photo: 11/06/2025

Time of Photo: 1:17 PM

Photographer: Daniel Kim

Description: The intake structure has A warning sign indicating that it is a water intake structure, and that watercraft are prohibited from approaching within 500 feet.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 4

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6084.JPG

Date of Photo: 11/06/2025

Time of Photo: 1:25 PM

Photographer: Daniel Kim

Description: Several buoyant are placed near the intake structure to provide protection.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 5

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6117.JPG

Date of Photo: 11/06/2025

Time of Photo: 1:50 PM

Photographer: Daniel Kim

Description: Ozone disinfection system and building in Lake Hefner WTP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 6

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6134.JPG

Date of Photo: 11/06/2025

Time of Photo: 1:24 PM

Photographer: Daniel Kim

Description: Sludge generated from the clarifiers



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 7

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6135.JPG

Date of Photo: 11/06/2025

Time of Photo: 1:24 PM

Photographer: Daniel Kim

Description: The sludge is converted into lime sludge with a water content of 45 percent.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 8

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6148.JPG

Date of Photo: 11/06/2025

Time of Photo: 2:36 PM

Photographer: Daniel Kim

Description: Backup generators are available at Lake Hefner WTP. According to the system representative, there are a total of five portable backup generators on-site for Lake Hefner WTP.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 9

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma

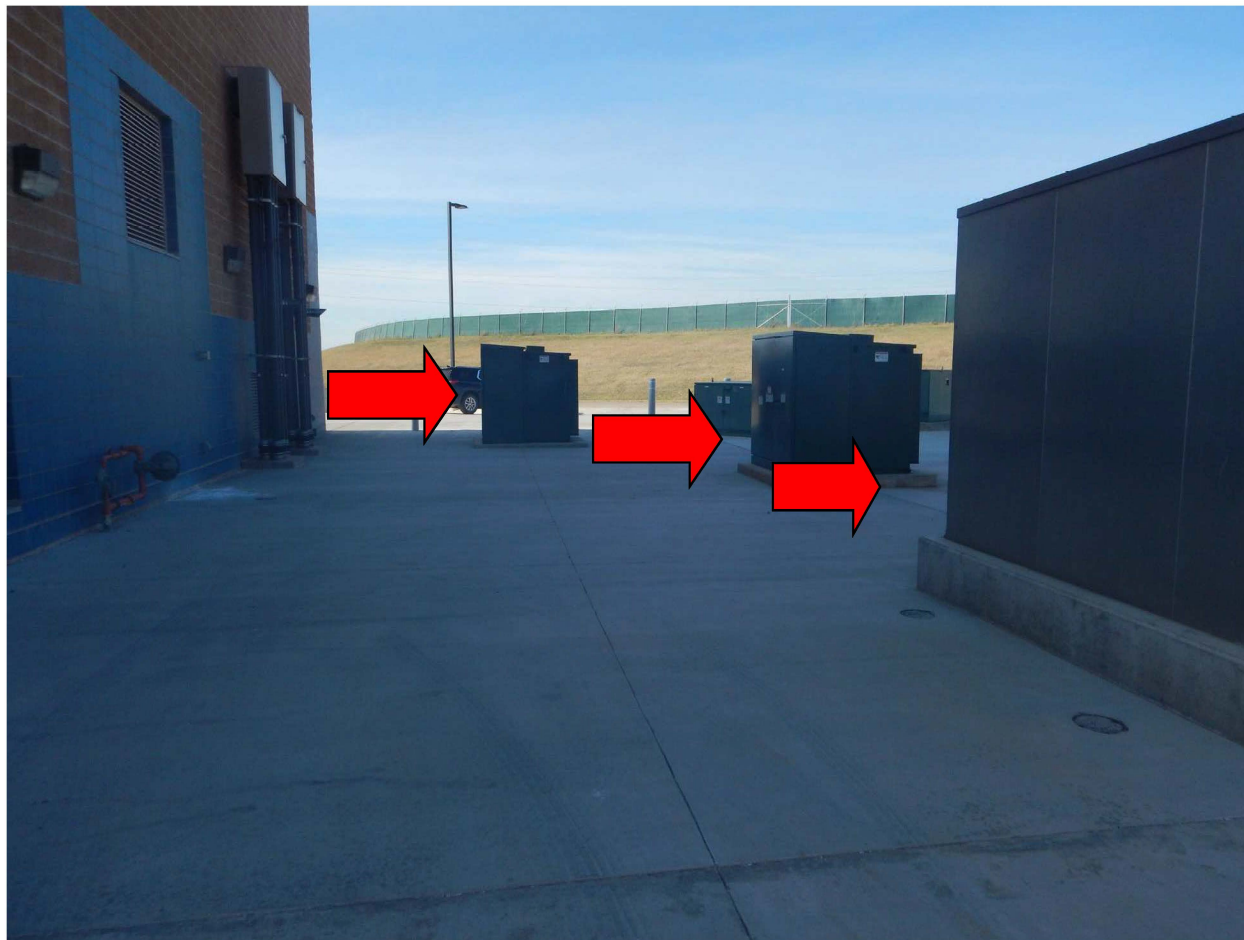


Photo File Name: DSCN6147.JPG

Date of Photo: 11/06/2025

Time of Photo: 2:36 PM

Photographer: Daniel Kim

Description: There are several docking locations available for connecting backup generators.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 10

