KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2025-00122
ATTORNEY GENERAL'S FIRST REQUEST FOR INFORMATION

Witness: William A. Lewis

45. Refer to the Application generally.

a. Provide copies of all inspection reports conducted by the Kentucky Division of Water for the years 2020 – 2025.

b. Explain in detail whether there were any deficiencies in the inspection reports.

Response:

a. Please see attached:

KAW_R_AGDR1_NUM045_070725_Attachment_2020
KAW_R_AGDR1_NUM045_070725_Attachment_2021
KAW_R_AGDR1_NUM045_070725_Attachment_2022
KAW_R_AGDR1_NUM045_070725_Attachment_2023
KAW_R_AGDR1_NUM045_070725_Attachment_2024

Please note, to date, there have been no inspections for 2025.

b. There are no deficiencies in the inspection reports.

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

August 28, 2020

Ms. Dorothy Rader
Kentucky American Water - Millersburg
304 E 4th St
Millersburg, Kentucky 40348

RE: Kentucky American Water - Millersburg
AI# 296
Permit No.: KY0090287
Bourbon County, Kentucky
Activity ID: CIN20200001

Dear Ms. Rader:

Attached for your information and records is a copy of the drinking water comprehensive inspection performed at Kentucky American Water - Millersburg on August 14, 2020.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 782-6449.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure: inspection report

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Distribution Inspection

Site/Permit ID: KY0090287	Division: **Water**		Regional Office: Frankfort
Site Name: Kentuckcy American Water-Millersburg		Program: **Drinking Water**	
Site Address: 304 E 4th street			
City: MIllersburg	State: KY	Zip: 40348	County: Bourbon
Inspection Type: Routine Distribution	Purpose: Comprehensive		AI #: 296
Inspection Date: 8/14/20	Time: Start 0900 AM End 1130 AM		
Latitude: N 38 17' 54.7	Longitude: W84 8 50.3		
Coordinate Collection Method: GP0-With differential correction			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water-Millersburg	Contact Name: Dorothy Rader	
Phone No.: 859-268-6317	Fax No: cell-423-355-8591	Email Address: dorothy.rader@amwater.com

I. Administrative Requirements

Comments: Not evaluated.
I. Compliance Status - Not Evaluated

II. Operator Certification/Accreditation Requirements

Operator in Charge and on duty.

Operator Name	Plant Certification #	Distribution Certification #
Jon Wes Felts		**IVD#18681**

Comments: A complete list of the Kentucky American Water system operators was provided during the inspection. Mr. Felts is the main distribution operator for the Millersburg system.
II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: Not evaluated.
III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **The facility provides the required timely reports to the Division of Water. Reporting is done several ways including electronically- email, text, e-notification system, and cell phones.**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections:376 Population Served:1011
Average Purchased MGD: 0.152 Max. Purchased MGD: 0.287 Contract Amount MGD:
Source:city of Paris Water Works Seller PWSID: KY0090343 Multiple Sellers ☐ Yes ☒ No

RATING CODES: S1 = No Violations Observed; S2= No Violations Observed-but impending viol trends obs; U1 = Out of Compliance-No action taken; U2= Out of Compliance-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV Issued; NA = Not Applicable: NE = Not Evaluated. **(Add additional comments if U1-U3.)**

SELLER INFORMATION	Seller # 1	Name **City of Paris Water**	PWSID# KY0090343 Contract Amount:
	Seller # 2	Name	PWSID# Contract Amount:
	Seller # 3	Name	PWSID# Contract Amount:
	Seller # 4	Name	PWSID# Contract Amount:
	Seller # 5	Name	PWSID# Contract Amount:
	RATING	**Equipment / Inspection Data**	☐ **Checking block means item is present:**
STORAGE TANK INFORMATION	S1	a) Storage Tank 1 Size:125,000	Screened Vent:☒ Overflow☒ Telemetry: ☒
		Name: Millersburg tank	Last Cleaned: Coating condition: Good
		b) Storage Tank 2 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		c) Storage Tank 3 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		d) Storage Tank 4 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		e) Storage Tank 5 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		f) Storage Tank 6 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		g) Storage Tank 7 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		h) Storage Tank 8 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
GENERAL INFORMATION	NI	j) Master meter ☐	Last Calibrated: Recorder: ☐
	S1	k) Flushing Schedule	☒ Yes ☐ No/ Frequency: as needed
	S1	l) Chlorine Test Kit ☒	Type: HACH Last calibrated
	S1	m) DPD reagent up-to-date	☒ Yes ☐ No
	S1	n) Blow-off / Hydrants on dead	☐ Yes ☐ No
	S1	o) Monthly operating reports	☒ Daily Record Sheet ☐ Agreement: ☐
	S1	p) Bacteriological monitoring	Samples per mo.4 Records: ☐
BOOSTER PUMPS	S1	q) ☐Booster pumps ☒Disinfection	Capacity Disinfection Type: NA hypochlorite
	NA	r) ☐Booster pumps ☐Disinfection	Capacity Disinfection Type:
	NA	s) ☐Booster pumps ☐Disinfection	Capacity Disinfection Type:
ON SITE OBSERVATIONS	S1	t) Site Data: S-	Cl. Free:DOW Total: 1.56 pH: KAW 1.63
	S1	u) Site Data: W- WW plant	Cl. Free:DOW Total: 2.04 pH: KAW 2.13
	S1	v) Site Data: N-marathon	Cl. Free:DOW Total: 0.90 pH: KAW 1.06
	S1	w) Site Data: E- Maple	Cl. Free:DOW Total: 0.73 pH: KAW 1.08

OTHER INFORMATION	S1	x) Cross connection program	☒ Yes ☐ No
	S1	y) Water meter replacement	☒ Yes ☐ No
	S1	z) Valve exercise program	☒ Yes ☐ No
	S1	aa) Is unaccounted for water	☒ Yes ☐ No If Yes what is % loss?
	S1	bb) Up to date distribution map	☒ Yes ☐ No

Comments: DOW meet with Kentucky American Water employees Dorothy Rader, Mike Maggard, and Wes Felts. Observations during the inspection included disinfection booster building, GAC filter, Millersburg storage tank, and residual samples at four locations in the distirbution system. Disinfection residual at all four sample locations was within required limits. No issues oberved during the inspection.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: Not applicable.

VI. Compliance Status - Not Applicable

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment: ☒ ATTACHED ☐ REVIEWED

Comments: No major concerns were noted at the time of the inspection.

VIII. Compliance Status – No violations observed

IX. Documentation

- ☒ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☐ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☐ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 8/21/2020

Signature: Deborah E. Singleton

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance- LOW Non-recurrent administrative or O & M**
☐ **Out of Compliance – NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER

Drinking Water Sanitary Survey

Managerial and Financial Assessment of Surface Water & Ground Water Systems

PWS ID: KY0340250
Agency Interest Number: 1063
AI Name: KY American Water Co
County: Fayette
Regional Office: Frankfort Regional Office
Capacity Development Inspection Date(s): September 2020*

SYSTEM CONTACT INFORMATION			
Full Name: Bob Money		Title: Water Quality & Environmental Compliance Manager	
Phone Number: 859-268-6317	FAX Number:	E-Mail Address: Bob.Money@amwater.com	
Mailing Address: 2300 Richmond Road Physical Address of Office: 2300 Richmond Road	City: Lexington	State: KY	Zip Code: 40502

WATER TREATMENT PLANT INFORMATION		
Plant Contact Person: Brandon Smith (Plant A)	Title: Supervisor - Production	Phone Number: 859-550-3387
Physical Street Address: 6300 Cedar Creek Lane	City: Lexington, KY 40515	
Plant Type: C (community)	Plant Class: IV (>3 MGD)	Plant Capacity: 40 MGD 27,778 GPM

WATER TREATMENT PLANT INFORMATION		
Plant Contact Person: Mike Maggard (Plant B)	Title: Supervisor - Production	Phone Number: 859-321-3674
Physical Street Address: 2400 Richmond Road	City: Lexington, KY 40502	
Plant Type: C (community)	Plant Class: IV (>3 MGD)	Plant Capacity: 25 MGD 17,361 GPM

WATER TREATMENT PLANT INFORMATION		
Plant Contact Person: Jason Case (Plant C)	Title: Supervisor - Production	Phone Number: 859-304-0004
Physical Street Address: 16035 Hwy 127 South	City: Owenton, KY 40359	
Plant Type: C (community)	Plant Class: IV (>3 MGD)	Plant Capacity: 20 MGD 13,889 GPM

DISTRIBUTION SYSTEM INFORMATION		
Distribution Contact Person: Justin Sensabaugh	Title: Sr. Operations Manager	Phone Number: 859-455-6749
Distribution Class: IVD-Pop. >50,000	System Service Connections (meters): 129,493	
System Population Served Calculated: 348,336	System Population Served Reported: 300,502 (WRIS)	
Meters Served Outside Your System: 44,063	Consecutive Systems Population Served Calculated: 104,313	

WATER PURCHASED, SOLD, & EMERGENCY CONNECTIONS					
WATER PURCHASED FROM: ☐ Not Applicable			Number of Master Meters	Amount Monthly (average)	Amount Available by Contract (monthly)
SYSTEM NAME	PWS ID #	AI #			

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

WATER SOLD TO: ☐ Not Applicable			Number of Master Meters	Amount Monthly (average)	Amount Available by Contract (monthly)
SYSTEM NAME	PWS ID #	AI #			

COMMENTS: Due to the Covid-19 pandemic of 2020, this Managerial and Financial Assessment was conducted remotely and reduced to the review of four (4) components: Operator Certification, Records/Map, Operation & Maintenance Manual, and Line Break Log. A full Managerial and Financial Assessment may be conducted in the future to update and complete this report.

I. OPERATOR COMPLIANCE

Are operators cross-trained (by shift, by plant, with distribution, with maintenance, etc)?	Yes ☐ No ☐ N/A ☐	
Do you have contingency plans for replacing retiring system personnel?	Yes ☐ No ☐ N/A ☐	
Who provides training/technical assistance for license renewal? (✓ all that apply): ☐ AWWA ☐ DCA ☐ DOW ☐ KRWA ☐ KWWOA ☐ RCAP ☐ Other _____		
What type of training is typically obtained? (✓ all that apply): ☐ REGULATIONS ☐ SAFETY ☐ UMI ☐ WATER QUALITY		
Does the system pay for registration, lodging and meals?	Yes ☐ No ☐ N/A ☐	
Does the system allow operators to attend training on company time?	Yes ☐ No ☐ N/A ☐	

	Water Treatment Plant	Distribution System
Length of each shift:	_____ hours	_____ hours
Number of operators per shift:	_____	_____
How are weekends covered?	_____	_____
How are holidays covered?	_____	_____

Do operators leave the water plant property while the plant is producing water? Yes ☐ No ☐ N/A ☐

How long are the operators typically away from the plant? _____

What duties are they performing when they are away from the plant? _____

OPERATOR CERTIFICATION

LICENSEE NAME	LICENSEE AI #	LICENSE ID	LICENSE TYPE
Please see comment below	*	*	

Is the system staffed with appropriately certified operators? (Verify certification with DCA.) Yes ☒ No ☐ N/A ☐

COMMENTS: *A Complete list of the system's operators was provided at the time of the survey

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

II. MONITORING, REPORTING & DATA VERIFICATION

(Part A must be completed for all water systems. Part B must be completed for groundwater systems only.)

PART A *(Complete for all water systems.)*				
REPORTING ITEM – Information gathered from DWW	RETENTION TIME			
Bacteriological – 180 per month (See DWW)	5 Years	Yes ☒	No ☐	N/A ☐
Chlorine/Chloramines – Free chlorine monthly with BACTs, daily for MORs, residual chlorine monthly	10 Years	Yes ☐	No ☐	N/A ☐
C-T Profiling Data	See if doing/min 1 year	Yes ☐	No ☐	N/A ☐
Individual Filter Turbidity Data (Other than MOR)	3 Years	Yes ☐	No ☐	N/A ☐
MORs – Monthly (Turbidity Analysis)	1 Year	Yes ☐	No ☐	N/A ☐
Lead & Copper – 50 every 3 years (June to September)	12 Years	Yes ☒	No ☐	N/A ☐
Nitrate – Annually	10 Years	Yes ☐	No ☐	N/A ☐
Nitrite – 1 sample in the 1st 3 years of the 9 year compliance cycle	10 Years	Yes ☐	No ☐	N/A ☐
Secondary/Corrosivity – Annually	10 Years	Yes ☐	No ☐	N/A ☐
Sodium – annually; can be with SECs	10 Years	Yes ☐	No ☐	N/A ☐
IOCs (Inorganic Chemicals) – Annually	10 Years	Yes ☒	No ☐	N/A ☐
SOCs (Synthetic Organic Compounds) – >3300, 2 quarterly samples in 12 consecutive months in 3 years.	10 Years	Yes ☒	No ☐	N/A ☐
VOCs (Volatile Organic Chemicals) – Annually	10 Years	Yes ☒	No ☐	N/A ☐
TOCs (Total Organic Carbon) – Monthly, Raw TOC/Alkalinity & CFE TOC	10 Years	Yes ☐	No ☐	N/A ☐
TTHM & HAA5 12 per Quarter (see DWW)	10 Years	Yes ☒	No ☐	N/A ☐
Asbestos – 1 sample in the 1st 3 years of the 9 year compliance cycle (SOC) *Check for Waiver (only purchasers can have waiver)*	Begin 2011/2013	Yes ☐	No ☐	N/A ☐
RADs (Radionuclides) – Every 6 years	See if conducting	Yes ☐	No ☐	N/A ☐
LT2 Cryptosporidium and E.coli Plan – 3 years after bin classification (see rule - first one is April 2009)	3 Years	Yes ☐	No ☐	N/A ☐
LT2 Source Water Monitoring Avoidance	3 Years	Yes ☐	No ☐	N/A ☐
LT2 Toolbox Treatment Monitoring Results	3 Years	Yes ☐	No ☐	N/A ☐
Stage 2 IDSE Sampling Plan or 40/30 Certification	10 years	Yes ☐	No ☐	N/A ☐
Stage 2 IDSE Report	10 years	Yes ☐	No ☐	N/A ☐
Bromate (Only used on systems treating with Ozone)	10 Years	Yes ☐	No ☐	N/A ☐
Chlorine Dioxide	10 Years	Yes ☐	No ☐	N/A ☐
Chlorite (Only used on systems treating with Chlorine Dioxide)	10 Years	Yes ☐	No ☐	N/A ☐
Dioxin – w/SOCs if required *Check for Waiver*	10 Years	Yes ☐	No ☐	N/A ☐
Data Summaries (if actual data not retained)	12 Years	Yes ☐	No ☐	N/A ☐
NOVs (Notices of Violation)	10 Years	Yes ☐	No ☐	N/A ☐
Sanitary Surveys (every 3 years)	10 Years	Yes ☐	No ☐	N/A ☐
CCR (Consumer Confidence Report) – Annually by July 1 (by April 1 to consecutive systems)	Current one on file	Yes ☐	No ☐	N/A ☐

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Does the system maintain a current sampling plan for BacTs?	Date updated	Yes ☐	No ☐	N/A ☐
Does the system maintain a current sampling plan for LCR?	Date updated	Yes ☐	No ☐	N/A ☐
Does the system maintain a current sampling plan for DBPs?	Date updated	Yes ☐	No ☐	N/A ☐
Does the system have an up-to-date map of distribution assets? (Map shall show a minimum of all line sizes, cutoff valves, fire hydrants, flush hydrants, tanks, booster pumps, chlorination stations, connections to emergency or alternative sources, wholesale customer master meters, & the type of piping material in the distribution system and its location.)	Date updated Updated Continuously	Yes ☒	No ☐	N/A ☐

PART B *(Complete for groundwater systems only.)* ☐ Not Applicable				
GWR Corrective Action	10 years	Yes ☐	No ☐	N/A ☐
GWR Public Notices	3 years	Yes ☐	No ☐	N/A ☐
GWR Fecal-positive invalidation	5 years	Yes ☐	No ☐	N/A ☐
GWR State-specified minimum disinfectant residual (letter from CTAB)	10 years	Yes ☐	No ☐	N/A ☐
GWR Lowest daily disinfectant residual level (submitted with MOR) What method is used to record this? (i.e. SCADA, chart recorders, download to CD)	5 years	Yes ☐	No ☐	N/A ☐
GWR Date and duration of time less than minimum daily disinfectant residual level	5 years	Yes ☐	No ☐	N/A ☐
GWR Records of state-specific compliance requirements for membrane filtration and alternative treatment	5 years	Yes ☐	No ☐	N/A ☐

Does the system maintain compliance records as required? (answer for both Parts A & B)	Yes ☒	No ☐	N/A ☐
COMMENTS:			

III. MANAGEMENT & OPERATIONS

What professional organizations does the water system belong to? _____			
Is the system subject to Public Service Commission regulations?	Yes ☐	No ☐	N/A ☐
Does the system attend Water Management Council meetings of the Area Development District?	Yes ☐	No ☐	N/A ☐
Does the system have a governing entity? If not, explain: _____	Yes ☐	No ☐	N/A ☐
What is the name of the system's ? _____			
What is his or her mailing address? _____			
How often does the governing body meet? Monthly			
Do operators attend these meetings?	Yes ☐	No ☐	N/A ☐
Is the governing entity provided with documented information regarding technical, managerial, and financial operations of the water system? (Inspect)	Yes ☐	No ☐	N/A ☐
Is the governing entity familiar with water treatment/distribution?	Yes ☐	No ☐	N/A ☐
Does the system offer continuing education opportunities for members of the governing entity?	Yes ☐	No ☐	N/A ☐

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Does the governing entity visit the water plant? How often? _____ _____	Yes ☐	No ☐	N/A ☐
Does the system have regular staff meetings? How often? _____ _____ Who is involved? _____	Yes ☐	No ☐	N/A ☐
Does the system have a documented strategic plan (mission statement, goals and objectives)? (Inspect)	Yes ☐	No ☐	N/A ☐
Does the system have a defined organizational structure?	Yes ☐	No ☐	N/A ☐
Does the system have a documented description of each job classification with minimum position qualifications? (Inspect)	Yes ☐	No ☐	N/A ☐
Does the system have documented policies and procedures governing human resource management (such as an employee handbook)?	Yes ☐	No ☐	N/A ☐
Does the system periodically review its insurance coverage is in place for liability, property, automobiles, directors, and officers?	Yes ☐	No ☐	N/A ☐
Does the system have a documented policy for delegation of authority such as signing agreements, contracts, resolutions, easements, etc.?	Yes ☐	No ☐	N/A ☐
Does the system have a documented procurement policy for purchasing supplies?	Yes ☐	No ☐	N/A ☐
Does the system have professional services available under a current contract, retainer, or other similar arrangement for engineering, accounting, and legal counsel?	Yes ☐	No ☐	N/A ☐
Does the system have an asset management program?	Yes ☐	No ☐	N/A ☐
Does the system have a documented preventive maintenance program?	Yes ☐	No ☐	N/A ☐
Does the system have a capital improvement plan? (Inspect) How many years does the plan cover? _____	Yes ☐	No ☐	N/A ☐
Does the system have a documented policy governing water main extensions? (Inspect)	Yes ☐	No ☐	N/A ☐
Are chemicals inventoried? If so, how? _____	Yes ☐	No ☐	N/A ☐
Are distribution materials inventoried? If so, how? _____	Yes ☐	No ☐	N/A ☐
Is there a bid process for chemicals, pipe, or large item purchases?	Yes ☐	No ☐	N/A ☐
Does the system have rules and regulations governing the provision of service? (Inspect)	Yes ☐	No ☐	N/A ☐
Does the system make available in a public place the rules, rates, and regulations? (Inspect)	Yes ☐	No ☐	N/A ☐
Does the system provide 24-hour service response for customers?	Yes ☐	No ☐	N/A ☐
Does the system notify customers prior to performing scheduled maintenance?	Yes ☐	No ☐	N/A ☐
Does the system log customer complaints and track resolution?	Yes ☐	No ☐	N/A ☐
Does the system provide any educational activities to the public? Who is responsible for providing this? _____ What types of educational activities are done? _____	Yes ☐	No ☐	N/A ☐
Does the system have sufficient O & M manuals? (Inspect) (O & M manuals shall include: a detailed design of the plant, daily operating procedures, a schedule of testing requirements designating who is responsible for the tests, and safety procedures for operation of the facility – including storage and inventory requirements for materials and supplies.) How are the operators made aware of O & M procedures? OTJ Training; SOPs	Yes ☒	No ☐	N/A ☐
Has the system received any NOVs for MCLs in the last 3 years? If yes, answer the following:	Yes ☐	No ☐	N/A ☐

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

If more than one NOV, were any for the same contaminant?	Yes ☐	No ☐	N/A ☐
Was a public notice issued when required?	Yes ☐	No ☐	N/A ☐
What remedial measures did the system take to prevent future occurrences of these violations? _____			
Does the system maintain a log of all breaks or ruptures per 401 KAR 8:150, Section 4? (Inspect)	Yes ☒	No ☐	N/A ☐
Is the system operating at or above 85% of its Rated Design Capacity or using at or above 85% of water available through purchase contracts? (see COW)	Yes ☐	No ☐	N/A ☐
Plant is currently operating at _____% (gpm) and _____% (gpd) of its Rated Design Capacity.			
If system's average daily demand (including volume of water specified through contracts) exceeds 85% of total available capacity (including both plant capacity and water available through purchase contracts), does system have a plan for obtaining additional capacity, including cost and timeframes to address the needed additional capacity?	Yes ☐	No ☐	N/A ☐
If applicable, describe plan for obtaining additional capacity: _____			
COMMENTS:			

IV. FINANCIAL

Does the system prepare an annual operating budget? (Provide summary)	Yes ☐	No ☐	N/A ☐
Does the system prepare an annual capital budget? (Inspect)	Yes ☐	No ☐	N/A ☐
Who prepares the budget? _____			
Do the operators have input into the budget?	Yes ☐	No ☐	N/A ☐
Are training and license funds built into the budget?	Yes ☐	No ☐	N/A ☐
Does the governing entity review and approve the budget?	Yes ☐	No ☐	N/A ☐
Does the system prepare regular monthly reports to show variances between budgeted and actual revenue and expenses? (Inspect)	Yes ☐	No ☐	N/A ☐
Does the system maintain its financial records utilizing the Kentucky Uniform System of Accounting or a comparable system? (Inspect)	Yes ☐	No ☐	N/A ☐
Are financial statements audited by a CPA as required? (Inspect) (Water districts, special districts – i.e. regional water commissions and cities have specific requirements.)	Yes ☐	No ☐	N/A ☐
If audit is completed, does the governing entity receive and review the audit report?	Yes ☐	No ☐	N/A ☐
Does the system employ a method for depreciation of system assets?	Yes ☐	No ☐	N/A ☐
Is the system operating at a retained earnings surplus? (Retained earnings is the net income that is available at the end of the year and available for transfer.)	Yes ☐	No ☐	N/A ☐
Is the current debt-to-equity ratio below 1.0? (The debt-to equity ratio for any given year is computed by dividing total liabilities by total equity.)	Yes ☐	No ☐	N/A ☐
Does the water system meet a debt coverage ratio needed for bond ordinances, loan agreements, and bond requirements? A typical value is 1.2. (Debt coverage ratio is computed by dividing cash available for debt service (net income with annual interest, depreciation, amortization, and other non-cash items added back) by debt service requirements for the year.)	Yes ☐	No ☐	N/A ☐
Does the water system revenue go to meet other expenses (i.e. electric, sewer or garbage)?	Yes ☐	No ☐	N/A ☐
Is there a documented policy for delinquent accounts?	Yes ☐	No ☐	N/A ☐
What is it? _____			
For accounts payable, has the system kept payments less than 45 days past due over the last 12 months?	Yes ☐	No ☐	N/A ☐

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Does the system write-off bad debt annually?	Yes ☐	No ☐	N/A ☐
Where does the system typically go for financial assistance? _____			
Does the system have any long-term debts?	Yes ☐	No ☐	N/A ☐
Is the system current on all debt service payments (if applicable)?	Yes ☐	No ☐	N/A ☐
Is the system meeting reserve account requirements (if applicable)?	Yes ☐	No ☐	N/A ☐
Is there an approved* rate structure in place? (Provide copy of rate sheet.) (*Approved by governing entity/PSC as applicable.)	Yes ☐	No ☐	N/A ☐
What are the dates of the system's last 2 rate increases? _____			
Does the system perform a review annually to determine if the rates fully cover the expenses?	Yes ☐	No ☐	N/A ☐
Are long-term needs built into rate increases?	Yes ☐	No ☐	N/A ☐
Do rates promote conservation in time of drought?	Yes ☐	No ☐	N/A ☐

COST OF WATER PRODUCED, PURCHASED AND SOLD

Does the system calculate the cost to produce water?		Yes ☐ No ☐	N/A ☐
Producers	How much does it cost your system to produce 1,000 gallons of water?	$_____	N/A ☐
Purchasers	What is the highest wholesale price you pay per 1,000 gallons of water?	$_____	N/A ☐
	What is the lowest wholesale price you pay per 1,000 gallons of water?	$_____	N/A ☐
Sellers	What is your highest wholesale price which you charge per 1,000 gallons of water?	$_____	N/A ☐
	What is your lowest wholesale price which you charge per 1,000 gallons of water?	$_____	N/A ☐

WATER LOSS

Does the system track water loss on a monthly basis?	Yes ☐	No ☐	N/A ☐
Report water loss for the past year as a percentage of total water produced/purchased in gallons and as a dollar value (use $1.50 as an example if cost to produce water is unknown).	_____% _____ gallons **$**_____		
If water loss is above 15%, does the system have a plan to address this?	Yes ☐	No ☐	N/A ☐
If yes, describe plan to address water loss: _____			

COMMENTS:

V. SECURITY

Does the system have a documented safety policy?	Yes ☐	No ☐	N/A ☐
Does the system provide regular safety training to its employees?	Yes ☐	No ☐	N/A ☐
Is the utility a member of the Local Emergency Planning Committee?	Yes ☐	No ☐	N/A ☐
Does the system have an updated Emergency Response Plan that is reviewed annually? (Inspect)	Yes ☐	No ☐	N/A ☐
Does the emergency response plan include a plan for responding to water shortages and loss of service?	Yes ☐	No ☐	N/A ☐
Is the Emergency Response Plan exercised?	Yes ☐	No ☐	N/A ☐
How is the Emergency Response Plan communicated to all employees? _____			
Are there safeguards on water plant operations when operators may be doing work outside on the plant grounds?	Yes ☐	No ☐	N/A ☐

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What types of safeguards? _____			
Does the plant ever disable the telemetry/SCADA system and run on manual?	Yes ☐	No ☐	N/A ☐
Has the system developed procedures for securing computer/SCADA usage?	Yes ☐	No ☐	N/A ☐
Are backup copies of O & M manuals maintained in a location other than the water plant?	Yes ☐	No ☐	N/A ☐
Is the raw water, treatment, distribution, and purchased water source equipped with emergency standby power generation or is there a secondary source of power? (e.g. contracts in place with suppliers for emergency generators or dual electrical feed)	Yes ☐	No ☐	N/A ☐
Are backup emergency generators exercised regularly?	Yes ☐	No ☐	N/A ☐
Is other backup equipment exercised regularly?	Yes ☐	No ☐	N/A ☐
Have arrangements been made with outside contractors, other utilities, etc. to provide needed emergency equipment?	Yes ☐	No ☐	N/A ☐
If the system has an inactive water plant, is the plant exercised to maintain preparedness for emergencies?	Yes ☐	No ☐	N/A ☐
How often? _____			
How is the plant disinfected prior to bringing it back on line? _____			
Is equipment shared with the wastewater plant?	Yes ☐	No ☐	N/A ☐
If so, how is the equipment disinfected prior to use at the water plant? _____			
COMMENTS:			

DOCUMENTATION (✓ all that apply)
☐ Photographs obtained by DEP
☐ Copies of records obtained by DEP
☐ Other documentation

OVERALL COMPLIANCE STATUS
☒ No Violations Observed
☐ No Violations Observed – Advisory Action Taken (impending trends)
☐ Out of Compliance – Verbal Notice Given (non-recurrent deficiency noted or violation corrected at time of inspection)

CDPM: Ryan Reed	Title: Environmental Scientist IV	Date: 9/16/2020

Drinking Water Sanitary Survey

TECHNICAL INSPECTION OF SURFACE WATER PLANT AND DISTRIBUTION SYSTEM OPERATIONS

PWS ID: KY0340250
Agency Interest Number: 1063; CIN20200002
AI Name: KY American Water Co
County: Fayette
WTP Latitude: 38.011157 **WTP Longitude:** -84.465995
CTAB Inspection Date(s): 8/19/2020 & 8/26/2020

TREATMENT PROCESS SUMMARY	
Primary Source: Kentucky River @ pool #9 Secondary Source: n/a	Maximum Pumping Rate: 51 MGD Filter Design Rate (gpm/ft^2): 4
Pre-sedimentation Size: n/a	Aeration: 1)N/A 2) N/A
Sedimentation (Primary): Hydrotreator Sedimentation 2: 1) N/A 2) N/A	Filter (Primary): N/A Filter 2 (if 2 different filter types): 1) N/A 2) N/A
Total Clear Well Size (gallons): 3 MG	Total Distribution Storage Capacity (gallons): 27,807,000
Does each component of the WTP meet 10 State Standards or has each been approved by the Division of Water? Yes ☒ No ☐	
COMMENTS:	

CHEMICALS SUMMARY	
Pre-Disinfection/Treatment: 1) Chlorine Gas 2) N/A Post-Disinfection: 1) Chlorine Gas 2) N/A	Primary Coagulant: Polyaluminum Chlorides/Sulfates Secondary Coagulant (Name): Polymer ferric chloride
Filter Aid Name: n/a	Corrosion Control: Phosphate-Based Inhibitor
Taste and Odor: N/A	Softening: N/A
Iron and Manganese Removal: N/A	Fluoride Supplement: Hydrofluosilicic Acid
COMMENTS: Post disinfection is chlorine gas with ammonia. secondary coagulant in use is a cationic polymer with ferric when neeeded. The facility has the ability to feed carbon if needed for taste and odor.	

PLANT SCHEMATIC *(OPTIONAL)*	
Include a plant schematic indicating the following details. ***Place an "X" in the box to indicate this item is included on the schematic.***	
☐ Source water type/location	☐ Major unit processes (including baffling factors and volumes)
☐ Flow measurement locations	☐ Chemical injection locations
☐ Piping Flexibility (including # of raw and finished water mains)	☐ Waste handling

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I. SOURCE

SOURCE				
SOURCE NAME	WATER WITHDRAWAL NUMBER	PERMITTED AMOUNT (MGD)	IS CAPACITY ADEQUATE?	ARE THERE WATER QUALITY ISSUES?
KY River Poool #9	0200	63 MGD	Yes ☒ No ☐	Yes ☐ No ☒
			Yes ☐ No ☐	Yes ☐ No ☐

Upstream land uses (✓ all that apply):
☒ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential ☐ Other _____

Upstream discharges within 5 miles (✓ all that apply):
☒ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential
☐ Water/Wastewater Discharge ☐ Other _____

Is there a source water protection plan in place? (Call ADD if no one at plant knows.) Yes ☒ No ☐

Are there any sources of Cryptosporidium in the watershed? Yes ☒ No ☐

Describe the sources: farming, animals

Is the system drought-vulnerable? (Has the system ever been on water conservation or dealt with a dwindling water source during warm weather?) Yes ☐ No ☒

Does the system perform both source and finished water quality monitoring as required? Yes ☒ No ☐

What type of water quality monitoring is done on the source water (✓ all that apply):
☒Alkalinity ☒BacTs ☒Hardness ☒Iron ☒Manganese ☒pH ☒Temperature ☒Turbidity ☐None

If multiple sources are available, is the one in use the "best" in terms of both water quality and quantity? Yes ☐ No ☒

Are there any factors that have limited the capacity of raw water source(s) with in the last 10 years? Yes ☒ No ☐

If the capacity of a raw source has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☒ No ☐

Are there any unaddressed factors that have reduced the quality of raw water source(s) in the last 10 years? Yes ☐ No ☒

If the quality of the raw water source(s) has been reduced within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☒ No ☐

Are there any unaddressed factors that have limited the water available for purchase from contracted source(s) in the last 10 years? Yes ☐ No ☒

If water available for purchase through contracted source(s) has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☐ No ☐

COMMENTS: Limiting factors for the capacity of raw water have been eliminated with the construction of the new KRS#2 plant. Raw water quality monitoring also includes UV254 for organics.

INTAKE STRUCTURE							
LOCATION			TYPE	# of INLETS	SCREEN GRID SIZE	IS FLOODING A PROBLEM?	IS SILT BUILD-UP A PROBLEM?
ROAD/AREA	LATITUDE	LONGITUDE					
KY River	37,902198	84.376652	Fixed	1	1/2	NO	NO

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Number of raw water mains: 3 which are: PUMPED ☒ or GRAVITY FED ☐

Is raw water flow measured? Yes ☐ No ☐

If yes, when was the meter last calibrated? October 2019

List any chemicals fed at the source: n/a

If source is a reservoir, is it aerated? Yes ☐ No ☒

List depths of intake levels (normal pool): 8'

Screens are: STATIONARY ☐ or MECHANICAL ☒

Is screen clogging a problem? Yes ☐ No ☒

How are screens cleaned? _____

Are Zebra mussels a problem? Yes ☐ No ☐

If yes, list actions taken: _____

How often are the submerged portions of the intake inspected? annually

When was the date of the last inspection? 2019

COMMENTS: The intake structure was not inspected during the inspection due to construction of a new tram car.

II. TREATMENT/PUMPS

PRE-SEDIMENTATION
N/A

CAPACITY (gallons)	FLEXIBILITY TO BYPASS	CHEMICAL FEED CAPABILITY	LIST CHEMICALS FED
	Yes ☐ No ☐	Yes ☐ No ☐	
	Yes ☐ No ☐	Yes ☐ No ☐	

Are treatment chemicals fed at the inlet to the pre-sedimentation basin? Yes ☐ No ☐

If so, is the chemical fed: ALL THE TIME ☐ or INTERMITTENTLY ☐?

Is algae growth a problem? Yes ☐ No ☐

How often are the pre-sedimentation basin(s) cleaned? _____

COMMENTS:

AERATION
N/A

TYPE	CAPACITY (gallons)	REASON FOR AERATION

COMMENTS:

RAPID MIX
Inspected

TYPE	NUMBER	VOLUME (gallons)	PHYSICAL CONDITION

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Mechanical Mixer	2	27170	Good

List chemicals in the order they are fed at the rapid mix: chlorine/PACL/ polymer

Is adequate mixing of chemicals taking place? Yes ☒ No ☐

Are there flow splits after the rapid mix? Yes ☒ No ☐

If so, is the flow distribution even? Yes ☒ No ☐

COMMENTS: The facility has the ability to feed carbon and ferric if needed.

FLOCCULATION BASINS
N/A

TYPE	# of TRAINS / STAGES	VARIABLE SPEED DRIVE	VOLUME (gallons)	PHYSICAL CONDITION
	/	Yes ☐ No ☐		
	/	Yes ☐ No ☐		

List any chemicals fed in the flocculation process: _____

What is the size and appearance of the floc? Size: N/A & Appearance: N/A

How often are flocculation basins cleaned? _____

Are the flocculation speeds tapered (decreased) through the flocculation stages? Yes ☐ No ☐

Are there flow splits after flocculation? Yes ☐ No ☐

Is flow distribution even? Yes ☐ No ☐

COMMENTS:

SEDIMENTATION BASINS
Inspected

TYPE	TRAINS / STAGES	VOLUME (gallons)	SQ. FT. AREA PER BASIN	% WITH TUBE SETTLERS	PHYSICAL CONDITION
Hydrotreator	10 / 1	411,000	14580	0	Good
	/				

List any chemicals fed in the sedimentation process: chlorine

What is the sedimentation turbidity goal? <10 NTU

Where is this sample taken? at the flow over the weir

What is the overflow rate of the basins? 0.19 gpm/ft^2

If system has an Actiflo process, what is the rise rate? _____

How often are the basins cleaned? continuously

How often is sludge removed from the basins? continuous

Sludge removal is: MECHANICAL ☒ or MANUAL ☐

What was the sludge depth at the time of this inspection? _____

What was the settled water turbidity at the time of this inspection? 2.6

Is there evidence of short-circuiting (flow or density currents)? Yes ☐ No ☒

Is baffling present in the basins? Yes ☒ No ☐

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If yes, describe the baffling: metal plates inside the hydrotreators
If multiple sedimentation basins, describe the piping from the basins to the filters: _____
Is there evidence of floc carryover to the filters? Yes ☐ No ☐
COMMENTS: All hydrotreators were on line at the time of the inspection.

FILTERS
Total Number of Filters: 10
Plant flow rate divided by total square footage of filters in service at the time of inspection.

TYPE	MEDIA TYPE	FILTER RATE (at insp.)	FILTER CONTROL	SURFACE WASH TYPE	FILTER TO WASTE	FILTER AREA	PHYSICAL CONDITION
High Rate	Mixed Media	variable gpm/ft^2	Rate of Flow	Fixed Nozzle	Yes	718	Good
		gpm/ft^2					

List any chemicals fed in the filtration process: chlorine
What is the filtered water turbidity goal? <0.10
Does this apply to the combined filter effluent? Yes ☒ No ☐
To individual filter effluents? Yes ☒ No ☐
What criteria are used for filter backwash? loss of head, turbidity levels and 100 hour rule
What is the backwash rate in gallons per minute? 2700
Is filter backwash rate ramped up and down? Yes ☒ No ☐
Is backwash flow rate measured? Yes ☒ No ☐
Are filters ever bumped? Yes ☐ No ☒
Is air scouring used? Yes ☐ No ☒
What was the combined filter effluent turbidity at time of inspection? 0.05 NTU
Are individual filters monitored for turbidity? Yes ☒ No ☐
Are the IFE turbidimeters calibrated per the manufacturer's instructions? (inspect documentation) Yes ☒ No ☐
Is this turbidity continuously recorded? Yes ☒ No ☐
Can this data be retrieved in usable form from storage (tape or CDs)? Yes ☒ No ☐
Is filter to waste (rewash) present? Yes ☒ No ☐
Is it used? Yes ☐ No ☐
Can turbidity be measured while filtering to waste? Yes ☐ No ☒
Are flows adjusted on remaining in-service filters during a backwash? Yes ☐ No ☒
COMMENTS: On-line instrumentation upgrade on all filters has been completed.

MEMBRANE FILTRATION
N/A

What type of membrane filtration is used? N/A
The membrane filtration process is PRESSURE ☐ or VACUUM ☐ driven.
What is the designed membrane flux (flow per unit of membrane area)? _____
Are pre-filters used ahead of the membranes? Yes ☐ No ☐

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Describe the direct integrity testing procedure. _____
Describe how membrane breaks are isolated and repaired. _____
How are the membranes "backwashed"? _____
What type of chemical cleaning is used? _____ How is this waste handled? _____
Have there been any operational or maintenance issues with the membranes? Yes ☐ No ☐ If yes, explain: _____
COMMENTS:

RESIDUALS HANDLING		
What percent of plant production is used for in-plant processes (backwash, chemical feed, sanitary)? 1.5-2.5%		
How are spent backwash water and other liquid residuals handled? backwash is sent to filter bags.		
If applicable, is the spent backwash holding tank/lagoon volume adequate?	Yes ☐	No ☐
Does the plant discharge water from this tank/lagoon back to a body of water?	Yes ☐	No ☐
Does the plant have a KPDES discharge permit? If so, what is the permit number? KY0091049	Yes ☒	No ☐
Is the discharge meeting permit requirements?	Yes ☒	No ☐
Is the discharge point upstream of the intake?	Yes ☐	No ☒
If yes, how far upstream is the discharge point from the intake? _____		
Is spent backwash water recycled?	Yes ☐	No ☒
If yes, is the spent backwash water recycled as a: "SLUG" ☐ or as a CONSTANT FLOW ☐? What percent of the flow is recycled? _____%		
Are chemical feed rates adjusted during recycling?	Yes ☐	No ☐
Are raw water flows adjusted during recycling?	Yes ☐	No ☐
Are all recordkeeping requirements of the *Filter Backwash Rule* being followed?	Yes ☐	No ☐
How are solid residuals handled? _____		
COMMENTS:		

CHEMICAL FEED EQUIPMENT

CHEMICAL NAME	PURPOSE	FEEDER TYPE	FEED POINT	NUMBER & CONDITION
Caustic Soda	pH Adjustment	Metering Pump	Post-Clearwell	3 Good
Powdered Activated Carbon	Taste Odor	Volumetric	Quick/Flash Mix	1 Good
Polymer	Coagulation	Metering Pump	Quick/Flash Mix	2 Good
Polyaluminum Cl/SO4	Coagulation	Metering Pump	Pre Quick/Flash Mix	2 Good
Hydrofluosilicic Acid	Dental Health	Metering Pump	Clearwell	2 Good
Orthophosphate	Corrosion Control	Metering Pump	Clearwell	2 Good
Ferric Chloride	Coagulation	Metering Pump	Quick/Flash Mix	2 Good
Sodium Permanganate	Taste Odor	Metering Pump	Pre Quick/Flash Mix	2 Good

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How are chemical feeders calibrated? calibration cylinders How often are chemical feeders calibrated? each shift/ pumpage change		
Are chemical dosages calculated? How often are dosages calculated? each shift and pumpage change	Yes ☒	No ☐
Are chemicals NSF or United Laboratories certified and approved by DOW prior to use?	Yes ☒	No ☐
Do the bulk liquid feed systems have day tanks?	Yes ☒	No ☐
Are there at least two feeders provided for essential processes (such as coagulation and disinfection)?	Yes ☒	No ☐
Are spare parts available?	Yes ☒	No ☐
Is there enough storage for at least a 30-day supply of chemicals used?	Yes ☒	No ☐
Are there containment areas around the chemicals in case of spills or leaks?	Yes ☒	No ☐
Are in-plant water supplies protected from backflow (cross connections)?	Yes ☒	No ☐
Does a certified tester test backflow prevention devices?	Yes ☒	No ☐
If yes: What is the testing frequency? once/year Last Tested: 10/2019		
COMMENTS: No major concerns were noted at the time of the inspection. A new chemical building is close to being brought on-line.		

