



Owned by the Citizens of Jonesboro

August 29, 2018

Enforcement Branch
Office of Water Quality
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: NPDES permit AR0043401, AFIN 16-00936, Year One Progress Report

To Whom It May Concern:

Please allow this letter to serve as the year one Progress Report for City Water and Light Plant of the City of Jonesboro (CWL) to the Arkansas Department of Environmental Quality (ADEQ). The purpose of this report is to address the progress towards attaining the final effluent limits for Total Residual Chlorine (TRC), Fecal Coliform Bacteria (FCB) and the *P. promelas* and *C. dubia* sub-lethal Whole Effluent Toxicity (WET) testing at Outfall 001 for National Pollutant Discharge Elimination System (NPDES) Permit number AR0043401 (permit).

CWL has evaluated the continued use of chlorine gas for disinfection at the Eastside Wastewater Treatment plant (WWTP) while considering FCB limits. We believe there are other disinfection options that will meet the final TRC limit and produce consistent FCB results. The options CWL considered to replace chlorine and attain the final effluent TRC and FCB limits were Peracetic acid (PAA) and ultraviolet light (UV). After evaluating both options, CWL is moving forward with UV disinfection at the Eastside WWTP.

CWL is currently in the process of modifying the Eastside WWTP in accordance with the ADEQ issued construction permit (AR0043401C) and the plans and specifications received by ADEQ on November 30, 2017. This modification includes replacing the existing chlorine disinfection and dechlorination with UV disinfection. These modifications should allow CWL to attain compliance with the final effluent limits for TRC and FCB by September 1, 2020.

CWL has conducted four WET test since the effective date of the permit (please see enclosed results). The results of this testing demonstrate compliance with the final *P. promelas* and *C. dubia* sub-lethal limits at the Eastside WWTP using its current processes. There is no indication that the modifications occurring at the Eastside WWTP will affect CWL's ability to attain compliance with the final effluent limit beginning on September 1, 2020. However, CWL will continue to monitor and evaluate the results of *P. promelas* and *C. dubia* sub-lethal testing

Jake Rice III, MANAGER

CITY WATER & LIGHT • 400 East Monroe • P.O. Box 1289 • Jonesboro, Arkansas 72403-1289 • 870/935-5581



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throughout construction and for the duration of the Compliance Schedule to ensure the final permit limit is attained.

This should satisfy the requirements stated in CWL's NPDES Permit. If you have any questions or more information is required, please contact my office (870) 930-3310.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jake Rice III', is written over a horizontal line.

Jake Rice III, P.E.
Manager

JR/je

Enclosure

DMR Copy of Record

Permit
 Permit #: AR0043401 | Permittee: JONESBORO, CITY WATER & LIGHT PLANT OF THE CITY OF - EASTSIDE WWTP | Facility: CITY WATER & LIGHT PLANT OF THE CITY OF JONESBORO - EASTSIDE WWTP
 Major: Yes | Permittee Address: P.O. BOX 1289 JONESBORO, AR 72403 | Facility Location: 5205 INGELS ROAD JONESBORO, AR 72404
 Permitted Feature: TX1 External Outfall | Discharge: TX1-Q 001-QTRLY-CHRONIC WET TESTING

Report Dates & Status
 Monitoring Period: From 07/01/18 to 09/30/18 | DMR Due Date: 10/25/18 | Status: NetDMR Validated

Considerations for Form Completion
 IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1". OTHERWISE, REPORT "0". USE 51714 (P) TO REPORT SUB-LETHALITY FOR P. PROMELAS ONLY. USE 51710 (P) TO REPORT SUB-LETHALITY FOR C. DUBIA ONLY. FINAL SUB-LETHAL LIMITS BECOME EFFECTIVE 08/01/2020. SEE PART II CONDITION #6. 16-00936

Principal Executive Officer
 First Name: Jake | Title: Manager | Telephone: 870-935-6581
 Last Name: Rice III

No Data Indicator (NODI)

Form NODI: -

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading				Quality or Concentration			# of Ex.	Frequency of Analysis	Sample Type	
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1				Qualifier 2
51710	Whole Effluent Toxicity [WET] - C. dubia	1 - Effluent Gross	0		Sample	=	100	=	100			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI	>=	100 MO AV MN	>=	100 7 DA MIN			23 - %	0	01/90 - Quarterly	CP - COMPOS
51714	Whole Effluent Toxicity [WET] - P. promelas	1 - Effluent Gross	0		Sample	=	100	=	100			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI	>=	100 MO AV MN	>=	100 7 DA MIN			23 - %	0	01/90 - Quarterly	CP - COMPOS
TGP3B	Pass/Fail Static Renewal 7 Day Chronic Ceriodaphnia	1 - Effluent Gross	0		Sample	=	0	=	0			9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
TGP6C	Pass/Fail Static 7Day Chronic Pimephales Promelas	1 - Effluent Gross	0		Sample	=	0	=	0			9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
TLP3B	Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	0	=	0			9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
TLP6C	Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	0	=	0			9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
TOP3B	NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	100	=	100			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			23 - %	0	01/90 - Quarterly	CP - COMPOS
TOP6C	NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	100	=	100			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			23 - %	0	01/90 - Quarterly	CP - COMPOS
TPP3B	NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	100	=	100			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			23 - %	0	01/90 - Quarterly	CP - COMPOS
TPP6C	NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	100	=	100			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			23 - %	0	01/90 - Quarterly	CP - COMPOS
TOP3B	Coef Of Var Static 7Day Chronic Ceriodaphnia	1 - Effluent Gross	0		Sample	=	12	=	12			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			23 - %	0	01/90 - Quarterly	CP - COMPOS
TQP6C	Coef Of Var Static 7Day Chronic Pimephales	1 - Effluent Gross	0		Sample	=	11.1	=	11.1			23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req. Value NODI				Req Mon 7 DA AVG			23 - %	0	01/90 - Quarterly	CP - COMPOS

