CORRECTIVE ACTION & OPERATION PLAN

AUGUST 3, 2021

STUTTGART WASTEWATER TREATMENT FACILITY
STUTTGART, ARKANSAS

ISSUED FOR REVIEW

PREPARED FOR:
Stuttgart Municipal Waterworks
612 S. College Street
Stuttgart, AR 72160

PREPARED BY:
Brad Wingfield, P.E.
PMI
3512 South Shackleford Rd.
Little Rock, AR 72205

8/6/2021

PMI

Corrective Action & Operation Plan

Stuttgart Municipal Works

Stuttgart Wastewater Treatment Facility

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Introduction

This Corrective Action Plan (CAP) and Operation Plan was prepared by PMI on behalf of Stuttgart Municipal Waterworks., which owns and operates the Stuttgart wastewater treatment facility. The Corrective Action Plan was prepared at the request of the Office of Water Quality, Enforcement Branch, of Arkansas Energy and Environment, Division of Environmental Quality (DEQ).

DEQ has issued a Consent Administrative Order for the Stuttgart Wastewater Treatment Facility—AR0034380. The Consent Order is generally in place due to effluent violations at the treatment facility for Three (3) violations of pH, Seven (7) violations of Total Suspended Solids, Two (2) violations of Carbonaceous Oxygen Demand, Three (3) violations of Total Residual Chlorine, Thirteen (13) violations of Fecal Coliform Bacteria, and Three (3) violations of Nitrogen Ammonia.

The Order also listed server items that were in need of attention to properly operate and maintain the facility which are:

1. Influent flowmeter was inoperable
2. Scraper drive for the north final clarifier was inoperable
3. Equalization basin contained excessive sludge
4. Emergency contact information was not posted at lift stations
5. SCADA at main lift stations was inoperable

This Corrective Action and Operation Plan presents a proposal to achieve compliance with all NPDES effluent limits.

Permit Violations & Corrective Action Measures

pH – During periods of high ammonia loading, nitrifying bacteria likely utilized all alkalinity present and low pH reading occurred. Alkalinity will be monitored to evaluate addition of alkalinity as necessary.

TSS – High flows result in overloading of the equalization basin and sludge carries through to the plant. Sludge removal in the equalization basin is ongoing and has been delayed by high flows.

CBOD – High flows have caused washout of plant biology which has resulted in organics remaining in the effluent. I&I work in the collection system is ongoing and has reduced high flows. Further studies of appropriate biological treatment capacity will be performed.

TRC – Total residual chlorine violations have occurred when sulfur dioxide has not removed all chlorine from the effluent. The plant has switched to PAA as a disinfectant.

Fecal Coliform – Due to insufficient chlorine when trying to maintain the TRC at permit limits, fecal coliform bacteria have not been fully oxidized. The plant has switch to PAA to maintain a higher residual to ensure complete oxidation.

Ammonia – Incomplete nitrification along with higher ammonia loading resulted in ammonia violations. Alkalinity will be tested for along with further monitoring of nitrification.

Maintenance Items

The following maintenance items have been attended to by Stuttgart waterworks:

Influent flowmeter was inoperable – Flowmeter has been removed.

Scraper drive for the north final clarifier was inoperable – Fixed and back in service.

Equalization basin contained excess sludge – Screw press being used to remove sludge during low flow periods.

SCADA at main lift stations was inoperable – Upgrade to wireless system in Stuttgart made SCADA system inoperable. City now checks all lift stations daily.

Operation and Maintenance Plan

In the CAO, DEQ requests a staffing and operations plan that will include the following items:

Current staffing by title, licensure, and duties – See appendix for the six licensed wastewater operators employed by the Stuttgart. Tommy Lawson oversees the department while Danny Wilson is the primary treatment facility operator. All other licensees assist Tommy and Danny with daily operational duties.