GAS CHLORINE SAFETY Inspected		
Is the chlorine room enclosed and separate from other operating areas?	Yes ☒	No ☐
Is there a working exhaust fan in the chlorine room?	Yes ☒	No ☐
Does it provide one complete air change per minute?	Yes ☒	No ☐
Does it exhaust from floor level?	Yes ☒	No ☐
Is intake air near the ceiling?	Yes ☒	No ☐
Is there an external audible and visual alarm?	Yes ☒	No ☐
Are switches located outside the chlorine room?	Yes ☒	No ☐
Are chlorine tanks secured?	Yes ☒	No ☐
Are the scales operational?	Yes ☒	No ☐
Is automatic switchover of chlorine cylinders provided?	Yes ☒	No ☐
Is there a shatterproof viewing window in chlorine room?	Yes ☒	No ☐
Is there a crash bar on the door of the chlorine room?	Yes ☒	No ☐
Does the door open out and to the exterior of the building?	Yes ☒	No ☐
Is there a SCBA unit meeting NIOSH standards outside the chlorine room?	Yes ☐	No ☒
Are personnel trained to use the SCBA?	Yes ☐	No ☒
Is the “buddy system” practiced when changing or moving chlorine cylinders?	Yes ☒	No ☐
Is leak detection provided?	Yes ☒	No ☐
Is ammonia available for chlorine leak detection?	Yes ☒	No ☐
Is there a chlorine tank repair kit?	Yes ☒	No ☐
Are personnel trained and certified to use the kits?	Yes ☐	No ☐
COMMENTS: Appropriate emergency response personnel would be activiated(fire department) for higher level leak emergencies		

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requireing full SCBA. A scrubber has been installed.

CHLORINE DIOXIDE SAFETY N/A *Many materials will catch fire and burn violently when in contact with chlorite.*		
Is sodium chlorite stored in a separate room?	Yes ☐	No ☐
Is sodium chlorite stored away from organic material?	Yes ☐	No ☐
COMMENTS:		

GAS (ANHYDROUS) AMMONIA SAFETY Inspected		
Is the ammonia room enclosed and separate from other operating areas?	Yes ☒	No ☐
Is there a working exhaust fan in the ammonia room?	Yes ☒	No ☐
If there is a working exhaust fan, does it provide one complete air change per minute?	Yes ☒	No ☐
Does the exhaust fan exhaust from ceiling level?	Yes ☒	No ☐
Is intake air near the floor?	Yes ☒	No ☐
Are switches located outside the ammonia room?	Yes ☒	No ☐
Are ammonia tanks secured?	Yes ☒	No ☐
Is there a shatterproof viewing window in ammonia room?	Yes ☒	No ☐
Is there a crash bar on the door of the ammonia room?	Yes ☒	No ☐
Does the ammonia room door open out and to the exterior of the building?	Yes ☒	No ☐
Is there a SCBA unit meeting NIOSH standards outside the ammonia room?	Yes ☐	No ☒
Are personnel trained to use the SCBA?	Yes ☐	No ☒
Is leak detection provided?	Yes ☒	No ☐
If leak detection is provided, is there an external audible and visual alarm?	Yes ☒	No ☐
How are ammonia leaks detected? gas detector and alarm		
COMMENTS: No major concerns were noted at the time of the inspection.		

DISINFECTION			
TYPE	APPLICATION POINT	REDUNDANCY AVAILABLE	FEEDER TYPE
Chlorine Gas	Quick/Flash Mix	Yes ☒ No ☐	Chlorinator
Chlorine Gas	Pre-Filter	Yes ☒ No ☐	Chlorinator
Chloramine	Clearwell	Yes ☐ No ☐	
What is the means used to measure disinfectant chemical usage? scales			
How is the disinfectant residual monitored? continuously with on-line analyzers and in house testing.			
Is there an on-line, recording chlorine analyzer on the plant tap (for systems serving >3,300)?		Yes ☒	No ☐
Are C-Ts calculated daily?		Yes ☒	No ☐
COMMENTS:			
CLEARWELLS			

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VOLUME (gallons)	BAFFLING TYPE	DISINFECTANT RESIDUAL	
		TOTAL	FREE
0.486	Poor (0.3)		
2 MG	Unbaffled (0.1)		
0.490	Poor (0.3)		

List chemicals in the order in which they are fed into the clearwell: fluoride, ammonia, caustic, corrosion inhibbitor

If multiple clearwells, are they:
☒ IN SERIES (one following the other) or ☐ PARALLEL (side by side and not connected)

Are hatches secured? Yes ☒ No ☐

Are vents screened? Yes ☒ No ☐

How often are clear wells cleaned? 2016

COMMENTS: No major concerns were noted at the time of the inspection.

WATER PLANT PUMPS
(Low service/raw water, high service/finished water and backwash)

FLOW STREAM	LOCATION	NUMBER OF PUMPS	CAPACITY (gpm)	PUMP TYPE	FLOW CONTROL METHOD
Primary Raw Water	intake	6	10,000	Vertical Turbine	Automatic
Primary Raw Water	intake	2	12,600	Centrifugal	Automatic
Finished Water	HS pump room	2	5,560	Vertical Turbine	Automatic
Finished Water	HS pump	1	5600		Automatic
Finished Water	HS pump room	2	7000		Automatic

Are documented maintenance and pumping records maintained for all distribution pumping stations? (minimum of pump run times, pump testing, maintenance log) Yes ☒ No ☐

Do all pumping facilities have the ability to meet demand with one pump out of service during peak demand? Yes ☒ No ☐

COMMENTS: Aditional pumps include: 1 finishesd water at 7000 GPM and 2 backwash water at 1000 gpm each.

WATER PLANT ON-LINE INSTRUMENTATION

TYPE	FLOW STREAM (Location)	MANUFACTURER	LAST CALIBRATION DATE
Streaming Current	Settled Water	HACH	6/2020
pH	Raw Water	HACH	6/2020
pH	Combined Filter Effluent	HACH	6/2020
Turbidity	Raw Water	HACH	6/2020
Turbidity	Individual Filter Effluent	SWAN	6/2020
Turbidity	EPTDS	SWAN	6/2020
Chlorine	Combined Filter Effluent	HACH CL 17	6/2020
Turbidity	Combined Filter Effluent	SWAN	6/2020

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Chlorine	EPTDS	HACH Cl 17	6/2020
COMMENTS: A complete listing of on-line instrumentation was provided during a previous inspection.			

LABORATORY (PLANT)			
PARAMETERS TESTED	FREQUENCY	EQUIPMENT USED	CALIBRATION METHOD
turbidity	continuous	SWAN	ck and calibration standards
chlorine	continuous	HACH	ck anc calibration standards
ammonia	contunuous	ASA analytical	ck and calibration standards
fluoride	continuous	HACH	ck and calibration standards
pH	continuous	HACH	ck and calibration stadards
UV254	1/day	HACH	
speciation	continuous	ASA analytical	ck and calibration standards
hardness		titration	check sample

Is laboratory space and lighting adequate?	Yes ☒ No ☐
Are analyses conducted according to approved EPA methods?	Yes ☒ No ☐
Does the lab have SOPs for sample collection, analysis, and reporting?	Yes ☒ No ☐
Are daily log sheets used to record day-to-day operations, testing, etc?	Yes ☒ No ☐
If daily log sheets are used, are they: ELECTRONIC (on the computer) ☐ or HAND-WRITTEN ☒	
COMMENTS: Standards operating procedures have been written and are being followed. instrumentation is claibrated quarterly. The faciclity maintains the required laboratory records.	

IN-PLANT SAMPLING (for example, top and bottom of filters)				
SITE	CHLORINE		pH	TURBIDITY
	FREE	TOTAL		
tap		3.63	7.5	
raw				8
settled				2.5
final				0.01
COMMENTS:				

III. DISTRIBUTION SYSTEM/FINISHED WATER STORAGE

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

DISTRIBUTION SYSTEM		
Does the system have standard specifications for design and construction of the distribution system?	Yes ☐	No ☐
Does the system prohibit new connections where pressure on the discharge side of the meter will be <30 psi?	Yes ☐	No ☐
Is the system able to meet minimum pressure requirements of DOW and/or other regulating authority?	Yes ☐	No ☐
Does the system have a documented leak detection program?	Yes ☐	No ☐
Does the distribution system have a sufficient number of valves to isolate portions of the system (for leak detection, maintenance, etc.)?	Yes ☐	No ☐
If there are separate distribution system areas, are they interconnected with each other?	Yes ☐	No ☐
If they are not interconnected, how many separate areas are there? _____		
What prevents these systems from being interconnected? _____		
How many pressure zones are there? _____		
What is the range of distribution pressures? _____		
Do any distribution areas require reduced pressure valves?	Yes ☐	No ☐
What piping materials are included in the distribution system? _____		
Does the system have a program for flushing water mains?	Yes ☐	No ☐
Describe the process for sterilizing new mains/main breaks: _____		
What types of on-line instrumentation are located at booster or pump stations and tanks? _____		
Does the system have a documented program for exercising distribution system valves?	Yes ☐	No ☐
Does the system have a documented program for regular testing of water meters including raw water, distributed and customer?	Yes ☐	No ☐
Is there a water meter replacement program?	Yes ☐	No ☐
Are there main break/emergency notification procedures?	Yes ☐	No ☐
Does the system have a documented procedure for issuing a boil water advisory and a consumer advisory? The procedure shall identify when (how soon after the occurrence) and how the system shall notify the affected health department, to whom that notification shall be made both during and after normal business hours, and procedures for issuing the advisory to the public. The public notification shall include instructions for the public (including how to properly boil water) and an explanation of steps being taken to correct the problem.	Yes ☐	No ☐
Describe how the decision is made to issue a Boil Water Advisory: _____		
Does the system have a cross-connection control program?	Yes ☐	No ☐
If yes, is the cross-connection control program documented in writing?	Yes ☐	No ☐
If the cross-connection control program is not documented in writing, describe the process for finding and eliminating cross connections: _____		
Does a certified tester test the backflow prevention devices on a regular basis?	Yes ☐	No ☐
Has a calibrated hydraulic model been developed for the system?	Yes ☐	No ☐
COMMENTS: distribution system is covered under the Richmond Road WAter treatment plant inspection.		

DISTRIBUTION STORAGE FACILITIES

N/A

LOCATION			VOLUME (gallons)	TANK TYPE	OVERFLOW		LAST CLEANED/ INSPECTED	TELEME -TRY	% TURNOVER (Per Day)
ROAD/AREA	LATITUDE	LONGITUDE			SCREEN/ FLAPPER	>10' FROM TANK			

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Are all storage tanks professionally inspected at least every 5 years (including interior, coating systems, & piping)? How often are tanks: INSPECTED _____ and CLEANED _____?

Are all storage tanks and water plants equipped with hatches, covers, screens, vandal guards and locks and all tank sites fenced for security? Yes ☐ No ☐

Are all hatches, screens, and overflows on the storage tanks checked at least monthly? Yes ☐ No ☐

Is there corrosion protection in the tanks? Yes ☐ No ☐

COMMENTS:

DISTRIBUTION BOOSTER PUMPS AND/OR BOOSTER DISINFECTION FACILITIES

N/A

LOCATION			PUMP or DISINFECTION	NUMBER & CAPACITY OF PUMPS (gpm)	DISINFECTION TYPE	AUXILIARY POWER
ROAD/AREA	LATITUDE	LONGITUDE				
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		

DISTRIBUTION SAMPLING

(a minimum of N, S, E, W)

SITE	CHLORINE		pH	TURBIDITY	OTHER
	FREE	TOTAL			

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Is the system maintaining the required chlorine (0.2 mg/l) / chloramine (0.5 mg/l) residuals in the distribution system? Yes ☐ No ☐

COMMENTS:

MAINTENANCE		
Is plant housekeeping adequate?	Yes ☒	No ☐
Is distribution storage housekeeping adequate?	Yes ☒	No ☐
Are adequate supplies of spare parts kept on hand?	Yes ☒	No ☐
Are needed tools available?	Yes ☒	No ☐
If not, is preventive maintenance performed?	Yes ☒	No ☐
Is a lock-out/tag-out system used for electrical repairs?	Yes ☒	No ☐
What is the general condition of operating equipment? good		
COMMENTS:		

DOCUMENTATION (✓ all that apply)	
☒ Samples taken by DEP	☐ Photographs obtained by DEP
☐ Samples taken by outside source	☐ Copies of records obtained by DEP
☒ Instrument readings taken by DEP	☐ Other documentation

OVERALL TECHNICAL COMPLIANCE STATUS
☒ No Violations Observed
☐ No Violations Observed - Advisory Action Taken (Impending trends)
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)

INSPECTOR: Deborah Singleton	TITLE: Environmental Inspector	DATE: 8/31/2020

Drinking Water Sanitary Survey

TECHNICAL INSPECTION OF SURFACE WATER PLANT AND DISTRIBUTION SYSTEM OPERATIONS

PWS ID: KY0340250
Agency Interest Number: 1063; CIN20200001
AI Name: KY American Water Co
County: Fayette
WTP Latitude: 38.011157 **WTP Longitude:** -84.465995
CTAB Inspection Date(s): August 19, 20, and 25 2020.

TREATMENT PROCESS SUMMARY	
Primary Source: Kentucky River Secondary Source: Jacobson park reservoir	Maximum Pumping Rate: 30 MGD Filter Design Rate (gpm/ft^2): 5
Pre-sedimentation Size: n/a	Aeration: 1)N/A 2) N/A
Sedimentation (Primary): Conventional/Baffled Basin Sedimentation 2: 1) N/A 2) N/A	Filter (Primary): Conventional/Sand Filter 2 (if 2 different filter types): 1) N/A 2) N/A
Total Clear Well Size (gallons): 0.650 MG	Total Distribution Storage Capacity (gallons): 27,807,000
Does each component of the WTP meet 10 State Standards or has each been approved by the Division of Water? Yes ☒ No ☐	
COMMENTS: Filters are actually a conventional/ dual media type(sand and GAC).	

CHEMICALS SUMMARY	
Pre-Disinfection/Treatment: 1) Chlorine Liquid 2) N/A Post-Disinfection: 1) Chlorine Liquid 2) N/A	Primary Coagulant: Polyaluminum Chlorides/Sulfates Secondary Coagulant (Name): N/A
Filter Aid Name:	Corrosion Control: Phosphate-Based Inhibitor
Taste and Odor: Sodium Permanganate	Softening: N/A
Iron and Manganese Removal: Sodium Permanganate	Fluoride Supplement: Hydrofluosilicic Acid
COMMENTS:	

PLANT SCHEMATIC *(OPTIONAL)*	
Include a plant schematic indicating the following details. ***Place an "X" in the box to indicate this item is included on the schematic.***	
☐ Source water type/location	☐ Major unit processes (including baffling factors and volumes)
☐ Flow measurement locations	☐ Chemical injection locations
☐ Piping Flexibility (including # of raw and finished water mains)	☐ Waste handling

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

I. SOURCE

SOURCE				
SOURCE NAME	WATER WITHDRAWAL NUMBER	PERMITTED AMOUNT (MGD)	IS CAPACITY ADEQUATE?	ARE THERE WATER QUALITY ISSUES?
Kentucky River	200	63	Yes ☒ No ☐	Yes ☐ No ☒
Jacobson Reservoir	201	16	Yes ☒ No ☐	Yes ☐ No ☒

Upstream land uses (✓ all that apply):
☒ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential ☐ Other _____

Upstream discharges within 5 miles (✓ all that apply):
☐ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential
☐ Water/Wastewater Discharge ☐ Other _____

Is there a source water protection plan in place? (Call ADD if no one at plant knows.) Yes ☒ No ☐

Are there any sources of Cryptosporidium in the watershed? Yes ☒ No ☐
Describe the sources: farming, animals

Is the system drought-vulnerable? (Has the system ever been on water conservation or dealt with a dwindling water source during warm weather?) Yes ☒ No ☐

Does the system perform both source and finished water quality monitoring as required? Yes ☒ No ☐

What type of water quality monitoring is done on the source water (✓ all that apply):
☒Alkalinity ☒BacTs ☒Hardness ☒Iron ☒Manganese ☒pH ☒Temperature ☒Turbidity ☐None

If multiple sources are available, is the one in use the "best" in terms of both water quality and quantity? Yes ☒ No ☐

Are there any factors that have limited the capacity of raw water source(s) with in the last 10 years? Yes ☒ No ☐

If the capacity of a raw source has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☒ No ☐

Are there any unaddressed factors that have reduced the quality of raw water source(s) in the last 10 years? Yes ☐ No ☒

If the quality of the raw water source(s) has been reduced within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☐ No ☐

Are there any unaddressed factors that have limited the water available for purchase from contracted source(s) in the last 10 years? Yes ☐ No ☒

If water available for purchase through contracted source(s) has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☐ No ☐

COMMENTS: Source water quality monitoring also includes testing for chlorides and taste/ odor.

INTAKE STRUCTURE							
LOCATION			TYPE	# of INLETS	SCREEN GRID SIZE	IS FLOODING A PROBLEM?	IS SILT BUILD-UP A PROBLEM?
ROAD/AREA	LATITUDE	LONGITUDE					
Kentucky River			Fixed	1	1/2"	NO	NO
Jacobson Reservoir			Fixed	1	1/2"	NO	NO

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Number of raw water mains: 3 which are: PUMPED ☒ or GRAVITY FED ☐
Is raw water flow measured? Yes ☒ No ☐ If yes, when was the meter last calibrated? 08/2020
List any chemicals fed at the source: carbonn
If source is a reservoir, is it aerated? Yes ☐ No ☒
List depths of intake levels (normal pool): 14.5
Screens are: STATIONARY ☒ or MECHANICAL ☐
Is screen clogging a problem? Yes ☐ No ☒ How are screens cleaned? _____
Are Zebra mussels a problem? Yes ☐ No ☒ If yes, list actions taken: _____
How often are the submerged portions of the intake inspected? as needed When was the date of the last inspection? new screens were installed in July 2019.
COMMENTS: No major concerns were noted at the time of the inspection.

II. TREATMENT/PUMPS

PRE-SEDIMENTATION N/A			
CAPACITY (gallons)	FLEXIBILITY TO BYPASS	CHEMICAL FEED CAPABILITY	LIST CHEMICALS FED
	Yes ☐ No ☐	Yes ☐ No ☐	
	Yes ☐ No ☐	Yes ☐ No ☐	
Are treatment chemicals fed at the inlet to the pre-sedimentation basin? Yes ☐ No ☐ If so, is the chemical fed: ALL THE TIME ☐ or INTERMITTENTLY ☐?			
Is algae growth a problem? Yes ☐ No ☐			
How often are the pre-sedimentation basin(s) cleaned? _____			
COMMENTS:			

AERATION N/A		
TYPE	CAPACITY (gallons)	REASON FOR AERATION
COMMENTS:		

RAPID MIX Inspected			
TYPE	NUMBER	VOLUME (gallons)	PHYSICAL CONDITION
Mechanical Mixer	2	7100/basin	Good

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

List chemicals in the order they are fed at the rapid mix: polyaluminum chloride, sodium hypochlorite, NaMnO4,

Is adequate mixing of chemicals taking place?	Yes ☒	No ☐
Are there flow splits after the rapid mix?	Yes ☒	No ☐
If so, is the flow distribution even?	Yes ☒	No ☐

COMMENTS: No major concerns were noted at the time of the inspection.

FLOCCULATION BASINS
Inspected

TYPE	# of TRAINS / STAGES	VARIABLE SPEED DRIVE	VOLUME (gallons)	PHYSICAL CONDITION
Vertical Paddle	2 / Multiple	Yes ☒ No ☐	350,000	Good
	/	Yes ☐ No ☐		

List any chemicals fed in the flocculation process: cationic polymer and carbon if needed

What is the size and appearance of the floc? Size: OK & Appearance: Fluffy

How often are flocculation basins cleaned? once per year or when needed

Are the flocculation speeds tapered (decreased) through the flocculation stages?	Yes ☒	No ☐
Are there flow splits after flocculation?	Yes ☒	No ☐
Is flow distribution even?	Yes ☒	No ☐

COMMENTS: No major concerns were noted at the time of the inspections.

SEDIMENTATION BASINS
Inspected

TYPE	TRAINS / STAGES	VOLUME (gallons)	SQ. FT. AREA PER BASIN	% WITH TUBE SETTLERS	PHYSICAL CONDITION
Conventional/Package	4 / 1	750/000		0	Good
	/				

List any chemicals fed in the sedimentation process: _____

What is the sedimentation turbidity goal? <2 NTU

Where is this sample taken? at basin

What is the overflow rate of the basins? 0.5181 gpm/ft^2

If system has an Actiflo process, what is the rise rate? _____

How often are the basins cleaned? 1-2 times per quarter or as needed

How often is sludge removed from the basins? continuous

Sludge removal is: MECHANICAL ☒ or MANUAL ☐

What was the sludge depth at the time of this inspection? _____

What was the settled water turbidity at the time of this inspection? 0.4 NTU

Is there evidence of short-circuiting (flow or density currents)?	Yes ☐	No ☒
Is baffling present in the basins?	Yes ☐	No ☒

If yes, describe the baffling: _____

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

If multiple sedimentation basins, describe the piping from the basins to the filters: _____
Is there evidence of floc carryover to the filters? Yes ☐ No ☒
COMMENTS: No major concerns were noted at the time of the inspection.

FILTERS
Total Number of Filters: 8
Plant flow rate divided by total square footage of filters in service at the time of inspection.

TYPE	MEDIA TYPE	FILTER RATE (at insp.)	FILTER CONTROL	SURFACE WASH TYPE	FILTER TO WASTE	FILTER AREA	PHYSICAL CONDITION
Conventional	Dual Media	3.1 gpm/ft^2	Rate of Flow	Air Scour	Yes	496.6	Good
		gpm/ft^2					

List any chemicals fed in the filtration process: nonw
What is the filtered water turbidity goal? <0.1 NTU
Does this apply to the combined filter effluent? Yes ☒ No ☐
To individual filter effluents? Yes ☒ No ☐
What criteria are used for filter backwash? increase in turbidity, loss of head, 100 hour rule
What is the backwash rate in gallons per minute? 5000
Is filter backwash rate ramped up and down? Yes ☒ No ☐
Is backwash flow rate measured? Yes ☒ No ☐
Are filters ever bumped? Yes ☐ No ☒
Is air scouring used? Yes ☒ No ☐
What was the combined filter effluent turbidity at time of inspection? 0.035 NTU
Are individual filters monitored for turbidity? Yes ☒ No ☐
Are the IFE turbidimeters calibrated per the manufacturer's instructions? (inspect documentation) Yes ☒ No ☐
Is this turbidity continuously recorded? Yes ☐ No ☐
Can this data be retrieved in usable form from storage (tape or CDs)? Yes ☒ No ☐
Is filter to waste (rewash) present? Yes ☒ No ☐
Is it used? Yes ☒ No ☐
Can turbidity be measured while filtering to waste? Yes ☒ No ☐
Are flows adjusted on remaining in-service filters during a backwash? Yes ☒ No ☐
COMMENTS:

MEMBRANE FILTRATION
N/A

What type of membrane filtration is used? N/A
The membrane filtration process is PRESSURE ☐ or VACUUM ☐ driven.
What is the designed membrane flux (flow per unit of membrane area)? _____
Are pre-filters used ahead of the membranes? Yes ☐ No ☐
Describe the direct integrity testing procedure. _____

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Describe how membrane breaks are isolated and repaired. _____
How are the membranes "backwashed"? _____
What type of chemical cleaning is used? _____ How is this waste handled? _____
Have there been any operational or maintenance issues with the membranes? Yes ☐ No ☐ If yes, explain: _____
COMMENTS:

RESIDUALS HANDLING	
What percent of plant production is used for in-plant processes (backwash, chemical feed, sanitary)? 1-2%	
How are spent backwash water and other liquid residuals handled? Backwash is sent to holding tanks and allowed to settle. The supernatant is decanted to Lake Ellerslie and sludge is filter pressed and used as benificial reuse on site.	Yes ☒ No ☐
If applicable, is the spent backwash holding tank/lagoon volume adequate?	Yes ☒ No ☐
Does the plant discharge water from this tank/lagoon back to a body of water?	
Does the plant have a KPDES discharge permit? If so, what is the permit number? KY0093301	Yes ☒ No ☐
Is the discharge meeting permit requirements?	Yes ☒ No ☐
Is the discharge point upstream of the intake?	Yes ☐ No ☒
If yes, how far upstream is the discharge point from the intake? _____	
Is spent backwash water recycled?	Yes ☐ No ☒
If yes, is the spent backwash water recycled as a: "SLUG" ☐ or as a CONSTANT FLOW ☐? What percent of the flow is recycled? _____%	
Are chemical feed rates adjusted during recycling?	Yes ☐ No ☒
Are raw water flows adjusted during recycling?	Yes ☐ No ☐
Are all recordkeeping requirements of the *Filter Backwash Rule* being followed?	Yes ☐ No ☐
How are solid residuals handled? _____	
COMMENTS: The wastewater handling system was found to be in compliance regarding KPDES Permit #KY0093301.	

CHEMICAL FEED EQUIPMENT

CHEMICAL NAME	PURPOSE	FEEDER TYPE	FEED POINT	NUMBER & CONDITION
Powdered Activated Carbon	Taste Odor	Peristalic	Pre-Sedimentation	2 Good
Orthophosphate	Coagulation	Peristalic	Pre-Flocculation	2 Good
Lime	pH Adjustment	Peristalic	Clearwell	2 Good
Hydrofluosilicic Acid	Dental Health	Peristalic	Clearwell	2 Good
Sodium Permanganate	Taste Odor	Peristalic	Intake	2 Good
Polyaluminum Cl/SO4	Coagulation	Peristalic	Quick/Flash Mix	2 Good
Polymer	Coagulation	Peristalic	Quick/Flash Mix	2 Good

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

How are chemical feeders calibrated? calibration cylinders How often are chemical feeders calibrated? with pumpage changes		
Are chemical dosages calculated? How often are dosages calculated? continuous by SCADA system and 3 times per shift manually	Yes ☒	No ☐
Are chemicals NSF or United Laboratories certified and approved by DOW prior to use?	Yes ☒	No ☐
Do the bulk liquid feed systems have day tanks?	Yes ☒	No ☐
Are there at least two feeders provided for essential processes (such as coagulation and disinfection)?	Yes ☒	No ☐
Are spare parts available?	Yes ☒	No ☐
Is there enough storage for at least a 30-day supply of chemicals used?	Yes ☒	No ☐
Are there containment areas around the chemicals in case of spills or leaks?	Yes ☒	No ☐
Are in-plant water supplies protected from backflow (cross connections)?	Yes ☒	No ☐
Does a certified tester test backflow prevention devices?	Yes ☒	No ☐
If yes: What is the testing frequency? yearly Last Tested: 2020		
COMMENTS: The facility is now using 1) sodium hypo for disinfection. 2) aqua ammonia, 3) caustic was replaced with liquid lime 4) carbon was moved from River Station #1 to the Jacobson Reservoir intake. 5) Sodium permanganate was moved from the reservoir to the River Station #1.		

GAS CHLORINE SAFETY N/A		
Is the chlorine room enclosed and separate from other operating areas?	Yes ☐	No ☐
Is there a working exhaust fan in the chlorine room?	Yes ☐	No ☐
Does it provide one complete air change per minute?	Yes ☐	No ☐
Does it exhaust from floor level?	Yes ☐	No ☐
Is intake air near the ceiling?	Yes ☐	No ☐
Is there an external audible and visual alarm?	Yes ☐	No ☐
Are switches located outside the chlorine room?	Yes ☐	No ☐
Are chlorine tanks secured?	Yes ☐	No ☐
Are the scales operational?	Yes ☐	No ☐
Is automatic switchover of chlorine cylinders provided?	Yes ☐	No ☐
Is there a shatterproof viewing window in chlorine room?	Yes ☐	No ☐
Is there a crash bar on the door of the chlorine room?	Yes ☐	No ☐
Does the door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the chlorine room?	Yes ☐	No ☐
Are personnel trained to use the SCBA?	Yes ☐	No ☐
Is the “buddy system” practiced when changing or moving chlorine cylinders?	Yes ☐	No ☐
Is leak detection provided?	Yes ☐	No ☐
Is ammonia available for chlorine leak detection?	Yes ☐	No ☐
Is there a chlorine tank repair kit?	Yes ☐	No ☐
Are personnel trained and certified to use the kits?	Yes ☐	No ☐

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

COMMENTS:

CHLORINE DIOXIDE SAFETY N/A ***Many materials will catch fire and burn violently when in contact with chlorite.***		
Is sodium chlorite stored in a separate room?	Yes ☐	No ☐
Is sodium chlorite stored away from organic material?	Yes ☐	No ☐
COMMENTS:		

GAS (ANHYDROUS) AMMONIA SAFETY N/A		
Is the ammonia room enclosed and separate from other operating areas?	Yes ☐	No ☐
Is there a working exhaust fan in the ammonia room?	Yes ☐	No ☐
If there is a working exhaust fan, does it provide one complete air change per minute?	Yes ☐	No ☐
Does the exhaust fan exhaust from ceiling level?	Yes ☐	No ☐
Is intake air near the floor?	Yes ☐	No ☐
Are switches located outside the ammonia room?	Yes ☐	No ☐
Are ammonia tanks secured?	Yes ☐	No ☐
Is there a shatterproof viewing window in ammonia room?	Yes ☐	No ☐
Is there a crash bar on the door of the ammonia room?	Yes ☐	No ☐
Does the ammonia room door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the ammonia room?	Yes ☐	No ☐
Are personnel trained to use the SCBA?	Yes ☐	No ☐
Is leak detection provided?	Yes ☐	No ☐
If leak detection is provided, is there an external audible and visual alarm?	Yes ☐	No ☐
How are ammonia leaks detected? _____		
COMMENTS:		

DISINFECTION			
TYPE	APPLICATION POINT	REDUNDANCY AVAILABLE	FEEDER TYPE
Chlorine Liquid	Clearwell	Yes ☒ No ☐	Metering Pump
		Yes ☐ No ☐	
		Yes ☐ No ☐	
What is the means used to measure disinfectant chemical usage? volume			
How is the disinfectant residual monitored? on-line analyzers with chart recorders, SCADA, and lab analysis.			
Is there an on-line, recording chlorine analyzer on the plant tap (for systems serving >3,300)?		Yes ☒	No ☐
Are C-Ts calculated daily?		Yes ☒	No ☐
COMMENTS: The facility is now using liquid chlorine for disinfection purposes. Aqua Ammonia is used for a chloramine system.			
CLEARWELLS			

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

VOLUME (gallons)	BAFFLING TYPE	DISINFECTANT RESIDUAL	
		TOTAL	FREE
200,000	none	3.7	
450,000	none	3.7	

List chemicals in the order in which they are fed into the clearwell: aqua ammonia, liquid lime, and phosphate blend

If multiple clearwells, are they:
☒ IN SERIES (one following the other) or ☐ PARALLEL (side by side and not connected)

Are hatches secured? Yes ☒ No ☐

Are vents screened? Yes ☒ No ☐

How often are clear wells cleaned? disinfected yearly

COMMENTS: No major concerns were noted at the time of the inspection.

WATER PLANT PUMPS
(Low service/raw water, high service/finished water and backwash)

FLOW STREAM	LOCATION	NUMBER OF PUMPS	CAPACITY (gpm)	PUMP TYPE	FLOW CONTROL METHOD
Primary Raw Water	KY River	2	25,000	Centrifugal	Automatic
Primary Raw Water	#4 reservoir	3	14,355	Centrifugal	Automatic
Primary Raw Water	LS at plant	1	4166	Centrifugal	Automatic
Primary Raw Water	LS at plant	1	2800	Centrifugal	Automatic
Secondary Raw Source	basement of filter building	1	1000	Centrifugal	Automatic

Are documented maintenance and pumping records maintained for all distribution pumping stations? (minimum of pump run times, pump testing, maintenance log) Yes ☒ No ☐

Do all pumping facilities have the ability to meet demand with one pump out of service during peak demand? Yes ☒ No ☐

COMMENTS: The following are additional finished water pumps located in the high service pump room and are all centrifugal with automatic flow control: 1) 1@ 2780 gpm, 2) 1 @6950 GPM 3) 1 @4520 gpm 4) 1@3850 gpm 5) 1@ 2800 gpm 6) 1@4862 gpm.

No major concerns were noted at the time of the inspection.

WATER PLANT ON-LINE INSTRUMENTATION

TYPE	FLOW STREAM (Location)	MANUFACTURER	LAST CALIBRATION DATE
Streaming Current	Raw Water	HACH	6/2020
pH	Raw Water	HACH	6/2020
Turbidity	Individual Filter Effluent	Swan	6/2020
Turbidity	Combined Filter Effluent	SWAN	6/2020
Turbidity	Tap	SWAN	6/2020
Chlorine	Combined Filter Effluent	HACH	6/2020

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

pH	Tap	Peek	6/2020
Chlorine	Tap	HACH	6/2020

COMMENTS: A complete list of on-line instrumentation was provided during previous inspections. Calibrations are current. NO major concerns were noted at the time of the inspection.

LABORATORY (PLANT)

PARAMETERS TESTED	FREQUENCY	EQUIPMENT USED	CALIBRATION METHOD
turbidity	continuous	HACH	calibration and chk standards
pH	continuous	HACH	calibration and check standards
Chlorine	continuous	HACH	calibration and check standards
ammonia	continuous	ASA analytical-chemscan	calibration and check standards
phosphate	continuous	ASA analytical- chemscan	calibraton and check standards
hardness	1/day	titrator	
chloride	1/day	titrator	
speciation	continuous	ASA analytical- chemscan	
UV 254	1/day	HACH	

Is laboratory space and lighting adequate? Yes ☒ No ☐

Are analyses conducted according to approved EPA methods? Yes ☒ No ☐

Does the lab have SOPs for sample collection, analysis, and reporting? Yes ☒ No ☐

Are daily log sheets used to record day-to-day operations, testing, etc? Yes ☒ No ☐

If daily log sheets are used, are they: ELECTRONIC (on the computer) ☒ or HAND-WRITTEN ☒

COMMENTS: The laboratory was clean and operational. Standards were observed to be current. Standards operating procedures have been written. Instrumentation is calibrated quarterly. records include calibration information, analytical information, and temperature logs.

IN-PLANT SAMPLING
(for example, top and bottom of filters)

SITE	CHLORINE		pH	TURBIDITY
	FREE	TOTAL		
Raw			7.76	12
finished	3.7		7.5	0.023
CFE				0.035

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

COMMENTS: No major concerns were noted at the time of the inspection.

III. DISTRIBUTION SYSTEM/FINISHED WATER STORAGE

DISTRIBUTION SYSTEM		
Does the system have standard specifications for design and construction of the distribution system?	Yes ☒	No ☐
Does the system prohibit new connections where pressure on the discharge side of the meter will be <30 psi?	Yes ☒	No ☐
Is the system able to meet minimum pressure requirements of DOW and/or other regulating authority?	Yes ☒	No ☐
Does the system have a documented leak detection program?	Yes ☒	No ☐
Does the distribution system have a sufficient number of valves to isolate portions of the system (for leak detection, maintenance, etc.)?	Yes ☒	No ☐
If there are separate distribution system areas, are they interconnected with each other?	Yes ☐	No ☐
If they are not interconnected, how many separate areas are there? _____		
What prevents these systems from being interconnected? _____		
How many pressure zones are there? 8		
What is the range of distribution pressures? 35-130		
Do any distribution areas require reduced pressure valves?	Yes ☒	No ☐
What piping materials are included in the distribution system? AC, PVC, ductile iron and cast iron		
Does the system have a program for flushing water mains?	Yes ☒	No ☐
Describe the process for sterilizing new mains/main breaks: per regulations and AWWa standards		
What types of on-line instrumentation are located at booster or pump stations and tanks? chlorine		
Does the system have a documented program for exercising distribution system valves?	Yes ☒	No ☐
Does the system have a documented program for regular testing of water meters including raw water, distributed and customer?	Yes ☒	No ☐
Is there a water meter replacement program?	Yes ☒	No ☐
Are there main break/emergency notification procedures?	Yes ☒	No ☐
Does the system have a documented procedure for issuing a boil water advisory and a consumer advisory? The procedure shall identify when (how soon after the occurrence) and how the system shall notify the affected health department, to whom that notification shall be made both during and after normal business hours, and procedures for issuing the advisory to the public. The public notification shall include instructions for the public (including how to properly boil water) and an explanation of steps being taken to correct the problem.	Yes ☒	No ☐
Describe how the decision is made to issue a Boil Water Advisory: anytime contamination is suspected, when the pressure outside the break drops below 20 PSI, repair takine moroe then 8 hours to repair, loss of chlorine.		
Does the system have a cross-connection control program?	Yes ☒	No ☐
If yes, is the cross-connection control program documented in writing?	Yes ☒	No ☐
If the cross-connection control program is not documented in writing, describe the process for finding and eliminating cross connections: _____		
Does a certified tester test the backflow prevention devices on a regular basis?	Yes ☒	No ☐
Has a calibrated hydraulic model been developed for the system?	Yes ☒	No ☐
COMMENTS: No major concerns were noted during the inspection. Copies of the written procedures were provided for the following: new main disinfection procedures; line break / main repair disinfection procedures, and Boil Water Guidance form.		

DISTRIBUTION STORAGE FACILITIES
Inspected

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

LOCATION			VOLUME (gallons)	TANK TYPE	OVERFLOW		LAST CLEANED/ INSPECTED	TELEME -TRY	% TURNOVER (Per Day)
ROAD/AREA	LATITUDE	LONGITUDE			SCREEN/ FLAPPER	>10' FROM TANK			
Muddy Ford			0.750	Elevated	YES	YES	2019	YES	>50
HUme	38.23233	-84.74165	3.0 MG	Ground	YES	YES	2016	YES	>50
Hall Tank	37.90435	-84.73824	0.2 MG	Standpipe	YES	YES	2013	YES	>50
Mt STerling			0.100 MG	Elevated	YES	YES		YES	>50
Wilson St			0.100 MG	Elevated	YES	YES		YES	>50
Brock			0.300 MG	Ground	YES	YES	2013	YES	>50
Blue Moon			0.500 MG	Elevated	YES	YES	2013	YES	>50

Are all storage tanks professionally inspected at least every 5 years (including interior, coating systems, & piping)? How often are tanks: INSPECTED every 7 years and CLEANED as needed?

Are all storage tanks and water plants equipped with hatches, covers, screens, vandal guards and locks and all tank sites fenced for security? Yes ☒ No ☐

Are all hatches, screens, and overflows on the storage tanks checked at least monthly? Yes ☒ No ☐

Is there corrosion protection in the tanks? Yes ☒ No ☐

COMMENTS: No major concerns were noted during the inspection. The tanks listed above were observed during the inspection. They were fenced and secure and were in good condition. A complete list of system tanks was provided during the inspection which included all the inspection and rehab dates.

DISTRIBUTION BOOSTER PUMPS AND/OR BOOSTER DISINFECTION FACILITIES

Not Inspected

LOCATION			PUMP or DISINFECTION	NUMBER & CAPACITY OF PUMPS (gpm)	DISINFECTION TYPE	AUXILIARY POWER
ROAD/AREA	LATITUDE	LONGITUDE				
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		

DISTRIBUTION SAMPLING

(a minimum of N, S, E, W)

SITE	CHLORINE	pH	TURBIDITY	OTHER

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

	FREE	TOTAL			
Hume Tank	DOW	2.03	KAW	2.17	On-line 1.89
Muddy Ford	dOW	1.64	KAW	1.68	
Hall tank	DOW	1.41	KAW	1.44	On-line 1.52
Brock Tank	DOW	> 2.20	KAW	3.60	
Blue Moon Tank	DOW	2.00	KAW	2.03	On-line 2.16
New Office	DOW	2.4	KAW	2.41	
Briar Hill	DOW	1.58	KAW	1.61	on-line 1.51
Mt Sterling road	DOW	0.95	KAW	0.97	
fAmily Dollar	DOW	1.32	KAW	1,34	

Is the system maintaining the required chlorine (0.2 mg/l) / chloramine (0.5 mg/l) residuals in the distribution system? Yes ☒ No ☐

COMMENTS: No major concerns were noted at the time of the inspection. All results between DOW, Kentucky American Water, and the on-line instrumentation were comparable.