Submission Note
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors
 No errors.

Comments
 Analysis performed by ASU Ecotoxicology Research Facility, P. O. Box 847, State University, AR 72467.

Attachments

Name	Type	Size

Report Last Saved By

JONESBORO, CITY WATER & LIGHT PLANT OF THE CITY OF - EASTSIDE WWTP

User: jyearleycwl
Name: Jay Earley
E-Mail: jearley@jonesborocwl.org
Date/Time: 2018-08-20 12:20 (Time Zone: -05:00)

Report Last Signed By

User: JRICEIII
Name: Jake Rice
E-Mail: jrice@jonesborocwl.org
Date/Time: 2018-08-22 16:12 (Time Zone: -05:00)



Report Last Saved By

JONESBORO, CITY WATER & LIGHT PLANT OF THE CITY OF - EASTSIDE WWTP

User: wyoung@jonesborocwl.org

Name: Whitney Young

E-Mail: wyoung@jonesborocwl.org

Date/Time: 2018-05-22 09:40 (Time Zone: -05:00)

Report Last Signed By

User: JRICEIII

Name: Jake Rice

E-Mail: jrrice@jonesborocwl.org

Date/Time: 2018-05-24 16:39 (Time Zone: -05:00)

DMR Copy of Record

Permit
 Permit #: AR0043401 | Permittee: JONESBORO, CITY WATER & LIGHT PLANT OF THE CITY OF - EASTSIDE WWTP | Facility: CITY WATER & LIGHT PLANT OF THE CITY OF JONESBORO - EASTSIDE WWTP
 Major: Yes | Permittee Address: P.O. BOX 1289 JONESBORO, AR 72403 | Facility Location: 5205 INGELS ROAD JONESBORO, AR 72404
 Permitted Feature: TX1 External Outfall | Discharge: TX1-Q 001-QTRLY-CHRONIC WET TESTING

Report Dates & Status
 Monitoring Period: From 01/01/18 to 03/31/18 | DMR Due Date: 04/25/18 | Status: NetDMR Validated

Considerations for Form Completion
 IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1". OTHERWISE, REPORT "0". USE 51714 (P) TO REPORT SUB-LETHALITY FOR P. PROMELAS ONLY, USE 51710 (P) TO REPORT SUB-LETHALITY FOR C. DUBIA ONLY. FINAL SUB-LETHAL LIMITS BECOME EFFECTIVE 08/01/2020. SEE PART II CONDITION #6, 16-00936

Principal Executive Officer
 First Name: Jake | Title: Manager | Telephone: 870-935-5581
 Last Name: Rice III

No Data Indicator (NODI)
 Form NODI:

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading			Quality or Concentration			Units	# of Ex.	Frequency of Analysis	Sample Type
					Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3				
51710	Whole Effluent Toxicity [WET] - C. dubia	1 - Effluent Gross	0		Sample	=	100	=	100	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.	>=	100 MO AV MN	>=	100 7 DA MIN		23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
51714	Whole Effluent Toxicity [WET] - P. promelas	1 - Effluent Gross	0		Sample	=	100	=	100	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.	>=	100 MO AV MN	>=	100 7 DA MIN		23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TGP3B	Pass/Fail Static Renewal 7 Day Chronic Ceriodaphnia	1 - Effluent Gross	0		Sample	=	0	=	0	=	9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TGP6C	Pass/Fail Static 7Day Chronic Pimephales Promelas	1 - Effluent Gross	0		Sample	=	0	=	0	=	9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TLP3B	Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	0	=	0	=	9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TLP6C	Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	0	=	0	=	9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TOP3B	NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	100	=	100	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TOP6C	NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	100	=	100	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TPP3B	NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	100	=	100	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TPP6C	NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	100	=	100	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TOP3B	Coef Of Var Static 7Day Chronic Ceriodaphnia	1 - Effluent Gross	0		Sample	=	30.1	=	30.1	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TQP6C	Coef Of Var Static 7Day Chronic Pimephales	1 - Effluent Gross	0		Sample	=	14.8	=	14.8	=	23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									

Submission Note
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors
 No errors.