Identification of key system for which onsite operation and monitoring is necessary at all times

Onsite monitoring is required for the belt press and sludge dryer. All other systems are check on daily during normal 8 hour shifts.

Recommendations for staffing requirements and duties by wastewater licensure level and onsite schedule during 24-hour operation of the facility

Class 4 – Tommy Lawson: Manager and responsible for entire wastewater system including treatment facility. Primary plant operator reports directly to manager. Onsite as required.
Class 4 – Danny Wilson: Plant operator and responsible for all operations and maintenance at treatment facility. Directs crew day-to-day activities. Onsite 8 hours per day.

Class 3 – Darnell Bledsoe: Reports to plant operator and assists with daily plant operations. Onsite 8 hours per day.
Class 3 – Kenneth Terry: Assists with treatment plant operations. Onsite when necessary.
Class 2 – Cletus E. Carlock, Jr: Assists with operation and maintenance of treatment facility. Onsite 8 hours per day.
Class 2 – Michael Johnston: Assists with operation and maintenance of treatment facility. Onsite 8 hours per day.
Class 1 – Shannon Murry: Assists with operation and maintenance of treatment facility. Onsite 8 hours per day.

When necessary or during emergency repairs, staff will be onsite until repairs or emergency conditions are remedied.

Identification of current technology emplaced to alert staff remotely of facility failures or operation issues, included detailed analysis of both operable and inoperable systems

At the present time no technology is in place to alert staff remotely of facility failures or operation issues.

Operational cost analysis of current, preferred and optimal staffing requirements

Stuttgart Waterworks currently has the preferred number of staff in place and makes every effort to provide competitive wages to staff.

Milestone Schedule

The milestone schedule for implementation of the Corrective Action Plan is provided below:

Date	Milestone
September 1, 2021	Initiate CAP upon approval by DEQ
November 1, 2021	Complete Alkalinity Monitoring
March 1, 2022	Complete Removal of Sludge from EQ Basin
May 1, 2022	Complete Biological & Nitrification Study
June 30, 2022	Achieve compliance with permit limits or submit NPDES permit application to DEQ for improvements

APPENDIX

Wastewater Operator License Renewal

26-March-2021

License Number: 000628
Expiration Date: 2021/6/30

Wastewater Operator Renewal Fee: $40.00 per classification
After July 31 Late Fee: $10.00 per classification

Lawson, Tommy H.
Stuttgart Municipal Water
P.O. Box 130
Stuttgart, AR 72160

P.O. Box 773
Stuttgart, AR 72160
870-830-0177

ease complete if any of the above information is missing or has changed:

nployer: _____ Home _____

_____ _____

_____ _____

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NOTE: Email address needed for operator database notices.

Email StuttgArtARWater@centurytel.net

We show no record of training in this renewal period. You must submit documentation to be approved for renewal.

LEASE NOTE: As stated in Regulation 3.403(a) (1-2), a minimum of 24 hours must be obtained per two year renewal period.
(The current license period is July 1, 2019 through June 30, 2021)

License Classification	Expiration Date	Renewal Fee	Late Fees	
Municipal 4	2021/6/30	$40.00	$10.00	
Industrial A	2021/6/30	$40.00	$10.00	
	Total Due:	**$80.00**	**$100.00**	**after July 31**

Date 6-7-21 Approved
Amount 400.00 By
Finance
Committee
Check # 18024

Return a copy of this form (noting any changes) with a check or money order made payable to **ADEQ/WWL**, sent to the address below.

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

KEEP FOR FUTURE REFERENCE: Any questions call Sandy Luttrell at 501-682-0998.
Website: www.adeq.state.ar.us/water/enforcement/wwl

ADEQ Wastewater Operator License Renewal

26-March-2021

License Number: 001938
Expiration Date: 2021/6/30

Wastewater Operator Renewal Fee:	$40.00 per classification
After July 31	Late Fee: $10.00 per classification

Wilson, Danny
Stuttgart Municipal Water
P.O. Box 130
Stuttgart, AR 72160

1905 Weidner
Stuttgart, AR 72160
870-673-7893
870-674-4819

lease complete if any of the above information is missing or has changed:

mployer: _____ Home _____

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NOTE: Email address needed for operator database notices.