MAINTENANCE		
Is plant housekeeping adequate?	Yes ☒	No ☐
Is distribution storage housekeeping adequate?	Yes ☒	No ☐
Are adequate supplies of spare parts kept on hand?	Yes ☒	No ☐
Are needed tools available?	Yes ☒	No ☐
If not, is preventive maintenance performed?	Yes ☐	No ☐
Is a lock-out/tag-out system used for electrical repairs?	Yes ☐	No ☐
What is the general condition of operating equipment? good		
COMMENTS:		

DOCUMENTATION (✓ all that apply)	
☒ Samples taken by DEP	☐ Photographs obtained by DEP
☐ Samples taken by outside source	☒ Copies of records obtained by DEP
☒ Instrument readings taken by DEP	☐ Other documentation

OVERALL TECHNICAL COMPLIANCE STATUS
☒ No Violations Observed
☐ No Violations Observed - Advisory Action Taken (Impending trends)
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)

INSPECTOR: Deborah Singleton	TITLE: Environmental Inspector	DATE: 9/18/2020

Drinking Water Sanitary Survey

TECHNICAL INSPECTION OF SURFACE WATER PLANT AND DISTRIBUTION SYSTEM OPERATIONS

PWS ID: KY0340250
Agency Interest Number: 1063; CIN20200003
AI Name: KY American Water Co
County: Fayette
WTP Latitude: 38.011157 **WTP Longitude:** -84.465995
CTAB Inspection Date(s): Plant C 8/25/2020

TREATMENT PROCESS SUMMARY	
Primary Source: Kentucky River pool #3 Secondary Source:	Maximum Pumping Rate: 20 MGD Filter Design Rate (gpm/ft^2): 4.95
Pre-sedimentation Size:	Aeration: 1)N/A 2) N/A
Sedimentation (Primary): Conventional/Tubes/Plates Sedimentation 2: 1) N/A 2) N/A	Filter (Primary): High Rate/Sand Anthracite Filter 2 (if 2 different filter types): 1) N/A 2) N/A
Total Clear Well Size (gallons): 1.6 MG	Total Distribution Storage Capacity (gallons): see plant B
Does each component of the WTP meet 10 State Standards or has each been approved by the Division of Water? Yes ☒ No ☐	
COMMENTS: The mixed media filters also contain gravel.	

CHEMICALS SUMMARY	
Pre-Disinfection/Treatment: 1) Chlorine Gas 2) N/A Post-Disinfection: 1) Chlorine Gas 2) Chloramines	Primary Coagulant: Polyaluminum Chlorides/Sulfates Secondary Coagulant (Name): N/A
Filter Aid Name: cationic polymer	Corrosion Control: Phosphate-Based Inhibitor
Taste and Odor: Potassium Permanganate	Softening: N/A
Iron and Manganese Removal: Potassium Permanganate	Fluoride Supplement: Hydrofluosilicic Acid
COMMENTS: The facility also has tbe ability to feed carbon is needed for taste and odor. 50/50 poly/ ortho is used for corrosion control.	

PLANT SCHEMATIC *(OPTIONAL)*	
Include a plant schematic indicating the following details. ***Place an "X" in the box to indicate this item is included on the schematic.***	
☐ Source water type/location	☐ Major unit processes (including baffling factors and volumes)
☐ Flow measurement locations	☐ Chemical injection locations
☐ Piping Flexibility (including # of raw and finished water mains)	☐ Waste handling

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

I. SOURCE

SOURCE				
SOURCE NAME	WATER WITHDRAWAL NUMBER	PERMITTED AMOUNT (MGD)	IS CAPACITY ADEQUATE?	ARE THERE WATER QUALITY ISSUES?
Ky River @pool #3	1572	10 MGD(Jan-May, Nov, Dec) 20 MGD(June-Aug) 15 MGD(sept-Oct)	Yes ☒ No ☐	Yes ☒ No ☐
			Yes ☐ No ☐	Yes ☐ No ☐

Upstream land uses (✓ all that apply):
☒ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential ☐ Other _____

Upstream discharges within 5 miles (✓ all that apply):
☒ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential
☐ Water/Wastewater Discharge ☐ Other _____

Is there a source water protection plan in place? (Call ADD if no one at plant knows.)	Yes ☒	No ☐
Are there any sources of Cryptosporidium in the watershed? Describe the sources: farming and dnimals	Yes ☒	No ☐
Is the system drought-vulnerable? (Has the system ever been on water conservation or dealt with a dwindling water source during warm weather?)	Yes ☐	No ☒
Does the system perform both source and finished water quality monitoring as required?	Yes ☒	No ☐

What type of water quality monitoring is done on the source water (✓ all that apply):
☒Alkalinity ☒BacTs ☒Hardness ☒Iron ☒Manganese ☒pH ☒Temperature ☒Turbidity ☐None

If multiple sources are available, is the one in use the "best" in terms of both water quality and quantity?	Yes ☐	No ☐
Are there any factors that have limited the capacity of raw water source(s) with in the last 10 years?	Yes ☐	No ☒
If the capacity of a raw source has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____	Yes ☐	No ☐
Are there any unaddressed factors that have reduced the quality of raw water source(s) in the last 10 years?	Yes ☐	No ☒
If the quality of the raw water source(s) has been reduced within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____	Yes ☐	No ☐
Are there any unaddressed factors that have limited the water available for purchase from contracted source(s) in the last 10 years?	Yes ☐	No ☒
If water available for purchase through contracted source(s) has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____	Yes ☐	No ☐

COMMENTS: No major concerns were noted at the time of the inspection.

INTAKE STRUCTURE							
LOCATION			TYPE	# of INLETS	SCREEN GRID SIZE	IS FLOODING A PROBLEM?	IS SILT BUILD-UP A PROBLEM?
ROAD/AREA	LATITUDE	LONGITUDE					

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Ky River	38.356130	-84.869978	Fixed	3	1/8	NO	NO

Number of raw water mains: 1-42" which are: PUMPED ☒ or GRAVITY FED ☐

Is raw water flow measured? Yes ☒ No ☐

If yes, when was the meter last calibrated? 12/2019 by Service Specilties

List any chemicals fed at the source: potassium permanganate

If source is a reservoir, is it aerated? Yes ☐ No ☐

List depths of intake levels (normal pool): 26'

Screens are: STATIONARY ☒ or MECHANICAL ☐

Is screen clogging a problem? Yes ☐ No ☒

How are screens cleaned? air burst

Are Zebra mussels a problem? Yes ☐ No ☐

If yes, list actions taken: KMnO4

How often are the submerged portions of the intake inspected? at least once every 2 years

When was the date of the last inspection? 2019 by Marine Solutions

COMMENTS: No major concerns were noted at the time of the inspection.

II. TREATMENT/PUMPS

PRE-SEDIMENTATION
N/A

CAPACITY (gallons)	FLEXIBILITY TO BYPASS	CHEMICAL FEED CAPABILITY	LIST CHEMICALS FED
	Yes ☐ No ☐	Yes ☐ No ☐	
	Yes ☐ No ☐	Yes ☐ No ☐	

Are treatment chemicals fed at the inlet to the pre-sedimentation basin? Yes ☐ No ☐

If so, is the chemical fed: ALL THE TIME ☐ or INTERMITTENTLY ☐?

Is algae growth a problem? Yes ☐ No ☐

How often are the pre-sedimentation basin(s) cleaned? _____

COMMENTS:

AERATION
N/A

TYPE	CAPACITY (gallons)	REASON FOR AERATION

COMMENTS:

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RAPID MIX Inspected			
TYPE	NUMBER	VOLUME (gallons)	PHYSICAL CONDITION
Mechanical Mixer	2	3750 each	Good

List chemicals in the order they are fed at the rapid mix: PACL

Is adequate mixing of chemicals taking place? Yes ☒ No ☐

Are there flow splits after the rapid mix? Yes ☒ No ☐

If so, is the flow distribution even? Yes ☒ No ☐

COMMENTS: No major concerns were noted at the time of the inspection.

FLOCCULATION BASINS Inspected				
TYPE	# of TRAINS / STAGES	VARIABLE SPEED DRIVE	VOLUME (gallons)	PHYSICAL CONDITION
Horizontal Paddle	4 / Multiple	Yes ☒ No ☐	153,000	Good
	/	Yes ☐ No ☐		

List any chemicals fed in the flocculation process: polymer, chlorine, and carbon if needed

What is the size and appearance of the floc? Size: OK & Appearance: Fluffy

How often are flocculation basins cleaned? 1-2 times a quarter or for maintenance reasons

Are the flocculation speeds tapered (decreased) through the flocculation stages? Yes ☒ No ☐

Are there flow splits after flocculation? Yes ☒ No ☐

Is flow distribution even? Yes ☒ No ☐

COMMENTS: No major concerns were noted at the time of the inspection.

SEDIMENTATION BASINS N/A					
TYPE	TRAINS / STAGES	VOLUME (gallons)	SQ. FT. AREA PER BASIN	% WITH TUBE SETTLERS	PHYSICAL CONDITION
Conventional with Tubes	4 / 1	156,000	1015	0% tubes/100% plates	Good
	/				

List any chemicals fed in the sedimentation process: _____

What is the sedimentation turbidity goal? <2 NTU

Where is this sample taken? effluent leaving the basin

What is the overflow rate of the basins? 4.56 gpm/ft^2

If system has an Actiflo process, what is the rise rate? _____

How often are the basins cleaned? as needed

How often is sludge removed from the basins? three times a day

Sludge removal is: MECHANICAL ☒ or MANUAL ☐

What was the sludge depth at the time of this inspection? _____

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

What was the settled water turbidity at the time of this inspection? 0.17		
Is there evidence of short-circuiting (flow or density currents)?	Yes ☐	No ☒
Is baffling present in the basins?	Yes ☒	No ☐
If yes, describe the baffling: ported baffled walls		
If multiple sedimentation basins, describe the piping from the basins to the filters: common flume		
Is there evidence of floc carryover to the filters?	Yes ☐	No ☒
COMMENTS: sedimentation basins are conventional with plates.		

FILTERS
Total Number of Filters: 5
Plant flow rate divided by total square footage of filters in service at the time of inspection.

TYPE	MEDIA TYPE	FILTER RATE (at insp.)	FILTER CONTROL	SURFACE WASH TYPE	FILTER TO WASTE	FILTER AREA	PHYSICAL CONDITION
Conventional	Mixed Media	3.4 gpm/ft^2	Rate of Flow	Air Scour	Yes	702	Good
		gpm/ft^2					

List any chemicals fed in the filtration process: chlorine, polymer if needed		
What is the filtered water turbidity goal? < 0.10		
Does this apply to the combined filter effluent?	Yes ☒	No ☐
To individual filter effluents?	Yes ☒	No ☐
What criteria are used for filter backwash? turbidity level, loss of head, and 100 hr rule		
What is the backwash rate in gallons per minute? 2500 and ramped to 7500		
Is filter backwash rate ramped up and down?	Yes ☒	No ☐
Is backwash flow rate measured?	Yes ☒	No ☐
Are filters ever bumped?	Yes ☐	No ☒
Is air scouring used?	Yes ☐	No ☐
What was the combined filter effluent turbidity at time of inspection? 0.04		
Are individual filters monitored for turbidity?	Yes ☒	No ☐
Are the IFE turbidimeters calibrated per the manufacturer's instructions? (inspect documentation)	Yes ☒	No ☐
Is this turbidity continuously recorded?	Yes ☒	No ☐
Can this data be retrieved in usable form from storage (tape or CDs)?	Yes ☒	No ☐
Is filter to waste (rewash) present?	Yes ☒	No ☐
Is it used?	Yes ☒	No ☐
Can turbidity be measured while filtering to waste?	Yes ☒	No ☐
Are flows adjusted on remaining in-service filters during a backwash?	Yes ☒	No ☐
COMMENTS: Filters are mixed media with 12" gravel, 12" sane, and 18" antracite.		

MEMBRANE FILTRATION
N/A

What type of membrane filtration is used? N/A		

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The membrane filtration process is PRESSURE ☐ or VACUUM ☐ driven.	
What is the designed membrane flux (flow per unit of membrane area)? _____	
Are pre-filters used ahead of the membranes?	Yes ☐ No ☐
Describe the direct integrity testing procedure. _____	
Describe how membrane breaks are isolated and repaired. _____	
How are the membranes "backwashed"? _____	
What type of chemical cleaning is used? _____ How is this waste handled? _____	
Have there been any operational or maintenance issues with the membranes? If yes, explain: _____	Yes ☐ No ☐
COMMENTS:	

RESIDUALS HANDLING	
What percent of plant production is used for in-plant processes (backwash, chemical feed, sanitary)? 1-2%	
How are spent backwash water and other liquid residuals handled? backwash water is sent to clarifiers (holding tanks) and allowed to settle. Supernatant is decacnted off and discharges to the KY River. Sludge is filter pressed and stored on site for benificial reuse.	Yes ☒ No ☐
If applicable, is the spent backwash holding tank/lagoon volume adequate?	Yes ☒ No ☐
Does the plant discharge water from this tank/lagoon back to a body of water?	
Does the plant have a KPDES discharge permit? If so, what is the permit number? KYG640175	Yes ☒ No ☐
Is the discharge meeting permit requirements?	Yes ☐ No ☐
Is the discharge point upstream of the intake?	Yes ☐ No ☒
If yes, how far upstream is the discharge point from the intake? _____	
Is spent backwash water recycled?	Yes ☐ No ☐
If yes, is the spent backwash water recycled as a: "SLUG" ☐ or as a CONSTANT FLOW ☐? What percent of the flow is recycled? _____%	
Are chemical feed rates adjusted during recycling?	Yes ☐ No ☐
Are raw water flows adjusted during recycling?	Yes ☐ No ☐
Are all recordkeeping requirements of the *Filter Backwash Rule* being followed? How are solid residuals handled? _____	Yes ☐ No ☐
COMMENTS: Wastewater compliance inpection was not performed at the time of the sanitary survey. Florence Regional Office will conduct the wastewater compliance inspection at a later time.	

CHEMICAL FEED EQUIPMENT

CHEMICAL NAME	PURPOSE	FEEDER TYPE	FEED POINT	NUMBER & CONDITION
Powdered Activated Carbon	Taste Odor	Volumetric	Pre-Flocculation	1 Good
Caustic Soda	pH Adjustment	Metering Pump	Clearwell	2 Good
Hydrofluosilicic Acid	Dental Health	Metering Pump	Post-Clearwell	2 Good
Polyaluminum Cl/SO4	Coagulation	Metering Pump	Quick/Flash Mix	2 Good

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KMnO4	Taste Odor	Metering Pump	Intake	2 Good

How are chemical feeders calibrated? calibration cylinders

How often are chemical feeders calibrated? with change of pumpage or as needed.

Are chemical dosages calculated?	Yes ☒	No ☐
How often are dosages calculated? each shift of with change of pumpage		
Are chemicals NSF or United Laboratories certified and approved by DOW prior to use?	Yes ☒	No ☐
Do the bulk liquid feed systems have day tanks?	Yes ☒	No ☐
Are there at least two feeders provided for essential processes (such as coagulation and disinfection)?	Yes ☒	No ☐
Are spare parts available?	Yes ☒	No ☐
Is there enough storage for at least a 30-day supply of chemicals used?	Yes ☒	No ☐
Are there containment areas around the chemicals in case of spills or leaks?	Yes ☒	No ☐
Are in-plant water supplies protected from backflow (cross connections)?	Yes ☒	No ☐
Does a certified tester test backflow prevention devices?	Yes ☒	No ☐

If yes: What is the testing frequency? 1/year Last Tested: 10/2019

COMMENTS: No major concerns were noted at the time of the inspection.

GAS CHLORINE SAFETY Inspected		
Is the chlorine room enclosed and separate from other operating areas?	Yes ☒	No ☐
Is there a working exhaust fan in the chlorine room?	Yes ☒	No ☐
Does it provide one complete air change per minute?	Yes ☒	No ☐
Does it exhaust from floor level?	Yes ☒	No ☐
Is intake air near the ceiling?	Yes ☒	No ☐
Is there an external audible and visual alarm?	Yes ☒	No ☐
Are switches located outside the chlorine room?	Yes ☒	No ☐
Are chlorine tanks secured?	Yes ☒	No ☐
Are the scales operational?	Yes ☒	No ☐
Is automatic switchover of chlorine cylinders provided?	Yes ☒	No ☐
Is there a shatterproof viewing window in chlorine room?	Yes ☒	No ☐
Is there a crash bar on the door of the chlorine room?	Yes ☒	No ☐
Does the door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the chlorine room?	Yes ☐	No ☒
Are personnel trained to use the SCBA?	Yes ☐	No ☒
Is the “buddy system” practiced when changing or moving chlorine cylinders?	Yes ☒	No ☐

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Is leak detection provided?	Yes ☒	No ☐
Is ammonia available for chlorine leak detection?	Yes ☒	No ☐
Is there a chlorine tank repair kit?	Yes ☒	No ☐
Are personnel trained and certified to use the kits?	Yes ☐	No ☒
COMMENTS: Facility personnel are trained for low level leak emergencies. Appropriate response personnel(fire dept) would be activated for higher level leak emergencies.		

CHLORINE DIOXIDE SAFETY		
N/A		
Many materials will catch fire and burn violently when in contact with chlorite.		
Is sodium chlorite stored in a separate room?	Yes ☐	No ☐
Is sodium chlorite stored away from organic material?	Yes ☐	No ☐
COMMENTS:		

GAS (ANHYDROUS) AMMONIA SAFETY		
N/A		
Is the ammonia room enclosed and separate from other operating areas?	Yes ☐	No ☐
Is there a working exhaust fan in the ammonia room?	Yes ☐	No ☐
If there is a working exhaust fan, does it provide one complete air change per minute?	Yes ☐	No ☐
Does the exhaust fan exhaust from ceiling level?	Yes ☐	No ☐
Is intake air near the floor?	Yes ☐	No ☐
Are switches located outside the ammonia room?	Yes ☒	No ☐
Are ammonia tanks secured?	Yes ☐	No ☐
Is there a shatterproof viewing window in ammonia room?	Yes ☐	No ☐
Is there a crash bar on the door of the ammonia room?	Yes ☐	No ☐
Does the ammonia room door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the ammonia room?	Yes ☐	No ☐
Are personnel trained to use the SCBA?	Yes ☐	No ☐
Is leak detection provided?	Yes ☐	No ☐
If leak detection is provided, is there an external audible and visual alarm?	Yes ☐	No ☐
How are ammonia leaks detected? _____		
COMMENTS: liquid ammonia is used at this facility.		

DISINFECTION			
TYPE	APPLICATION POINT	REDUNDANCY AVAILABLE	FEEDER TYPE
Chlorine Gas	Clearwell	Yes ☒ No ☐	Chlorinator
		Yes ☐ No ☐	
		Yes ☐ No ☐	
What is the means used to measure disinfectant chemical usage? scale weights			
How is the disinfectant residual monitored? on line analyzers, SCADA system, lab analysis			

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Is there an on-line, recording chlorine analyzer on the plant tap (for systems serving >3,300)?	Yes ☒ No ☐
Are C-Ts calculated daily?	Yes ☒ No ☐
COMMENTS: The facility also utilizes liquid ammonia for disinfection purposes. Ammonia is added at the post clearwell. Ammonia use is measured by a sonic level indicator.	

CLEARWELLS

VOLUME (gallons)	BAFFLING TYPE	DISINFECTANT RESIDUAL	
		TOTAL	FREE
800,000			
800,000			

List chemicals in the order in which they are fed into the clearwell: hydrofluorosilicic acid

If multiple clearwells, are they:
☒ IN SERIES (one following the other) or ☐ PARALLEL (side by side and not connected)

Are hatches secured?	Yes ☒ No ☐
Are vents screened?	Yes ☒ No ☐
How often are clear wells cleaned? as needed.	
COMMENTS: No major concerns were noted at the time of the inspection.	

WATER PLANT PUMPS
(Low service/raw water, high service/finished water and backwash)

FLOW STREAM	LOCATION	NUMBER OF PUMPS	CAPACITY (gpm)	PUMP TYPE	FLOW CONTROL METHOD
Primary Raw Water	intake	2	7000	Vertical Turbine	Automatic
Primary Raw Water	intake	2	4200	Vertical Turbine	Automatic
Finished Water	HS pump room	2	7000	Vertical Turbine	Automatic
Finished Water	HS pump room	2	4200	Vertical Turbine	Automatic
Backwash Water	HS pump room	2	880	Vertical Turbine	Automatic

Are documented maintenance and pumping records maintained for all distribution pumping stations? (minimum of pump run times, pump testing, maintenance log)	Yes ☒ No ☐
Do all pumping facilities have the ability to meet demand with one pump out of service during peak demand?	Yes ☒ No ☐
COMMENTS: No major concerns were noted at the time of the inspection.	

WATER PLANT ON-LINE INSTRUMENTATION

TYPE	FLOW STREAM (Location)	MANUFACTURER	LAST CALIBRATION DATE
Streaming Current	Raw Water	HACH	6/2020
Turbidity	Raw Water	HACH	6/2020
pH	Raw Water	HACH	6/2020

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pH	Combined Filter Effluent	HACH	6/2020
Turbidity	Settled Water	HACH	6/2020
pH	Settled Water	HACH	6/2020
Chlorine	Settled Water	HACH	6/2020

COMMENTS: A complete list of onlune instrumentation was provided during a previous inspection. All instrumentation was calibrated in June 2020.

LABORATORY (PLANT)

PARAMETERS TESTED	FREQUENCY	EQUIPMENT USED	CALIBRATION METHOD
chlorine	every 2 hrs/continuously	HACH	by KAW quarterly
phosphate	continuous	ASA analytical	BY KAW quarterly
fluoride	every 2 hours/ continuous	Hydrodyne	by KAW quarterly
hardness	1/week	titration	check standard
pH	continuous	HACH	by KAW quarterly
turbidity	continyous	HACH	by KAW quarterly
alkalinity	1/day	titration	
organics/ UV254	daily	HACH0DR5000	

Is laboratory space and lighting adequate?	Yes ☒	No ☐
Are analyses conducted according to approved EPA methods?	Yes ☒	No ☐
Does the lab have SOPs for sample collection, analysis, and reporting?	Yes ☒	No ☐
Are daily log sheets used to record day-to-day operations, testing, etc?	Yes ☒	No ☐

If daily log sheets are used, are they: ELECTRONIC (on the computer) ☒ or HAND-WRITTEN ☒

COMMENTS: Standards were observed to be current. records include calibration information, analytical information, temperature locs and check sample information.

IN-PLANT SAMPLING
(for example, top and bottom of filters)

SITE	CHLORINE		pH	TURBIDITY
	FREE	TOTAL		
CFE	5.0		7.1	0.04
top of filter	0.57		7.1	0.25
plant effluent	4.5		7.1	0.05
raw			7.3	13
plant effluent- on line	4.3		7.1	0.052

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

COMMENTS:				

III. DISTRIBUTION SYSTEM/FINISHED WATER STORAGE

DISTRIBUTION SYSTEM		
Does the system have standard specifications for design and construction of the distribution system?	Yes ☐	No ☐
Does the system prohibit new connections where pressure on the discharge side of the meter will be <30 psi?	Yes ☐	No ☐
Is the system able to meet minimum pressure requirements of DOW and/or other regulating authority?	Yes ☐	No ☐
Does the system have a documented leak detection program?	Yes ☐	No ☐
Does the distribution system have a sufficient number of valves to isolate portions of the system (for leak detection, maintenance, etc.)?	Yes ☐	No ☐
If there are separate distribution system areas, are they interconnected with each other?	Yes ☐	No ☐
If they are not interconnected, how many separate areas are there? _____		
What prevents these systems from being interconnected? _____		
How many pressure zones are there? _____		
What is the range of distribution pressures? _____		
Do any distribution areas require reduced pressure valves?	Yes ☐	No ☐
What piping materials are included in the distribution system? _____		
Does the system have a program for flushing water mains?	Yes ☐	No ☐
Describe the process for sterilizing new mains/main breaks: _____		
What types of on-line instrumentation are located at booster or pump stations and tanks? _____		
Does the system have a documented program for exercising distribution system valves?	Yes ☐	No ☐
Does the system have a documented program for regular testing of water meters including raw water, distributed and customer?	Yes ☐	No ☐
Is there a water meter replacement program?	Yes ☐	No ☐
Are there main break/emergency notification procedures?	Yes ☐	No ☐
Does the system have a documented procedure for issuing a boil water advisory and a consumer advisory? The procedure shall identify when (how soon after the occurrence) and how the system shall notify the affected health department, to whom that notification shall be made both during and after normal business hours, and procedures for issuing the advisory to the public. The public notification shall include instructions for the public (including how to properly boil water) and an explanation of steps being taken to correct the problem.	Yes ☐	No ☐
Describe how the decision is made to issue a Boil Water Advisory: _____		
Does the system have a cross-connection control program?	Yes ☐	No ☐
If yes, is the cross-connection control program documented in writing?	Yes ☐	No ☐
If the cross-connection control program is not documented in writing, describe the process for finding and eliminating cross connections: _____		
Does a certified tester test the backflow prevention devices on a regular basis?	Yes ☐	No ☐
Has a calibrated hydraulic model been developed for the system?	Yes ☐	No ☐

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

COMMENTS: The distribution system inspection is included under the Richmond Road Plant sanitary survey.

DISTRIBUTION STORAGE FACILITIES

Not Inspected

LOCATION			VOLUME (gallons)	TANK TYPE	OVERFLOW		LAST CLEANED/ INSPECTED	TELEME -TRY	% TURNOVER (Per Day)
ROAD/AREA	LATITUDE	LONGITUDE			SCREEN/ FLAPPER	>10' FROM TANK			

Are all storage tanks professionally inspected at least every 5 years (including interior, coating systems, & piping)? How often are tanks: INSPECTED _____ and CLEANED _____?

Are all storage tanks and water plants equipped with hatches, covers, screens, vandal guards and locks and all tank sites fenced for security? Yes ☐ No ☐

Are all hatches, screens, and overflows on the storage tanks checked at least monthly? Yes ☐ No ☐

Is there corrosion protection in the tanks? Yes ☐ No ☐

COMMENTS:

DISTRIBUTION BOOSTER PUMPS AND/OR BOOSTER DISINFECTION FACILITIES

N/A

LOCATION			PUMP or DISINFECTION	NUMBER & CAPACITY OF PUMPS (gpm)	DISINFECTION TYPE	AUXILIARY POWER
ROAD/AREA	LATITUDE	LONGITUDE				
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		

DISTRIBUTION SAMPLING

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

(a minimum of N, S, E, W)					
SITE	CHLORINE		pH	TURBIDITY	OTHER
	FREE	TOTAL			

Is the system maintaining the required chlorine (0.2 mg/l) / chloramine (0.5 mg/l) residuals in the distribution system? Yes ☐ No ☐

COMMENTS:

MAINTENANCE		
Is plant housekeeping adequate?	Yes ☒	No ☐
Is distribution storage housekeeping adequate?	Yes ☒	No ☐
Are adequate supplies of spare parts kept on hand?	Yes ☒	No ☐
Are needed tools available?	Yes ☒	No ☐
If not, is preventive maintenance performed?	Yes ☐	No ☐
Is a lock-out/tag-out system used for electrical repairs?	Yes ☒	No ☐
What is the general condition of operating equipment? good		
COMMENTS:		

DOCUMENTATION (✓ all that apply)	
☒ Samples taken by DEP	☐ Photographs obtained by DEP
☐ Samples taken by outside source	☐ Copies of records obtained by DEP
☐ Instrument readings taken by DEP	☐ Other documentation

OVERALL TECHNICAL COMPLIANCE STATUS		
☒ No Violations Observed		
☐ No Violations Observed - Advisory Action Taken (Impending trends)		
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)		
INSPECTOR: Deborah Singleton	TITLE: Environmental Inspector	DATE: 8/31/2020

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
875 S MAIN ST
LONDON, KY, 407411902

October 2, 2020

Kentucky American Water - Eastern Rockcastle
Brush Creek Rd
Mount Vernon, Kentucky 40456

RE: Kentucky American Water - Eastern Rockcastle
Permit No.: KY1020288
Rockcastle County, Kentucky
Activity ID: CIN20200001

Dear Mr. Money:

Attached for your information and records is a copy of the Non-comprehensive Drinking Water Inspection performed at Kentucky American Water - Eastern Rockcastle on September 23, 2020.

If you have any questions or comments concerning this inspection, please contact the London Regional Office at: (606) 330-2080.

Sincerely,

Rob Miller
Signed by: Rob Miller
Environmental Inspector
London Regional Office
Division of Water

RM
Enclosure:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Distribution Inspection

Site/Permit ID: KY1020288	Division: **Water**		Regional Office: London
Site Name: Kentucky American Water - Eastern Rockcastle		Program: **Drinking Water**	
Site Address: 9264 Main Street			
City: Livingston	State: KY	Zip: 40445	County: Rockcastle
Inspection Type: Routine Distribution	Purpose: Noncomprehensive		AI #: 34097
Inspection Date: 9/23/20	Time: Start 11:00 AM End 3:00 PM		
Latitude:	Longitude:		
Coordinate Collection Method:			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water - Eastern Rockcastle	Contact Name: Robert Money 859-268-6317	
Phone No.: Livingston Office 606-453-0019	Fax No:	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments:

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge and on duty.

Operator Name	Plant Certification #	Distribution Certification #
Justin Sensabaugh		**20165 - IV**

Comments: Mr. Sensabaugh's license is good through 6/30/22.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments:
III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments:

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☐ C ☐ N ☒ P Service Connections:621 Population Served:1670
Average Purchased MGD: 0.11 Max. Purchased MGD: Contract Amount MGD:
Source: Seller PWSID: Multiple Sellers ☒ Yes ☐ No

RATING CODES: S1 = No Violations Observed; S2= No Violations Observed-but impending viol trends obs; U1 = Out of Compliance-No action taken; U2= Out of Compliance-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV Issued; NA = Not Applicable: NE = Not Evaluated. **(Add additional comments if U1-U3.)**

SELLER INFORMATION	Seller # 1	Name **Jackson County**	PWSID# KY0550209 Contract Amount: 0.028 MGD
	Seller # 2	Name Mt. Vernon	PWSID# KY1020299 Contract Amount: 0.011 MGD
	Seller # 3	Name Livingston	PWSID# KY1020253 Contract Amount: 0.015 MGD
	Seller # 4	Name	PWSID# Contract Amount:
	Seller # 5	Name	PWSID# Contract Amount:
	RATING	**Equipment / Inspection Data**	☐ **Checking block means item is present:**
STORAGE TANK INFORMATION	NI	a) Storage Tank 1 Size:80,000	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name: Three Links (Jackson Co.	Last Cleaned: Coating condition:
	NI	b) Storage Tank 2 Size:15,000	Screened Vent:☒ Overflow☒ Telemetry: ☐
		Name: Sand Springs aka Pongo	Last Cleaned: Coating condition:
		c) Storage Tank 3 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		d) Storage Tank 4 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		e) Storage Tank 5 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		f) Storage Tank 6 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		g) Storage Tank 7 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		h) Storage Tank 8 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
GENERAL INFORMATION		j) Master meter ☐	Last Calibrated: Recorder: ☐
	NI	k) Flushing Schedule	☐ Yes ☐ No/ Frequency:
	NI	l) Chlorine Test Kit ☐	Type: Last calibrated
	NI	m) DPD reagent up-to-date	☐ Yes ☐ No
	NI	n) Blow-off / Hydrants on dead	☐ Yes ☐ No
	S1	o) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☐
	S1	p) Bacteriological monitoring	Samples per mo.5 Records: ☒
BOOSTER PUMPS	NI	q) ☒Booster pumps ☐Disinfection	Capacity2 @80 Disinfection Type:
	NI	r) ☒Booster pumps ☐Disinfection	Capacity2 @80 Disinfection Type:
	NI	s) ☒Booster pumps ☐Disinfection	Capacity2 @60 Disinfection Type:
ON SITE OBSERVATIONS	S1	t) Site Data: Miller's - River Rd	Cl. Free:0.84 Total: pH: Turbidity: 0.8
	S1	u) Site Data: 11924 Sand Springs	Cl. Free:0.38 Total: pH: Turbidity: 0.83
	S1	v) Site Data: Morning View Ch	Cl. Free:0.67 Total: pH: Turbidity:0.38

	S1	w) Site Data: Climax Fire Dept	Cl. Free:0.68 Total: pH: Turbidity:0.58
OTHER INFORMATION	NI	x) Cross connection program	☐ Yes ☐ No
	NI	y) Water meter replacement	☐ Yes ☐ No
		z) Valve exercise program	☐ Yes ☐ No
	NI	aa) Is unaccounted for water	☐ Yes ☐ No If Yes what is % loss?
	NI	bb) Up to date distribution map	☐ Yes ☐ No

Comments:

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments:

VI. Compliance Status - Not Applicable

VII. Monitoring/Analyses Evaluation

Comments:

VII. Compliance Status - No violations observed

VIII. Environmental /Health Impact

Work Site Hazard Assessment: ☒ ATTACHED ☐ REVIEWED

Comments:

VIII. Compliance Status – No violations observed

IX. Documentation

- ☐ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☒ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☐ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Rob Miller	**Title:** Environmental Control Supervisor	**Date:** 9/23/20

/

Signature:

10/6/2020

X 

Signed by: Rob Miller

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance- LOW Non-recurrent administrative or O & M**
☐ **Out of Compliance – NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #: N/A

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

June 9, 2021

Kentucky American Water - Millersburg
304 E 4th St
Millersburg, Kentucky 40348

RE: Kentucky American Water – Millersburg
A.I. 296
Permit No.: KY0090287
Bourbon County, Kentucky
Activity ID: CIN20210001

To Whom It May Concern:

Attached for your information and records is a copy of the DW NonComp-Purchaser performed at Kentucky American Water - Millersburg on May 21, 2021.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Jarod Jones
Environmental Inspector
Signed by: Jarod Jones
Frankfort Regional Office
Division of Water

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Distribution Inspection

Site/Permit ID: KY0090287	Division: **Water**		Regional Office: Frankfort
Site Name: Kentuckcy American Water-Millersburg		Program: **Drinking Water**	
Site Address: 304 E 4th street			
City: Millersburg	State: KY	Zip: 40348	County: Bourbon
Inspection Type: Routine Distribution	Purpose: Noncomprehensive		AI #: 296
Inspection Date: 5/21/21	Time: Start 1000 AM End 1200 PM		
Latitude: N 38 17' 54.7	Longitude: W84 8 50.3		
Coordinate Collection Method: GP0-With differential correction			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water-Millersburg	Contact Name: Bob Money	
Phone No.: 859-268-6317	Fax No: cell: 859-797-7374	Email Address: Bob.Money@amwater.com

I. Administrative Requirements

Comments: **Not evaluated.**
I. Compliance Status - Not Evaluated

II. Operator Certification/Accreditation Requirements

Operator in Charge and on duty.

Operator Name	Plant Certification #	Distribution Certification #
Jon Wes Felts		**IVD#18681**

Comments: **Mr. Felts is the main distribution operator for the Millersburg system. Ky American has multiple certified operators.**
II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: **Not evaluated.**
III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **The facility provides the required timely reports to the Division of Water.**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections:376 Population Served:1011
Average Purchased MGD: 0.152 Max. Purchased MGD: 0.287 Contract Amount MGD:
Source:City of Paris Water Works Seller PWSID: KY0090343 Multiple Sellers ☐ Yes ☒ No

RATING CODES: S1 = No Violations Observed; S2= No Violations Observed-but impending viol trends obs; U1 = Out of Compliance-No action taken; U2= Out of Compliance-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV Issued; NA = Not Applicable: NE = Not Evaluated. **(Add additional comments if U1-U3.)**

SELLER INFORMATION	Seller # 1	Name **City of Paris Water**	PWSID# KY0090343 Contract Amount:
	Seller # 2	Name	PWSID# Contract Amount:
	Seller # 3	Name	PWSID# Contract Amount:
	Seller # 4	Name	PWSID# Contract Amount:
	Seller # 5	Name	PWSID# Contract Amount:
	RATING	**Equipment / Inspection Data**	☐ **Checking block means item is present:**
STORAGE TANK INFORMATION	S1	a) Storage Tank 1 Size:125,000	Screened Vent:☒ Overflow☒ Telemetry: ☒
		Name: Millersburg tank	Last Cleaned: Coating condition: Good
		b) Storage Tank 2 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		c) Storage Tank 3 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		d) Storage Tank 4 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		e) Storage Tank 5 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		f) Storage Tank 6 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		g) Storage Tank 7 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		h) Storage Tank 8 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
GENERAL INFORMATION	NI	j) Master meter ☐	Last Calibrated: Recorder: ☐
	S1	k) Flushing Schedule	☒ Yes ☐ No/ Frequency: as needed
	S1	l) Chlorine Test Kit ☒	Type: HACH Last calibrated
	S1	m) DPD reagent up-to-date	☒ Yes ☐ No
	S1	n) Blow-off / Hydrants on dead	☐ Yes ☐ No
	S1	o) Monthly operating reports	☒ Daily Record Sheet ☐ Agreement: ☐
	S1	p) Bacteriological monitoring	Samples per mo.4 Records: ☐
BOOSTER PUMPS	S1	q) ☐Booster pumps ☒Disinfection	Capacity Disinfection Type: NA hypochlorite
	NA	r) ☐Booster pumps ☐Disinfection	Capacity Disinfection Type:
	NA	s) ☐Booster pumps ☐Disinfection	Capacity Disinfection Type:
ON SITE OBSERVATIONS	S1	t) Site Data: South - near tank	Cl. Free:DOW Total: 1.49 pH: KAW 1.34
	S1	u) Site Data: East - 6th st.	Cl. Free:DOW Total: 1.50 pH: KAW 1.42
	S1	v) Site Data: West - Marathon	Cl. Free:DOW Total: 1.02 pH: KAW 1.01
	S1	w) Site Data: North - Oak Ave.	Cl. Free:DOW Total: 1.32 pH: KAW 1.14
OTHER INFORMATION	S1	x) Cross connection program	☒ Yes ☐ No
	S1	y) Water meter replacement	☒ Yes ☐ No
	S1	z) Valve exercise program	☒ Yes ☐ No

	S1	aa) Is unaccounted for water	☒ Yes ☐ No If Yes what is % loss?
	S1	bb) Up to date distribution map	☒ Yes ☐ No

Comments: **No issues observed during the inspection. All components inspected were clean and well maintained.**

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: **Not applicable.**

VI. Compliance Status - Not Applicable

VII. Monitoring/Analyses Evaluation

Comments: **Not evaluated.**

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment: ☒ ATTACHED ☐ REVIEWED

Comments: **No major concerns were noted at the time of the inspection.**

VIII. Compliance Status – No violations observed

IX. Documentation

☒ **Samples taken by DEP**
☐ **Samples taken by outside source**
☒ **Instrument readings taken by DEP regional office**
☒ **Photographs obtained by DEP**
☐ **Copies of records obtained by DEP**
☐ **Other documentation**

Inspector: Jarod Jones	**Title:** Environmental Inspector II	**Date:** 05/21/2021

5/26/2021

X 

Signature: Signed by: Jarod Jones

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance- LOW Non-recurrent administrative or O & M**
☐ **Out of Compliance – NOV**

Comments: No compliance issues noted during the inspection.