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma

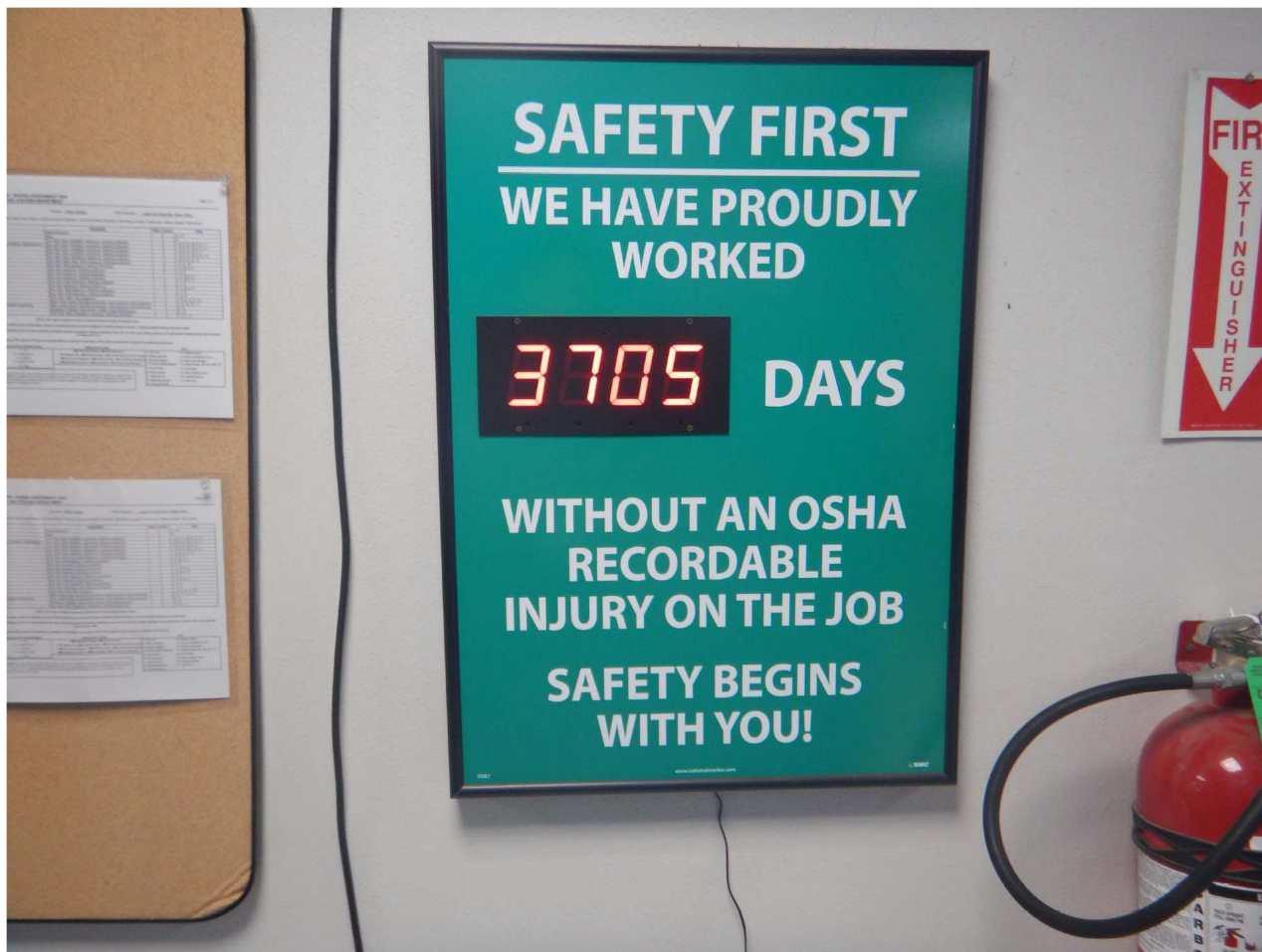


Photo File Name: DSCN6213.JPG

Date of Photo: 11/06/2025

Time of Photo: 3:37 PM

Photographer: Daniel Kim

Description: The system's safety sign indicated that the laboratory has operated for 3,705 days without an OSHA recordable injury on the job.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 11

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6187.JPG

Date of Photo: 11/06/2025

Time of Photo: 3:07 PM

Photographer: Daniel Kim

Description: System is in the process of installing video cameras at their facilities to enhance security measures. The camera was installed for laboratory and SCADA building.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 12

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6199.JPG

Date of Photo: 11/06/2025

Time of Photo: 3:18 PM

Photographer: Daniel Kim

Description: the SCADA room can be accessed by authorized staff using login credentials



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photograph No. 13

Location: Oklahoma City Public Water System (OK1020902)		
City: Oklahoma City	County: Oklahoma	State: Oklahoma



Photo File Name: DSCN6216.JPG

Date of Photo: 11/06/2025

Time of Photo: 3:56 PM

Photographer: Daniel Kim

Description: The system's safety sign indicated that the laboratory has operated for 2,520 days without an OSHA recordable injury on the job.

Appendix 3

Closing Conference Sign-in Sheet

Date: November 6, 2025

Name	Affiliation	Title	Email Address	Phone Number
Daniel Kim	U.S. EPA Region 6	inspector	kim.daniel@epa.gov	214-665-6674
Brock Bennett	Assist Super	OKC	brock.bennett@okc.gov	405-835-0192
Leigh Ann Ktsmiller	OKC - RegCompmanger		leigh.ktsmiller@okc.gov	405-482-4649
Phillip Martin	Hefner WTP	Plant Manager	Phillip.Martin@OKC.Gov	405-297-3260
Felisha Hostetler	ODEQ	Dist Cord	FelishaHostetler@deq.ok.gov	405-702-8175
Isaac Sparks	ODEQ	District Representative	isaac.sparks@deq.ok.gov	405-702-8103
Jeff Bolden	OKC WQ	WQ Superintendent	jeff.bolden@okc.gov	405-297-3731
Mimi Phillips	EPA R6	Inspector	Phillips.Mimi@epa.gov	214-665-7136