Email SWSdept@d-cl.com

We show no record of training in this renewal period. You must submit documentation to be approved for renewal.

'LEASE NOTE: As stated in Regulation 3.403(a) (1-2), a minimum of 24 hours must be obtained per two year renewal period.
(The current license period is July 1, 2019 through June 30, 2021)

License Classification	Expiration Date	Renewal Fee	Late Fees	
Municipal 4	2021/6/30	$40.00	$10.00	
Industrial A	2021/6/30	$40.00	$10.00	
	Total Due:	**$80.00**	**$100.00**	**after July 31**

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Website: www.adeq.state.ar.us/water/enforcement/wwl

ADEQ Wastewater Operator License Renewal

26-March-2021

License Number: 009931
Expiration Date: 2021/6/30

Wastewater Operator Renewal Fee: $40.00 per classification
After July 31 Late Fee: $10.00 per classification

Terry, Kenneth
Stuttgart Municipal Water
P.O. Box 324
Stuttgart, AR 72160

P.O. Box 324
Stuttgart, AR 72160
870-673-6467

ease complete if any of the above information is missing or has changed:

nployer: _____

Home P.O. Box 324
Stuttgart, AR 72160
870-659-6620

NOTE: Email address needed for operator database notices.
Email kterry61@gmail.com

We show no record of training in this renewal period. You must submit documentation to be approved for renewal.

LEASE NOTE: As stated in Regulation 3.403(a) (1-2), a minimum of 24 hours must be obtained per two year renewal period.
(The current license period is July 1, 2019 through June 30, 2021)

License Classification	Expiration Date	Renewal Fee	Late Fees	
Municipal 3	2021/6/30	$40.00	$10.00	
	Total Due:	**$40.00**	**$50.00**	**after July 31**

Return a copy of this form (noting any changes) with a check or money order made payable to **ADEQ/WWL**, sent to the address below.

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

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Website: www.adeq.state.ar.us/water/enforcement/wwl

ADEQ Wastewater Operator License Renewal

26-March-2021

License Number: 006678
Expiration Date: 2021/6/30

Wastewater Operator Renewal Fee:	$40.00 per classification
After July 31 Late Fee:	$10.00 per classification

Bledsoe, Darnell
Stuttgart Municipal Water
P.O. Box 130
Stuttgart, AR 72160

1125 E. 1st Street
Stuttgart, AR 72160
870-673-4649

ease complete if any of the above information is missing or has changed:

nployer: _____ Home _____

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NOTE: Email address needed for operator database notices.

Email Stuttgart AR WATER@ CENTURYTEL.NET

We show no record of training in this renewal period. You must submit documentation to be approved for renewal.

LEASE NOTE: As stated in Regulation 3.403(a) (1-2), a minimum of 24 hours must be obtained per two year renewal period.
(The current license period is July 1, 2019 through June 30, 2021)

License Classification	Expiration Date	Renewal Fee	Late Fees	
Municipal 3	2021/6/30	$40.00	$10.00	
Industrial A	2021/6/30	$40.00	$10.00	
	Total Due:	**$80.00**	**$100.00**	**after July 31**

Return a copy of this form (noting any changes) with a check or money order made payable to **ADEQ/WWL**, sent to the address below.

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

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Website: www.adeq.state.ar.us/water/enforcement/wwl

ADEQ Wastewater Operator License Renewal

26-March-2021

License Number: 012084
Expiration Date: 2021/6/30

Wastewater Operator Renewal Fee: $40.00 per classification
After July 31 Late Fee: $10.00 per classification

Murry, Shannon
Stuttgart Water Works
P.O. Box 130
Stuttgart, AR 72160

P.O. Box 56
Stuttgart, AR 72160
870-830-2702

lease complete if any of the above information is missing or has changed:

mployer: _____ Home _____

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NOTE: Email address needed for operator database notices.