Delivery Method: E-mail	Cert. Mail #:

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

July 16, 2021

Mr. Bob Money
KY American Water Co
2300 Richmond Rd
Lexington, Kentucky 40502

RE: KY American Water Co -- 1063
Permit No.: KY0340250
Fayette County, Kentucky
Activity ID: CIN20210001

Dear Mr. Money:

Attached for your information and records is a copy of the drinking water non-comprehensive inspection performed at KY American Water Co on June 21, 2021.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky American Water Plant C		Program: **Drinking Water**	
Site Address: 16035 hwy 127 south			
City: Owenton	State: KY	Zip: 40359	County: Owen
Inspection Type: Routine Surface	Purpose: Noncomprehensive		AI #: 1063
Inspection Date: 6/21/21	Time: Start 09:00 AM End 11:30 AM		
Latitude:	Longitude:		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky River station #2	Contact Name: Robert Money	
Phone No.: 859-335-3660`	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: **Not evaluated. Non-comprehensive inspection performed**

I. Compliance Status - Not Evaluated

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Scott Huddleston	**IVA#21329**	
Justin Sensabaugh		**IVD#20165**

Comments: **A complete list of operators was provided during the inspection. No concerns noted.**

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: **Not evaluated.**

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **The facility provides timely reports to the Division of Water as required.**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections: Population Served:
Average Production MGD: 7.93 Max. Production MGD: 14.8 Design Capacity MGD: 20.0 MGD
Source:Kentucky River pool #3

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	NI	a) Intakes, pumps, piping ☐	# Of Levels # Pumps Max pump.
	NA	b) Aeration ☐	
	S1	c) Rapid mix ☒	Type: If other: mechanical mixer
	S1	d) Flocculation ☒	# of Stages4 # of Trains Variable Speed
	S1	e) Sedimentation ☒	Type: Conventional # of trains:4
	NI	f) Chemical feed coagulation	
	NI	g) Carbon Feed: ☐	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 5 Size702 Filtration Rate:5
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☒
	NI	k) Chemical storage:	Dry on pallets? ☐ Chemical containment: ☐
	NI	l) Clearwell / screened vents	Size: Baffling:☐ Locked ☐ Screened ☐
	NI	m) Pumps # and size in gpm	High Service @ Backwash @
SITE DATA	S1	n) Site Data: BM tank	Cl. Free:DOW Total: 2.8 pH: KAWC :2.56
	S1	o) Site Data: office	Cl. Free:DOW Total: 2.9 pH: KAWC 2.8
	S1	p) Site Data: brock	Cl. Free:DOW Total: 3.8 pH: KAWC 3.72
	S1	q) Site Data: on-line	Cl. Free:BM tank Total: 2.9 pH: brock 3.74
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NI	s) Automatic chlorinator ☐	Automatic changeover ☐ Proper Fan ☐
	NI	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NI	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACH Last calibrated: 2/26/21
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	NI	w) Monthly operating reports	☐ Daily Record Sheet ☐ Agreement: ☐
	S1	x) Housekeeping	good
DISTRIBUTION	NI	y) Master meter ; Recorder	Raw: ☐ Finished:☐ ; Raw: ☐ Finished: ☐
	NI	z) Blowoffs / hydrants; flushing	Flushing Schedule:☐ Blowoffs on deadends:☐
	S1	aa) Water storage:	# of Tanks Total Storage:
	NI	bb) Booster pumps / chlorinators	Booster pumps: ☐ Booster chlorinators: ☐
PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: online-4.61 total: 4.3 pH: 7.1
	S1	dd) Turbidity	Raw:36 Settled:0.16 Combined Filter:0.03
	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☐

	S1	gg) Wastewater discharge	KPDES Is sizing adequate? ☒ Yes ☐ N0

Comments: A Division of Water Non-Comprehensive inspection was conducted on May 21, 2021. no major concerns were noted during the inspection. The floc basins, sedimentation basins, laboratory, and filters were observed. The basins are cleaned monthly. The laboratory was satisfactory. Instrumentation was last calibrated by Morsten Technical Services on February 26, 2021. Standards were observed to be current. Standard Operating Procedures have been developed.

The Brock and Blue moon tanks were observed during the inspection. Both tanks were fenced, secure, and had overflow protection installed. Distribution system chlorine readings were acceptable and comparable between the DOW and KAWC readings along with the on-line instrumentation reading.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: A KPDES wastewater discharge inspection was performed after the drinking water inspection.

VI. Compliance Status - No violations observed

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments:

VIII. Compliance Status – No violations observed

IX. Documentation

- ☒ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☐ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☒ **Copies of records obtained by DEP**

☐ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** July 8, 2021

Signature:

Deborah E. Singleton

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

Inspection Report

GenTrack Item # 225		
Section	**Field Name**	**Response**
Facility		
	Inspector ID	4
	PWS ID:	0340250A
	Category:	Plants
	Facility Name:	KENTUCKY AMERICAN WATER CO. A
	Status:	Active
	Status Date:	
	Address 1:	6300 Cedar Creek Lane (plant)
	Address 2:	2300 Richmond Road (mail)
	City:	LEXINGTON
	State:	KY
	Zip Code:	40515
	Phone:	859-268-6317
	Email:	bob.money@amwater.com
	County:	Fayette
	Fluoridation:	Yes
	Contact First Name:	Bob
	Contact Last Name:	Money
	Contact Address 1:	
	Contact Address 2:	
	Contact Phone Number	859-268-6317

GenTrack Item # 225 - 7		
Section	**Field Name**	**Response**
General		
	Inspection Date:	08/17/2021
	Inspector:	Lucas Bentley
	Inspector Information:	275 east Main Street Frankfort KY 40621 Office Phone: 502-564-3246 Home Phone: Lucas.Bentley@ky.gov Active
	Contact First Name:	Ed
	Contact Last Name:	Sturgis
	Contact Address 1:	

	Contact Address 2:	Bob Money (cell)
	Contact Phone:	859-268-6317
	Certification Number:	25173
	Water Source:	Surface Water
	Fluoridation Type:	Acid
	Service Connections:	116000
	Populations Served:	290000.0
	AVG Production:	30 MGD
	Flow Rate:	30.4 mgd
	Design Capacity:	54 MGPD
	PWSI Number:	0340250a
	GPS Coordinates:	37.903847, -84.378059
Chemical Treatment		
	Activated Carbon:	No
	Aluminum Chloride (Brennfloc):	No
	Aluminum Chlorohydrate:	No
	Aluminum Potassium:	No
	Aluminum Sulfate:	No
	Amonia:	Yes
	Calcium Hydroxide:	No
	Calcium Oxide:	No
	Carbon Dioxide:	No
	Charcoal:	No
	Chlorine:	Yes
	Chlorine Dioxide:	No
	Copper Sulfate:	No
	Ferric Chloride:	Yes
	Ferric Sulfate:	No
	Fluorosilic Acid:	Yes
	Hydrochloirc Acid:	No
	Hydrochlorites:	No
	Hydrogen Peroxide:	No
	Hydroxide Ammonium:	No
	Phosphate:	No
	Polyaluminum Chloride:	No
	Polyelectrolytes:	No
	Polyphosphates:	No
	Potassium Hydroxide:	No

	Potassium Permanganate:	Yes
	Silica:	No
	Sodium Aluminate:	No
	Sodium Bicarbonate:	No
	Sodium Carbonate:	No
	Sodium Chloride:	Yes
	Sodium Fluoride:	No
	Sodium Fluorosilicate:	No
	Sodium Hydroxide:	No
	Sodium Permanganate:	No
	Sodium Thiosulfite:	No
	Sulfur Dioxide:	No
	Sulfuric Acid:	No
	Ultraviolet:	No
	Others:	POLYMER, ORTHOPHASPHATE,
Plant Safety Equipment		
	Syphon Breakers Rating:	Satisfactory
	Comments:	
	Ventilation Rating:	Satisfactory
	Comments:	
	Storage Rating:	Satisfactory
	Comments:	
	Method Of Measurement:	Volumeric
	Method of Measurement Rating:	Satisfactory
	Comments:	ULTRA SONIC
Operator Safety Equipments		
	Respirator:	Satisfactory
	Comments:	
	Face Shield:	Satisfactory
	Comments:	
	Gloves:	Satisfactory
	Comments:	
	Apron:	Satisfactory
	Comments:	
Laboratory and Records		
	Tester Brands:	CH EZ-CHECK
	Tester Brand Rating:	Satisfactory

	Comments:	
	Adequate Reagent Supply:	Satisfactory
	Comments:	
	Regeant Up-To-Date:	Satisfactory
	Comments:	
	Monthly Operating Reports:	Satisfactory
	Last Month AVG-Daily Usage in Pounds:	773.0
	Last Month AVG Daily Pre-Population Results:	3.7
	Last Month AVG Tap Reading:	0.88
	Last Month AVG Raw Reading:	0.20
	Comments:	
	Housekeeping:	Satisfactory
	Comments:	
Distribution		
	Master Meter:	Satisfactory
	Comments:	
	Point Of Injection:	Satisfactory
	Comments:	PRIOR TO THE CLEARWELL.
	Chemical Feeder:	Satisfactory
	Comments:	Day Tank - 280g max Bulk Tank - 8200 max
	Feeder's Brand:	Jesco
	Feeder Size:	
	Setting:	
	Speed:	
	Stroke:	
On-Site Observation		
	Fluoride Rating:	Satisfactory
	Comments:	PLANT IN COMPLIANCE ALL YEAR. SAMPLES SENT IN ON TIME. WELL RUN PLANT. VERY PROFESSIONAL PLANT.
	Private Labs:	State Lab
	Split Rating:	Satisfactory
	Comments:	
	Insp:	1.03
	Plant:	0.88
	LAB:	0.85

Inspection Report

GenTrack Item # 226		
Section	**Field Name**	**Response**
Facility		
	Inspector ID	4
	PWS ID:	0340250B
	Category:	Plants
	Facility Name:	KENTUCKY AMERICAN WATER CO. B
	Status:	Active
	Status Date:	
	Address 1:	2300 RICHMOND RD
	Address 2:	
	City:	LEXINGTON
	State:	KY
	Zip Code:	40505
	Phone:	859 268-6317
	Email:	bob.money@amwater.com
	County:	Fayette
	Fluoridation:	Yes
	Contact First Name:	Bob
	Contact Last Name:	Money
	Contact Address 1:	
	Contact Address 2:	
	Contact Phone Number	859 268-6317

GenTrack Item # 226 - 7		
Section	**Field Name**	**Response**
General		
	Inspection Date:	08/17/2021
	Inspector:	Lucas Bentley
	Inspector Information:	275 east Main Street Frankfort KY 40621 Office Phone: 502-564-3246 Home Phone: Lucas.Bentley@ky.gov Active
	Contact First Name:	Ben
	Contact Last Name:	Corbin
	Contact Address 1:	

	Contact Address 2:	
	Contact Phone:	859 268-6348
	Certification Number:	16483
	Water Source:	Surface Water
	Fluoridation Type:	Acid
	Service Connections:	130000
	Populations Served:	325000.0
	AVG Production:	12 MGPD
	Flow Rate:	7 MGD
	Design Capacity:	25 MGPD
	PWSI Number:	0340250b
	GPS Coordinates:	37.904274 -84.377505
Chemical Treatment		
	Activated Carbon:	Yes
	Aluminum Chloride (Brennfloc):	No
	Aluminum Chlorohydrate:	No
	Aluminum Potassium:	No
	Aluminum Sulfate:	No
	Amonia:	Yes
	Calcium Hydroxide:	No
	Calcium Oxide:	No
	Carbon Dioxide:	No
	Charcoal:	No
	Chlorine:	Yes
	Chlorine Dioxide:	No
	Copper Sulfate:	Yes
	Ferric Chloride:	No
	Ferric Sulfate:	No
	Fluorosilic Acid:	Yes
	Hydrochloirc Acid:	No
	Hydrochlorites:	No
	Hydrogen Peroxide:	No
	Hydroxide Ammonium:	No
	Phosphate:	No
	Polyaluminum Chloride:	No
	Polyelectrolytes:	No
	Polyphosphates:	No
	Potassium Hydroxide:	No

	Potassium Permanganate:	Yes
	Silica:	No
	Sodium Aluminate:	No
	Sodium Bicarbonate:	No
	Sodium Carbonate:	No
	Sodium Chloride:	Yes
	Sodium Fluoride:	No
	Sodium Fluorosilicate:	No
	Sodium Hydroxide:	No
	Sodium Permanganate:	No
	Sodium Thiosulfite:	No
	Sulfur Dioxide:	No
	Sulfuric Acid:	No
	Ultraviolet:	No
	Others:	POLYMER, ORTHOPHOSHATE.
Plant Safety Equipment		
	Syphon Breakers Rating:	Satisfactory
	Comments:	
	Ventilation Rating:	Satisfactory
	Comments:	
	Storage Rating:	Satisfactory
	Comments:	
	Method Of Measurement:	Volumeric
	Method of Measurement Rating:	Satisfactory
	Comments:	ULTRA SONIC
Operator Safety Equipments		
	Respirator:	Satisfactory
	Comments:	
	Face Shield:	Satisfactory
	Comments:	
	Gloves:	Satisfactory
	Comments:	
	Apron:	Satisfactory
	Comments:	
Laboratory and Records		
	Tester Brands:	CH EZ-CHECK
	Tester Brand Rating:	Satisfactory

	Comments:	
	Adequate Reagent Supply:	Satisfactory
	Comments:	
	Regeant Up-To-Date:	Satisfactory
	Comments:	
	Monthly Operating Reports:	Satisfactory
	Last Month AVG-Daily Usage in Pounds:	320.7
	Last Month AVG Daily Pre-Population Results:	3.7
	Last Month AVG Tap Reading:	0.85
	Last Month AVG Raw Reading:	0.42
	Comments:	
	Housekeeping:	Satisfactory
	Comments:	
Distribution		
	Master Meter:	Satisfactory
	Comments:	
	Point Of Injection:	Satisfactory
	Comments:	AFTER FILTERS
	Chemical Feeder:	Satisfactory
	Comments:	Setting: 1.03 GPH
	Feeder's Brand:	Vacon
	Feeder Size:	6.1 GPH
	Setting:	
	Speed:	
	Stroke:	
On-Site Observation		
	Fluoride Rating:	Satisfactory
	Comments:	PLANT IN COMPLIANCE ALL YEAR. SAMPLES SENT IN ON TIME. WELL RUN PLANT. VERY PROFESSIONAL PLANT.
	Private Labs:	
	Split Rating:	Satisfactory
	Comments:	Serve as their own certified lab
	Insp:	0.98
	Plant:	0.83
	LAB:	0.71

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

October 1, 2021

Mr. Bob Money
KY American Water Co
2300 Richmond Rd
Lexington, Kentucky 40502

RE: KY American Water Co -- 1063
Permit No.: KY0340250
Fayette County, Kentucky
Activity ID: CIN20210003

Dear Mr. Money:

Attached for your information and records is a copy of the drinking water non-comprehensive inspection performed at KY American Water Co- plant A on September 2, 2021.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky Americal Water- Plant A		Program: **Drinking Water**	
Site Address: 6300 Cedar Creek Road			
City: Lexington	State: KY	Zip: 40515	County: Fayette
Inspection Type: Routine Surface	Purpose: Noncomprehensive		AI #: 1063
Inspection Date: 9/2/21	Time: Start 0830 AM End 0930 AM		
Latitude: 37 54' 16"	Longitude: 84 22' 42"		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water- Plant A	Contact Name: Robert Money	
Phone No.: 858-335-3660	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: The facility has not received any enforcement actions since the previous inspection.

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Edwin Sturgis	**Class 4A, #81**	
Janet Bemiss	**IVA#1551**	**I**

Comments: A complete list of operators was provided during the inspection.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: Not evaluated. Non-comprehensive inspection performed.

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **Not evaluated. Non-comprehensive inspection performed.**

IV. Compliance Status - Not Evaluated

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections:129,493 Population Served:348,336
Average Production MGD: 23.23 Max. Production MGD: 32.16 Design Capacity MGD: 45
Source:Kentucky River

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	S1	a) Intakes, pumps, piping ☒	# Of Levels1 # Pumps6 Max pump.
	NA	b) Aeration ☐	
	NI	c) Rapid mix ☐	Type: If other:
	NA	d) Flocculation ☐	# of Stages # of Trains Variable Speed
	S1	e) Sedimentation ☒	Type: Hydrotreator # of trains:
	NI	f) Chemical feed coagulation	
	NI	g) Carbon Feed: ☐	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 10 Size718 Filtration Rate:4
	NI	j) Automatic analyzers:	Chlorine: ☐ Turbidity: ☐ Each filter: ☐ pH: ☐
	NI	k) Chemical storage:	Dry on pallets? ☐ Chemical containment: ☐
	NI	l) Clearwell / screened vents	Size: Baffling:☐ Locked ☐ Screened ☐
	NI	m) Pumps # and size in gpm	High Service61 @ Backwash @
SITE DATA		n) Site Data:	Cl. Free: Total: pH: :
		o) Site Data:	Cl. Free: Total: pH:
		p) Site Data:	Cl. Free: Total: pH:
		q) Site Data:	Cl. Free: Total: pH:
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NI	s) Automatic chlorinator ☐	Automatic changeover ☐ Proper Fan ☐
	NI	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NI	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACh Last calibrated: 2/24/2021
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	S1	w) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☒
	S1	x) Housekeeping	good
DISTRIBUTION	NA	y) Master meter ; Recorder	Raw: ☐ Finished:☐ ; Raw: ☐ Finished: ☐
	NA	z) Blowoffs / hydrants; flushing	Flushing Schedule:☐ Blowoffs on deadends:☐
	NA	aa) Water storage:	# of Tanks Total Storage:
	NA	bb) Booster pumps / chlorinators	Booster pumps: ☐ Booster chlorinators: ☐
PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: total: 3.11 pH: 6.98
	S1	dd) Turbidity	Raw:16.0 Settled:1.7 Combined Filter:0.05
	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☐

	S1	gg) Wastewater discharge	Is sizing adequate? ☒ Yes ☐ N0

Comments: The facility was clean and operational at the time of the inspection. The new intake access car system has been completed. Flow is directed through arapid mix where DelPAC 202 and other polymers are added. Water is them processed through hydrotreators. All five hydrotreator valve houses have been reworked and new Swan Sewnaos Turbiwell instrumentation has been installed. Weekly calibration checks are performed on all sampling equipment by facility personnel. A new THM on-line analyzer has been installed on the plant effluent. The new chemical building has been completed. The facility is now using liquid chlorine for disinfection. Chemical areas are marked appropriately and are secure.
The laboratory was satisfactory. Standards were observed to be current. Records observed during the inspection include analytical bench sheets, temperature log books, and calibration logs. Laboratory instrumentation was calibrated by an outside source in February 2021. The plant on-line chlorine and bench top chlorine readings were comparable.

The distribution system for this plant is associated with the Richmond Road facility.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: Not evaluated.

VI. Compliance Status - Not Evaluated

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments: No major concerns were noted at the time of the inspection.

VIII. Compliance Status – No violations observed

IX. Documentation

☒ **Samples taken by DEP**
☐ **Samples taken by outside source**
☐ **Instrument readings taken by DEP regional office**
☐ **Photographs obtained by DEP**

☒ **Copies of records obtained by DEP**
☒ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 9/17/2021

Signature: **DES**

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

October 4, 2021

Mr. Bob Money
KY American Water Co
2300 Richmond Rd
Lexington, Kentucky 40502

RE: KY American Water Co -- 1063
Permit No.: KY0340250
Fayette County, Kentucky
Activity ID: CIN20210005

Dear Mr. Money:

Attached for your information and records is a copy of the drinking water non-comprehensive inspection performed at KY American Water Co Plant B on September 2, 2021.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky American Water- Plant B		Program: **Drinking Water**	
Site Address: 2300 Richmond Road			
City: Lexington	State: KY	Zip: 40502	County: Fayette
Inspection Type: Routine Surface	Purpose: Noncomprehensive		AI #: 1063
Inspection Date: 9/2/21	Time: Start 10:00 AM End 14:00 PM		
Latitude: 37 39' 24"	Longitude: 84 26' 11"		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water- Plant-B	Contact Name: Robert Money	
Phone No.: 423-355-8591	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: The facility has not received any enforcement actions since the previous inspection.

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Nathan Coyle	**IVA#31126**	
Benjamin Corbin	**IVA#16483**	
Richard Howard	**IVA#20165**	

Comments: A full list of operators was provided during the inspection. Justin Sensabaugh is in charge of the distribution system: active Class IVD, license #20165.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: Not evaluated. Non-comprehensive inspection performed.

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: Not evaluated.

IV. Compliance Status - Not Evaluated

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections: 129493 Population Served: 348,336
Average Production MGD: 9.39 Max. Production MGD: 16.39 MGD Design Capacity MGD: 25 MGD
Source: Kentucky River and Jacobson Resesrvoir.

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	NI	a) Intakes, pumps, piping ☐	# Of Levels # Pumps Max pump.
	NA	b) Aeration ☐	
	S1	c) Rapid mix ☒	Type: Mechanical paddle If other:
	S1	d) Flocculation ☐	# of Stages2 # of Trains2 Variable Speedyes
	S1	e) Sedimentation ☐	Type: Conventional # of trains:4
	S1	f) Chemical feed coagulation	Alum-polymer blends
	NA	g) Carbon Feed: ☐	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 8 Size Filtration Rate:4
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☒
	S1	k) Chemical storage:	Dry on pallets? ☒ Chemical containment: ☒
	NI	l) Clearwell / screened vents	Size:1.2 MG Baffling:☒ Locked ☒ Screened ☒
	NI	m) Pumps # and size in gpm	High Service6 @ Backwash 2 @ 9933
SITE DATA	S1	n) Site Data: Clays Mill	Cl. Free:-DOW Total: 1.7 pH: on-liine :1.54
	S1	o) Site Data: Clays Mill	Cl. Free:WTP Total: 1.55 pH:
	S1	p) Site Data: Mercer	Cl. Free:DOW Total: 2.6 pH: On-Line 2.50
	S1	q) Site Data: Mercer	Cl. Free:WTP Total: 2.25 pH:
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NA	s) Automatic chlorinator ☒	Automatic changeover ☒ Proper Fan ☒
	NA	t) Separate room & ventilation	Crash Bar ☒ Alarm ☒
	NA	u) Safety equipment	SCBA ☒ Ammonia ☒ Detector ☒
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACH Last calibrated: 02/2021
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	S1	w) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☒
	S1	x) Housekeeping	Good
DISTRIBUTION	NI	y) Master meter ; Recorder	Raw: ☒ Finished:☒ ; Raw: ☒ Finished: ☒
	NI	z) Blowoffs / hydrants; flushing	Flushing Schedule:☒ Blowoffs on deadends:☒
	S1	aa) Water storage:	# of Tanks 12 Total Storage:
	NI	bb) Booster pumps / chlorinators	Booster pumps: ☒ Booster chlorinators: ☐

PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: total: 3.15 pH: 7.36
	S1	dd) Turbidity	Raw:7 Settled:0.16 Combined Filter:0.026
	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☒
	NI	gg) Wastewater discharge	Is sizing adequate? ☒ Yes ☐ N0

Comments: The Division of Water conducted a comprehensive inspection on September 2, 2021. The inspection included a tour of the facility's process, laboratory procedures, and the KAW distribution system. No major concerns were noted during the inspection. The facility was clean and operational. Raw water is continually monitored as it enters the plant and is then directed to the rapid mix, floc basins, and sedimentation basins. The flow leaving the weirs were satisfactory. Basins are cleaned quarterly. Filters were satisfactory and used on a rotating basis. Online instrumentation is calibrated quarterly. Flow leaves the filters and is directed to one of two chlorine contact basins.
The new chemical building has been completed. The facility now used liquid chlorine for disinfection purposes. Liquid lime is now used. Current chemical storage areas are marked appropriately and are secure. The laboratory was satisfactory. Standards were observed to be current.

The following tanks were observed during the inspection: Arboretum, Clays MIll, Mercer, Briar Hill, and Eastland. The tanks were secure, flappered, and observed to be in good condition.

Chlorine residuals in the system were acceptable. Daily chlorine check standards are performed and recorded. Tanks are inspected once every five years. System flushing is performed in the spring. Most meters are radio read. Additional chlorine sample: Briar Hill: DOW 1.4; WTP 1.31; On-Line- 1.0.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: A KPDES inspection was performed and the facility was found to be in compliance.

VI. Compliance Status - No violations observed

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments: No major concerns were noted at the time of the inspection.

VIII. Compliance Status – No violations observed

IX. Documentation

☒ **Samples taken by DEP**
☐ **Samples taken by outside source**
☒ **Instrument readings taken by DEP regional office**
☐ **Photographs obtained by DEP**
☒ **Copies of records obtained by DEP**
☐ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 09/17/21

Signature: E-Signed by Singleton, Deborah
VERIFY authenticity with e-Sign
Deborah E. Singleton

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Distribution Inspection

Site/Permit ID: KY1020288	Division: **Water**		Regional Office: London
Site Name: Kentucky American Water - Eastern Rockcastle		Program: **Drinking Water**	
Site Address: 9264 Main Street			
City: Livingston	State: KY	Zip: 40445	County: Rockcastle
Inspection Type: Routine Distribution	Purpose: Comprehensive		AI #: 34097
Inspection Date: 9/22/21	Time: Start 11:00 AM End 6:15 PM		
Latitude:	Longitude:		
Coordinate Collection Method:			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water - Eastern Rockcastle	Contact Name: Dorothy Johnson 859-335-3670 (office) 859-537-0744 (mobile)	
Phone No.: Livingston Office 606-453-0019	Fax No:	Email Address: Dorothy.Johnson@amwater.com

I. Administrative Requirements

Comments: As required, the system submitted a written response to the August 2019 Sanitary Survey's non-significant deficiencies.

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge and on duty.

Operator Name	Plant Certification #	Distribution Certification #
Charles Dick - AI 46253		**64535 - IV**
Justin Sensabaugh AI 30399	**9579 - IV**	**20165 - IV**

Comments: The Class II distribution system is adequately staffed. Mr. Sensabaugh is the Senior Manager of Field Operation and Mr. Dick is the Manager of Field Operations. Their licenses have been renewed through 6/30/22. Daily operation of the distribution system is conducted by Rodney Trowbridge and Josh Martin.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: The system does not maintain a line break log in accordance with 401 KAR 8:150 Section 4(2). The system should maintain a log of all breaks or ruptures, which shall include the:

a. date and location of the break;
b. time it was discovered;
c. the population affected;
d. length of time required to repair the break;
e. date and time disinfectant residuals are detected;
f. date and time bacteriological samples are taken.

Daily distribution chlorine monitoring logs are maintained well. One log is maintained for four of the areas within the system: Brush Creek, Jackson Co. Water, Sand Springs and Sand Hill. Each log includes all pertinent information, including the date and time, location, analysts' initials and chlorine result.

Chains of custody and laboratory analysis reports are maintained and available for review.

Mr. Trowbridge maintains a monthly seondary standard check for the Hach II pocket colorimeter used for compliance monitoring. The log includes all pertinent information including the standard reading and its acceptable range.

Customer complaints are stored electronically.

III. Compliance Status - No violations obs- but impending viol trends obs

IV. Reporting Requirements

Comments: BWAs are reported well.

MORs are signed by Dorothy Johnson (Ky American Water - Water Quality Specialist) and submitted as required. The system normally reports 4 daily chlorine residual readings: Jackson Co. supplied water at Three Links (reported as the North), Livingston supplied water on Sand Hill (East), Mt. Vernon supplied water at Sand Springs (West) and Mt. Vernon supplied water at the Brush Creek master meter (South).

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☐ C ☐ N ☒ P Service Connections:667 Population Served:1794
Average Purchased MGD: 0.089 Max. Purchased MGD: Contract Amount MGD:
Source: Seller PWSID: Multiple Sellers ☒ Yes ☐ No

RATING CODES: S1 = No Violations Observed; S2= No Violations Observed-but impending viol trends obs; U1 = Out of Compliance-No action taken; U2= Out of Compliance-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV Issued; NA = Not Applicable: NE = Not Evaluated. **(Add additional comments if U1-U3.)**

SELLER INFORMATION	Seller # 1	Name **Jackson County**	PWSID# KY0550209 Contract Amount: 0.049 MGD
	Seller # 2	Name Mt. Vernon	PWSID# KY1020299 Contract Amount: 0.038 MGD
	Seller # 3	Name Livingston	PWSID# KY1020253 Contract Amount: 0.015 MGD
	Seller # 4	Name	PWSID# Contract Amount:
	Seller # 5	Name	PWSID# Contract Amount:
	RATING	**Equipment / Inspection Data**	☐ **Checking block means item is present:**
STORAGE TANK INFORMATION	S1	a) Storage Tank 1 Size:80,000	Screened Vent:☐ Overflow☒ Telemetry: ☐
		Name: Three Links (Jackson Co.	Last Cleaned:2019 Coating condition: Good
	S1	b) Storage Tank 2 Size:15,000	Screened Vent:☒ Overflow☒ Telemetry: ☐
		Name: Sand Springs aka Pongo	Last Cleaned:2019 Coating condition: Good
		c) Storage Tank 3 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		d) Storage Tank 4 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		e) Storage Tank 5 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		f) Storage Tank 6 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		g) Storage Tank 7 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		h) Storage Tank 8 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
GENERAL INFORMATION		j) Master meter ☐	Last Calibrated: Recorder: ☐
		k) Flushing Schedule	☐ Yes ☐ No/ Frequency: Annually
	S1	l) Chlorine Test Kit ☒	Type: HACH II Last calibrated 9/6/21
	S1	m) DPD reagent up-to-date	☒ Yes ☐ No
	S1	n) Blow-off / Hydrants on dead	☒ Yes ☐ No
	S1	o) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☐
	S1	p) Bacteriological monitoring	Samples per mo.5 Records: ☒
BOOSTER PUMPS	NI	q) ☒Booster pumps ☐Disinfection	Capacity2 @80 Disinfection Type:
	NI	r) ☒Booster pumps ☐Disinfection	Capacity2 @80 Disinfection Type:
	NI	s) ☒Booster pumps ☐Disinfection	Capacity2 @60 Disinfection Type:
ON SITE OBSERVATIONS	S1	t) Site Data: Buffalo Baptist Ch.	Cl. Free:0.60 Total: 0.72 pH: Turbidity: 0.08
	S1	u) Site Data: Climax VFD	Cl. Free:0.77 Total: pH: Turbidity: 1.46
	S1	v) Site Data: Ballinger Farms	Cl. Free:1.11 Total: pH: Turbidity: 0.18
	S1	w) Site Data: 3753 Sand Hill Rd	Cl. Free:1.41 Total: pH: Turbidity: 0.21
OTHER INFORMATION	S1	x) Cross connection program	☒ Yes ☐ No
	S1	y) Water meter replacement	☒ Yes ☐ No
	S1	z) Valve exercise program	☒ Yes ☐ No
	S1	aa) Is unaccounted for water	☒ Yes ☐ No If Yes what is % loss? 35.6
	S1	bb) Up to date distribution map	☒ Yes ☐ No

Comments: The system is serviced by 4 master meters; 2 from Mt. Vernon/KY1020299 (Brush Creek and Sand Springs), 1 from Jackson Co./KY0550209 in the Three Links community and 1 from Livingston/KY1020253 in the Sand Hill area.

In August 2021, the system averaged 134 ga/connection/day.

The 25', Mt. Vernon Water fed tank at Pongo is controlled by an altitude valve, it is set to kick on at 8' and off at 23.5'. The tank was inspected in 2019 by Tank Industry Consultants and found to be in good condition. The tank's exterior was blasted and painted late 2019/early 2020.

The Jackson Co. Water fed tank at Three Links was fully restored on the inside & outside and painted on the exterior. The work was performed by Currens Construction in the fall of 2019/early 2020.

Distribution pump stations include 2 at Sand Hill, 2 at Pongo and 2 which are currently out of operation at Ole Gauley.

The system's Neptune radio-read meter replacement project was completed in 2018.

KAW (Jennifer Shrewsberry) implements the system's Cross Connection Control Program.

The system's GIS mapping project was completed in early 2020.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments:

VI. Compliance Status - Not Applicable

VII. Monitoring/Analyses Evaluation

Comments: Daily chlorine monitoring is conducted by Rodney Throwbridge and Josh Martin. Normally four locations are monitored for free residual daily. The locations include water from all three of the suppliers. The normal locations include Three Links (Jackson Co. Water), Sand Hill Road (Livingston Water), Sand Springs (Mt. Vernon Water on the West side of the system) and at the Brush Creek master meter (Mt. Vernon Water on the East side of the system). To adequately monitor the chlorine residual throughout the distribution system, sampling should routinely occur further down the Jackson Co. line and past the Brush Creek master meter. On August 25th, 2021 the chlorine level at the Brush Creek master meter was 0.52 mg/l.

Mr. Trowbridge maintains a monthly seondary standard check for the Hach II pocket colorimeter used for compliance monitoring. The log for 2021 was reviewed and includes all pertinent information including the standard reading and its acceptable range. The standard kit lot number is A0007 and it expires 1/22.

The system is required to collect 2 bact samples/month based on population. The system collects 5 monthly; 3 samples during the first week and 2 samples during the third week. The samples are collected by Mr. Trowbridge. Prior to the sample collection, he performs a secondary reference

standard check on his pocket colorimeter. The check is documented on the chain of custody. Lab reports indicate hold times are met. Sample sites are repeated weekly. The system should routinely sample from other DOW approved monitoring locations to adequately represent the entire distribution system.

Special BACT samples are collected by Mr. Trowbridge and delivered to the Ky American Richmond Road lab (#00011) for analysis.

The system is required to collect DBP samples from 2 locations quarterly. Their monitoring sites are Big Cave Road (Mt. Vernon Water) and 3333 Upper Piney Branch Road (Jackson Co. Water). Until the most recent 8/2/21 monitoring event, the system had not exceeded the MCL for HAA5s or TTHMs since the 3Q20. On 8/2/21, HAA5s and TTHMs were just slightly over the MCL at one of the two monitoring locations. The system conducts DBP monitoring at the Jackson MM, Sand Springs MM, and Brush Creek MM to have a background level. The samples are collected by Mr. Trowbridge and analyzed by the American Water lab in Bellville, Il (#90005).

VII. Compliance Status - No violations observed

VIII. Environmental /Health Impact

Work Site Hazard Assessment: ☒ ATTACHED ☐ REVIEWED

Comments:

VIII. Compliance Status – No violations observed

IX. Documentation

- ☐ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☒ **Instrument readings taken by DEP regional office**
- ☒ **Photographs obtained by DEP**
- ☒ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Beth Trent	**Title:** Environmental Inspector III	**Date:** 10/5/21

10/5/2021

X Beth Trent

Signature: Signed by: Beth Trent

Overall Compliance Status
☐ No violations observed
☒ No violations observed, but impending violation trends observed
☐ Out of Compliance- No action taken
☐ Out of Compliance- LOW Non-recurrent administrative or O & M
☐ Out of Compliance – NOV

Comments: The system does not maintain a line break log in accordance with 401 KAR 8:150 Section 4(2). The system should maintain a log of all breaks or ruptures, which shall include the:

a. date and location of the break;
b. time it was discovered;
c. the population affected;
d. length of time required to repair the break;
e. date and time disinfectant residuals are detected;
f. date and time bacteriological samples are taken.

To adequately monitor the chlorine residual throughout the distribution system, sampling should routinely occur further down the Jackson Co. line and past the Brush Creek master meter. On August 25th, 2021 the chlorine level at the Brush Creek master meter was 0.52 mg/l.

Delivery Method: E-mail	Cert. Mail #: N/A

Inspection Report

GenTrack Item # 227		
Section	**Field Name**	**Response**
Facility		
	Region:	Central
	PWS ID:	0340250C
	Category:	Plants
	Facility Name:	KENTUCKY AMERICAN WATER CO. C
	Status:	Active
	GPS Location:	38.358527 -84.865399
	Physical Address:	16035 HWY 127
	Mailing Address:	
	City:	OWENTON
	State:	KY
	Zip Code:	40359
	Phone:	502 484-8373
	Plant Email:	bob.money@amwater.com
	County:	Owen
	Fluoridation:	Yes
	Contact First Name:	Jason
	Contact Last Name:	Case
	Contact Address 1:	
	Contact Address 2:	
	Contact Phone Number:	502 395-2945
	Contact Email:	bob.money@amwater.com

GenTrack Item # 227 - 8		
Section	**Field Name**	**Response**
General		
	Inspection Date:	03/11/2022
	Inspector:	Lucas Bentley
	Inspector Information:	275 east Main Street Frankfort KY 40621 Office Phone: 502-564-3246 Home Phone: Lucas.Bentley@ky.gov Active
	Operator On Duty First Name:	Chris

	Operator On Duty Last Name:	Riddle
	Contact Address 1:	16035 HWY 127
	Contact Address 2:	
	Contact Phone:	502 484-8373
	Certification Number:	16208
	Water Plant Operator Certification Level:	
	Facility Classification Level:	
	[BLANK]	
	Water Source:	Surface Water
	Fluoridation Type:	Acid
	Service Connections:	3900
	Populations Served:	10491.00
	AVG Production:	7.5 MGPD
	Flow Rate (Influent):	4200 GPM
	Master Meter (Raw):	Satisfactory
	Design Capacity:	20 MGPD
	PWSI Number:	0340250C
	GPS Coordinates:	38.358527 -84.865399
	Comments:	
Chemical Treatment		
	Activated Carbon (Activated Charcoal):	Yes
	Aluminum Chloride:	Yes
	Aluminum Chlorohydrate:	No
	Aluminum Potassium:	No
	Aluminum Sulfate (Alum):	No
	Amonia:	Yes
	Calcium Hydroxide (Hydrated Lime):	No
	Calcium Oxide (Quick Lime):	No
	Carbon Dioxide:	No
	Charcoal:	No
	Chlorine (gas):	Yes
	Chlorine (liquid):	No
	Chlorine Dioxide:	No
	Copper Sulfate:	No
	Ferric Chloride:	No

	Ferric Sulfate:	No
	Hydrofluorosilicic Acid (HFS):	Yes
	Hydrochloric Acid:	No
	Hydrochlorites:	No
	Hydrogen Peroxide:	No
	Hydroxide Ammonium:	No
	Phosphate:	No
	Polyaluminum Chloride (PAC):	No
	Polyelectrolytes:	No
	Polyphosphates:	No
	Potassium Hydroxide (Caustic Potash):	No
	Potassium Permanganate:	Yes
	Silica:	No
	Sodium Aluminate:	No
	Sodium Bicarbonate (Baking Soda):	No
	Sodium Carbonate (Soda Ash):	No
	Sodium Chloride (Salt):	No
	Sodium Fluoride:	No
	Sodium Fluorosilicate:	No
	Sodium Hydroxide (Caustic Soda):	No
	Sodium Hypochlorite:	No
	Sodium Permanganate:	No
	Sodium Thiosulfite:	Yes
	Sulfur Dioxide:	No
	Sulfuric Acid:	No
	Ultraviolet:	No
	Others:	ORTHOPHOSPHATE, POLYMER & CAUSTIC SODA.
Fluoride System		
	Saturator System:	
	Saturator Cleanout Date (recommended annually or as needed):	
	[BLANK]	

	[BLANK]	
	Comments:	
	Dry System:	
	Comments:	
	Tablet System:	
	Tablet System Flow Rate:	
	Comments:	
	Hydrofluorosilicic Acid (HFS) System:	
	Hydrofluorosilicic Acid (HFS) Bulk Tank Size (gallons):	
	HFS Day Tank Size (dimensions in inches):	
	HFS Day Tank Size (gallons):	
	HFS Day Tank Limitations:	
	HFS Day Tank Loss of Suction Point (lbs if scale used and inches if volumetric loss used):	
	HFS Day/Bulk Tank Vented to the Outside Atmosphere:	
	Transfer Pump:	
	Liquid Level Limit Switch:	
	HFS Usage Table:	
	Comments:	
	[BLANK]	

Plant Safety Equipment

	Syphon Breakers Rating:	Satisfactory
	Comments:	
	Ventilation Rating:	Satisfactory
	Forced Ventilation Switch Location:	
	Comments:	
	Chemical Storage Rating:	Satisfactory
	Comments:	

	Method Of Measurement:	Volumeric
	Method of Measurement Rating:	Satisfactory
	Comments:	ULTRA SONIC
	Secondary Containment:	
	Comments:	
Operator Safety Equipment		
	Respirator Available:	Yes
	Comments:	
	Face Shield/Safety Glasses Available:	Yes
	Comments:	
	Gloves Available:	Yes
	Comments:	
	Apron/Coat Available:	Yes
	Comments:	
	Eye Wash Station/Deluge Shower:	Satisfactory
	Eye Wash Station/Deluge Shower Maintenance Check (recommended monthly):	
	Comments:	
Laboratory and Records		
	Tester Brands:	CH EZ-CHECK
	Tester Brand Rating:	Satisfactory
	Comments:	
	Adequate Reagent Supply:	Satisfactory
	Comments:	
	Reagent Up-To-Date (Include either the expiration date or the Lot number in the comments):	Satisfactory
	Comments:	
	Monthly Operating Reports:	Satisfactory
	Last Month AVG-Daily Usage in Pounds:	4.0
	Last Month AVG Daily Pre-Population Results:	0
	Last Month AVG Tap Reading:	0.87

	Last Month AVG Raw Reading:	0.13
	Comments:	
	505 Reporting:	Satisfactory
	505 Sample Locations (First Plant/Second Distribution):	Satisfactory
	505 Dates:	Satisfactory
	[BLANK]	
	In Compliance Year to Date:	Yes
	Housekeeping:	Satisfactory
	Comments:	
Distribution		
	Point Of Injection:	Satisfactory
	Injection Site:	
	Comments:	PRIOR TO THE CLEARWELL
	Chemical Feeder:	Satisfactory
	Comments:	Speed and Stroke are percentages
	Feeder's Brand:	JAC
	Feeder Model #:	1731
	Feeder Size:	4.9 GPH
	Setting:	0.88ppm
	Speed:	11
	Stroke:	15
On-Site Observation		
	Fluoride Rating:	Satisfactory
	Comments:	
	Private Labs:	Kentucky America
	Other Water Treatment Systems Directly Connected:	
	Other Water Treatment Systems Water Sold To:	
	Other Water Treatment Systems Water Purchased From:	
	[BLANK]	
	Facility Entrance:	
	Laboratory:	

	Fluoride Tester:	
	Fluoride Room:	
	Ventilation:	
	Fluoride Metering Pump Tag:	
	Overall Fluoride System (Saturator, Bulk/Day Tank, Dry Hopper, Tablet):	
	Injection Site:	
	Scales (if applicable):	
	Anti-Syphon Device (if applicable):	
	Eye Wash/Deluge Shower Station (if applicable):	
	[BLANK]	
	Split Rating:	Satisfactory
	Insp:	0.64
	Plant:	0.91
	LAB:	0.87
	Comments:	Well Ran Facility In Compliance YTD
	[BLANK]	

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

August 10, 2022

Mr. Bob Money
KY American Water Co
2300 Richmond Rd
Lexington, Kentucky 40502

RE: KY American Water Co
AI# 1063
Permit No.: KY0340250
Fayette County, Kentucky
Activity ID: CIN20220001

Dear Mr. Money:

Attached for your information and records is a copy of the drinking water comprehensive inpection performed at KY American Water Co plant C on June 15, 2022.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky American Water Plant C		Program: **Drinking Water**	
Site Address: 16035 hwy 127 south			
City: Owenton	State: KY	Zip: 40359	County: Owen
Inspection Type: Routine Surface	Purpose: Comprehensive		AI #: 1063
Inspection Date: 6/15/2022	Time: Start 09:00 AM End 1:30 PM		
Latitude:	Longitude:		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky River station #2	Contact Name: Robert Money	
Phone No.: 859-335-3660`	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: **Not evaluated.**

I. Compliance Status - Not Evaluated

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Scott Huddleston	**IVA#21329**	
Justin Sensabaugh		**IVD#20165**

Comments: **A complete list of operators was provided during the inspection. No concerns noted.**

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: **Not evaluated.**

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **The facility provides timely reports to the Division of Water as required.**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections: Population Served:
Average Production MGD: 7.62 Max. Production MGD: 14.02 Design Capacity MGD: 20.0 MGD
Source:Kentucky River pool #3

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	NI	a) Intakes, pumps, piping ☐	# Of Levels # Pumps Max pump.
	NA	b) Aeration ☐	
	NI	c) Rapid mix ☒	Type: If other: mechanical mixer
	NI	d) Flocculation ☒	# of Stages4 # of Trains Variable Speed
	NI	e) Sedimentation ☒	Type: Conventional # of trains:4
	NI	f) Chemical feed coagulation	
	NI	g) Carbon Feed: ☐	Feed Site1: Feed Site 2:
	NI	h) Filters & controls	Mixed Media Filter to Waste ☒
	NI	i) Filters / size sq.ft each./ rate	# 5 Size702 Filtration Rate:5
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☒
	NI	k) Chemical storage:	Dry on pallets? ☐ Chemical containment: ☐
	NI	l) Clearwell / screened vents	Size: Baffling:☐ Locked ☐ Screened ☐
	NI	m) Pumps # and size in gpm	High Service @ Backwash @
SITE DATA	S1	n) Site Data: ellis tank	Cl. Free:DOW Total: 1.64 pH: KAWC :2.84
	S1	o) Site Data: wheatly	Cl. Free:DOW Total: 0.85 pH: KAWC 1.01
	S1	p) Site Data: blue moon	Cl. Free:DOW Total: > 2.20 pH: KAWC 2.80
	S1	q) Site Data: on-line	Cl. Free:BM tank Total: 2.81 pH: wheatly 0.8
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NI	s) Automatic chlorinator ☐	Automatic changeover ☐ Proper Fan ☐
	NI	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NI	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACH Last calibrated: 2/2022
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	NI	w) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☒
	S1	x) Housekeeping	good
DISTRIBUTION	NI	y) Master meter ; Recorder	Raw: ☐ Finished:☐ ; Raw: ☐ Finished: ☐
	NI	z) Blowoffs / hydrants; flushing	Flushing Schedule:☐ Blowoffs on deadends:☐
	S1	aa) Water storage:	# of Tanks Total Storage:
	NI	bb) Booster pumps / chlorinators	Booster pumps: ☐ Booster chlorinators: ☐
PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: total: 4.5 pH: 7.0
	S1	dd) Turbidity	Raw: Settled: Combined Filter:0.04
	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☐

	NI	gg) Wastewater discharge	KPDES Is sizing adequate? ☒ Yes ☐ N0

Comments: A Division of Water Comprehensive inspection was conducted on June 15, 2022. no major concerns were noted during the inspection. The facility was not producing water at the time of the inspection due to participating in an energy reduction event. Production was finished by the time distribution was completed The basins are cleaned monthly. The laboratory was satisfactory. Instrumentation was last calibrated by Morsten Technical Services on in February 2022. Standards were observed to be current. Standard Operating Procedures have been developed.