Comments
 Analysis performed by American Interplex, 8600 Kanis Road, Little Rock, AR 72204.

Attachments

Name	Type	Size

Report Last Saved By

JONESBORO, CITY WATER & LIGHT PLANT OF THE CITY OF - EASTSIDE WWTP

User: jyearleycwl
Name: Jay Earley
E-Mail: jearley@jonesborocwl.org
Date/Time: 2018-03-19 07:52 (Time Zone: -05:00)

Report Last Signed By

User: JRICEIII
Name: Jake Rice
E-Mail: jrice@jonesborocwl.org
Date/Time: 2018-03-19 07:52 (Time Zone: -05:00)

DMR Copy of Record

Permit
 Permit #: AR0043401 | Permittee: CITY WATER & LIGHT PLANT OF THE CITY OF JONESBORO - EASTSIDE WWTP | Facility: CITY WATER & LIGHT PLANT OF THE CITY OF JONESBORO - EASTSIDE WWTP
 Major: Yes | Permittee Address: P.O. BOX 1289 JONESBORO, AR 72403 | Facility Location: 5205 INGELS ROAD JONESBORO, AR 72404
 Permitted Feature: TX1 External Outfall | Discharge: TX1-Q 001-QTRLY-CHRONIC WET TESTING

Report Dates & Status
 Monitoring Period: From 10/01/17 to 12/31/17 | DMR Due Date: 01/25/18 | Status: NetDMR Validated

Considerations for Form Completion
 IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1". OTHERWISE, REPORT "0". USE 51714 (P) TO REPORT SUB-LETHALITY FOR P. PROMELAS ONLY. USE 51710 (P) TO REPORT SUB-LETHALITY FOR C. DUBIA ONLY. FINAL SUB-LETHAL LIMITS BECOME EFFECTIVE 08/01/2020. SEE PART II CONDITION #6. 16-00936

Principal Executive Officer
 First Name: Jake | Title: Manager | Telephone: 870-935-5581
 Last Name: Rice III

No Data Indicator (NODI)
 Form NODI: -

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading			Quality or Concentration			Units	# of Ex.	Frequency of Analysis	Sample Type
					Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3				
51710	Whole Effluent Toxicity (WET) - C. dubia	1 - Effluent Gross	0		Sample	=	100	=	100		23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.	>=	100 MO AV MN	>=	100 7 DA MIN		23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
51714	Whole Effluent Toxicity (WET) - P. promelas	1 - Effluent Gross	0		Sample	=	100	=	100		23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.	>=	100 MO AV MN	>=	100 7 DA MIN		23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TGP3B	Pass/Fail Static Renewal 7 Day Chronic Ceriodaphnia	1 - Effluent Gross	0		Sample	=	0				9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TGP6C	Pass/Fail Static 7Day Chronic Pimephales Promelas	1 - Effluent Gross	0		Sample	=	0				9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TLP3B	Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	0				9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TLP6C	Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	0				9A - pass=0,fail=1	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						9A - pass=0,fail=1	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TOP3B	NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	100				23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TOP6C	NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	100				23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TPP3B	NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	1 - Effluent Gross	0		Sample	=	100				23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TPP6C	NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	1 - Effluent Gross	0		Sample	=	100				23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TQP3B	Coeff Of Var Static 7Day Chronic Ceriodaphnia	1 - Effluent Gross	0		Sample	=	35.8				23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									
TQP6C	Coeff Of Var Static 7Day Chronic Pimephales	1 - Effluent Gross	0		Sample	=	11.1				23 - %	0	01/90 - Quarterly	24 - COMP24
					Permit Req.						23 - %	0	01/90 - Quarterly	CP - COMPOS
					Value NODI									

Submission Note
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors
 No errors.

Comments
 Analysis performed by ASU Ecotoxicology Research Facility, P. O. Box 847, State University, AR 72467.

Attachments

Name	Type	Size
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Report Last Saved By

CITY WATER & LIGHT PLANT OF THE CITY OF JONESBORO - EASTSIDE WWTP

User: jyearleycwl
Name: Jay Earley
E-Mail: jearley@jonesborocwl.org
Date/Time: 2017-11-15 09:59 (Time Zone: -06:00)

Report Last Signed By

User: JRICEIII
Name: Jake Rice
E-Mail: jrice@jonesborocwl.org
Date/Time: 2017-11-21 17:07 (Time Zone: -06:00)



7014 0150 0002 1286 0399

NEOPOST

FIRST-CLASS MAIL

08/31/2018

US POSTAGE \$007.62⁰



ZIP 72401
041M11289303

**RETURN RECEIPT
REQUESTED**

— FROM —

City Water & Light
400 East Monroe, P.O. Box 1289
Jonesboro, AR 72403-1289

TO: Enforcement Branch
Office of Water Quality
Arkansas Department of Environmental Quality
5301 Northshore Dr
North Little Rock, AR 72118-5317

POSTMASTER: Contents Merchandise. This Parcel May Be Opened
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