Email StuttgartARWATER@CENTURYTEL.NET

We show no record of training in this renewal period. You must submit documentation to be approved for renewal.

LEASE NOTE: As stated in Regulation 3.403(a) (1-2), a minimum of 24 hours must be obtained per two year renewal period.
(The current license period is July 1, 2019 through June 30, 2021)

License Classification	Expiration Date	Renewal Fee	Late Fees	
Municipal 1	2021/6/30	$40.00	$10.00	
	Total Due:	**$40.00**	**$50.00**	**after July 31**

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Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

KEEP FOR FUTURE REFERENCE: Any questions call Sandy Luttrell at 501-682-0998.
Website: www.adeq.state.ar.us/water/enforcement/wwl

ADEQ Wastewater Operator License Renewal

26-March-2021

License Number: 011971
Expiration Date: 2021/6/30

Wastewater Operator Renewal Fee: $40.00 per classification
After July 31 Late Fee: $10.00 per classification

Carlock, Jr., Cletus E.

Stuttgart Water Works
612 S. College
Stuttgart, AR 72160

P.O. Box 1302
Stuttgart, AR 72160
870-456-9983

lease complete if any of the above information is missing or has changed:

mployer: _____ Home _____

_____

_____ Phone (870) 456-8248

_____ *NOTE: Email address needed for operator database notices.*

Email STUTTGARTARWATER@centurytel.net

021/1/15	Class III Wastewater	40.00

Total direct and indirect training hours to be considered for renewal: 40.00

For training not listed in this renewal period, please submit documentation (Wastewater operator license renewal training hours submittal form).

LEASE NOTE: As stated in Regulation 3.403(a) (1-2), a minimum of 24 hours must be obtained per two year renewal period.
(The current license period is July 1, 2019 through June 30, 2021)

License Classification	Expiration Date	Renewal Fee	Late Fees	
Municipal 2	2021/6/30	$40.00	$10.00	
	Total Due:	**$40.00**	**$50.00**	**after July 31**

Return a copy of this form (noting any changes) with a check or money order made payable to **ADEQ/WWL**, sent to the address below.

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

KEEP FOR FUTURE REFERENCE: Any questions call Sandy Luttrell at 501-682-0998.
Website: www.adeq.state.ar.us/water/enforcement/wwl

ADEQ Wastewater Operator License Renewal

License Number: 011815
Expiration Date: 2021/6/30

26-March-2021

Wastewater Operator Renewal Fee: $40.00 per classification
After July 31 Late Fee: $10.00 per classification

Johnston, Michael R.
Stuttgart Municipal Waterworks
P.O. Box 130
Stuttgart, AR 72160

606 E. 8th Street
Stuttgart, AR 72160
870-456-1653

lease complete if any of the above information is missing or has changed:

mployer: _____ Home _____

_____ _____

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NOTE: Email address needed for operator database notices.

Email STUTTGARTARWATER@CENTURYTEL.NET

021/1/15 Class III Wastewater 40.00

Total direct and indirect training hours to be considered for renewal: 40.00

For training not listed in this renewal period, please submit documentation (Wastewater operator license renewal training hours submittal form).

LEASE NOTE: As stated in Regulation 3.403(a) (1-2), a minimum of 24 hours must be obtained per two year renewal period.
(The current license period is July 1, 2019 through June 30, 2021)

License Classification	Expiration Date	Renewal Fee	Late Fees	
Municipal 2	2021/6/30	$40.00	$10.00	
	Total Due:	**$40.00**	**$50.00**	**after July 31**

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Website: www.adeq.state.ar.us/water/enforcement/wwl