The Ellis, Wheatly, and Blue moon tanks were observed during the inspection. All three tanks were fenced and secure. Overflow protection was installed on the Ellis and Blue Moon tanks. Wheatly tank was missing part of the overflow pipe. Distribution system chlorine readings were acceptable and comparable between the DOW and KAWC readings along with the on-line instrumentation reading.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: Not inspected.

VI. Compliance Status - Not Evaluated

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments:

VIII. Compliance Status – No violations observed

IX. Documentation

- ☒ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☐ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☒ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** July 11, 2022

Signature:

Deborah E. Singleton

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

September 29, 2022

Mr. Bob Money
KY American Water Co
2300 Richmond Rd
Lexington, Kentucky 40502

RE: KY American Water Co -- 1063
Permit No.: KY0093301
Fayette County, Kentucky
Activity ID: CIN20220003

Dear Mr. Money:

Attached for your information and records is a copy of the wastewater compliance inspection performed at KY American Water Co on August 3, 2022.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure:

Energy and Environment Cabinet
Department for Environmental Protection
Division of Water
Wastewater Inspection Report

AI ID: 1063 **AI Type:** WATER-Public Water System (2213)
AI Name: KY American Water Co
AI Address: 2300 Richmond Rd

City: Lexington, **State:** Kentucky **Zip:** 40502
County: Fayette **Regional Office:** Frankfort Regional Office
Latitude: 38.011157 **Longitude:** -84.465995
Site Contact: Bob Money
Title: facility contact **Phone #: 859-797-7374**
Inspection Type: WW CEI-DW Plt Idv **Activity #:** CIN20220003
Incident IDs:
Inspection Start Date: August 3, 2022 **Time:** 08:45 AM **End Date:** August 3, 2022 **Time:** 09:15 AM
Site/Permit ID: KY0093301

Lead DEP Investigator: Deborah Singleton
Other DEP Investigators:
External Investigators:
Persons Interviewed: Bob Money

General Comments: The facility has applied for and obtained KPDES Permit #KY0093301. The permit is current and expires on June 30, 2027.

The facility has two permitted outfalls.
Outfall 001 - Lake Ellerslie (Reservoir No. 1) at latitude 38°00'46"N and longitude 84°27'50"W
Outfall 002 - Lake Ellerslie (Reservoir No. 1) at latitude 38°00'46"N and longitude 84°27'50"W

The facility was clean and operational at the time of the inspection. The facility maintains two permitted outfalls. Outfall 001 is the discharge from the filter backwash water. Outfall 002 is the diesel cooling water. See inspection report for full details.
Overall Compliance Status: No Violations Observed

Investigation Results

SI: AIOO1063
SI Description:
Inspector Comment:

Requirement: Does the facility hold the proper KPDES permit for the filter backwash discharge(s) from their public or privately owned drinking water treatment plant? [401 KAR 5:055 Section 2]. [401 KAR 5:055 Section 2]
Compliance Status: C-No Violations observed
Comment: The facility has applied for and obtained KPDES Permit #KY0093301. The permit is current and expires on June 30, 2027.

Requirement: Does the permittee retain records of all monitoring information including: the date, exact place, and time of sampling or measurements; the name of the individual who performed the sampling or measurements; the dates and times analyses were performed; the name of the individual who performed the analyses; the analytical techniques or methods used; the results of the analyses; all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation; copies of all reports required by this permit; and records

of all data used to complete the application for this permit, for the period required by the cabinet and at a minimum of at least three (3) years from the date of the sample, measurement, report, or application? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: The permittee maintains the required records in an orderly manner Records observed during the inspection include inspection reports, laboratory bench sheets, analytical information, calibration logs, chain of custodies, and temperature logs.

Requirement: Has the permittee adequately developed a Best Management Practices Plan? [40 C.F.R. 122.41(a)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: The permittee has developed a Best Management Practices Plan that appears to contain the required information. The plan is updated periodicaly.

Requirement: Is the BMP plan required by 401 KAR 5:065 Section 2(4) and Part IV Section A (5) of the facility's permit consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," to include the following baseline BMPs as a minimum:
a. BMP Committee
b. Reporting of BMP Incidents
c. Risk Identification and Assessment
d. Employee Training
e. Inspections and Records
f. Preventative Maintenance
g. Good Housekeeping
h. Materials Compatibility
i. Security
j. Materials Inventory
If a BMP plan has not been developed, has the permittee demonstrated that the BMP requirements have been met by an existing plan?
If all stormwater can not be diverted to a pit or sediment control structure, does the BMP plan address this runoff? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: The Best Management Practices Plan appears to be consistent with the general guidance.

Requirement: Has the permittee adequately implemented the BMP plan? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: The permittee appears to be adequately implementing the best management practices Plan. Good housekeeping was observed. Safety is a priority. MSDS sheets are maintained on site. Containment areas have been installed around potential contaminants. Spill kits are maintained on site. Site inspections are being performed and documented.

Requirement: Is the facility required to prepare and implement a groundwater protection plan (GPP) as specified in regulation 401 KAR 5:037? If yes, does the facility have a GPP? [401 KAR 5:037 Section 3]. [401 KAR 5:037 Section 3]
Compliance Status: C-No Violations observed
Comment: The facility has developed a groundwater protection plan.

Requirement: Is the effluent in compliance with KPDES permit limitations? Do the Discharge Monitoring Reports indicate KPDES permit violations? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: A review of the submitted Discharge Monitoring Reports revealed the facility to be in compliance on all parameters.

Requirement: Are samples taken in compliance with the monitoring requirements and taken at the following location(s): nearest accessible point after final treatment, but prior to actual discharge or mixing with receiving waters? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: In compliance.

Requirement: Is the permittee reporting monitoring results to the cabinet at the intervals specified in the permit? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]

Compliance Status: C-No Violations observed
Comment: A review of the submitted Discharge Monitoring Reports revealed that the monitoring results are being reported to the cabinet at the intervals specified in the issued KPDES Permit. The facility submits the results utilizing the Net-DMR system.

Requirement: Is discharge being monitored, at the specified outfall(s)/monitoring point(s), for parameters specified in the facility's permit within the required timeframe? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: The discharge is being monitored for the parameters specified in the issued KPDES Permit within the required timeframes. The facility is required to perform the following analysis: Outfall 001- pH, total suspended solids, phosphorus, iron, alunimum, and total residual chlorine by grab sample once per month and flow by instantaneous measurement once per month. Outfall 002- total suspended solids , temperature, and pH once per month by grab sample and flow by instantaneous measurement once per month;

Requirement: Are the monitoring results reported to the cabinet on a Discharge Monitoring Report (DMR)? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: A review of the submitted Discharge Monitoring Reports revealed that the monitoring results are being reported to the cabinet on a Discharge Monitoring Report. The facility submits the results utilizing the Net-DMR system.

Requirement: Did the facility notify the Division of Water by the most rapid means available whenever, by reason of emergency or accident, a spill or discharge occurs which results in pollution of the waters of the Commonwealth? [401 KAR 5:015 Section 2]. [401 KAR 5:015 Section 2]
Compliance Status: C-No Violations observed
Comment: The facility is aware of the requirement to report all spills, accidents, bypasses, releases, etc. to the Cabinet by the most rapid means available. The 24-hour emergency reporting number is: (800) 928-2380.

Requirement: Is the permittee in compliance for the reporting of spills, bypasses, and non-compliance according 401 KAR 5:065 Section 2(1). [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: The facility is aware of the requirement to report all spills, accidents, bypasses, releases, etc. to the Cabinet by the most rapid means available. The 24-hour emergency reporting number is: (800) 928-2380.

Requirement: Is the facility being properly operated and maintained as specified in 401 KAR 5:065? This includes:
(a) proper operation and maintenance of all facilities, systems of treatment and control, and related appurtenances which are installed or used by the permittee to achieve compliance with permit conditions;
(b) proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures;
(c) this provision also requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit;
(d) is the cleaning frequency of lagoons adequate to ensure compliance with the facility permit? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: The facility was clean and operational at the time of the inspection. The facility maintains two permitted outfalls. Outfall 001 is the discharge from the filter backwash water. Outfall 002 is the diesel cooling water. Good housekeeping was observed. Filter backwash water is pumped to two holding tanks with waters then directed to three sludge concentrators. Sludge is processed through a belt press and the decant is discharged through Outfall 001. The pressed sludge is placed in a beneficial re-use area. The re-use area has a berm constructed around it. Laboratory analysis is being performed as required. Outfall 002 temperatures are recorded with a NIST certified thermometer. The facility has obtained the field only laboratory certification. Remaining laboratory analysis is conducted by Fouser Environmental.

Requirement: Have pollutants entered the waters of the Commonwealth? [KRS 224.70-110]. [KRS 224.70-110]
Compliance Status: C-No Violations observed
Comment: The facility maintains two permitted outfalls. Both outfall areas were observed during the inspection and were observed to be in good condition. There was not any visual evidence of pollutants entering the waters of the Commonwealth noted at the time of the inspection.

Requirement: Have surface waters been aesthetically or otherwise degraded? [401 KAR 10:031 Section 2]. [401 KAR 10:031 Section 2(1)]

Compliance Status: C-No Violations observed
Comment: The facility maintains two permitted outfalls. Both outfall areas were observed during the inspection and were observed to be in good condition. There was not any visual evidence of surface water degradation noted at the time of the inspection.

Requirement: Is the permittee in compliance with all permit conditions? [401 KAR 5:065 Section 2(1)]. [401 KAR 5:065 Section 2(1)]
Compliance Status: C-No Violations observed
Comment: In compliance.

Documentation

- ☐ **Photos taken**
- ☐ **Documents obtained from facility**
- ☐ **Samples taken by outside source**
- ☐ **Request for Submission of Documents**
- ☐ Record of visual determination of opacity
- ☐ **Samples taken by DEP**
- ☐ Regional office instrument readings taken
- ☐ **Other documentation**

Inspector: Deborah Singelton

Deborah E. Singleton

Date: **September 29, 2022**

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

September 29, 2022

Mr. Bob Money
KY American Water Co
2300 Richmond Rd
Lexington, Kentucky 40502

RE: KY American Water Co -- 1063
Permit No.: KY0340250
Fayette County, Kentucky
Activity ID: CIN20220002

Dear Mr. Money:

Attached for your information and records is a copy of the drinking water comprehensive inspection performed at KY American Water Co on August 3, 2022.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky American Water- Plant B		Program: **Drinking Water**	
Site Address: 2300 Richmond Road			
City: Lexington	State: KY	Zip: 40502	County: Fayette
Inspection Type: Routine Surface	Purpose: Comprehensive		AI #: 1063
Inspection Date: 8/3/22	Time: Start 0830 AM End 1:30 PM		
Latitude: 37 39' 24"	Longitude: 84 26' 11"		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water- Plant-B	Contact Name: Robert Money	
Phone No.: 859-797-7374	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: The facility has not received any enforcement actions since the previous inspection.

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Nathan Coyle	**IVA#31126**	
Deke Whitaker	**IVA#29935**	
Richard Howard	**IVA#31670**	

Comments: A full list of operators was provided during the inspection. Justin Sensabaugh is in charge of the distribution system: active Class IVD, license #20165.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: The facility maintains the required records.

III. Compliance Status - No violations observed

IV. Reporting Requirements

Comments: The facility provides the reports to the Division of Water in a timely manner

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections: 129493 Population Served: 348,336
Average Production MGD: 11.24 Max. Production MGD: 20.18 Design Capacity MGD: 25 MGD
Source: Kentucky River and Jacobson Resesrvoir.

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	NI	a) Intakes, pumps, piping ☐	# Of Levels # Pumps Max pump.
	NA	b) Aeration ☐	
	S1	c) Rapid mix ☒	Type: Mechanical paddle If other:
	S1	d) Flocculation ☐	# of Stages2 # of Trains2 Variable Speedyes
	S1	e) Sedimentation ☐	Type: Conventional # of trains:4
	S1	f) Chemical feed coagulation	Alum-polymer blends
	NI	g) Carbon Feed: ☐	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 8 Size Filtration Rate:4
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☒
	S1	k) Chemical storage:	Dry on pallets? ☒ Chemical containment: ☒
	S1	l) Clearwell / screened vents	Size:1.2 MG Baffling:☒ Locked ☒ Screened ☒
	S1	m) Pumps # and size in gpm	High Service6 @ Backwash 2 @
SITE DATA	S1	n) Site Data: Parkers Mill	Cl. Free:-DOW Total: 1.7 pH: on-liine :1.45
	S1	o) Site Data: Parkers Mill	Cl. Free:WTP Total: 1.36 pH:
	S1	p) Site Data: Muddy Ford	Cl. Free:DOW Total: 1.16 pH: On-Line 1.16
	S1	q) Site Data: Muddy Ford	Cl. Free:dOW Total: 1.18 pH:
DISINFECTION	S1	r) Disinfection Pre: ☒ Post: ☒	Pre Type: Post type:
	NA	s) Automatic chlorinator ☐	Automatic changeover ☐ Proper Fan ☐
	NA	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NA	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACH Last calibrated: 02/2022
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	S1	w) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☒
	S1	x) Housekeeping	Good
DISTRIBUTION	NI	y) Master meter ; Recorder	Raw: ☒ Finished:☒ ; Raw: ☒ Finished: ☒
	NI	z) Blowoffs / hydrants; flushing	Flushing Schedule:☒ Blowoffs on deadends:☒
	S1	aa) Water storage:	# of Tanks 12 Total Storage:
	NI	bb) Booster pumps / chlorinators	Booster pumps: ☒ Booster chlorinators: ☐

PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: total: 3.48 pH: 7.33
	S1	dd) Turbidity	Raw:8 Settled:0.20 Combined Filter:0.25
	S1	ee) Bacteriological monitoring	Samples per mo.180 Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☒
	S1	gg) Wastewater discharge	KPDES Is sizing adequate? ☒ Yes ☐ N0

Comments: The Division of Water conducted a comprehensive inspection on August 3, 2022. The inspection included a tour of the facility's process, laboratory procedures, and the KAW distribution system. No major concerns were noted during the inspection. The facility was clean and operational. Raw water is continually monitored as it enters the plant and is then directed to the rapid mix, floc basins, and sedimentation basins. The flow leaving the weirs were satisfactory. Basins are cleaned quarterly. Filters were satisfactory and used on a rotating basis. Online instrumentation is calibrated quarterly. Flow leaves the filters and is directed to one of two chlorine contact basins.
The new chemical building has been completed. The facility now used liquid chlorine for disinfection purposes. Liquid lime is now used. Current chemical storage areas are marked appropriately and are secure. The laboratory was satisfactory. Standards were observed to be current.

The following tanks were observed during the inspection: Parkers Mill, Muddy Ford, Hume, Hayes booster, ground Cox tank, and York Street tank. The tanks were secure, flappered, and observed to be in good condition. The elevated Cox tank was having valve work done at the time of the inspection. KAW is planning to replace the analyzers the Cox street tanks.

Chlorine residuals in the system were acceptable. Daily chlorine check standards are performed and recorded. Tanks are inspected once every five years. System flushing is performed in the spring. Most meters are radio read. Additional chlorine sample: Hume tank: DOW 1.63; WTP 1.93; On-Line- 2.06. Hayes booster chlorine: DOW- > 2.20; WTP 3.56.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: A KPDES inspection was performed and the facility was found to be in compliance.

VI. Compliance Status - No violations observed

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments: No major concerns were noted at the time of the inspection.

VIII. Compliance Status – No violations observed

IX. Documentation

- ☒ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☒ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☐ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 8/19/2022

Signature: E-Signed by Singleton, Deborah
VERIFY authenticity with e-Sign
Deborah E. Singleton

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601
TELEPHONE: 502-564-2150
TELEFAX: 502-564-4245

October 20, 2022

Bob Money
Kentucky American Water - Eastern Rockcastle
2300 Richmond Rd
Lexington, KY 40502
AI: 34097 PWSID: KY1020288

RE: Drinking Water Sanitary Survey

Dear Mr. Money,

The Division of Water conducted a Drinking Water Sanitary Survey (attached) of Kentucky American Water - Eastern Rockcastle on August 15, 2022. A Capacity Development assessment was also completed as part of the survey.

Significant Deficiencies Observed

There were no Significant Deficiencies Observed at the time of the survey.

Non-Significant Deficiencies Observed

There were no Non-Significant Deficiencies Observed at the time of the survey.

The Division recommends the following:

- **Review the contract purchase limits for Jackson Co Water Association and Mt. Vernon Water Works**
- **Continue to address water loss**

All deficiency responses should be sent to the attention of David L. Messer, Drinking Water Technical Assistance, London Regional Office, 875 South Main Street, London, KY 40741. I may also be reached by phone at 606-330-2080 or by email at david.messer@ky.gov.

Assistance with the "Managerial and Financial Assessment" section of the sanitary survey can be obtained by contacting Ryan Reed at 502-564-3410

If you have any questions regarding the "Technical Inspection" portion, contact Beth Trent in the London Regional Office at (606) 330-2080.

Sincerely,

Drinking Water Sanitary Survey

TECHNICAL INSPECTION OF SURFACE WATER
DISTRIBUTION-ONLY SYSTEM OPERATIONS

PWS ID: KY1020288
Agency Interest Number: 34097; CIN20220001
AI Name: Kentucky American Water - Eastern Rockcastle
County: Rockcastle
Office Latitude: 37.29748 **Office Longitude:** -84.215249
CTAB Inspection Date(s):8/15/22

I. SOURCE

Does the system perform water quality monitoring in accordance with the approved DOW schedule for this facility?	Yes ☒	No ☐
Are there any unaddressed process factors that limit the purchased water contracted amount in the last 10 years?	Yes ☐	No ☒
Is the system(s) you purchase from drought-vulnerable?	Yes ☐	No ☒
Describe any water quality monitoring done on the water at the master meter: TTHMs, HAA5s, Taste & Odor, Chlorine List any chemicals fed at the master meters: none		
If multiple sources are available, is the one in use considered to be the best in terms of water quality?	Yes ☒	No ☐
Is purchased water flow measured? When was the meter last calibrated? 9/20/21	Yes ☒	No ☒
COMMENTS: The system is serviced by 4 master meters; 2 from Mt. Vernon (KY1020299 = Brush Creek and Sand Springs), 1 from Jackson Co. (KY0550209) in the Three Links community and 1 from Livingston (KY1020253) in the Sand Hill area. **The Mt. Vernon mms are 4" & 6" mag meters, they were both certified on 9/20/21.** **The 2" Jackson Co. mm was certified on 12/4/19 (required by PSC once every 4 years). It does not presently have a digital readout.** **On 8/16/22, the operator at Livingston submitted a request to a contractor to have the mm calibrated.** **The system also has ultrasonic meters installed right after the seller's for reference, they are calibrated annually.**		

II. TREATMENT

GAS CHLORINE SAFETY N/A		
Is the chlorine room enclosed and separate from other operating areas?	Yes ☐	No ☐
Is there a working exhaust fan in the chlorine room?	Yes ☐	No ☐
Does it provide one complete air change per minute?	Yes ☐	No ☐
Does it exhaust from floor level?	Yes ☐	No ☐
Is intake air near the ceiling?	Yes ☐	No ☐
Is there an external audible and visual alarm?	Yes ☐	No ☐
Are switches located outside the chlorine room?	Yes ☐	No ☐
Are chlorine tanks secured?	Yes ☐	No ☐
Are the scales operational?	Yes ☐	No ☐
Is automatic switchover of chlorine cylinders provided?	Yes ☐	No ☐

Is there a shatterproof viewing window in chlorine room?	Yes ☐	No ☐
Is there a crash bar on the door of the chlorine room?	Yes ☐	No ☐
Does the door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the chlorine room?	Yes ☐	No ☐
Are personnel trained to use the SCBA?	Yes ☐	No ☐
Is the "buddy system" practiced when changing or moving chlorine cylinders?	Yes ☐	No ☐
Is leak detection provided?	Yes ☐	No ☐
Is ammonia available for chlorine leak detection?	Yes ☐	No ☐
Is there a chlorine tank repair kit?	Yes ☐	No ☐
Are personnel trained and certified to use the kits?	Yes ☐	No ☐
COMMENTS:		

III. DISTRIBUTION SYSTEM

DISTRIBUTION SYSTEM		
Does the system have standard specifications for design and construction of the distribution system?	Yes ☒	No ☐
Does the system prohibit new connections where pressure on the discharge side of the meter will be <30 psi?	Yes ☒	No ☐
Is the system able to meet minimum pressure requirements of DOW and/or other regulating authority?	Yes ☒	No ☐
Does the system have a documented leak detection program?	Yes ☒	No ☐
Does the distribution system have a sufficient number of valves to isolate portions of the system (for leak detection, maintenance, etc.)?	Yes ☒	No ☐
If there are separate distribution system areas, are they interconnected with each other?	Yes ☐	No ☒
If they are not interconnected, how many separate areas are there? 4		
What prevents these systems from being interconnected? topography		
How many pressure zones are there? 4		
What is the range of distribution pressures? 80-200		
Do any distribution areas require reduced pressure valves?	Yes ☒	No ☐
What piping materials are included in the distribution system? PVC, DI		
Does the system have a program for flushing water mains?	Yes ☒	No ☐
Describe the process for sterilizing new mains/main breaks: all line repairs are contracted		
What types of on-line instrumentation are located at booster or pump stations and tanks? telemetry, pressure, chlorine		
Does the system have a documented program for exercising distribution system valves?	Yes ☒	No ☐
Does the system have a documented program for regular testing of water meters including master meter and customer?	Yes ☒	No ☐
Is there a water meter replacement program?	Yes ☒	No ☐
Are there main break/emergency notification procedures?	Yes ☒	No ☐
Does the system have a documented procedure for issuing a boil water advisory and a consumer advisory? The procedure shall identify when (how soon after the occurrence) and how the system shall notify the affected health department, to whom that notification shall be made both during and after normal business hours, and procedures for issuing the advisory to the public. The public notification shall include instructions for the public (including how to properly boil water) and an explanation of steps being taken to correct the problem.	Yes ☒	No ☐
Describe how the decision is made to issue a Boil Water Advisory: consecutive system, if the repair takes longer than 8 hours, loss of pressure below <20 psi		

Does the system have a cross-connection control program?	Yes ☒	No ☐
If yes, is the cross-connection control program documented in writing?	Yes ☒	No ☐
If the cross-connection control program is not documented in writing, describe the process for finding and eliminating cross connections: _____		
Does a certified tester test the backflow prevention devices on a regular basis?	Yes ☒	No ☐
Has a calibrated hydraulic model been developed for the system?	Yes ☐	No ☒

COMMENTS: The system does not have any commercial or industrial connections, it is all residential.
All customer meters were replaced 2018 - 4/22/19, they have a 15 year warranty.
All meters, valves, hydrants, lines were GIS marked and mapped in 2018.

DISTRIBUTION STORAGE FACILITIES

Inspected

LOCATION			VOLUME (gallons)	TANK TYPE	OVERFLOW		LAST CLEANED/ INSPECTED	TELEMETRY	% TURNOVER (Per Day)
ROAD/AREA	LATITUDE	LONGITUDE			SCREEN/ FLAPPER	>10' FROM TANK			
Three Links	37.498229	-84.205330	80,000	Standpipe	YES	YES	11/20	YES	67
Pongo	37.22533	-84.34381	15,000	Standpipe	YES	YES	11/20	YES	197

Are all storage tanks professionally inspected at least every 5 years (including interior, coating systems, & piping)?	Yes ☒	No ☐
How often are tanks inspected and cleaned? INSPECTED: 5 years CLEANED: As needed		
Are all storage tanks and water plants equipped with hatches, covers, screens, vandal guards and locks and all tank sites fenced for security?	Yes ☒	No ☐
Are all hatches, screens, and overflows on the storage tanks checked at least monthly?	Yes ☒	No ☐
Is there corrosion protection in the tanks?	Yes ☒	No ☐

COMMENTS: Both tanks were cleaned, sandblasted and painted in November 2020.

DISTRIBUTION BOOSTER PUMPS AND/OR BOOSTER DISINFECTION FACILITIES

Not Inspected

LOCATION			PUMP or DISINFECTION	NUMBER & CAPACITY OF PUMPS (gpm)	DISINFECTION TYPE	AUXILIARY POWER
ROAD/AREA	LATITUDE	LONGITUDE				
Pongo	37.22859	-84.34251	Pump	2 @ 40		No
Sand Hill	37.29348	-84.22774	Pump	2 @ 40		No
				@		
				@		
				@		
				@		

				@		
				@		
				@		
				@		

COMMENTS: There is a pump station (2@80) located in Gausey (37.31152 / -84.20085) that is not in operation.

Pongo pumps are located ~1 mile before (North of) the tank. At the tank site, there are 4 pressurized bladder tanks (15 ga each = 60 ga) that operate at 63 psi each.

Sand Hill pumps are located in a vault at the Livingston MM on Ford Hollow Rd. The 600 ga pneumatic tank located on Sand Hill Road was taken out of service in the Summer of 2021. There are 4 pressurized bladder tanks (15 ga each = 60 gallon) on Sand Hill Road near 37.28575 -84.24427.

Generators will be installed at both PS sites in the near future.

Each of the 2 pumps at the PS sites alternate in usage.

Bladders in the pressurized tanks are changed out annually (PM) by Service Specialties.

DISTRIBUTION SAMPLING
(a minimum of N, S, E, W)

SITE	CHLORINE		pH	TURBIDITY	OTHER
	FREE	TOTAL			
Buffalo Baptist Church (seller = Mt. Vernon Water)	0.82	0.96		0.08	
6461 Red Hill Road (seller = Jackson Co. Water)	1.46	1.55		0.09	Facility (BM) = 1.23 free
5052 Sand Hill Road (seller = City of Livingston)	0.79	0.91		0.45	Facility (BM) = 0.61 free
Johnetta Schoolhouse Inn = EOL (seller = Mt. Vernon Water)	1.13			0.13	Facility (BM) = 1.02 free

Is the system maintaining the required chlorine (0.2 mg/l) / chloramine (0.5 mg/l) residuals in the distribution system? Yes ☒ No ☐

COMMENTS: Hach in-line chlorine analyzers are in service at the Three Links tank, the Pongo tank and the Sand Hill bladder tank. Data is electronically recorded and monitored by staff.

MAINTENANCE

Is office housekeeping adequate?	Yes ☒ No ☐
Is distribution storage housekeeping adequate?	Yes ☒ No ☐

Are adequate supplies of spare parts kept on hand?	Yes ☒ No ☐
Are needed tools available? If not, is preventive maintenance performed?	Yes ☒ No ☐ Yes ☐ No ☐
Is a lock-out/tag-out system used for electrical repairs?	Yes ☐ No ☐
What is the general condition of operating equipment? _____	Yes ☒ No ☐
COMMENTS: Electrical repairs are performed by a contractor.	

DOCUMENTATION (✓ all that apply)	
☐ Samples taken by DEP	☒ Photographs obtained by DEP
☐ Samples taken by outside source	☐ Copies of records obtained by DEP
☒ Instrument readings taken by DEP	☐ Other documentation

OVERALL TECHNICAL COMPLIANCE STATUS		
☒ No Violations Observed		
☐ No Violations Observed - Advisory Action Taken (Impending trends)		
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)		
INSPECTOR: Beth Trent	TITLE: Environmental Inspector	DATE: 08/18/2022

KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER

Drinking Water Sanitary Survey

Managerial and Financial Assessment of Distribution-Only Surface Water & Ground Water Systems

PWS ID: KY1020288
Agency Interest Number: 34097
AI Name: Kentucky American Water - Eastern Rockcastle
County: Rockcastle
Regional Office: London Regional Office
Capacity Development Inspection Date(s): 8/23/2022

SYSTEM CONTACT INFORMATION			
Full Name: Bob Money		Title: Manager, Water Quality & Env. Compliance	
Phone Number: 859-268-6317	FAX Number:	E-Mail Address: bob.money@amwater.com	
Mailing Address: 2300 Richmond Road Physical Address of Office: 9246 Main Street (Livingston)	City: Lexington	State: KY	Zip Code: 40502

DISTRIBUTION SYSTEM INFORMATION		
Contact Person: Charles Dick	Title: Senior Operations Supt.	Phone Number: 859-268-6317
Distribution Class: IID-Pop. 1500-15,000	System Service Connections (meters): 651	
System Population Served Calculated: 1,751	System Population Served Reported:	
Meters Served Outside Your System:	Consecutive Systems Population Served Calculated:	

WATER PURCHASED, SOLD, & EMERGENCY CONNECTIONS

WATER PURCHASED FROM: *(List primary purchase source first.)*			Number of Master Meters	Amount Monthly (average)	Amount Available by Contract (monthly)
SYSTEM NAME	PWS ID #	AI #			
Jackson Co. Water Assoc.	KY0550209	1924	1	1,925,267	1,500,000
Mt. Vernon Water Works	KY1020299	3859	2	1,543,917	1,180,000
Livingston Municipal WW	KY1020253	34096	2 (1 Active)	283,158	450,000

Average Total Water Purchased Daily: 124,514 gallons	Maximum Total Water Purchased Daily: 299,443 gallons

WATER SOLD TO: ☒ Not Applicable			Number of Master Meters	Amount Monthly (average)	Amount Available by Contract (monthly)
SYSTEM NAME	PWS ID #	AI #			
Jackson Co. Water Assoc.	KY0550209	1924	1		Unusable due to Pressure Difference

COMMENTS: Consider the following: Reviewing the contract purchase limits for Jackson Co Water Association and Mt. Vernon Water Works

PWS ID Number: KY1020288 **Agency Interest Number:** 34097

I. OPERATOR COMPLIANCE

Do the operators perform maintenance as well as distribution operations?	Yes ☒	No ☐	N/A ☐
Do you have contingency plans for replacing retiring system personnel?	Yes ☒	No ☐	N/A ☐

Who provides training/technical assistance for license renewal? (✓ all that apply):
☐ AWWA ☐ DCA ☒ DOW ☒ KRWA ☒ KWWOA ☐ RCAP ☒ Other In-House; Online (Suncoast)

What type of training is typically obtained? (✓ all that apply):
☒ REGULATIONS ☒ SAFETY ☐ UMI ☒ WATER QUALITY

Does the system pay for registration, lodging and meals?	Yes ☒	No ☐	N/A ☐
Does the system allow operators to attend training on company time?	Yes ☒	No ☐	N/A ☐

Number of shifts on weekdays: 1		Length of Shift (hours)	Number of Operators
	1st Shift	8	2
	2nd Shift	On-Call	On-Call
	3rd Shift	On-Call	On-Call

How are weekends covered? On-Call

How are holidays covered? On-Call

OPERATOR CERTIFICATION

LICENSEE NAME	LICENSEE AI #	LICENSE ID	LICENSE TYPE
Dick, Charles R.	46253	64535	DW Distribution IVD
Trowbridge, Rodney			Operator in Training

Is the system staffed with appropriately certified operators? (Verify certification with DCA.) Yes ☒ No ☐ N/A ☐

COMMENTS:

PWS ID Number: KY1020288 **Agency Interest Number:** 34097

II. MONITORING, REPORTING & DATA VERIFICATION

(Part A must be completed for all water systems. Part B must be completed for groundwater systems only.)

PART A *(Complete for all water systems.)*				
REPORTING ITEM – Information gathered from DWW	RETENTION TIME			
Bacteriological - 2 per month (See DWW)	5 Years	Yes ☒	No ☐	N/A ☐
Chlorine/Chloramines – Free chlorine monthly with BACTs, daily for MORs, residual chlorine monthly	10 Years	Yes ☒	No ☐	N/A ☐
MORs – Monthly (Turbidity Analysis)	1 Year	Yes ☒	No ☐	N/A ☐
Lead & Copper - 10 every 3 years (June to September)	12 Years	Yes ☒	No ☐	N/A ☐
TTHM & HAA5 2 per Quarter (see DWW)	10 Years	Yes ☒	No ☐	N/A ☐
Asbestos – 1 sample in the 1st 3 years of the 9 year compliance cycle (SOC) *Check for Waiver (only purchasers can have waiver)*	Begin 2011/2013	Yes ☒	No ☐	N/A ☐
Stage 2 IDSE Sampling Plan or 40/30 Certification	10 years	Yes ☐	No ☐	N/A ☒
Stage 2 IDSE Report	10 years	Yes ☐	No ☐	N/A ☒
Data Summaries (if actual data not retained)	12 Years	Yes ☐	No ☐	N/A ☒
NOVs (Notices of Violation)	10 Years	Yes ☒	No ☐	N/A ☐
Sanitary Surveys (every 3 years)	10 Years	Yes ☒	No ☐	N/A ☐
CCR (Consumer Confidence Report) – Annually by July 1 (by April 1 to consecutive systems)	Current one on file	Yes ☒	No ☐	N/A ☐
Does the system maintain a current sampling plan for BacTs?	Date updated	Yes ☒	No ☐	N/A ☐
Does the system maintain a current sampling plan for LCR?	Date updated	Yes ☒	No ☐	N/A ☐
Does the system maintain a current sampling plan for DBPs?	Date updated	Yes ☒	No ☐	N/A ☐
Does the system have an up-to-date map of distribution assets? (Map shall show a minimum of all line sizes, cutoff valves, fire hydrants, flush hydrants, tanks, booster pumps, chlorination stations, connections to emergency or alternative sources, wholesale customer master meters, & the type of piping material in the distribution system and its location.)	Date updated Continuously Updated	Yes ☒	No ☐	N/A ☐
PART B *(Complete for groundwater systems only.)* ☒ Not Applicable				
GWR Corrective Action	10 years	Yes ☐	No ☐	N/A ☐
GWR Public Notices	3 years	Yes ☐	No ☐	N/A ☐
GWR Fecal-positive invalidation	5 years	Yes ☐	No ☐	N/A ☐
GWR State-specified minimum disinfectant residual (letter from CTAB)	10 years	Yes ☐	No ☐	N/A ☐
GWR Lowest daily disinfectant residual level (submitted with MOR)	5 years	Yes ☐	No ☐	N/A ☐
What method is used to record this? (i.e. SCADA, chart recorders, download to CD)	N/A			
GWR Date and duration of time less than minimum daily disinfectant residual level	5 years	Yes ☐	No ☐	N/A ☐
GWR Records of state-specific compliance requirements for membrane filtration and alternative treatment	5 years	Yes ☐	No ☐	N/A ☐

Does the system maintain compliance records as required? (answer for both Parts A & B)	Yes ☒	No ☐	N/A ☐
COMMENTS:			

PWS ID Number: KY1020288 **Agency Interest Number:** 34097

III. MANAGEMENT & OPERATIONS

What professional organizations does the water system belong to? KRWA; AWWA; KWWOA; NAWC; Chamber of Commerce			
Is the system subject to Public Service Commission regulations?	Yes ☒	No ☐	N/A ☐
Does the system attend Water Management Council meetings of the Area Development District?	Yes ☒	No ☐	N/A ☐
Does the system have a governing entity? If not, explain: Board of Directors	Yes ☒	No ☐	N/A ☐
What is the name of the system's OTHER? Kathyrn Wash			
What is his or her mailing address? Same as system			
How often does the governing body meet? Monthly			
Do operators attend these meetings?	Yes ☐	No ☒	N/A ☐
Is the governing entity provided with documented information regarding technical, managerial, and financial operations of the water system? (Inspect)	Yes ☒	No ☐	N/A ☐
Is the governing entity familiar with water treatment/distribution?	Yes ☐	No ☐	N/A ☒
Does the system offer continuing education opportunities for members of the governing entity?	Yes ☐	No ☐	N/A ☒
Does the system have regular staff meetings?	Yes ☒	No ☐	N/A ☐
How often? Weekly _____			
Who is involved? Departments (Employees)			
Does the system have a documented strategic plan (mission statement, goals and objectives)? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system have a defined organizational structure?	Yes ☒	No ☐	N/A ☐
Does the system have a documented description of each job classification with minimum position qualifications? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system have documented policies and procedures governing human resource management (such as an employee handbook)?	Yes ☒	No ☐	N/A ☐
Does the system periodically review its insurance coverage is in place for liability, property, automobiles, directors, and officers?	Yes ☒	No ☐	N/A ☐
Does the system have a documented policy for delegation of authority such as signing agreements, contracts, resolutions, easements, etc.?	Yes ☒	No ☐	N/A ☐
Does the system have a documented procurement policy for purchasing supplies?	Yes ☒	No ☐	N/A ☐
Does the system have professional services available under a current contract, retainer, or other similar arrangement for engineering, accounting, and legal counsel?	Yes ☒	No ☐	N/A ☐
Does the system have an asset management program?	Yes ☒	No ☐	N/A ☐
Does the system have a documented preventive maintenance program?	Yes ☒	No ☐	N/A ☐
Does the system have a capital improvement plan? (Inspect)	Yes ☒	No ☐	N/A ☐
How many years does the plan cover? KY Wide; Priority Ranking			
Does the system have a documented policy governing water main extensions? (Inspect)	Yes ☒	No ☐	N/A ☐
Are chemicals inventoried? If so, how? _____	Yes ☐	No ☐	N/A ☒
Are distribution materials inventoried? If so, how? Inventory System (Employee)	Yes ☒	No ☐	N/A ☐
Is there a bid process for chemicals, pipe, or large item purchases?	Yes ☒	No ☐	N/A ☐

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Does the system have rules and regulations governing the provision of service? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system make available in a public place the rules, rates, and regulations? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system provide 24-hour service response for customers?	Yes ☒	No ☐	N/A ☐
Does the system notify customers prior to performing scheduled maintenance?	Yes ☒	No ☐	N/A ☐
Does the system log customer complaints and track resolution?	Yes ☒	No ☐	N/A ☐
Does the system provide any educational activities to the public? Who is responsible for providing this? External Affairs Staff What types of educational activities are done? Special Events; Bill Inserts; School Presentations; Social Media Outreach	Yes ☒	No ☐	N/A ☐
Does the system have sufficient O & M manuals? (Inspect) (O & M manuals shall include: a detailed design of the plant, daily operating procedures, a schedule of testing requirements designating who is responsible for the tests, and safety procedures for operation of the facility – including storage and inventory requirements for materials and supplies.) How are the operators made aware of O & M procedures? SOPs; Available for reference; Internal Training	Yes ☒	No ☐	N/A ☐
Has the system received any NOVs for MCLs in the last 3 years? If yes, answer the following:	Yes ☐	No ☒	N/A ☐
If more than one NOV, were any for the same contaminant?	Yes ☐	No ☐	N/A ☒
Was a public notice issued when required?	Yes ☐	No ☐	N/A ☒
What remedial measures did the system take to prevent future occurrences of these violations? _____			
Does the system maintain a log of all breaks or ruptures per 401 KAR 8:150, Section 4? (Inspect)	Yes ☒	No ☐	N/A ☐
Is the system operating at or above 85% of water available through purchase contracts? (see COW) **If yes, what is the percentage? See Below%**	Yes ☒	No ☐	N/A ☐
If system's average daily demand exceeds 85% of available water through purchase contracts, does system have a plan for obtaining additional water, including cost and timeframes to address the needed additional water? If applicable, describe plan for obtaining additional water: Contract Usage: Jackson Co. W.A. (128 %); Mt. Vernon WW (130.8 %); Livingston Municipal WW (62.9 %); See Water Loss Section; Updating purchase contract	Yes ☒	No ☐	N/A ☐
COMMENTS:			

IV. FINANCIAL

Does the system prepare an annual operating budget? (Provide summary)	Yes ☐	No ☐	N/A ☒
Does the system prepare an annual capital budget? (Inspect)	Yes ☐	No ☐	N/A ☒
Who prepares the budget? _____			
Do the operators have input into the budget?	Yes ☐	No ☐	N/A ☒
Are training and license funds built into the budget?	Yes ☐	No ☐	N/A ☒
Does the governing entity review and approve the budget?	Yes ☐	No ☐	N/A ☒
Does the system prepare regular monthly reports to show variances between budgeted and actual revenue and expenses? (Inspect)	Yes ☐	No ☐	N/A ☒
Does the system maintain its financial records utilizing the Kentucky Uniform System of Accounting or a comparable system? (Inspect)	Yes ☐	No ☐	N/A ☒

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Are financial statements audited by a CPA as required? (Inspect) (Water districts, special districts – i.e. regional water commissions and cities have specific requirements.)	Yes ☐	No ☐	N/A ☒
If audit is completed, does the governing entity receive and review the audit report?	Yes ☐	No ☐	N/A ☒
Does the system employ a method for depreciation of system assets?	Yes ☐	No ☐	N/A ☒
Is the system operating at a retained earnings surplus? (Retained earnings is the net income that is available at the end of the year and available for transfer.)	Yes ☐	No ☐	N/A ☒
Is the current debt-to-equity ratio below 1.0? (The debt-to equity ratio for any given year is computed by dividing total liabilities by total equity.)	Yes ☐	No ☐	N/A ☒
Does the water system meet a debt coverage ratio needed for bond ordinances, loan agreements, and bond requirements? A typical value is 1.2. (Debt coverage ratio is computed by dividing cash available for debt service (net income with annual interest, depreciation, amortization, and other non-cash items added back) by debt service requirements for the year.)	Yes ☐	No ☐	N/A ☒
Does the water system revenue go to meet other expenses (i.e. electric, sewer or garbage)?	Yes ☐	No ☐	N/A ☒
Is there a documented policy for delinquent accounts? What is it? Per PSC Requirements (See Tariff)	Yes ☒	No ☐	N/A ☐
For accounts payable, has the system kept payments less than 45 days past due over the last 12 months?	Yes ☐	No ☐	N/A ☒
Does the system write-off bad debt annually?	Yes ☐	No ☐	N/A ☒
Where does the system typically go for financial assistance? _____			
Does the system have any long-term debts?	Yes ☐	No ☐	N/A ☒
Is the system current on all debt service payments (if applicable)?	Yes ☐	No ☐	N/A ☒
Is the system meeting reserve account requirements (if applicable)?	Yes ☐	No ☐	N/A ☒
Is there an approved* rate structure in place? (Provide copy of rate sheet.) (*Approved by governing entity/PSC as applicable.)	Yes ☒	No ☐	N/A ☒
What were the dates of the system's last 2 non-pass-through rate increases? 6/2019 & 6/2015			
What were the dates of the system's last 2 pass-through rate increases? _____ & _____			
Does the system perform a review annually to determine if the rates fully cover the expenses?	Yes ☐	No ☐	N/A ☒
Are long-term needs built into rate increases?	Yes ☐	No ☐	N/A ☒
Do rates promote conservation in time of drought?	Yes ☐	No ☐	N/A ☒

COST OF WATER PURCHASED AND SOLD

Purchasers	What is the highest wholesale price you pay per 1,000 gallons of water?	$3.69 (Livingston)	N/A ☐
	What is the lowest wholesale price you pay per 1,000 gallons of water?	$2.93 (Mt. Vernon WW)	N/A ☐
Sellers	What is your highest wholesale price which you charge per 1,000 gallons of water?	$_____	N/A ☒
	What is your lowest wholesale price which you charge per 1,000 gallons of water?	$_____	N/A ☒

WATER LOSS

Does the system track water loss on a monthly basis?	Yes ☒	No ☐	N/A ☐
Report water loss for the past year as a percentage of total water purchased in gallons and as a dollar value.	37.39% 16,162,000 gallons **$**~47,355 (@ $2.93/1K gal)		

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If water loss is above 15%, does the system have a plan to address this?	Yes ☒	No ☐	N/A ☐
If yes, describe plan to address water loss: Non-Revenue Water Reduction Plan; Replaced all meters after acquisition in 2018; Targeted line replacements; Active leak detection			
COMMENTS: Consider the following: Continuing to address water loss			

V. SECURITY

Does the system have a documented safety policy?	Yes ☒	No ☐	N/A ☐
Does the system provide regular safety training to its employees?	Yes ☒	No ☐	N/A ☐
Is the utility a member of the Local Emergency Planning Committee?	Yes ☒	No ☐	N/A ☐
Does the system have an updated Emergency Response Plan that is reviewed annually? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the emergency response plan include a plan for responding to water shortages and loss of service?	Yes ☒	No ☐	N/A ☐
Is the Emergency Response Plan exercised?	Yes ☒	No ☐	N/A ☐
How is the Emergency Response Plan communicated to all employees? Available Online; Onsite			
Does the distribution system ever disable the telemetry/SCADA system and run on manual?	Yes ☒	No ☐	N/A ☐
Has the system developed procedures for securing computer/SCADA usage?	Yes ☒	No ☐	N/A ☐
Are backup copies of O & M manuals maintained in a location other than the office?	Yes ☒	No ☐	N/A ☐
Is the purchased water source equipped with emergency standby power generation or is there a secondary source of power? (e.g. contracts in place with suppliers for emergency generators or dual electrical feed)	Yes ☐	No ☒	N/A ☐
Are backup emergency generators exercised regularly?	Yes ☐	No ☐	N/A ☒
Is other backup equipment exercised regularly?	Yes ☐	No ☐	N/A ☒
Have arrangements been made with outside contractors, other utilities, etc. to provide needed emergency equipment?	Yes ☒	No ☐	N/A ☐
COMMENTS: *System is working to acquire emergency generators			

DOCUMENTATION (✓ all that apply)
☐ Photographs obtained by DEP
☒ Copies of records obtained by DEP
☐ Other documentation

OVERALL COMPLIANCE STATUS
☒ No Violations Observed
☐ No Violations Observed - Advisory Action Taken (Impending trends)
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)

CDPM: Ryan Reed	Title: Environmental Scientist IV	Date: 9/29/2022

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

DIVISION OF WATER
300 SOWER BLVD
FRANKFORT, KY, 40601

September 29, 2022

Mr. Bob Money
KY American Water Co
2300 Richmond Rd
Lexington, Kentucky 40502

RE: KY American Water Co -- 1063
Permit No.: KY0340250
Fayette County, Kentucky
Activity ID: CIN20220004

Dear Mr. Money:

Attached for your information and records is a copy of the drinking water comprehensive inspection performed at KY American Water Co on August 31, 2022.

Please review the enclosed inspection report.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Deborah E. Singleton

Deborah Singleton
Environmental Inspector
Frankfort Regional Office
Division of Water

DES
Enclosure:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky Americal Water- Plant A		Program: **Drinking Water**	
Site Address: 6300 Cedar Creek Road			
City: Lexington	State: KY	Zip: 40515	County: Fayette
Inspection Type: Routine Surface	Purpose: Comprehensive		AI #: 1063
Inspection Date: 8/31/22	Time: Start 1230 PM End 14:15 PM		
Latitude: 37 54' 16"	Longitude: 84 22' 42"		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water- Plant A	Contact Name: Robert Money	
Phone No.: 858-335-3660	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: The facility has not received any enforcement actions since the previous inspection.

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Edwin Sturgis	**Class IVA, #81**	
Janet Bemiss	**IVA#1551**	

Comments: A complete list of operators was provided during the inspection.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: Not evaluated. Non-comprehensive inspection performed.

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **The faciltiy provides the reports to the Division of Water in a timely manner.**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections:129,493 Population Served:348,336
Average Production MGD: 22.69 Max. Production MGD: 39.4 Design Capacity MGD: 45
Source:Kentucky River

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	S1	a) Intakes, pumps, piping ☒	# Of Levels1 # Pumps6 Max pump.
	NA	b) Aeration ☐	
	S1	c) Rapid mix ☐	Type: Mechanical paddle If other:
	NA	d) Flocculation ☐	# of Stages # of Trains Variable Speed
	S1	e) Sedimentation ☒	Type: Hydrotreator # of trains:
	S1	f) Chemical feed coagulation	Polyaluminum Cl/SO4
	S1	g) Carbon Feed: ☒	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 10 Size718 Filtration Rate:4
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☐
	S1	k) Chemical storage:	Dry on pallets? ☐ Chemical containment: ☐
	NI	l) Clearwell / screened vents	Size: Baffling:☐ Locked ☐ Screened ☐
	NI	m) Pumps # and size in gpm	High Service @ Backwash @
SITE DATA		n) Site Data:	Cl. Free: Total: pH: :
		o) Site Data:	Cl. Free: Total: pH:
		p) Site Data:	Cl. Free: Total: pH:
		q) Site Data:	Cl. Free: Total: pH:
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NI	s) Automatic chlorinator ☐	Automatic changeover ☐ Proper Fan ☐
	NI	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NI	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACh Last calibrated: 2/24/2022
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	S1	w) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☒
	S1	x) Housekeeping	good
DISTRIBUTION	NA	y) Master meter ; Recorder	Raw: ☐ Finished:☐ ; Raw: ☐ Finished: ☐
	NA	z) Blowoffs / hydrants; flushing	Flushing Schedule:☐ Blowoffs on deadends:☐
	NA	aa) Water storage:	# of Tanks Total Storage:
	NA	bb) Booster pumps / chlorinators	Booster pumps: ☐ Booster chlorinators: ☐
PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: total: 3.3 pH: 7.7 on line-CL 3.23
	S1	dd) Turbidity	Raw:14 Settled:1.6 Combined Filter:0.03
	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☐

	S1	gg) Wastewater discharge	Is sizing adequate? ☒ Yes ☐ N0

Comments: The facility was clean and operational at the time of the inspection. The new intake access car system has been completed. Flow is directed through a rapid mix where DelPAC 202 and other polymers are added. Water is them processed through hydrotreators. All five hydrotreator valve houses have been reworked and new Swan Sewnaos Turbiwell instrumentation has been installed. Weekly calibration checks are performed on all sampling equipment by facility personnel. A THM on-line analyzer has been installed on the plant effluent. The new chemical building has been completed. The facility is now using liquid chlorine for disinfection. Chemical areas are marked appropriately and are secure. The intake screens were being worked on at the time of the inspection.
The laboratory was satisfactory. Standards were observed to be current. Records observed during the inspection include analytical bench sheets, temperature log books, and calibration logs. Laboratory instrumentation was calibrated by an outside source in February 2022. The plant on-line chlorine and bench top chlorine readings were comparable.

The distribution system for this plant is associated with the Richmond Road facility.
The following upgrades are being looked at or are in the planning state: A UV disinfection system; a new solids/ filter backwash handling system.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: The facility holds a KPDES Permit for the wastewater discharge.

VI. Compliance Status - No violations observed

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments: No major concerns were noted at the time of the inspection.

VIII. Compliance Status – No violations observed

IX. Documentation

☒ **Samples taken by DEP**

☐ **Samples taken by outside source**
☐ **Instrument readings taken by DEP regional office**
☐ **Photographs obtained by DEP**
☒ **Copies of records obtained by DEP**
☒ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 8/31/2022

Signature: **DES**

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601
TELEPHONE: 502-564-2150
TELEFAX: 502-564-4245

November 7, 2022

Bob Money
Kentucky American Water - Millersburg
2300 Richmond Rd
Lexington, KY 40502
AI: 296 PWSID: KY0090287

RE: Drinking Water Sanitary Survey

Dear Mr. Money:

The Division of Water conducted a Drinking Water Sanitary Survey (attached) of Kentucky American Water - Millersburg on September 7th, 14th 2022. A Capacity Development assessment was done as part of the survey.

Kentucky American Water - Millersburg is to be commended as they did not have any deficiencies at this time.

The Division recommends the following:

- **Reviewing the Harrison Co Water Association's and Paris Water Work's contract limit**
- **Continuing to address water loss**

Assistance with the "Managerial and Financial Assessment" section of the sanitary survey for Kentucky American Water - Millersburg can be obtained by contacting Ryan Reed at (502) 782-7045.

If you have any questions regarding the "Technical Inspection" portion, contact Jarod Jones in the Frankfort Regional Office at (502) 564-3358.

Sincerely,

Gabriel Tanner
Technical Assistance
Drinking Water Branch
Division of Water

Drinking Water Sanitary Survey

TECHNICAL INSPECTION OF SURFACE WATER DISTRIBUTION-ONLY SYSTEM OPERATIONS

PWS ID: KY0090287
Agency Interest Number: 296; %%activity_id%%
AI Name: Kentucky American Water - Millersburg
County: Bourbon
Office Latitude: 38.297222 **Office Longitude:** -84.145556
CTAB Inspection Date(s): : 09/07/2022 10:00 AM

I. SOURCE

Does the system perform water quality monitoring in accordance with the approved DOW schedule for this facility?	Yes ☒	No ☐
Are there any unaddressed process factors that limit the purchased water contracted amount in the last 10 years?	Yes ☐	No ☒
Is the system(s) you purchase from drought-vulnerable?	Yes ☒	No ☐
Describe any water quality monitoring done on the water at the master meter: _____ List any chemicals fed at the master meters: _____		
If multiple sources are available, is the one in use considered to be the best in terms of water quality?	Yes ☒	No ☐
Is purchased water flow measured? When was the meter last calibrated? Meters are calibated annually	Yes ☒	No ☐
COMMENTS: KYAM personnel monitor water usage as required.		

II. TREATMENT

GAS CHLORINE SAFETY N/A		
Is the chlorine room enclosed and separate from other operating areas?	Yes ☐	No ☐
Is there a working exhaust fan in the chlorine room?	Yes ☐	No ☐
Does it provide one complete air change per minute?	Yes ☐	No ☐
Does it exhaust from floor level?	Yes ☐	No ☐
Is intake air near the ceiling?	Yes ☐	No ☐
Is there an external audible and visual alarm?	Yes ☐	No ☐
Are switches located outside the chlorine room?	Yes ☐	No ☐
Are chlorine tanks secured?	Yes ☐	No ☐
Are the scales operational?	Yes ☐	No ☐
Is automatic switchover of chlorine cylinders provided?	Yes ☐	No ☐
Is there a shatterproof viewing window in chlorine room?	Yes ☐	No ☐
Is there a crash bar on the door of the chlorine room?	Yes ☐	No ☐
Does the door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the chlorine room?	Yes ☐	No ☐
Are personnel trained to use the SCBA?	Yes ☐	No ☐

Is the "buddy system" practiced when changing or moving chlorine cylinders?	Yes ☐	No ☐
Is leak detection provided?	Yes ☐	No ☐
Is ammonia available for chlorine leak detection?	Yes ☐	No ☐
Is there a chlorine tank repair kit?	Yes ☐	No ☐
Are personnel trained and certified to use the kits?	Yes ☐	No ☐
COMMENTS:		

III. DISTRIBUTION SYSTEM

DISTRIBUTION SYSTEM		
Does the system have standard specifications for design and construction of the distribution system?	Yes ☒	No ☐
Does the system prohibit new connections where pressure on the discharge side of the meter will be <30 psi?	Yes ☒	No ☐
Is the system able to meet minimum pressure requirements of DOW and/or other regulating authority?	Yes ☒	No ☐
Does the system have a documented leak detection program?	Yes ☒	No ☐
Does the distribution system have a sufficient number of valves to isolate portions of the system (for leak detection, maintenance, etc.)?	Yes ☒	No ☐
If there are separate distribution system areas, are they interconnected with each other?	Yes ☐	No ☒
If they are not interconnected, how many separate areas are there? _____		
What prevents these systems from being interconnected? _____		
How many pressure zones are there? _____		
What is the range of distribution pressures? _____		
Do any distribution areas require reduced pressure valves?	Yes ☐	No ☒
What piping materials are included in the distribution system? _____		
Does the system have a program for flushing water mains?	Yes ☒	No ☐
Describe the process for sterilizing new mains/main breaks: sterlilize with 50 PPM chlorine hold for 24 hoursand 25 ppm for additional 24 hours. Breaks are repaired, flushed, chlorinated and BACTs collected analyzed.		
What types of on-line instrumentation are located at booster or pump stations and tanks? Chlorine/pressure		
Does the system have a documented program for exercising distribution system valves?	Yes ☒	No ☐
Does the system have a documented program for regular testing of water meters including master meter and customer?	Yes ☒	No ☐
Is there a water meter replacement program?	Yes ☒	No ☐
Are there main break/emergency notification procedures?	Yes ☒	No ☐
Does the system have a documented procedure for issuing a boil water advisory and a consumer advisory? The procedure shall identify when (how soon after the occurrence) and how the system shall notify the affected health department, to whom that notification shall be made both during and after normal business hours, and procedures for issuing the advisory to the public. The public notification shall include instructions for the public (including how to properly boil water) and an explanation of steps being taken to correct the problem.	Yes ☒	No ☐
Describe how the decision is made to issue a Boil Water Advisory: Issued if break, leak or if suspected contamination occurs. If pressure of less than 20 psi is detected.		
Does the system have a cross-connection control program?	Yes ☒	No ☐
If yes, is the cross-connection control program documented in writing?	Yes ☒	No ☐
If the cross-connection control program is not documented in writing, describe the process for finding and eliminating cross connections: _____		
Does a certified tester test the backflow prevention devices on a regular basis?	Yes ☒	No ☐
Has a calibrated hydraulic model been developed for the system?	Yes ☒	No ☐

COMMENTS: No issues at the time of inspection. No recommendations.

DISTRIBUTION STORAGE FACILITIES

Inspected

LOCATION			VOLUME (gallons)	TANK TYPE	OVERFLOW		LAST CLEANED/ INSPECTED	TELEMETRY	% TURNOVER (Per Day)
ROAD/AREA	LATITUDE	LONGITUDE			SCREEN/ FLAPPER	>10' FROM TANK			
Millersburg Tank	38.294556	-84.152249	125,000	Elevated	YES	YES	2017	YES	100

Are all storage tanks professionally inspected at least every 5 years (including interior, coating systems, & piping)? Yes ☒ No ☐

How often are tanks inspected and cleaned? INSPECTED: 5 yrs CLEANED: As needed

Are all storage tanks and water plants equipped with hatches, covers, screens, vandal guards and locks and all tank sites fenced for security? Yes ☒ No ☐

Are all hatches, screens, and overflows on the storage tanks checked at least monthly? Yes ☒ No ☐

Is there corrosion protection in the tanks? Yes ☐ No ☒

COMMENTS: Scada system trasnmits information to KYAM central location.

DISTRIBUTION BOOSTER PUMPS AND/OR BOOSTER DISINFECTION FACILITIES

Inspected

LOCATION			PUMP or DISINFECTION	NUMBER & CAPACITY OF PUMPS (gpm)	DISINFECTION TYPE	AUXILIARY POWER
ROAD/AREA	LATITUDE	LONGITUDE				
US 68	38.295084	-84.51855	Disinfection	@	Chlorine Liquid	No
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		

COMMENTS: Booster station and its components were observed to be well-maintained at the time of the inspection.

DISTRIBUTION SAMPLING (a minimum of N, S, E, W)					
SITE	CHLORINE		pH	TURBIDITY	OTHER
	FREE	TOTAL			
North	1.71	1.95			
South	2.20	2,20			
East	2.20	2.20			
West	1.80	2.20			

Is the system maintaining the required chlorine (0.2 mg/l) / chloramine (0.5 mg/l) residuals in the distribution system? Yes ☒ No ☐

COMMENTS: Millersber system generally has no issues with maintaining the required disinfectant levels

MAINTENANCE		
Is office housekeeping adequate?	Yes ☒	No ☐
Is distribution storage housekeeping adequate?	Yes ☒	No ☐
Are adequate supplies of spare parts kept on hand?	Yes ☒	No ☐
Are needed tools available?	Yes ☒	No ☐
If not, is preventive maintenance performed?	Yes ☐	No ☐
Is a lock-out/tag-out system used for electrical repairs?	Yes ☒	No ☐
What is the general condition of operating equipment? Good	Yes ☐	No ☐

COMMENTS: KYAM personnel did not indicate any issues with maintaining necessary supplies.

DOCUMENTATION (✓ all that apply)	
☒ Samples taken by DEP	☐ Photographs obtained by DEP
☐ Samples taken by outside source	☐ Copies of records obtained by DEP
☐ Instrument readings taken by DEP	☐ Other documentation

OVERALL TECHNICAL COMPLIANCE STATUS
☒ No Violations Observed
☐ No Violations Observed - Advisory Action Taken (Impending trends)
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)

INSPECTOR: Jarod Jones	TITLE: Environmental Inspector	DATE: 10/13/2022

KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER

Drinking Water Sanitary Survey

Managerial and Financial Assessment of Distribution-Only Surface Water & Ground Water Systems

PWS ID: KY0090287
Agency Interest Number: 296
AI Name: Kentucky American Water - Millersburg
County: Bourbon
Regional Office: Frankfort Regional Office
Capacity Development Inspection Date(s): 9/14/2022

SYSTEM CONTACT INFORMATION			
Full Name: Bob Money		Title: Manager, Water Quality & Environmental Compliance	
Phone Number: 859-268-6317	FAX Number:	E-Mail Address: bob.money@amwater.com	
Mailing Address: 2300 Richmond Road Physical Address of Office: 2300 Richmond Road	City: Lexington	State: KY	Zip Code: 40502

DISTRIBUTION SYSTEM INFORMATION		
Contact Person: Jon "Wes" Felts	Title: Senior Operations Supervisor	Phone Number: 859-268-6317
Distribution Class: ID-Pop. < 1500	System Service Connections (meters): 450	
System Population Served Calculated: 1,211	System Population Served Reported: 1,211	
Meters Served Outside Your System: 7,155	Consecutive Systems Population Served Calculated: 19,247	

WATER PURCHASED, SOLD, & EMERGENCY CONNECTIONS

WATER PURCHASED FROM: *(List primary purchase source first.)*			Number of Master Meters	Amount Monthly (average)	Amount Available by Contract (monthly)
SYSTEM NAME	PWS ID #	AI #			
Paris Water Works	KY0090343	300	1	5,738,446	6,000,000
Average Total Water Purchased Daily: 189,140 gallons			Maximum Total Water Purchased Daily: 234,357 gallons		

WATER SOLD TO: ☐ Not Applicable			Number of Master Meters	Amount Monthly (average)	Amount Available by Contract (monthly)
SYSTEM NAME	PWS ID #	AI #			
Harrison Co. Water Association	KY0490179	33915	1	1,742,263	1,200,000
Nicholas Co. Water District	KY0910314	34050	1	73,790	1,500,000

COMMENTS: Consider the following: Reviewing the Harrison Co Water Association's and Paris Water Work's contract limit

PWS ID Number: KY0090287 **Agency Interest Number:** 296

I. OPERATOR COMPLIANCE

Do the operators perform maintenance as well as distribution operations?	Yes ☒	No ☐	N/A ☐
Do you have contingency plans for replacing retiring system personnel?	Yes ☒	No ☐	N/A ☐

Who provides training/technical assistance for license renewal? (✓ all that apply):
☐ AWWA ☐ DCA ☒ DOW ☒ KRWA ☒ KWWOA ☐ RCAP ☒ Other In-House/Online (Suncoast)

What type of training is typically obtained? (✓ all that apply):
☒ REGULATIONS ☒ SAFETY ☐ UMI ☒ WATER QUALITY

Does the system pay for registration, lodging and meals?	Yes ☒	No ☐	N/A ☐
Does the system allow operators to attend training on company time?	Yes ☒	No ☐	N/A ☐

Number of shifts on weekdays: 1		Length of Shift (hours)	Number of Operators
	1st Shift	8	2
	2nd Shift	On-Call	On-Call
	3rd Shift	On-Call	On-Call

How are weekends covered? On-Call

How are holidays covered? On-Call

OPERATOR CERTIFICATION

LICENSEE NAME	LICENSEE AI #	LICENSE ID	LICENSE TYPE
Felts, Jon "Wes"	103831	18681	DW Distribution IVD
*See Comment Below			

Is the system staffed with appropriately certified operators? (Verify certification with DCA.) Yes ☒ No ☐ N/A ☐

COMMENTS: *Union Contract determines staffing within KY American Water (Additional operators)

PWS ID Number: KY0090287 **Agency Interest Number:** 296

II. MONITORING, REPORTING & DATA VERIFICATION

(Part A must be completed for all water systems. Part B must be completed for groundwater systems only.)

PART A *(Complete for all water systems.)*				
REPORTING ITEM – Information gathered from DWW	RETENTION TIME			
Bacteriological - 2 per month (See DWW)	5 Years	Yes ☒	No ☐	N/A ☐
Chlorine/Chloramines – Free chlorine monthly with BACTs, daily for MORs, residual chlorine monthly	10 Years	Yes ☒	No ☐	N/A ☐
MORs – Monthly (Turbidity Analysis)	1 Year	Yes ☒	No ☐	N/A ☐
Lead & Copper - 10 every 3 years (June to September)	12 Years	Yes ☒	No ☐	N/A ☐
TTHM & HAA5 2 per Quarter (see DWW)	10 Years	Yes ☒	No ☐	N/A ☐
Asbestos – 1 sample in the 1st 3 years of the 9 year compliance cycle (SOC) *Check for Waiver (only purchasers can have waiver)*	Begin 2011/2013	Yes ☒	No ☐	N/A ☐
Stage 2 IDSE Sampling Plan or 40/30 Certification	10 years	Yes ☐	No ☐	N/A ☒
Stage 2 IDSE Report	10 years	Yes ☐	No ☐	N/A ☒
Data Summaries (if actual data not retained)	12 Years	Yes ☐	No ☐	N/A ☒
NOVs (Notices of Violation)	10 Years	Yes ☒	No ☐	N/A ☐
Sanitary Surveys (every 3 years)	10 Years	Yes ☒	No ☐	N/A ☐
CCR (Consumer Confidence Report) – Annually by July 1 (by April 1 to consecutive systems)	Current one on file	Yes ☒	No ☐	N/A ☐
Does the system maintain a current sampling plan for BacTs?	Date updated	Yes ☒	No ☐	N/A ☐
Does the system maintain a current sampling plan for LCR?	Date updated	Yes ☒	No ☐	N/A ☐
Does the system maintain a current sampling plan for DBPs?	Date updated	Yes ☒	No ☐	N/A ☐
Does the system have an up-to-date map of distribution assets? (Map shall show a minimum of all line sizes, cutoff valves, fire hydrants, flush hydrants, tanks, booster pumps, chlorination stations, connections to emergency or alternative sources, wholesale customer master meters, & the type of piping material in the distribution system and its location.)	Date updated Continuously Updated	Yes ☒	No ☐	N/A ☐
PART B *(Complete for groundwater systems only.)* ☒ Not Applicable				
GWR Corrective Action	10 years	Yes ☐	No ☐	N/A ☐
GWR Public Notices	3 years	Yes ☐	No ☐	N/A ☐
GWR Fecal-positive invalidation	5 years	Yes ☐	No ☐	N/A ☐
GWR State-specified minimum disinfectant residual (letter from CTAB)	10 years	Yes ☐	No ☐	N/A ☐
GWR Lowest daily disinfectant residual level (submitted with MOR)	5 years	Yes ☐	No ☐	N/A ☐
What method is used to record this? (i.e. SCADA, chart recorders, download to CD)	N/A			
GWR Date and duration of time less than minimum daily disinfectant residual level	5 years	Yes ☐	No ☐	N/A ☐
GWR Records of state-specific compliance requirements for membrane filtration and alternative treatment	5 years	Yes ☐	No ☐	N/A ☐

Does the system maintain compliance records as required? (answer for both Parts A & B)	Yes ☒	No ☐	N/A ☐
COMMENTS:			

PWS ID Number: KY0090287 **Agency Interest Number:** 296

III. MANAGEMENT & OPERATIONS

What professional organizations does the water system belong to? KRWA; AWWA; KWWOA; NAWC; Chamber of Commerce; WEF			
Is the system subject to Public Service Commission regulations?	Yes ☒	No ☐	N/A ☐
Does the system attend Water Management Council meetings of the Area Development District?	Yes ☒	No ☐	N/A ☐
Does the system have a governing entity? If not, explain: KY Board of Directors	Yes ☒	No ☐	N/A ☐
What is the name of the system's OTHER? Kathryn Wash (President)			
What is his or her mailing address? Same as System			
How often does the governing body meet? Monthly			
Do operators attend these meetings?	Yes ☐	No ☒	N/A ☐
Is the governing entity provided with documented information regarding technical, managerial, and financial operations of the water system? (Inspect)	Yes ☒	No ☐	N/A ☐
Is the governing entity familiar with water treatment/distribution?	Yes ☐	No ☐	N/A ☒
Does the system offer continuing education opportunities for members of the governing entity?	Yes ☐	No ☐	N/A ☒
Does the system have regular staff meetings?	Yes ☒	No ☐	N/A ☐
How often? Weekly _____			
Who is involved? By Department (Employees)			
Does the system have a documented strategic plan (mission statement, goals and objectives)? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system have a defined organizational structure?	Yes ☒	No ☐	N/A ☐
Does the system have a documented description of each job classification with minimum position qualifications? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system have documented policies and procedures governing human resource management (such as an employee handbook)?	Yes ☒	No ☐	N/A ☐
Does the system periodically review its insurance coverage is in place for liability, property, automobiles, directors, and officers?	Yes ☒	No ☐	N/A ☐
Does the system have a documented policy for delegation of authority such as signing agreements, contracts, resolutions, easements, etc.?	Yes ☒	No ☐	N/A ☐
Does the system have a documented procurement policy for purchasing supplies?	Yes ☒	No ☐	N/A ☐
Does the system have professional services available under a current contract, retainer, or other similar arrangement for engineering, accounting, and legal counsel?	Yes ☒	No ☐	N/A ☐
Does the system have an asset management program?	Yes ☒	No ☐	N/A ☐
Does the system have a documented preventive maintenance program?	Yes ☒	No ☐	N/A ☐
Does the system have a capital improvement plan? (Inspect)	Yes ☒	No ☐	N/A ☐
How many years does the plan cover? KY Wide; Priority Ranking			
Does the system have a documented policy governing water main extensions? (Inspect)	Yes ☒	No ☐	N/A ☐
Are chemicals inventoried? If so, how? Inventory System (Employee)	Yes ☒	No ☐	N/A ☐
Are distribution materials inventoried? If so, how? Inventory System (Employee); Work Order System	Yes ☒	No ☐	N/A ☐
Is there a bid process for chemicals, pipe, or large item purchases?	Yes ☒	No ☐	N/A ☐

PWS ID Number: KY0090287 **Agency Interest Number:** 296

Does the system have rules and regulations governing the provision of service? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system make available in a public place the rules, rates, and regulations? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the system provide 24-hour service response for customers?	Yes ☒	No ☐	N/A ☐
Does the system notify customers prior to performing scheduled maintenance?	Yes ☒	No ☐	N/A ☐
Does the system log customer complaints and track resolution?	Yes ☒	No ☐	N/A ☐
Does the system provide any educational activities to the public? Who is responsible for providing this? External Affairs Staff What types of educational activities are done? Bill Inserts; In-School Activities; Water-Wise Academy; Grants for Environmental Projects (i.e. rainbarrels); Educational Grants	Yes ☒	No ☐	N/A ☐
Does the system have sufficient O & M manuals? (Inspect) (O & M manuals shall include: a detailed design of the plant, daily operating procedures, a schedule of testing requirements designating who is responsible for the tests, and safety procedures for operation of the facility – including storage and inventory requirements for materials and supplies.) How are the operators made aware of O & M procedures? Field SOPs; OTJ; Available for Reference	Yes ☒	No ☐	N/A ☐
Has the system received any NOVs for MCLs in the last 3 years? If yes, answer the following:	Yes ☐	No ☒	N/A ☐
If more than one NOV, were any for the same contaminant?	Yes ☐	No ☐	N/A ☒
Was a public notice issued when required?	Yes ☐	No ☐	N/A ☒
What remedial measures did the system take to prevent future occurrences of these violations? GAC Filters installed at purchase site			
Does the system maintain a log of all breaks or ruptures per 401 KAR 8:150, Section 4? (Inspect)	Yes ☒	No ☐	N/A ☐
Is the system operating at or above 85% of water available through purchase contracts? (see COW) **If yes, what is the percentage? 95.6%**	Yes ☒	No ☐	N/A ☐
If system's average daily demand exceeds 85% of available water through purchase contracts, does system have a plan for obtaining additional water, including cost and timeframes to address the needed additional water? If applicable, describe plan for obtaining additional water: See Recommendation on 1st Page	Yes ☐	No ☐	N/A ☒
COMMENTS: The managerial section's information applies to KY American Water as a whole. The Board of Directors are presented with "big picture" information for KY as a whole.			

IV. FINANCIAL

Does the system prepare an annual operating budget? (Provide summary)	Yes ☐	No ☐	N/A ☒
Does the system prepare an annual capital budget? (Inspect)	Yes ☐	No ☐	N/A ☒
Who prepares the budget? _____			
Do the operators have input into the budget?	Yes ☐	No ☐	N/A ☒
Are training and license funds built into the budget?	Yes ☐	No ☐	N/A ☒
Does the governing entity review and approve the budget?	Yes ☐	No ☐	N/A ☒
Does the system prepare regular monthly reports to show variances between budgeted and actual revenue and expenses? (Inspect)	Yes ☐	No ☐	N/A ☒
Does the system maintain its financial records utilizing the Kentucky Uniform System of Accounting or a comparable system? (Inspect)	Yes ☐	No ☐	N/A ☒
Are financial statements audited by a CPA as required? (Inspect) (Water districts, special districts – i.e. regional water commissions and cities have specific requirements.)	Yes ☐	No ☐	N/A ☒

PWS ID Number: KY0090287 **Agency Interest Number:** 296

If audit is completed, does the governing entity receive and review the audit report?	Yes ☐	No ☐	N/A ☒
Does the system employ a method for depreciation of system assets?	Yes ☐	No ☐	N/A ☒
Is the system operating at a retained earnings surplus? (Retained earnings is the net income that is available at the end of the year and available for transfer.)	Yes ☐	No ☐	N/A ☒
Is the current debt-to-equity ratio below 1.0? (The debt-to equity ratio for any given year is computed by dividing total liabilities by total equity.)	Yes ☐	No ☐	N/A ☒
Does the water system meet a debt coverage ratio needed for bond ordinances, loan agreements, and bond requirements? A typical value is 1.2. (Debt coverage ratio is computed by dividing cash available for debt service (net income with annual interest, depreciation, amortization, and other non-cash items added back) by debt service requirements for the year.)	Yes ☐	No ☐	N/A ☒
Does the water system revenue go to meet other expenses (i.e. electric, sewer or garbage)?	Yes ☐	No ☐	N/A ☒
Is there a documented policy for delinquent accounts?	Yes ☒	No ☐	N/A ☐
What is it? Per PSC Requirements (See Tariff)			
For accounts payable, has the system kept payments less than 45 days past due over the last 12 months?	Yes ☐	No ☐	N/A ☒
Does the system write-off bad debt annually?	Yes ☐	No ☐	N/A ☒
Where does the system typically go for financial assistance? _____			
Does the system have any long-term debts?	Yes ☐	No ☐	N/A ☒
Is the system current on all debt service payments (if applicable)?	Yes ☐	No ☐	N/A ☒
Is the system meeting reserve account requirements (if applicable)?	Yes ☐	No ☐	N/A ☒
Is there an approved* rate structure in place? (Provide copy of rate sheet.) (*Approved by governing entity/PSC as applicable.)	Yes ☒	No ☐	N/A ☐
What were the dates of the system's last 2 non-pass-through rate increases? 6/2019 & 6/2015			
What were the dates of the system's last 2 pass-through rate increases? _____ & _____			
Does the system perform a review annually to determine if the rates fully cover the expenses?	Yes ☐	No ☐	N/A ☒
Are long-term needs built into rate increases?	Yes ☐	No ☐	N/A ☒
Do rates promote conservation in time of drought?	Yes ☐	No ☐	N/A ☒

COST OF WATER PURCHASED AND SOLD

Purchasers	What is the highest wholesale price you pay per 1,000 gallons of water?	$2.25	N/A ☐
	What is the lowest wholesale price you pay per 1,000 gallons of water?	$_____	N/A ☒
Sellers	What is your highest wholesale price which you charge per 1,000 gallons of water?	$2.25	N/A ☐
	What is your lowest wholesale price which you charge per 1,000 gallons of water?	$2.25	N/A ☐

WATER LOSS

Does the system track water loss on a monthly basis?	Yes ☒	No ☐	N/A ☐
Report water loss for the past year as a percentage of total water purchased in gallons and as a dollar value.	21.06% 3,145,198 gallons $~7,077		
If water loss is above 15%, does the system have a plan to address this?	Yes ☒	No ☐	N/A ☐
If yes, describe plan to address water loss: Targeted Line Replacements; Active Leak Detection; Acoustic Loggers			

PWS ID Number: KY0090287 **Agency Interest Number:** 296

COMMENTS: Consider the following: Continuing to address water loss *The financial section's information applies to KY American Water as a whole.

V. SECURITY

Does the system have a documented safety policy?	Yes ☒	No ☐	N/A ☐
Does the system provide regular safety training to its employees?	Yes ☒	No ☐	N/A ☐
Is the utility a member of the Local Emergency Planning Committee?	Yes ☒	No ☐	N/A ☐
Does the system have an updated Emergency Response Plan that is reviewed annually? (Inspect)	Yes ☒	No ☐	N/A ☐
Does the emergency response plan include a plan for responding to water shortages and loss of service?	Yes ☒	No ☐	N/A ☐
Is the Emergency Response Plan exercised?	Yes ☒	No ☐	N/A ☐
How is the Emergency Response Plan communicated to all employees? Available Online; Onsite			
Does the distribution system ever disable the telemetry/SCADA system and run on manual?	Yes ☒	No ☐	N/A ☐
Has the system developed procedures for securing computer/SCADA usage?	Yes ☒	No ☐	N/A ☐
Are backup copies of O & M manuals maintained in a location other than the office?	Yes ☒	No ☐	N/A ☐
Is the purchased water source equipped with emergency standby power generation or is there a secondary source of power? (e.g. contracts in place with suppliers for emergency generators or dual electrical feed)	Yes ☐	No ☒	N/A ☐
Are backup emergency generators exercised regularly?	Yes ☐	No ☐	N/A ☒
Is other backup equipment exercised regularly?	Yes ☐	No ☐	N/A ☒
Have arrangements been made with outside contractors, other utilities, etc. to provide needed emergency equipment?	Yes ☒	No ☐	N/A ☐
COMMENTS:			

DOCUMENTATION (✓ all that apply)
☐ Photographs obtained by DEP
☒ Copies of records obtained by DEP
☐ Other documentation

OVERALL COMPLIANCE STATUS
☒ No Violations Observed
☐ No Violations Observed - Advisory Action Taken (Impending trends)
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)

CDPM: Ryan Reed	Title: Environmental Scientist IV	Date: 10/7/2022

Inspection Report

GenTrack Item # 227		
Section	**Field Name**	**Response**
Facility		
	Region:	Northern
	PWS ID:	0340250C
	Category:	Plants
	Facility Name:	KENTUCKY AMERICAN WATER CO. C
	Status:	Active
	GPS Location:	38.358527 -84.865399
	Physical Address:	16035 HWY 127
	Mailing Address:	
	City:	OWENTON
	State:	KY
	Zip Code:	40359
	Phone:	502 484-8373
	Plant Email:	bob.money@amwater.com
	County:	Owen
	Fluoridation:	Yes
	Contact First Name:	Jason
	Contact Last Name:	Case
	Contact Address 1:	
	Contact Address 2:	
	Contact Phone Number:	502 395-2945 (Op)
	Contact Email:	jason.m.case@amwater.com

GenTrack Item # 227 - 9		
Section	**Field Name**	**Response**
General		
	Inspection Date:	03/21/2023
	Inspector:	Lucas Bentley
	Inspector Information:	275 east Main Street Frankfort KY 40621 Office Phone: 502-564-3246 Home Phone: Lucas.Bentley@ky.gov Active
	Operator On Duty First Name:	Scott

	Operator On Duty Last Name:	Huddleston
	Contact Address 1:	16035 HWY 127
	Contact Address 2:	
	Contact Phone:	502 484-8373
	Certification Number:	21329
	Water Plant Operator Certification Level:	IVA
	Facility Classification Level:	IVA
	[BLANK]	If the Water Plant Operator on Duty is not certified or does not have a certification equal to
		or higher than the Facility Classification, include the name and certification number of the
		operator responsible for the facility instead.
	Water Source:	Surface Water
	Fluoridation Type:	Acid
	Service Connections:	3900
	Populations Served:	10491.00
	AVG Production:	7.5 MGPD
	Flow Rate (Influent)(GPM):	4200 GPM
	Master Meter (Raw):	Satisfactory
	Design Capacity:	40 MGPD
	PWSI Number:	0340250C
	GPS Coordinates:	38.358527 -84.865399
	Comments:	
Chemical Treatment		
	Activated Carbon (Activated Charcoal):	Yes
	Aluminum Chloride:	Yes
	Aluminum Chlorohydrate:	No
	Aluminum Potassium:	No
	Aluminum Sulfate (Alum):	No
	Amonia:	Yes
	Calcium Hydroxide (Hydrated Lime):	No
	Calcium Oxide (Quick Lime):	No
	Carbon Dioxide:	No
	Charcoal:	No
	Chlorine (gas):	Yes

	Chlorine (liquid):	No
	Chlorine Dioxide:	No
	Copper Sulfate:	No
	Ferric Chloride:	No
	Ferric Sulfate:	No
	Hydrofluorosilicic Acid (HFS):	Yes
	Hydrochloric Acid:	No
	Hydrochlorites:	No
	Hydrogen Peroxide:	No
	Hydroxide Ammonium:	No
	Phosphate:	No
	Polyaluminum Chloride (PAC):	No
	Polyelectrolytes:	No
	Polyphosphates:	No
	Potassium Hydroxide (Caustic Potash):	No
	Potassium Permanganate:	Yes
	Silica:	No
	Sodium Aluminate:	No
	Sodium Bicarbonate (Baking Soda):	No
	Sodium Carbonate (Soda Ash):	No
	Sodium Chloride (Salt):	No
	Sodium Fluoride:	No
	Sodium Fluorosilicate:	No
	Sodium Hydroxide (Caustic Soda):	No
	Sodium Hypochlorite:	No
	Sodium Permanganate:	No
	Sodium Thiosulfite:	Yes
	Sulfur Dioxide:	No
	Sulfuric Acid:	No
	Ultraviolet:	No
	Others:	ORTHOPHOSPHATE, POLYMER & CAUSTIC SODA.
Fluoride System		
	Saturator System:	Not Applicable

	Saturator Cleanout Date (recommended annually or as needed):	
	Saturator Feed Line Flow Meter	N/A
	Saturator Flow Rate	.
	Feed Water Hardness (ppm as calcium carbonate)"	.
	[BLANK]	
	Saturator Instructions:	*If issues arise with the saturator, please contact your water fluoridation specialist and check the following: • Saturated solution of the chemical should be approximately 18,000 ppm and can be verified through either your private lab or the state lab. Be sure to let the lab know that this is a saturated sample by writing the information on the Lab 505 form in red ink and putting "Saturator Sample" at the top of the form. If the results are below 18,000 ppm, saturation of the chemical is not occurring, and the following items need to be checked. If the saturator has not been cleaned out within the last year, a thorough breakdown and cleanout of the saturator and all parts is recommended. Special attention should be given to the complete cleanout of the spider and all connections in the saturator. The flow rate of the feed water flowing through the saturator should not exceed 2 GPM. The hardness of the feed water of the saturator should not exceed 75 ppm as calcium carbonate. If it does, installation of a water softener is recommended. • If the results are approximately 18,000 ppm, a drawdown of the metering pump should be conducted to verify proper operation. Contact your water fluoridation specialist to identify the proper dose rate of the metering pump.
	Comments:	
	Dry System:	Not Applicable
	Dry Hopper Scale Mounted	N/A
	Comments:	
	Tablet System:	Not Applicable
	Tablet System Flow Rate:	.
	Comments:	
	Hydrofluorosilicic Acid (HFS) System:	Satisfactory
	Hydrofluorosilicic Acid (HFS) Bulk Tank Size (gallons):	6083
	HFS Day Tank Size (dimensions in inches):	.
	HFS Day Tank Size (gallons):	147
	HFS Day Tank Limitations:	.

	HFS Day Tank Loss of Suction Point (lbs if scale used and inches if volumetric loss used):	.
	HFS Day/Bulk Tank Vented to the Outside Atmosphere:	Satisfactory
	Transfer Pump:	Yes
	Liquid Level Limit Switch:	Satisfactory
	HFS Usage Table:	Yes
	Comments:	Usage Table on SCADA
	[BLANK]	
		Ensure only a maximum 30-hour supply of (HFS) is kept in the day tank to prevent exceeding the MCL
Plant Safety Equipment		
	Syphon Breakers Rating:	Satisfactory
	Comments:	
	Ventilation Rating:	Satisfactory
	Forced Ventilation Switch Location:	
	Comments:	
	Chemical Storage Rating:	Satisfactory
	Comments:	
	Method Of Measurement:	Volumetric
	Method of Measurement Rating:	Satisfactory
	Comments:	ULTRA SONIC
	Secondary Containment:	Satisfactory
	Comments:	
Operator Safety Equipment		
	Respirator Available:	Yes
	Comments:	
	Face Shield/Safety Glasses Available:	Yes
	Comments:	
	Gloves Available:	Yes
	Comments:	
	Apron/Coat Available:	Yes
	Comments:	
	Eye Wash Station/Deluge Shower:	Satisfactory

	Eye Wash Station/Deluge Shower Maintenance Check (recommended monthly):	Satisfactory
	Comments:	
	Safety Data Sheets (SDS) On-Hand	Yes
Laboratory and Records		
	Tester Brands:	CH EZ-CHECK
	Fluoride Tester Instruction Manual On-Hand	
	Fluoride Tester Calibration Frequency	batteries
	Tester Brand Rating:	Satisfactory
	Comments:	
	Adequate Reagent Supply:	Satisfactory
	Comments:	
	Reagent Up-To-Date (Include either the expiration date or the Lot number in the comments):	Satisfactory
	Comments:	
	Monthly Operating Reports:	Satisfactory
	Last Month AVG-Daily Usage in Pounds:	213.1
	Last Month AVG Daily Pre-Population Results:	3.4
	Last Month AVG Tap Reading:	0.82
	Last Month AVG Raw Reading:	0.09
	Comments:	
	505 Reporting:	Satisfactory
	505 Sample Locations (First Plant/Second Distribution):	Satisfactory
	505 Dates:	Satisfactory
	[BLANK]	The first sample shall be collected from the plant tap during the first week of the month.
		The second sample collected at a point of maximum retention, during the third week of the month
	In Compliance Year to Date:	Yes

	CDC Quality Award Received Two Years Previously	Yes
	Housekeeping:	Satisfactory
	Comments:	
Distribution		
	Point Of Injection:	Satisfactory
	Injection Site:	Pre-Clearwell
	Comments:	
	Chemical Feeder:	Satisfactory
	Comments:	*Entered 0 below because inspection report does not recognize decimal points or percentages. SPEED and STROKE are percentages. Current Settings are a Speed of 17.5% and Stroke of 33%
	Feeder's Brand:	JAC
	Peristaltic Pump Tube Size	.
	Feeder Model #:	1731
	Feeder Size:	4.9 GPH
	Setting:	55 mL/min
	Speed:	0
	Stroke:	0
On-Site Observation		
	Fluoride Rating:	Satisfactory
	Comments:	
	Private Labs:	Kentucky America
	Other Water Treatment Systems Directly Connected:	Georgetown, Nicholasville, Judy, South Elkhorn, Midway, Versailles, Peaks Mill, East Clark County
	Other Water Treatment Systems Water Sold To:	Georgetown, Nicholasville, Judy, South Elkhorn, Midway, Versailles, Peaks Mill, East Clark County
	Other Water Treatment Systems Water Purchased From:	Gallatin County, Carroll County
	[BLANK]	
	Facility Entrance:	Yes
	Laboratory:	Yes
	Fluoride Tester:	Yes
	Fluoride Room:	Yes
	Ventilation:	Yes

	Fluoride Metering Pump Tag:	Yes
	Overall Fluoride System (Saturator, Bulk/Day Tank, Dry Hopper, Tablet):	Yes
	Injection Site:	Yes
	Scales (if applicable):	N/A
	Anti-Syphon Device (if applicable):	Yes
	Eye Wash/Deluge Shower Station (if applicable):	Yes
	[BLANK]	
	Split Rating:	Satisfactory
	Raw:	
	Saturator Sample:	n/a
	Insp:	0.88
	Plant:	0.91
	LAB:	0.80
	Comments:	Well Ran Facility In Compliance YTD
	[BLANK]	We appreciate all the work and effort this year in staying in compliance with the fluoride program.
		If any issues arise, please contact your water fluoridation specialist.

Drinking Water Sanitary Survey

TECHNICAL INSPECTION OF SURFACE WATER PLANT AND DISTRIBUTION SYSTEM OPERATIONS

PWS ID: KY0340250
Agency Interest Number: 1063; CIN20200001
AI Name: KY American Water Co
County: Fayette
WTP Latitude: 38.011157 WTP Longitude: -84.465995
CTAB Inspection Date(s): May 4 & 9 2023

TREATMENT PROCESS SUMMARY	
Primary Source: Kentucky River Secondary Source: Jacobson park reservoir	Maximum Pumping Rate: 30 MGD Filter Design Rate (gpm/ft^2): 5
Pre-sedimentation Size: n/a	Aeration: 1)N/A 2) N/A
Sedimentation (Primary): Conventional/Baffled Basin Sedimentation 2: 1) N/A 2) N/A	Filter (Primary): Conventional/Sand Filter 2 (if 2 different filter types): 1) N/A 2) N/A
Total Clear Well Size (gallons): 0.650 MG	Total Distribution Storage Capacity (gallons): 27,807,000
Does each component of the WTP meet 10 State Standards or has each been approved by the Division of Water? Yes ☒ No ☐	
COMMENTS: Filters are actually a conventional/ dual media type(sand and GAC).	

CHEMICALS SUMMARY	
Pre-Disinfection/Treatment: 1) Chlorine Liquid 2) N/A Post-Disinfection: 1) Chlorine Liquid 2) N/A	Primary Coagulant: Polyaluminum Chlorides/Sulfates Secondary Coagulant (Name): N/A
Filter Aid Name:	Corrosion Control: Phosphate-Based Inhibitor
Taste and Odor: Sodium Permanganate	Softening: N/A
Iron and Manganese Removal: Sodium Permanganate	Fluoride Supplement: Hydrofluosilicic Acid
COMMENTS:	

PLANT SCHEMATIC *(OPTIONAL)*	
Include a plant schematic indicating the following details. ***Place an "X" in the box to indicate this item is included on the schematic.***	
☐ Source water type/location	☐ Major unit processes (including baffling factors and volumes)
☐ Flow measurement locations	☐ Chemical injection locations
☐ Piping Flexibility (including # of raw and finished water mains)	☐ Waste handling

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

I. SOURCE

SOURCE				
SOURCE NAME	WATER WITHDRAWAL NUMBER	PERMITTED AMOUNT (MGD)	IS CAPACITY ADEQUATE?	ARE THERE WATER QUALITY ISSUES?
Kentucky River	200	63	Yes ☒ No ☐	Yes ☐ No ☒
Jacobson Reservoir	201	16	Yes ☒ No ☐	Yes ☐ No ☒

Upstream land uses (✓ all that apply):
☒ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential ☐ Other _____

Upstream discharges within 5 miles (✓ all that apply):
☐ Farmland ☐ Industry ☐ Logging ☐ Mining ☐ Oil and Gas ☒ Recreation ☒ Residential
☐ Water/Wastewater Discharge ☐ Other _____

Is there a source water protection plan in place? (Call ADD if no one at plant knows.) Yes ☒ No ☐

Are there any sources of Cryptosporidium in the watershed? Yes ☒ No ☐

Describe the sources: farming, animals

Is the system drought-vulnerable? (Has the system ever been on water conservation or dealt with a dwindling water source during warm weather?) Yes ☒ No ☐

Does the system perform both source and finished water quality monitoring as required? Yes ☒ No ☐

What type of water quality monitoring is done on the source water (✓ all that apply):
☒Alkalinity ☒BacTs ☒Hardness ☒Iron ☒Manganese ☒pH ☒Temperature ☒Turbidity ☐None

If multiple sources are available, is the one in use the "best" in terms of both water quality and quantity? Yes ☒ No ☐

Are there any factors that have limited the capacity of raw water source(s) with in the last 10 years? Yes ☒ No ☐

If the capacity of a raw source has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☒ No ☐

Are there any unaddressed factors that have reduced the quality of raw water source(s) in the last 10 years? Yes ☐ No ☒

If the quality of the raw water source(s) has been reduced within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☐ No ☐

Are there any unaddressed factors that have limited the water available for purchase from contracted source(s) in the last 10 years? Yes ☐ No ☒

If water available for purchase through contracted source(s) has been limited within the past 10 years, have the contributing factors already been successfully addressed? If not, explain: _____ Yes ☐ No ☐

COMMENTS: Source water quality monitoring also includes testing for chlorides and taste/ odor.

INTAKE STRUCTURE							
LOCATION			TYPE	# of INLETS	SCREEN GRID SIZE	IS FLOODING A PROBLEM?	IS SILT BUILD-UP A PROBLEM?
ROAD/AREA	LATITUDE	LONGITUDE					
Kentucky River			Fixed	1	1/2"	NO	NO
Jacobson Reservoir			Fixed	1	1/2"	NO	NO

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Number of raw water mains: 3 which are: PUMPED ☒ or GRAVITY FED ☐
Is raw water flow measured? Yes ☒ No ☐ If yes, when was the meter last calibrated? 08/2020
List any chemicals fed at the source: carbonn
If source is a reservoir, is it aerated? Yes ☐ No ☒
List depths of intake levels (normal pool): 14.5
Screens are: STATIONARY ☒ or MECHANICAL ☐
Is screen clogging a problem? Yes ☐ No ☒ How are screens cleaned? _____
Are Zebra mussels a problem? Yes ☐ No ☒ If yes, list actions taken: _____
How often are the submerged portions of the intake inspected? as needed When was the date of the last inspection? new screens were installed in July 2019.
COMMENTS: No major concerns were noted at the time of the inspection. The facility was drawing water from the Kentucky River at the time of the inspection.

II. TREATMENT/PUMPS

PRE-SEDIMENTATION N/A			
CAPACITY (gallons)	FLEXIBILITY TO BYPASS	CHEMICAL FEED CAPABILITY	LIST CHEMICALS FED
	Yes ☐ No ☐	Yes ☐ No ☐	
	Yes ☐ No ☐	Yes ☐ No ☐	
Are treatment chemicals fed at the inlet to the pre-sedimentation basin? Yes ☐ No ☐ If so, is the chemical fed: ALL THE TIME ☐ or INTERMITTENTLY ☐?			
Is algae growth a problem? Yes ☐ No ☐			
How often are the pre-sedimentation basin(s) cleaned? _____			
COMMENTS:			

AERATION N/A		
TYPE	CAPACITY (gallons)	REASON FOR AERATION
COMMENTS:		

RAPID MIX Inspected			
TYPE	NUMBER	VOLUME (gallons)	PHYSICAL CONDITION

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

Mechanical Mixer	2	7100/basin	Good

List chemicals in the order they are fed at the rapid mix: polyaluminum chloride, sodium hypochlorite, NaMnO4,

Is adequate mixing of chemicals taking place? Yes ☒ No ☐

Are there flow splits after the rapid mix? Yes ☒ No ☐

If so, is the flow distribution even? Yes ☒ No ☐

COMMENTS: No major concerns were noted at the time of the inspection.

FLOCCULATION BASINS
Inspected

TYPE	# of TRAINS / STAGES	VARIABLE SPEED DRIVE	VOLUME (gallons)	PHYSICAL CONDITION
Vertical Paddle	2 / Multiple	Yes ☒ No ☐	350,000	Good
	/	Yes ☐ No ☐		

List any chemicals fed in the flocculation process: cationic polymer and carbon if needed

What is the size and appearance of the floc? Size: OK & Appearance: Fluffy

How often are flocculation basins cleaned? once per year or when needed

Are the flocculation speeds tapered (decreased) through the flocculation stages? Yes ☒ No ☐

Are there flow splits after flocculation? Yes ☒ No ☐

Is flow distribution even? Yes ☒ No ☐

COMMENTS: No major concerns were noted at the time of the inspections.

SEDIMENTATION BASINS
Inspected

TYPE	TRAINS / STAGES	VOLUME (gallons)	SQ. FT. AREA PER BASIN	% WITH TUBE SETTLERS	PHYSICAL CONDITION
Conventional/Package	4 / 1	750/000		0	Good
	/				

List any chemicals fed in the sedimentation process: _____

What is the sedimentation turbidity goal? <2 NTU

Where is this sample taken? at basin

What is the overflow rate of the basins? 0.5181 gpm/ft^2

If system has an Actiflo process, what is the rise rate? _____

How often are the basins cleaned? 1-2 times per quarter or as needed

How often is sludge removed from the basins? continuous

Sludge removal is: MECHANICAL ☒ or MANUAL ☐

What was the sludge depth at the time of this inspection? _____

What was the settled water turbidity at the time of this inspection? 0.41 NTU

Is there evidence of short-circuiting (flow or density currents)? Yes ☐ No ☒

Is baffling present in the basins? Yes ☐ No ☒

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If yes, describe the baffling: _____
If multiple sedimentation basins, describe the piping from the basins to the filters: _____
Is there evidence of floc carryover to the filters? Yes ☐ No ☒
COMMENTS: No major concerns were noted at the time of the inspection.

FILTERS
Total Number of Filters: 8
Plant flow rate divided by total square footage of filters in service at the time of inspection.

TYPE	MEDIA TYPE	FILTER RATE (at insp.)	FILTER CONTROL	SURFACE WASH TYPE	FILTER TO WASTE	FILTER AREA	PHYSICAL CONDITION
Conventional	Dual Media	3.1 gpm/ft^2	Rate of Flow	Air Scour	Yes	496.6	Good
		gpm/ft^2					

List any chemicals fed in the filtration process: _____
What is the filtered water turbidity goal? <0.1 NTU
Does this apply to the combined filter effluent? Yes ☒ No ☐
To individual filter effluents? Yes ☒ No ☐
What criteria are used for filter backwash? increase in turbidity, loss of head, 100 hour rule
What is the backwash rate in gallons per minute? 5000
Is filter backwash rate ramped up and down? Yes ☒ No ☐
Is backwash flow rate measured? Yes ☒ No ☐
Are filters ever bumped? Yes ☐ No ☒
Is air scouring used? Yes ☒ No ☐
What was the combined filter effluent turbidity at time of inspection? 0.011 NTU
Are individual filters monitored for turbidity? Yes ☒ No ☐
Are the IFE turbidimeters calibrated per the manufacturer's instructions? (inspect documentation) Yes ☒ No ☐
Is this turbidity continuously recorded? Yes ☐ No ☐
Can this data be retrieved in usable form from storage (tape or CDs)? Yes ☒ No ☐
Is filter to waste (rewash) present? Yes ☒ No ☐
Is it used? Yes ☒ No ☐
Can turbidity be measured while filtering to waste? Yes ☒ No ☐
Are flows adjusted on remaining in-service filters during a backwash? Yes ☒ No ☐
COMMENTS:

MEMBRANE FILTRATION
N/A

What type of membrane filtration is used? N/A
The membrane filtration process is PRESSURE ☐ or VACUUM ☐ driven.
What is the designed membrane flux (flow per unit of membrane area)? _____
Are pre-filters used ahead of the membranes? Yes ☐ No ☐

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Describe the direct integrity testing procedure. _____
Describe how membrane breaks are isolated and repaired. _____
How are the membranes "backwashed"? _____
What type of chemical cleaning is used? _____ How is this waste handled? _____
Have there been any operational or maintenance issues with the membranes? Yes ☐ No ☐ If yes, explain: _____
COMMENTS:

RESIDUALS HANDLING	
What percent of plant production is used for in-plant processes (backwash, chemical feed, sanitary)? 1-2%	
How are spent backwash water and other liquid residuals handled? Backwash is sent to holding tanks and allowed to settle. The supernatant is decanted to Lake Ellerslie and sludge is filter pressed and used as benificial reuse on site.	Yes ☒ No ☐
If applicable, is the spent backwash holding tank/lagoon volume adequate?	Yes ☒ No ☐
Does the plant discharge water from this tank/lagoon back to a body of water?	
Does the plant have a KPDES discharge permit? If so, what is the permit number? KY0093301	Yes ☒ No ☐
Is the discharge meeting permit requirements?	Yes ☒ No ☐
Is the discharge point upstream of the intake?	Yes ☐ No ☒
If yes, how far upstream is the discharge point from the intake? _____	
Is spent backwash water recycled?	Yes ☐ No ☒
If yes, is the spent backwash water recycled as a: "SLUG" ☐ or as a CONSTANT FLOW ☐? What percent of the flow is recycled? _____%	
Are chemical feed rates adjusted during recycling?	Yes ☐ No ☒
Are raw water flows adjusted during recycling?	Yes ☐ No ☐
Are all recordkeeping requirements of the *Filter Backwash Rule* being followed?	Yes ☐ No ☐
How are solid residuals handled? _____	
COMMENTS: A wastewater compliance inspection will be performed at a later date.	

CHEMICAL FEED EQUIPMENT

CHEMICAL NAME	PURPOSE	FEEDER TYPE	FEED POINT	NUMBER & CONDITION
Powdered Activated Carbon	Taste Odor	Peristalic	Source	2 Good
Orthophosphate	Coagulation	Peristalic	Pre-Flocculation	2 Good
Lime	pH Adjustment	Peristalic	Clearwell	2 Good
Hydrofluosilicic Acid	Dental Health	Peristalic	Clearwell	2 Good
Sodium Permanganate	Taste Odor	Peristalic	Intake	2 Good
Polyaluminum Cl/SO4	Coagulation	Peristalic	Quick/Flash Mix	2 Good
Polymer	Coagulation	Peristalic	Quick/Flash Mix	2 Good

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How are chemical feeders calibrated? calibration cylinders

How often are chemical feeders calibrated? with pumpage changes

Are chemical dosages calculated?	Yes ☒	No ☐
How often are dosages calculated? continuous by SCADA system and 3 times per shift manually		
Are chemicals NSF or United Laboratories certified and approved by DOW prior to use?	Yes ☒	No ☐
Do the bulk liquid feed systems have day tanks?	Yes ☒	No ☐
Are there at least two feeders provided for essential processes (such as coagulation and disinfection)?	Yes ☒	No ☐
Are spare parts available?	Yes ☒	No ☐
Is there enough storage for at least a 30-day supply of chemicals used?	Yes ☒	No ☐
Are there containment areas around the chemicals in case of spills or leaks?	Yes ☒	No ☐
Are in-plant water supplies protected from backflow (cross connections)?	Yes ☒	No ☐
Does a certified tester test backflow prevention devices?	Yes ☒	No ☐
If yes: What is the testing frequency? yearly Last Tested: 2020		

COMMENTS: The facility is now using 1) sodium hypo for disinfection. 2) aqua ammonia, 3) caustic was replaced with liquid lime 4) carbon was moved from River Station #1 to the Jacobson Reservoir intake. 5) Sodium permanganate was moved from the reservoir to the River Station #1.

GAS CHLORINE SAFETY

N/A

Is the chlorine room enclosed and separate from other operating areas?	Yes ☐	No ☐
Is there a working exhaust fan in the chlorine room?	Yes ☐	No ☐
Does it provide one complete air change per minute?	Yes ☐	No ☐
Does it exhaust from floor level?	Yes ☐	No ☐
Is intake air near the ceiling?	Yes ☐	No ☐
Is there an external audible and visual alarm?	Yes ☐	No ☐
Are switches located outside the chlorine room?	Yes ☐	No ☐
Are chlorine tanks secured?	Yes ☐	No ☐
Are the scales operational?	Yes ☐	No ☐
Is automatic switchover of chlorine cylinders provided?	Yes ☐	No ☐
Is there a shatterproof viewing window in chlorine room?	Yes ☐	No ☐
Is there a crash bar on the door of the chlorine room?	Yes ☐	No ☐
Does the door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the chlorine room?	Yes ☐	No ☐
Are personnel trained to use the SCBA?	Yes ☐	No ☐
Is the “buddy system” practiced when changing or moving chlorine cylinders?	Yes ☐	No ☐
Is leak detection provided?	Yes ☐	No ☐
Is ammonia available for chlorine leak detection?	Yes ☐	No ☐
Is there a chlorine tank repair kit?	Yes ☐	No ☐

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Are personnel trained and certified to use the kits?	Yes ☐	No ☐
COMMENTS:		

CHLORINE DIOXIDE SAFETY N/A ***Many materials will catch fire and burn violently when in contact with chlorite.***		
Is sodium chlorite stored in a separate room?	Yes ☐	No ☐
Is sodium chlorite stored away from organic material?	Yes ☐	No ☐
COMMENTS:		

GAS (ANHYDROUS) AMMONIA SAFETY N/A		
Is the ammonia room enclosed and separate from other operating areas?	Yes ☐	No ☐
Is there a working exhaust fan in the ammonia room?	Yes ☐	No ☐
If there is a working exhaust fan, does it provide one complete air change per minute?	Yes ☐	No ☐
Does the exhaust fan exhaust from ceiling level?	Yes ☐	No ☐
Is intake air near the floor?	Yes ☐	No ☐
Are switches located outside the ammonia room?	Yes ☐	No ☐
Are ammonia tanks secured?	Yes ☐	No ☐
Is there a shatterproof viewing window in ammonia room?	Yes ☐	No ☐
Is there a crash bar on the door of the ammonia room?	Yes ☐	No ☐
Does the ammonia room door open out and to the exterior of the building?	Yes ☐	No ☐
Is there a SCBA unit meeting NIOSH standards outside the ammonia room?	Yes ☐	No ☐
Are personnel trained to use the SCBA?	Yes ☐	No ☐
Is leak detection provided?	Yes ☐	No ☐
If leak detection is provided, is there an external audible and visual alarm?	Yes ☐	No ☐
How are ammonia leaks detected? _____		
COMMENTS:		

DISINFECTION			
TYPE	APPLICATION POINT	REDUNDANCY AVAILABLE	FEEDER TYPE
Chlorine Liquid	Clearwell	Yes ☒ No ☐	Metering Pump
		Yes ☐ No ☐	
		Yes ☐ No ☐	
What is the means used to measure disinfectant chemical usage? volume			
How is the disinfectant residual monitored? on-line analyzers with chart recorders, SCADA, and lab analysis.			
Is there an on-line, recording chlorine analyzer on the plant tap (for systems serving >3,300)?		Yes ☒	No ☐
Are C-Ts calculated daily?		Yes ☒	No ☐
COMMENTS: The facility is now using liquid chlorine for disinfection purposes. Aqua Ammonia is used for a chloramine system.			

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CLEARWELLS			
VOLUME (gallons)	BAFFLING TYPE	DISINFECTANT RESIDUAL	
		TOTAL	FREE
200,000	none	3.7	
450,000	none	3.7	

List chemicals in the order in which they are fed into the clearwell: aqua ammonia, liquid lime, and phosphate blend

If multiple clearwells, are they:
☒ IN SERIES (one following the other) or ☐ PARALLEL (side by side and not connected)

Are hatches secured? Yes ☒ No ☐

Are vents screened? Yes ☒ No ☐

How often are clear wells cleaned? disinfected yearly

COMMENTS: No major concerns were noted at the time of the inspection.

WATER PLANT PUMPS
(Low service/raw water, high service/finished water and backwash)

FLOW STREAM	LOCATION	NUMBER OF PUMPS	CAPACITY (gpm)	PUMP TYPE	FLOW CONTROL METHOD
Primary Raw Water	KY River	2	25,000	Centrifugal	Automatic
Primary Raw Water	#4 reservoir	3	14,355	Centrifugal	Automatic
Primary Raw Water	LS at plant	1	4166	Centrifugal	Automatic
Primary Raw Water	LS at plant	1	2800	Centrifugal	Automatic
Secondary Raw Source	basement of filter building	1	1000	Centrifugal	Automatic

Are documented maintenance and pumping records maintained for all distribution pumping stations? (minimum of pump run times, pump testing, maintenance log) Yes ☒ No ☐

Do all pumping facilities have the ability to meet demand with one pump out of service during peak demand? Yes ☒ No ☐

COMMENTS: The following are additional finished water pumps located in the high service pump room and are all centrifugal with automatic flow control: 1) 1@ 2780 gpm, 2) 1 @6950 GPM 3) 1 @4520 gpm 4) 1@3850 gpm 5) 1@ 2800 gpm 6) 1@4862 gpm.

No major concerns were noted at the time of the inspection.

WATER PLANT ON-LINE INSTRUMENTATION

TYPE	FLOW STREAM (Location)	MANUFACTURER	LAST CALIBRATION DATE
Streaming Current	Raw Water	HACH	6/2020
pH	Raw Water	HACH	6/2020
Turbidity	Individual Filter Effluent	Swan	6/2020
Turbidity	Combined Filter Effluent	SWAN	6/2020
Turbidity	Tap	SWAN	6/2020

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Chlorine	Combined Filter Effluent	HACH	6/2020
pH	Tap	Peek	6/2020
Chlorine	Tap	HACH	6/2020

COMMENTS: A complete list of on-line instrumentation was provided during previous inspections. Calibrations are current. NO major concerns were noted at the time of the inspection.

LABORATORY (PLANT)

PARAMETERS TESTED	FREQUENCY	EQUIPMENT USED	CALIBRATION METHOD
turbidity	continuous	HACH	calibration and chk standards
pH	continuous	HACH	calibration and check standards
Chlorine	continuous	HACH	calibration and check standards
ammonia	continuous	ASA analytical-chemscan	calibration and check standards
phosphate	continuous	ASA analytical- chemscan	calibraton and check standards
hardness	1/day	titrator	
fluoride	1/day	HACH	
speciation	continuous	ASA analytical- chemscan	
UV 254	1/day	HACH	

Is laboratory space and lighting adequate? Yes ☒ No ☐

Are analyses conducted according to approved EPA methods? Yes ☒ No ☐

Does the lab have SOPs for sample collection, analysis, and reporting? Yes ☒ No ☐

Are daily log sheets used to record day-to-day operations, testing, etc? Yes ☒ No ☐

If daily log sheets are used, are they: ELECTRONIC (on the computer) ☒ or HAND-WRITTEN ☒

COMMENTS: The laboratory was clean and operational. Standards were observed to be current. Standards operating procedures have been written. Instrumentation is calibrated quarterly. records include calibration information, analytical information, and temperature logs.

IN-PLANT SAMPLING
(for example, top and bottom of filters)

SITE	CHLORINE		pH	TURBIDITY
	FREE	TOTAL		
Raw			7.66	3
finished	3.22	on-line 3.20	7.27	0.013
CFE				0.011
settled				0.41

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COMMENTS: No major concerns were noted at the time of the inspection.

III. DISTRIBUTION SYSTEM/FINISHED WATER STORAGE

DISTRIBUTION SYSTEM		
Does the system have standard specifications for design and construction of the distribution system?	Yes ☒	No ☐
Does the system prohibit new connections where pressure on the discharge side of the meter will be <30 psi?	Yes ☒	No ☐
Is the system able to meet minimum pressure requirements of DOW and/or other regulating authority?	Yes ☒	No ☐
Does the system have a documented leak detection program?	Yes ☒	No ☐
Does the distribution system have a sufficient number of valves to isolate portions of the system (for leak detection, maintenance, etc.)?	Yes ☒	No ☐
If there are separate distribution system areas, are they interconnected with each other?	Yes ☒	No ☐
If they are not interconnected, how many separate areas are there? _____		
What prevents these systems from being interconnected? _____		
How many pressure zones are there? 8		
What is the range of distribution pressures? 35-130		
Do any distribution areas require reduced pressure valves?	Yes ☒	No ☐
What piping materials are included in the distribution system? AC, PVC, ductile iron and cast iron		
Does the system have a program for flushing water mains?	Yes ☒	No ☐
Describe the process for sterilizing new mains/main breaks: per regulations and AWWa standards		
What types of on-line instrumentation are located at booster or pump stations and tanks? chlorine		
Does the system have a documented program for exercising distribution system valves?	Yes ☒	No ☐
Does the system have a documented program for regular testing of water meters including raw water, distributed and customer?	Yes ☒	No ☐
Is there a water meter replacement program?	Yes ☒	No ☐
Are there main break/emergency notification procedures?	Yes ☒	No ☐
Does the system have a documented procedure for issuing a boil water advisory and a consumer advisory? The procedure shall identify when (how soon after the occurrence) and how the system shall notify the affected health department, to whom that notification shall be made both during and after normal business hours, and procedures for issuing the advisory to the public. The public notification shall include instructions for the public (including how to properly boil water) and an explanation of steps being taken to correct the problem.	Yes ☒	No ☐
Describe how the decision is made to issue a Boil Water Advisory: anytime contamination is suspected, when the pressure outside the break drops below 20 PSI, repair takine moroe then 8 hours to repair, loss of chlorine.		
Does the system have a cross-connection control program?	Yes ☒	No ☐
If yes, is the cross-connection control program documented in writing?	Yes ☒	No ☐
If the cross-connection control program is not documented in writing, describe the process for finding and eliminating cross connections: _____		
Does a certified tester test the backflow prevention devices on a regular basis?	Yes ☒	No ☐
Has a calibrated hydraulic model been developed for the system?	Yes ☒	No ☐

COMMENTS: No major concerns were noted during the inspection. Copies of the written procedures were provided for the following: during the previous inspection: new main disinfection procedures; line break / main repair disinfection procedures, and Boil Water Guidance form. Random line break, maintenance, and BWA paperwork was provided upon request during the inspection.

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DISTRIBUTION STORAGE FACILITIES Inspected									
LOCATION			VOLUME (gallons)	TANK TYPE	OVERFLOW		LAST CLEANED/ INSPECTED	TELEME -TRY	% TURNOVER (Per Day)
ROAD/AREA	LATITUDE	LONGITUDE			SCREEN/ FLAPPER	>10' FROM TANK			
Clays MIll	37.975591	-84.569705	6000000	Ground	YES	YES	2021	YES	>50
Mercer	38.075533	-84.525836	2000000	Elevated	YES	YES	2022	YES	>50
hume	38.057886	-84.430522	3000000	Ground	YES	YES	2021	YES	>50
brock	38.437040	-84.864185	300000	Elevated	YES	YES	2021	YES	>50
blue moon	38.525149	-84.814339	500000	Elevated	YES	YES	2021	YES	>50
ellis	38.548516	-84.836273	400000	Elevated	YES	YES	2022	YES	>50
wood lake	38.232543	-84.741404	3000000	Ground	YES	YES	2016	YES	>50

Are all storage tanks professionally inspected at least every 5 years (including interior, coating systems, & piping)? How often are tanks: INSPECTED every 7 years and CLEANED as needed?

Are all storage tanks and water plants equipped with hatches, covers, screens, vandal guards and locks and all tank sites fenced for security? Yes ☒ No ☐

Are all hatches, screens, and overflows on the storage tanks checked at least monthly? Yes ☒ No ☐

Is there corrosion protection in the tanks? Yes ☒ No ☐

COMMENTS: No major concerns were noted during the inspection. The tanks listed above were observed during the inspection. They were fenced and secure and were in good condition. A complete list of system tanks was provided during the inspection which included all the inspection and rehab dates. All of the system's tanks are observed within the three year sanitary survey cycle. A complete list of distribution pumps was provided during the inspection.

DISTRIBUTION BOOSTER PUMPS AND/OR BOOSTER DISINFECTION FACILITIES Not Inspected						
LOCATION			PUMP or DISINFECTION	NUMBER & CAPACITY OF PUMPS (gpm)	DISINFECTION TYPE	AUXILIARY POWER
ROAD/AREA	LATITUDE	LONGITUDE				
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		
				@		

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DISTRIBUTION SAMPLING (a minimum of N, S, E, W)					
SITE	CHLORINE		pH	TURBIDITY	OTHER
	FREE	TOTAL			
EJ hays-DOW	3.3	4.0			
EJ hays-KAW	3.37	3.73			
Clays mill-DOW	2.7	2.9			on-line 2.58
Clays mill-KAW	2.54	2.71			
Mercer-DOW	2.8	3.2			on-line 2.86
Mercer- KAW	2.85	2.76			
HUme-DOW	2.8	3.2			on-line 2.26
Hume-KAW	2.75	2.82			
Woodlake-DOW	3.2	3.7			on-line 3.58
Woodlake-KAW	3.17	3.48			

Is the system maintaining the required chlorine (0.2 mg/l) / chloramine (0.5 mg/l) residuals in the distribution system? Yes ☒ No ☐

COMMENTS: No major concerns were noted at the time of the inspection. All results between DOW, Kentucky American Water, and the on-line instrumentation were comparable.

MAINTENANCE		
Is plant housekeeping adequate?	Yes ☒	No ☐
Is distribution storage housekeeping adequate?	Yes ☒	No ☐
Are adequate supplies of spare parts kept on hand?	Yes ☒	No ☐
Are needed tools available?	Yes ☒	No ☐
If not, is preventive maintenance performed?	Yes ☐	No ☐
Is a lock-out/tag-out system used for electrical repairs?	Yes ☐	No ☐
What is the general condition of operating equipment? good		
COMMENTS:		

DOCUMENTATION (✓ all that apply)	
☒ Samples taken by DEP	☐ Photographs obtained by DEP
☐ Samples taken by outside source	☒ Copies of records obtained by DEP
☒ Instrument readings taken by DEP	☐ Other documentation

OVERALL TECHNICAL COMPLIANCE STATUS
☒ No Violations Observed
☐ No Violations Observed - Advisory Action Taken (Impending trends)
☐ Out of Compliance – Verbal notice given (Non-recurrent deficiency noted or violation corrected at time of inspection.)

PWS ID Number: KY0340250 **Agency Interest Number:** 1063

INSPECTOR: Deborah Singleton	TITLE: Environmental Inspector	DATE: 6/19/2023

Andy Beshear
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT REGIONAL OFFICE
300 SOWER BLVD
FRANKFORT, KY, 40601

Rebecca W. Goodman
SECRETARY

Anthony R. Hatton
COMMISSIONER

June 27, 2023

Kentucky American Water - Millersburg
304 E 4th St
Millersburg, Kentucky 40348

RE: Kentucky American Water - Millersburg
AI 296
Permit No.: KY0090287
Bourbon County, Kentucky
Activity ID: CIN20230001

To Whom It May Concern:

Attached for your information and records is a copy of the drinking water distribution only (DW NonComp-Purchaser) inspection conducted at the Kentucky American Water – Millersburg system on June 7, 2023.

If you have any questions or comments concerning this inspection, please contact the Frankfort Regional Office at: (502) 564-3358.

Sincerely,

Jarod Jones
Environmental Inspector
Frankfort Regional Office
Division of Water

Signed by: Jarod Jones

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Distribution Inspection

Site/Permit ID: KY0090287	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky American Water-Millersburg		Program: **Drinking Water**	
Site Address: 304 E 4th street			
City: Millersburg	State: KY	Zip: 40348	County: Bourbon
Inspection Type: Routine Distribution	Purpose: Noncomprehensive		AI #: 296
Inspection Date: 6/7/23	Time: Start 1030 AM End 1200 PM		
Latitude: N 38 17' 54.7	Longitude: W84 8 50.3		
Coordinate Collection Method: GP0-With differential correction			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water-Millersburg	Contact Name: Bob Money	
Phone No.: 859-268-6317	Fax No: cell: 859-797-7374	Email Address: Bob.Money@amwater.com

I. Administrative Requirements

Comments: **Not evaluated.**

I. Compliance Status - Not Evaluated

II. Operator Certification/Accreditation Requirements

Operator in Charge and on duty.

Operator Name	Plant Certification #	Distribution Certification #
Jon Wes Felts		**IVD#18681**

Comments: **Ky American maintains multiple certified operators.**
II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: **Not evaluated.**

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **Reporting is conducted as required**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections:376 Population Served:1011
Average Purchased MGD: 0.152 Max. Purchased MGD: 0.287 Contract Amount MGD:
Source:City of Paris Water Works Seller PWSID: KY0090343 Multiple Sellers ☐ Yes ☒ No

RATING CODES: S1 = No Violations Observed; S2= No Violations Observed-but impending viol trends obs; U1 = Out of Compliance-No action taken; U2= Out of Compliance-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV Issued; NA = Not Applicable: NE = Not Evaluated. **(Add additional comments if U1-U3.)**

SELLER INFORMATION	Seller # 1	Name **City of Paris Water**	PWSID# KY0090343 Contract Amount:
	Seller # 2	Name	PWSID# Contract Amount:
	Seller # 3	Name	PWSID# Contract Amount:
	Seller # 4	Name	PWSID# Contract Amount:
	Seller # 5	Name	PWSID# Contract Amount:
	RATING	**Equipment / Inspection Data**	☐ **Checking block means item is present:**
STORAGE TANK INFORMATION	S1	a) Storage Tank 1 Size:125,000	Screened Vent:☒ Overflow☒ Telemetry: ☒
		Name: Millersburg tank	Last Cleaned: Coating condition: Good
		b) Storage Tank 2 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		c) Storage Tank 3 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		d) Storage Tank 4 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		e) Storage Tank 5 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		f) Storage Tank 6 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		g) Storage Tank 7 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
		h) Storage Tank 8 Size:	Screened Vent:☐ Overflow☐ Telemetry: ☐
		Name:	Last Cleaned: Coating condition:
GENERAL INFORMATION	NI	j) Master meter ☐	Last Calibrated: Recorder: ☐
	S1	k) Flushing Schedule	☒ Yes ☐ No/ Frequency: as needed
	S1	l) Chlorine Test Kit ☒	Type: HACH Last calibrated annually
	S1	m) DPD reagent up-to-date	☒ Yes ☐ No
	S1	n) Blow-off / Hydrants on dead	☐ Yes ☐ No
	S1	o) Monthly operating reports	☒ Daily Record Sheet ☐ Agreement: ☐
	S1	p) Bacteriological monitoring	Samples per mo.4 Records: ☐
BOOSTER PUMPS	S1	q) ☐Booster pumps ☒Disinfection	Capacity Disinfection Type: NA hypochlorite
	NA	r) ☐Booster pumps ☐Disinfection	Capacity Disinfection Type:
	NA	s) ☐Booster pumps ☐Disinfection	Capacity Disinfection Type:
ON SITE OBSERVATIONS	S1	t) Site Data: South - near tank	Cl. Free: Total: pH:
	S1	u) Site Data: East - 6th st.	Cl. Free: Total: pH:
	S1	v) Site Data: West - Marathon	Cl. Free: Total: pH:
	S1	w) Site Data: North - Oak Ave.	Cl. Free: Total: pH:

OTHER INFORMATION	S1	x) Cross connection program	☒ Yes ☐ No
	S1	y) Water meter replacement	☒ Yes ☐ No
	S1	z) Valve exercise program	☒ Yes ☐ No
	S1	aa) Is unaccounted for water	☒ Yes ☐ No If Yes what is % loss?
	S1	bb) Up to date distribution map	☒ Yes ☐ No

Comments: **No issues observed during the inspection. All components inspected were clean and well maintained. The older water storage tank on the opposite end of town was in the beginning stages of being renovated with intent to return to service.**

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: **Not applicable.**

VI. Compliance Status - Not Applicable

VII. Monitoring/Analyses Evaluation

Comments: **Not evaluated.**

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment: ☒ ATTACHED ☐ REVIEWED

Comments: **No major concerns were noted at the time of the inspection.**

VIII. Compliance Status – No violations observed

IX. Documentation

- ☐ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☒ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☐ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Jarod Jones	**Title:** Environmental Inspector III	**Date:** 06/21/23

6/27/2023

X

Signature: Signed by: Jarod Jones

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance- LOW Non-recurrent administrative or O & M**
☐ **Out of Compliance – NOV**

Comments: No significant compliance issues noted during the inspection.

Delivery Method: E-mail	Cert. Mail #:

Inspection Report

GenTrack Item # 225		
Section	**Field Name**	**Response**
Facility		
	Region:	Northern
	PWS ID:	0340250A
	Category:	Plants
	Facility Name:	KENTUCKY AMERICAN WATER CO. A
	Status:	Active
	GPS Location:	
	Physical Address:	6300 Cedar Creek Lane (plant)
	Mailing Address:	2300 Richmond Road (mail)
	City:	LEXINGTON
	State:	KY
	Zip Code:	40515
	Phone:	859-268-6317
	Plant Email:	bob.money@amwater.com
	County:	Fayette
	Fluoridation:	Yes
	Contact First Name:	Bob
	Contact Last Name:	Money
	Contact Address 1:	
	Contact Address 2:	
	Contact Phone Number:	859-268-6317
	Contact Email:	

GenTrack Item # 225 - 8		
Section	**Field Name**	**Response**
General		
	Inspection Date:	06/16/2023
	Inspector:	Lucas Bentley
	Inspector Information:	275 east Main Street Frankfort KY 40621 Office Phone: 502-564-3246 Home Phone: Lucas.Bentley@ky.gov Active
	Operator On Duty First Name:	Bob

	Operator On Duty Last Name:	Money
	Contact Address 1:	
	Contact Address 2:	
	Contact Phone:	859-268-6317
	Certification Number:	25173
	Water Plant Operator Certification Level:	IVA
	Facility Classification Level:	IVA
	[BLANK]	If the Water Plant Operator on Duty is not certified or does not have a certification equal to
		or higher than the Facility Classification, include the name and certification number of the
		operator responsible for the facility instead.
	Water Source:	Surface Water
	Fluoridation Type:	Acid
	Service Connections:	116000
	Populations Served:	312040.00
	AVG Production:	30 MGD
	Flow Rate (Influent)(GPM):	20,833 GPM
	Master Meter (Raw):	Satisfactory
	Design Capacity:	54 MGPD
	PWSI Number:	0340250a
	GPS Coordinates:	37.903847, -84.378059
	Comments:	
Chemical Treatment		
	Activated Carbon (Activated Charcoal):	No
	Aluminum Chloride:	No
	Aluminum Chlorohydrate:	No
	Aluminum Potassium:	No
	Aluminum Sulfate (Alum):	No
	Amonia:	Yes
	Calcium Hydroxide (Hydrated Lime):	No
	Calcium Oxide (Quick Lime):	No
	Carbon Dioxide:	No
	Charcoal:	No
	Chlorine (gas):	Yes

	Chlorine (liquid):	No
	Chlorine Dioxide:	No
	Copper Sulfate:	No
	Ferric Chloride:	Yes
	Ferric Sulfate:	No
	Hydrofluorosilicic Acid (HFS):	Yes
	Hydrochloric Acid:	No
	Hydrochlorites:	No
	Hydrogen Peroxide:	No
	Hydroxide Ammonium:	No
	Phosphate:	No
	Polyaluminum Chloride (PAC):	No
	Polyelectrolytes:	No
	Polyphosphates:	No
	Potassium Hydroxide (Caustic Potash):	No
	Potassium Permanganate:	Yes
	Silica:	No
	Sodium Aluminate:	No
	Sodium Bicarbonate (Baking Soda):	No
	Sodium Carbonate (Soda Ash):	No
	Sodium Chloride (Salt):	Yes
	Sodium Fluoride:	No
	Sodium Fluorosilicate:	No
	Sodium Hydroxide (Caustic Soda):	No
	Sodium Hypochlorite:	No
	Sodium Permanganate:	No
	Sodium Thiosulfite:	No
	Sulfur Dioxide:	No
	Sulfuric Acid:	No
	Ultraviolet:	No
	Others:	POLYMER, ORTHOPHASPHATE,
Fluoride System		
	Saturator System:	Not Applicable

	Saturator Cleanout Date (recommended annually or as needed):	
	Saturator Feed Line Flow Meter	N/A
	Saturator Flow Rate	n/a
	Feed Water Hardness (ppm as calcium carbonate)"	n/a
	[BLANK]	
	Saturator Instructions:	..
	Comments:	
	Dry System:	Not Applicable
	Dry Hopper Scale Mounted	N/A
	Comments:	
	Tablet System:	Not Applicable
	Tablet System Flow Rate:	n/a
	Comments:	
	Hydrofluorosilicic Acid (HFS) System:	Satisfactory
	Hydrofluorosilicic Acid (HFS) Bulk Tank Size (gallons):	8200
	HFS Day Tank Size (dimensions in inches):	.
	HFS Day Tank Size (gallons):	300
	HFS Day Tank Limitations:	.
	HFS Day Tank Loss of Suction Point (lbs if scale used and inches if volumetric loss used):	.
	HFS Day/Bulk Tank Vented to the Outside Atmosphere:	Satisfactory
	Transfer Pump:	Yes
	Liquid Level Limit Switch:	Satisfactory
	HFS Usage Table:	Yes
	Comments:	
	[BLANK]	
		Ensure only a maximum 30-hour supply of (HFS) is kept in the day tank to prevent exceeding the MCL

Plant Safety Equipment		
	Syphon Breakers Rating:	Satisfactory
	Comments:	
	Ventilation Rating:	Satisfactory
	Forced Ventilation Switch Location:	
	Comments:	
	Chemical Storage Rating:	Satisfactory
	Comments:	
	Method Of Measurement:	Scales
	Method of Measurement Rating:	Satisfactory
	Comments:	ULTRA SONIC
	Secondary Containment:	Satisfactory
	Comments:	
Operator Safety Equipment		
	Respirator Available:	Yes
	Comments:	
	Face Shield/Safety Glasses Available:	Yes
	Comments:	
	Gloves Available:	Yes
	Comments:	
	Apron/Coat Available:	Yes
	Comments:	
	Eye Wash Station/Deluge Shower:	Satisfactory
	Eye Wash Station/Deluge Shower Maintenance Check (recommended monthly):	Satisfactory
	Comments:	
	Safety Data Sheets (SDS) On-Hand	Yes
Laboratory and Records		
	Tester Brands:	CH EZ-CHECK
	Fluoride Tester Instruction Manual On-Hand	Yes
	Fluoride Tester Calibration Frequency	daily
	Tester Brand Rating:	Satisfactory

	Comments:	
	Adequate Reagent Supply:	Satisfactory
	Comments:	
	Reagent Up-To-Date (Include either the expiration date or the Lot number in the comments):	Satisfactory
	Comments:	
	Monthly Operating Reports:	Satisfactory
	Last Month AVG-Daily Usage in Pounds:	983.1
	Last Month AVG Daily Pre-Population Results:	4.1
	Last Month AVG Tap Reading:	0.99
	Last Month AVG Raw Reading:	0.09
	Comments:	
	505 Reporting:	Satisfactory
	505 Sample Locations (First Plant/Second Distribution):	Satisfactory
	505 Dates:	Satisfactory
	[BLANK]	The first sample shall be collected from the plant tap during the first week of the month.
		The second sample collected at a point of maximum retention, during the third week of the month
	In Compliance Year to Date:	Yes
	CDC Quality Award Received Two Years Previously	Yes
	Housekeeping:	Satisfactory
	Comments:	
Distribution		
	Point Of Injection:	Satisfactory
	Injection Site:	prior to clearwell
	Comments:	
	Chemical Feeder:	Satisfactory
	Comments:	Day Tank - 280g max Bulk Tank - 8200 max
	Feeder's Brand:	Jesco
	Peristaltic Pump Tube Size	.

	Feeder Model #:	.
	Feeder Size:	.
	Setting:	.
	Speed:	0
	Stroke:	0
On-Site Observation		
	Fluoride Rating:	Satisfactory
	Comments:	PLANT IN COMPLIANCE ALL YEAR. SAMPLES SENT IN ON TIME. WELL RUN PLANT. VERY PROFESSIONAL PLANT.
	Private Labs:	State Lab
	Other Water Treatment Systems Directly Connected:	.
	Other Water Treatment Systems Water Sold To:	.
	Other Water Treatment Systems Water Purchased From:	.
	[BLANK]	
	Facility Entrance:	Yes
	Laboratory:	Yes
	Fluoride Tester:	Yes
	Fluoride Room:	Yes
	Ventilation:	Yes
	Fluoride Metering Pump Tag:	Yes
	Overall Fluoride System (Saturator, Bulk/Day Tank, Dry Hopper, Tablet):	Yes
	Injection Site:	Yes
	Scales (if applicable):	Yes
	Anti-Syphon Device (if applicable):	Yes
	Eye Wash/Deluge Shower Station (if applicable):	Yes
	[BLANK]	
	Split Rating:	Satisfactory
	Raw:	
	Saturator Sample:	.
	Insp:	1.12

	Plant:	0.97
	LAB:	0.86
	Comments:	Need to call Bob Money to schedule inspection
	[BLANK]	We appreciate all the work and effort this year in staying in compliance with the fluoride program.
		If any issues arise, please contact your water fluoridation specialist.

FLUORIDE ANALYSIS REPORT A

PWS ID	Trans Code	Local Analysis:
0340250 (1-7)	03 (8-9)	097
		Collected by: Lucas Bentley 1.12

Contam. ID	Analysis Method	Analysis Results	Dec.	Analysis Mo.	Analysis Day	Analysis Yr.
1025 (10-13)	107 (14-16)	086 (17-20)	2 (21)	06 (22-27)	22	23

Location Code	Sample Date Mo.	Day	Yr.	Type	Sample Time (MT)	Lab ID
001 (28-30)	06 (31-36)	16	23	P (37)	1030 (38-41)	00033 (42-46)

Name of Supply: KY American Water A

Address: 3303 Cedar Creek Lane County: Fayette

City: Lexington Ky Zip: 40515 Phone:

Date Received	Lab No.	Analyst
6/16/23	23U222252	HJ

Cabinet for Health and Family Services
LAB. 505 (Rev. 8/97)

Sample Type Key
C - Check
D - Distribution
P - Plant
R - Raw
S - Special

Inspection Report

GenTrack Item # 226		
Section	**Field Name**	**Response**
Facility		
	Region:	Northern
	PWS ID:	0340250B
	Category:	Plants
	Facility Name:	KENTUCKY AMERICAN WATER CO. B
	Status:	Active
	GPS Location:	
	Physical Address:	2300 RICHMOND RD
	Mailing Address:	
	City:	LEXINGTON
	State:	KY
	Zip Code:	40505
	Phone:	859 268-6317
	Plant Email:	bob.money@amwater.com
	County:	Fayette
	Fluoridation:	Yes
	Contact First Name:	Bob
	Contact Last Name:	Money
	Contact Address 1:	
	Contact Address 2:	Op on Duty Cell
	Contact Phone Number:	859-537-0743
	Contact Email:	

GenTrack Item # 226 - 9		
Section	**Field Name**	**Response**
General		
	Inspection Date:	06/16/2023
	Inspector:	Lucas Bentley
	Inspector Information:	275 east Main Street Frankfort KY 40621 Office Phone: 502-564-3246 Home Phone: Lucas.Bentley@ky.gov Active
	Operator On Duty First Name:	Bob

	Operator On Duty Last Name:	Money
	Contact Address 1:	
	Contact Address 2:	
	Contact Phone:	859 268-6348
	Certification Number:	.
	Water Plant Operator Certification Level:	IVA
	Facility Classification Level:	IVA
	[BLANK]	If the Water Plant Operator on Duty is not certified or does not have a certification equal to
		or higher than the Facility Classification, include the name and certification number of the
		operator responsible for the facility instead.
	Water Source:	Surface Water
	Fluoridation Type:	Acid
	Service Connections:	130000
	Populations Served:	349700.00
	AVG Production:	12 MGPD
	Flow Rate (Influent)(GPM):	8333 GPM
	Master Meter (Raw):	Satisfactory
	Design Capacity:	40 MGPD
	PWSI Number:	0340250b
	GPS Coordinates:	37.904274 -84.377505
	Comments:	25 MGD is what we had, Switched to match DOW ASK
Chemical Treatment		
	Activated Carbon (Activated Charcoal):	Yes
	Aluminum Chloride:	No
	Aluminum Chlorohydrate:	No
	Aluminum Potassium:	No
	Aluminum Sulfate (Alum):	No
	Amonia:	Yes
	Calcium Hydroxide (Hydrated Lime):	No
	Calcium Oxide (Quick Lime):	No
	Carbon Dioxide:	No
	Charcoal:	No
	Chlorine (gas):	Yes

	Chlorine (liquid):	No
	Chlorine Dioxide:	No
	Copper Sulfate:	Yes
	Ferric Chloride:	No
	Ferric Sulfate:	No
	Hydrofluorosilicic Acid (HFS):	Yes
	Hydrochloric Acid:	No
	Hydrochlorites:	No
	Hydrogen Peroxide:	No
	Hydroxide Ammonium:	No
	Phosphate:	No
	Polyaluminum Chloride (PAC):	No
	Polyelectrolytes:	No
	Polyphosphates:	No
	Potassium Hydroxide (Caustic Potash):	No
	Potassium Permanganate:	Yes
	Silica:	No
	Sodium Aluminate:	No
	Sodium Bicarbonate (Baking Soda):	No
	Sodium Carbonate (Soda Ash):	No
	Sodium Chloride (Salt):	Yes
	Sodium Fluoride:	No
	Sodium Fluorosilicate:	No
	Sodium Hydroxide (Caustic Soda):	No
	Sodium Hypochlorite:	No
	Sodium Permanganate:	No
	Sodium Thiosulfite:	No
	Sulfur Dioxide:	No
	Sulfuric Acid:	No
	Ultraviolet:	No
	Others:	POLYMER, ORTHOPHOSHATE.
Fluoride System		
	Saturator System:	Not Applicable

	Saturator Cleanout Date (recommended annually or as needed):	
	Saturator Feed Line Flow Meter	N/A
	Saturator Flow Rate	n/a
	Feed Water Hardness (ppm as calcium carbonate)"	n/a
	[BLANK]	
	Saturator Instructions:	*If issues arise with the saturator, please contact your water fluoridation specialist and check the following: • Saturated solution of the chemical should be approximately 18,000 ppm and can be verified through either your private lab or the state lab. Be sure to let the lab know that this is a saturated sample by writing the information on the Lab 505 form in red ink and putting "Saturator Sample" at the top of the form. If the results are below 18,000 ppm, saturation of the chemical is not occurring, and the following items need to be checked. If the saturator has not been cleaned out within the last year, a thorough breakdown and cleanout of the saturator and all parts is recommended. Special attention should be given to the complete cleanout of the spider and all connections in the saturator. The flow rate of the feed water flowing through the saturator should not exceed 2 GPM. The hardness of the feed water of the saturator should not exceed 75 ppm as calcium carbonate. If it does, installation of a water softener is recommended. • If the results are approximately 18,000 ppm, a drawdown of the metering pump should be conducted to verify proper operation. Contact your water fluoridation specialist to identify the proper dose rate of the metering pump.
	Comments:	
	Dry System:	Not Applicable
	Dry Hopper Scale Mounted	N/A
	Comments:	
	Tablet System:	Not Applicable
	Tablet System Flow Rate:	n/a
	Comments:	
	Hydrofluorosilicic Acid (HFS) System:	Satisfactory
	Hydrofluorosilicic Acid (HFS) Bulk Tank Size (gallons):	.
	HFS Day Tank Size (dimensions in inches):	.
	HFS Day Tank Size (gallons):	.
	HFS Day Tank Limitations:	.

	HFS Day Tank Loss of Suction Point (lbs if scale used and inches if volumetric loss used):	.
	HFS Day/Bulk Tank Vented to the Outside Atmosphere:	Satisfactory
	Transfer Pump:	Yes
	Liquid Level Limit Switch:	Satisfactory
	HFS Usage Table:	Yes
	Comments:	
	[BLANK]	
		Ensure only a maximum 30-hour supply of (HFS) is kept in the day tank to prevent exceeding the MCL
Plant Safety Equipment		
	Syphon Breakers Rating:	Satisfactory
	Comments:	
	Ventilation Rating:	Satisfactory
	Forced Ventilation Switch Location:	
	Comments:	
	Chemical Storage Rating:	Satisfactory
	Comments:	
	Method Of Measurement:	Scales
	Method of Measurement Rating:	Satisfactory
	Comments:	ULTRA SONIC
	Secondary Containment:	Satisfactory
	Comments:	
Operator Safety Equipment		
	Respirator Available:	Yes
	Comments:	
	Face Shield/Safety Glasses Available:	Yes
	Comments:	
	Gloves Available:	Yes
	Comments:	
	Apron/Coat Available:	Yes
	Comments:	
	Eye Wash Station/Deluge Shower:	Satisfactory

	Eye Wash Station/Deluge Shower Maintenance Check (recommended monthly):	Satisfactory
	Comments:	
	Safety Data Sheets (SDS) On-Hand	Yes
Laboratory and Records		
	Tester Brands:	CH EZ-CHECK
	Fluoride Tester Instruction Manual On-Hand	Yes
	Fluoride Tester Calibration Frequency	daily
	Tester Brand Rating:	Satisfactory
	Comments:	
	Adequate Reagent Supply:	Satisfactory
	Comments:	
	Reagent Up-To-Date (Include either the expiration date or the Lot number in the comments):	Satisfactory
	Comments:	
	Monthly Operating Reports:	Satisfactory
	Last Month AVG-Daily Usage in Pounds:	294.6
	Last Month AVG Daily Pre-Population Results:	4.1
	Last Month AVG Tap Reading:	0.94
	Last Month AVG Raw Reading:	0.22
	Comments:	
	505 Reporting:	Satisfactory
	505 Sample Locations (First Plant/Second Distribution):	Satisfactory
	505 Dates:	Satisfactory
	[BLANK]	The first sample shall be collected from the plant tap during the first week of the month.
		The second sample collected at a point of maximum retention, during the third week of the month
	In Compliance Year to Date:	Yes

	CDC Quality Award Received Two Years Previously	Yes
	Housekeeping:	Satisfactory
	Comments:	
Distribution		
	Point Of Injection:	Satisfactory
	Injection Site:	post-filtration
	Comments:	
	Chemical Feeder:	Satisfactory
	Comments:	Setting: 1.03 GPH
	Feeder's Brand:	Vacon
	Peristaltic Pump Tube Size	.
	Feeder Model #:	.
	Feeder Size:	6.1 GPH
	Setting:	.
	Speed:	0
	Stroke:	0
On-Site Observation		
	Fluoride Rating:	Satisfactory
	Comments:	PLANT IN COMPLIANCE ALL YEAR. SAMPLES SENT IN ON TIME. WELL RUN PLANT. VERY PROFESSIONAL PLANT.
	Private Labs:	Kentucky America
	Other Water Treatment Systems Directly Connected:	.
	Other Water Treatment Systems Water Sold To:	.
	Other Water Treatment Systems Water Purchased From:	.
	[BLANK]	
	Facility Entrance:	No
	Laboratory:	No
	Fluoride Tester:	No
	Fluoride Room:	No
	Ventilation:	No
	Fluoride Metering Pump Tag:	No

	Overall Fluoride System (Saturator, Bulk/Day Tank, Dry Hopper, Tablet):	No
	Injection Site:	No
	Scales (if applicable):	No
	Anti-Syphon Device (if applicable):	No
	Eye Wash/Deluge Shower Station (if applicable):	No
	[BLANK]	
	Split Rating:	Satisfactory
	Raw:	
	Saturator Sample:	.
	Insp:	1.10
	Plant:	1.15
	LAB:	0.94
	Comments:	Serve as their own certified lab Need to call Bob Money to schedule inspection
	[BLANK]	We appreciate all the work and effort this year in staying in compliance with the fluoride program.
		If any issues arise, please contact your water fluoridation specialist.

FLUORIDE ANALYSIS REPORT

B

PWS ID (1-7)	Trans Code (8-9)	Local Analysis: 1.15
0340250	Ø3	Collected by: Lucas Bentley 1.10

Contam. ID (10-13)	Analysis Method (14-16)	Analysis Results (17-20)	Dec. (21)	Analysis Mo. (22-27)	Analysis Day	Analysis Yr.
1Ø25	1Ø7	0.94	2	06	22	23

Location Code (28-30)	Sample Date Mo. (31-36)	Sample Date Day	Sample Date Yr.	Type (37)	Sample Time (MT) (38-41)	Lab ID (42-46)
001	06	16	23	P	0942	ØØØ33

Name of Supply: KY American Water B

Address: 2300 Richmond Rd

County: Fayette

City: Lexington . Ky. Zip 40505

Phone:

Sample Type Key
- C - Check
- D - Distribution
- P - Plant
- R - Raw
- S - Special

Date Received	Lab No.	Analyst	
6/16/23	23c22227c1	HN	Cabinet for Health and Family Services LAB. 505 (Rev. 8/97)

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky American Water Plant C		Program: **Drinking Water**	
Site Address: 16035 hwy 127 south			
City: Owenton	State: KY	Zip: 40359	County: Owen
Inspection Type: Routine Surface	Purpose: Noncomprehensive		AI #: 1063
Inspection Date: 10/31/23	Time: Start 10:00 AM End 13:00 PM		
Latitude:	Longitude:		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky River station #2	Contact Name: Robert Money	
Phone No.: 859-335-3660`	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: Not evaluated.

I. Compliance Status - Not Evaluated

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Scott Huddleston	**IVA#21329**	
Justin Sensabaugh		**IVD#20165**

Comments: A complete list of operators is on file with the DOW. No concerns noted.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: Not evaluated.

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **The facility provides timely reports to the Division of Water as required.**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections: Population Served:
Average Production MGD: 7.61 Max. Production MGD: 10.38 Design Capacity MGD: 20.0 MGD
Source:Kentucky River pool #3

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	S1	a) Intakes, pumps, piping ☒	# Of Levels3 # Pumps4 Max pump.
	NA	b) Aeration ☐	
	S1	c) Rapid mix ☒	Type: Mechanical paddle If other: mechanical mixer
	S1	d) Flocculation ☒	# of Stages4 # of Trains Variable Speed
	S1	e) Sedimentation ☒	Type: Conventional # of trains:4
	NI	f) Chemical feed coagulation	
	NI	g) Carbon Feed: ☐	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 5 Size702 Filtration Rate:5
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☒
	NI	k) Chemical storage:	Dry on pallets? ☐ Chemical containment: ☐
	NI	l) Clearwell / screened vents	Size: Baffling:☐ Locked ☐ Screened ☐
	NI	m) Pumps # and size in gpm	High Service @ Backwash @
SITE DATA	S1	n) Site Data: ellis tank	Cl. Free:DOW Total: 2.5 pH: KAWC :1.81
	S1	o) Site Data: office/ workshop	Cl. Free:KAWC Total: 2.38 pH:
	S1	p) Site Data: Brock	Cl. Free:DOW Total: 2.6 pH: KAWC 2.06
	NA	q) Site Data:	Cl. Free: Total: pH:
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NI	s) Automatic chlorinator ☐	Automatic changeover ☐ Proper Fan ☐
	NI	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NI	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACH Last calibrated: 2/20232/2022
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	NI	w) Monthly operating reports	☐ Daily Record Sheet ☐ Agreement: ☐
	S1	x) Housekeeping	good
DISTRIBUTION	NI	y) Master meter ; Recorder	Raw: ☐ Finished:☐ ; Raw: ☐ Finished: ☐
	NI	z) Blowoffs / hydrants; flushing	Flushing Schedule:☐ Blowoffs on deadends:☐
	S1	aa) Water storage:	# of Tanks Total Storage:
	NI	bb) Booster pumps / chlorinators	Booster pumps: ☐ Booster chlorinators: ☐
PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: 0.56 total: 4.8 pH: 7.2
	S1	dd) Turbidity	Raw:21 Settled:0.11 Combined Filter:0.03
	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☐

	NI	gg) Wastewater discharge	KPDES Is sizing adequate? ☒ Yes ☐ N0

Comments: A Division of Water Non-Comprehensive inspection was conducted on October 31, 2023. No major concerns were noted during the inspection. The basins are cleaned monthly. The laboratory was satisfactory. Instrumentation was last calibrated by Morsten Technical Services on in February 2023. Standards were observed to be current. Standard Operating Procedures have been developed.

The Ellis, Wheatly, and Brock tanks were observed during the inspection. All three tanks were fenced and secure. Distribution system chlorine readings were acceptable and comparable between the DOW, KAWC, and on-line instrumentation readings.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: Not inspected.

VI. Compliance Status - Not Evaluated

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments:

VIII. Compliance Status – No violations observed

IX. Documentation

- ☒ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☐ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☒ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 11/15/2023

Signature:

Deborah E. Singleton

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky Americal Water- Plant A		Program: **Drinking Water**	
Site Address: 6300 Cedar Creek Road			
City: Lexington	State: KY	Zip: 40515	County: Fayette
Inspection Type: Routine Surface	Purpose: Noncomprehensive		AI #: 1063
Inspection Date: 6/21/24	Time: Start 09:00 AM End 10:30 AM		
Latitude: 37 54' 16"	Longitude: 84 22' 42"		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water- Plant A	Contact Name: Robert Money	
Phone No.: 858-335-3660	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: The facility has not received any enforcement actions since the previous inspection.

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Paul Coyle	**Class IVA, #31126**	
Janet Bemiss	**IVA#1551**	
Justin Sensabaugh		**IVD #20165**

Comments: A complete list of operators was provided during the inspection.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: Not evaluated. Non-comprehensive inspection performed.

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: **The faciltiy provides the reports to the Division of Water in a timely manner.**

IV. Compliance Status - No violations observed

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections:129,493 Population Served:348,336
Average Production MGD: 21.15 Max. Production MGD: 40.5 Design Capacity MGD: 45
Source:Kentucky River

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	NI	a) Intakes, pumps, piping ☒	# Of Levels1 # Pumps6 Max pump.
	NA	b) Aeration ☐	
	S1	c) Rapid mix ☐	Type: Mechanical paddle If other:
	NA	d) Flocculation ☐	# of Stages # of Trains Variable Speed
	S1	e) Sedimentation ☒	Type: Hydrotreator # of trains:
	S1	f) Chemical feed coagulation	Polyaluminum Cl/SO4
	S1	g) Carbon Feed: ☒	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 10 Size718 Filtration Rate:4
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☐
	NI	k) Chemical storage:	Dry on pallets? ☐ Chemical containment: ☐
	NI	l) Clearwell / screened vents	Size: Baffling:☐ Locked ☐ Screened ☐
	S1	m) Pumps # and size in gpm	High Service @ Backwash @
SITE DATA		n) Site Data:	Cl. Free: Total: pH: :
		o) Site Data:	Cl. Free: Total: pH:
		p) Site Data:	Cl. Free: Total: pH:
		q) Site Data:	Cl. Free: Total: pH:
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NI	s) Automatic chlorinator ☐	Automatic changeover ☐ Proper Fan ☐
	NI	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NI	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	S1	(1) Turbidimeter ☒	Type: HACH Last calibrated: quarterly
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	S1	w) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☒
	S1	x) Housekeeping	good
DISTRIBUTION	NA	y) Master meter ; Recorder	Raw: ☐ Finished:☐ ; Raw: ☐ Finished: ☐
	NA	z) Blowoffs / hydrants; flushing	Flushing Schedule:☐ Blowoffs on deadends:☐
	NA	aa) Water storage:	# of Tanks Total Storage:
	NA	bb) Booster pumps / chlorinators	Booster pumps: ☐ Booster chlorinators: ☐
PLANT ON SITE OBSERVATION	S1	cc) Plant Data:	Cl free: total: 3.13 pH: 7.5
	S1	dd) Turbidity	Raw:2 Settled:1.2 Combined Filter:0.04
	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☐

	NI	gg) Wastewater discharge	Is sizing adequate? ☒ Yes ☐ N0

Comments: The facility was clean and operational at the time of the inspection. The new intake access car system has been completed. Flow is directed through a rapid mix where DelPAC 202 and other polymers are added. Water is them processed through hydrotreators. All five hydrotreator valve houses have been reworked and new Swan Sewnaos Turbiwell instrumentation have been installed. Weekly calibration checks are performed on all sampling equipment by facility personnel. A THM on-line analyzer has been installed on the plant effluent. The facility is now using liquid chlorine for disinfection. Chemical areas are marked appropriately and are secure. The laboratory was satisfactory. Standards were observed to be current. Records observed during the inspection include analytical bench sheets, temperature log books, and calibration logs. The plant on-line chlorine and bench top chlorine readings were comparable.

The distribution system for this plant is associated with the Richmond Road facility.
The following upgrades are being looked at or are in the planning state: A UV disinfection system; a new solids/ filter backwash handling system.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: The facility holds a KPDES Permit for the wastewater discharge.

VI. Compliance Status - Not Evaluated

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments: No major concerns were noted at the time of the inspection.

VIII. Compliance Status – No violations observed

IX. Documentation

☒ **Samples taken by DEP**
☐ **Samples taken by outside source**
☐ **Instrument readings taken by DEP regional office**
☐ **Photographs obtained by DEP**

☒ **Copies of records obtained by DEP**
☒ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 7/16/2024

Signature: **DES**

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #:

ENERGY AND ENVIRONMENT CABINET
KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
Routine Surface Inspection

Site/Permit ID: KY0340250	Division: **Water**		Regional Office: Frankfort
Site Name: Kentucky American Water- Plant B		Program: **Drinking Water**	
Site Address: 2300 Richmond Road			
City: Lexington	State: KY	Zip: 40502	County: Fayette
Inspection Type: Routine Surface	Purpose: Noncomprehensive		AI #: 1063
Inspection Date: 6/21/24	Time: Start 10:45 AM End 13:15 PM		
Latitude: 37 39' 24"	Longitude: 84 26' 11"		
Coordinate Collection Method: G40-Handheld receiver			Revision Code: 112108

Drinking Water Data

Plant Name: Kentucky American Water- Plant-B	Contact Name: Robert Money	
Phone No.: 423-355-8591	Fax No: 859-335-3388	Email Address: bob.money@amwater.com

I. Administrative Requirements

Comments: The facility has not received any enforcement actions since the previous inspection.

I. Compliance Status - No violations observed

II. Operator Certification/Accreditation Requirements

Operator in Charge or on duty.

Operator Name	Plant Certification #	Distribution Certification #
Jessica Dominguez	**IVA#73725**	
Deke Whitaker	**IVA#29935**	
Jimmie Smith	**IVA#22054**	

Comments: A full list of operators was provided during the inspection. Justin Sensabaugh is in charge of the distribution system: active Class IVD, license #20165. A full list of operators was provided during the inspection.

II. Compliance Status - No violations observed

III. Record Keeping Requirements

Comments: Not evaluated. Non-comprehensive inspection performed.

III. Compliance Status - Not Evaluated

IV. Reporting Requirements

Comments: Not evaluated.

IV. Compliance Status - Not Evaluated

V. Operation & Maintenance/Performance Requirements
Plant Type: ☒ C ☐ N ☐ P Service Connections:134972 Population Served:363,077
Average Production MGD: 11.55 Max. Production MGD: 19.25 MGD Design Capacity MGD: 25 MGD
Source:Kentucky River and Jacobson Resesrvoir.

RATING CODES: S1=No Violations Observed; S2=No Violations Obs-but impending viol trends obs; U1=Out of Compliance-No action taken; U2= Out of Comp-LOW non-recurrent Adm. or O & M; U3= Out of Compliance-NOV; NA = Not Applicable; NE = Not Evaluated. **(Add additional comments if U1-U3.)**

	RATING	Equipment / Inspection Data	☐ Checking block means item is present:
CHEMICAL & PHYSICAL TREATMENT	NI	a) Intakes, pumps, piping ☐	# Of Levels # Pumps Max pump.
	NA	b) Aeration ☐	
	S1	c) Rapid mix ☒	Type: Mechanical paddle If other:
	S1	d) Flocculation ☒	# of Stages2 # of Trains2 Variable Speedyes
	S1	e) Sedimentation ☒	Type: Conventional # of trains:4
	S1	f) Chemical feed coagulation	Alum-polymer blends
	NA	g) Carbon Feed: ☐	Feed Site1: Feed Site 2:
	S1	h) Filters & controls	Mixed Media Filter to Waste ☒
	S1	i) Filters / size sq.ft each./ rate	# 8 Size Filtration Rate:4
	S1	j) Automatic analyzers:	Chlorine: ☒ Turbidity: ☒ Each filter: ☒ pH: ☒
	NI	k) Chemical storage:	Dry on pallets? ☒ Chemical containment: ☒
	NI	l) Clearwell / screened vents	Size:1.2 MG Baffling:☒ Locked ☒ Screened ☒
	NI	m) Pumps # and size in gpm	High Service6 @ Backwash 2 @ 9933
SITE DATA	S1	n) Site Data: Clays Mill	Cl. Free:-DOW Total: 2.7 pH: on-liine :2.29
	S1	o) Site Data: Clays Mill	Cl. Free:WTP Total: 2.11 pH:
	S1	p) Site Data: Parkers mill	Cl. Free:DOW Total: 2.20 pH: On-Line 2.18
	S1	q) Site Data: Parkers Mill	Cl. Free:WTP Total: 2.10 pH:
DISINFECTION	NI	r) Disinfection Pre: ☐ Post: ☐	Pre Type: Post type:
	NA	s) Automatic chlorinator ☒	Automatic changeover ☐ Proper Fan ☐
	NA	t) Separate room & ventilation	Crash Bar ☐ Alarm ☐
	NA	u) Safety equipment	SCBA ☐ Ammonia ☐ Detector ☐
LABORATORY & RECORDS	S1	v) Laboratory equipment	Adequate Space ☒ Equipment ☒ Lighting : ☒
	NI	(1) Turbidimeter ☒	Type: HACH Last calibrated: quarterly
	S1	(2) Adequate reagent supply	☒ Yes ☐ No
	S1	(3) Chlorine Test Kit ☒	Type: HACH DPD reagent up-to-date: ☒ Y ☐ N
	S1	w) Monthly operating reports	☒ Daily Record Sheet ☒ Agreement: ☒
	S1	x) Housekeeping	Good
DISTRIBUTION	NI	y) Master meter ; Recorder	Raw: ☒ Finished:☒ ; Raw: ☒ Finished: ☒
	NI	z) Blowoffs / hydrants; flushing	Flushing Schedule:☒ Blowoffs on deadends:☒
	S1	aa) Water storage:	# of Tanks 12 Total Storage:
	NI	bb) Booster pumps / chlorinators	Booster pumps: ☒ Booster chlorinators: ☐

PLANT	S1	cc) Plant Data:	Cl free: total: 3.15 pH: 7.36
ON	S1	dd) Turbidity	Raw:7 Settled:0.16 Combined Filter:0.026
SITE	NI	ee) Bacteriological monitoring	Samples per mo. Records: ☐
OBSERVATION	NI	ff) No cross-connections observed	None observed: ☐ Observed: ☐ Program: ☒
	NI	gg) Wastewater discharge	Is sizing adequate? ☒ Yes ☐ N0

Comments: The Division of Water conducted a non-Comprehensive inspection on June 21, 2024. The inspection included a tour of the facility's process, laboratory procedures, and the KAW distribution system. No major concerns were noted during the inspection. The facility was clean and operational. Raw water is continually monitored as it enters the plant and is then directed to the rapid mix, floc basins, and sedimentation basins. The flow leaving the weirs were satisfactory. Basins are cleaned quarterly. Filters were satisfactory and used on a rotating basis. Online instrumentation is calibrated quarterly. Flow leaves the filters and is directed to one of two chlorine contact basins.
The facility now uses liquid chlorine for disinfection purposes. Liquid lime is now used. Current chemical storage areas are marked appropriately and are secure.
The following tanks were observed during the inspection: Arboretum, Clays MIll, and Parkers Mill. The tanks were secure, flappered, and observed to be in good condition.

Chlorine residuals in the system were acceptable. Daily chlorine check standards are performed and recorded. Tanks are inspected once every five years. System flushing is performed in the spring. Most meters are radio read. Additional chlorine sample: Arboretum: DOW 3.5; WTP 3.05; On-Line- 3.09.

V. Compliance Status - No violations observed

VI. Discharge/Emission Compliance

Comments: A KPDES inspection was performed and the facility was found to be in compliance.

VI. Compliance Status - No violations observed

VII. Monitoring/Analyses Evaluation

Comments: Not evaluated.

VII. Compliance Status - Not Evaluated

VIII. Environmental /Health Impact

Work Site Hazard Assessment : ☒ ATTACHED ☐ REVIEWED

Comments: No major concerns were noted at the time of the inspection.

VIII. Compliance Status – No violations observed

IX. Documentation

- ☒ **Samples taken by DEP**
- ☐ **Samples taken by outside source**
- ☒ **Instrument readings taken by DEP regional office**
- ☐ **Photographs obtained by DEP**
- ☒ **Copies of records obtained by DEP**
- ☐ **Other documentation**

Inspector: Deborah Singleton	**Title:** Environmental Inspector III	**Date:** 7/19/2024

Signature: E-Signed by Singleton, Deborah
VERIFY authenticity with e-Sign
Deborah E. Singleton

Overall Compliance Status
☒ **No violations observed**
☐ **No violations observed, but impending violation trends observed**
☐ **Out of Compliance- No action taken**
☐ **Out of Compliance LOW non-recurrent administrative or O & M**
☐ **Out of Compliance - NOV**

Comments:

Delivery Method: Regular Mail	Cert. Mail #: