Permit Number: AR0020001
AFIN: 34-00059

AUTHORIZATION TO DISCHARGE WASTEWATER UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT

In accordance with the provisions of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.), and the Clean Water Act (33 U.S.C. § 1251 et seq.),

City of Tuckerman Wastewater Treatment Plant

is authorized to discharge treated municipal wastewater from a facility located as follows: Allen Street, Tuckerman, AR 72473, in Jackson County, on Allen Street approximately one mile east of U. S. Highway 67.

Facility Coordinates: Latitude: 35° 43’ 10.41” N; Longitude: 91° 11’ 13.38” W

Receiving stream: Tuckerman Ditch, thence to Village Creek, thence to the White River in Segment 4C of the White River Basin.

The permitted outfall is located at the following coordinates:

Outfall 001: Latitude: 35° 43’ 08.9” N; Longitude: 91° 11’ 13.7” W

Discharge shall be in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit. Per Part III.D.10, the permittee must re-apply 180 days prior to the expiration date below for permit coverage to continue beyond the expiration date.

Effective Date: November 1, 2021
Expiration Date: October 31, 2026

Digitally signed by Alan J. York
DN: cn=Alan J. York, o, ou, email=alan.york@adeq.state.ar.us, c=US
Date: 2021.10.26 08:34:21 -05'00'

Alan J. York
Associate Director, Office of Water Quality
Arkansas Department of Energy and Environment
Division of Environmental Quality

10/26/21
Issue Date

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 - treated municipal wastewater.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions.

Effluent Characteristics	**Discharge Limitations**			**Monitoring Requirements**	
	Mass (lbs/day, else specified)	Concentration (mg/l, else specified)		Frequency	Sample Type
	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Flow	N/A	Report, MGD	Report, MGD (Max. Daily Avg.)	daily	instantaneous
Upstream Flow	N/A	Report, MGD	Report, MGD (Max. Daily Avg.)	daily	calculated[1]
Flow, as percentage of Upstream Flow					
(May-October)	N/A	N/A	70% (Max. Daily Avg.)	daily	calculated[1]
(November-April)	N/A	N/A	35% (Max. Daily Avg.)	daily	calculated[1]
Flow Exceedance	Monthly Total Percentage Exceedances per month (occurrences/month)			see comments[1]	
Overflows	Monthly Total SSOs (occurrences/month)			see comments[2]	
Overflow Volume	Monthly Total Volume of SSOs (gallons/month)			see comments[2]	
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	N/A	20	30	two/month	grab
Total Suspended Solids (TSS)	N/A	30.0	45.0	two/month	grab
Ammonia Nitrogen (NH_3-N)					
(April)	N/A	14.9	14.9	two/month	grab
(May – October)	N/A	10.0	10.1	two/month	grab
(November – March)	N/A	15.0	22.5	two/month	grab
Dissolved Oxygen (DO)	N/A	3.0 (Inst. Min.)		two/month	grab
Fecal Coliform Bacteria (FCB)		(colonies/100ml)			
	N/A	1000	2000	two/month	grab
Total Residual Chlorine (TRC)[3]					
INTERIM[5]	N/A	Report (Inst. Max.) [4, 5]		once/month	grab
FINAL[5]					
(May-October)	N/A	0.022 (Inst. Max.) [4, 5]		once/month	grab
(November-April)	N/A	0.032 (Inst. Max.) [4, 5]		once/month	grab
pH	N/A	Minimum 6.0 s.u.	Maximum 9.0 s.u.	two/month	grab

1 See Condition No. 8 of Part II (HCR Flow Condition).
2 See Condition No. 6 of Part II (SSO Condition). If there are no overflows during the entire month, report "zero" (0).
3 TRC must be measured using any approved test method established in 40 C.F.R. Part 136 capable of meeting a minimum quantification level (MQL) of 0.033 mg/l or lower. If TRC is not reportable at the required MQL (i.e., lab result is "ND"), report "0" on the Discharge Monitoring Report (DMR). Report the concentration if TRC is quantifiable and measured in the sample at or above this or an alternatively approved MQL.

[4] The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC shall be measured within fifteen (15) minutes of sampling.

[5] Interim period for monitoring and reporting of TRC shall last three years from the effective date of the permit. The final TRC limit is effective three years after the effective date of the permit.

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after final treatment, prior to the receiving stream.

SECTION B. PERMIT COMPLIANCE SCHEDULE

Compliance with the Final Effluent Limitations for Total Residual Chlorine is required three years after the effective date of the permit. The permittee shall submit progress reports addressing the progress towards attaining the Final Effluent Limitations for the aforementioned parameters according to the following schedule:

ACTIVITY	**DUE DATE**
Progress Report[1, 2]	One (1) year from effective date
Progress Report[1, 3]	Two (2) years from effective date
Achieve Final Compliance[1, 4]	Three (3) years from effective date

All progress reports must be submitted to the Division at the following address:

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

or submit electronically via email at water-enforcement-report@adeq.state.ar.us.

[1] If the permittee is already in compliance with a final permit limit, only documentation demonstrating compliance with the final limit will be required for the progress report.

[2] If the permittee is not in compliance with the Final Limitations following one (1) year of sampling, the initial Progress Report must detail how the permittee plans to come into compliance with the final limits within the remaining 2 years of the interim period. Options must be provided that were considered along with which option* was selected. Any Best Management Practices (BMPs) that have been instituted to reduce the concentration in the influent must also be discussed. If a study will be performed, a milestone schedule for the study must be provided.

* The permittee has the option to undertake any study deemed necessary to meet the final limitations during the interim period. Any additional treatment (including chemical addition) must be approved and construction approval granted prior to final installation.

[3] The second Progress Report must contain an update on the status of the chosen option from the initial Progress Report. If the facility is not meeting any of the milestones provided in the initial Progress Report, the facility must update the milestone schedule to show how the final limits will be met by the deadline.

[4] A final Progress Report must be submitted no later than 30 days following the final compliance date and include a certification that the final effluent limits were met on the effective date and that the limits are still being met.

PART II
OTHER CONDITIONS

1. The operator of this wastewater treatment facility shall be licensed as at least Class III by the State of Arkansas in accordance with APC&EC Rule 3.

2. For publicly owned treatment works, the 30-day average percent removal for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and Total Suspended Solids (TSS) shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 C.F.R. § 133.102.

3. In accordance with 40 C.F.R. §§ 122.62(a)(2) and 124.5, this permit may be reopened for modification or revocation and/or reissuance to require additional monitoring and/or effluent limitations when new information is received that actual or potential exceedance of State water quality criteria and/or narrative criteria are determined to be the result of the permittee's discharge(s) to a relevant water body or a Total Maximum Daily Load (TMDL) is established or revised for the water body that was not available at the time of the permit issuance that would have justified the application of different permit conditions at the time of permit issuance.

4. Other Specified Monitoring Requirements

   The permittee may use alternative appropriate monitoring methods and analytical instruments other than as specified in Part I.A of the permit without a major permit modification under the following conditions:

   - The monitoring and analytical instruments are consistent with accepted scientific practices.
   - The requests shall be submitted in writing to the Permits Branch of the Office of Water Quality of the DEQ for use of the alternate method or instrument.
   - The method and/or instrument is in compliance with 40 C.F.R. Part 136 or approved in accordance with 40 C.F.R. § 136.5.
   - All associated devices are installed, calibrated, and maintained to ensure the accuracy of the measurements and are consistent with the accepted capability of that type of device. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Assurance/Quality Control (QA/QC) program.

   Upon written approval of the alternative monitoring method and/or analytical instruments, these methods or instruments must be consistently utilized throughout the monitoring period. DEQ must be notified in writing and the permittee must receive written approval from DEQ if the permittee decides to return to the original permit monitoring requirements.

5. Best Management Practices (BMPs), as defined in Part IV.7, must be implemented for the facility along with the collection system to prevent or reduce the pollution of waters of the State from stormwater runoff, spills or leaks, sludge or waste disposal, or drainage from raw sewage. The permittee must amend the BMPs whenever there is a change in the facility or a change in the operation of the facility.

6. Sanitary Sewer Overflow (SSO) Reporting Requirements:

A. A sanitary sewer overflow is any spill, release or diversion of wastewater from a sanitary sewer collection system including:

1. Any overflow, whether it discharges to the waters of the state or not.
2. An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral), even if that overflow does not reach waters of the state.

B. 24-Hour Reporting:

When an SSO is detected – no matter how small – it must be reported within 24 hours of its discovery to DEQ's Water Quality Enforcement by using the online form in paragraph C below (the preferred method), by phone at (501) 682-0638, or by email at ssoadeq@adeq.state.ar.us.

This initial 24-hour report should include the following information:

1. Permit Number
2. Location of overflow (manhole number or street address)
3. The receiving water (if applicable)
4. Cause of overflow (if known)
5. Estimated volume of overflow so far
6. Total duration of the overflow

C. 5-Day Follow-Up Written Web Reporting:

A written report of overflows shall be provided to DEQ within 5 days of the 24-hour oral report. A follow-up written report (5-day report) can be filled-in and submitted on the DEQ Office of Water Quality/Enforcement Branch Web page at:

https://www.adeq.state.ar.us/water/enforcement/sso/submit.aspx?type=s

D. 24-Hour and 5-Day Reporting:

If the 24-hour report submitted includes all of the information requested in the 5-day report described in Paragraph C above, then a follow-up 5-day report is not required.

E. Reporting for All SSOs on DMR:

At the end of the month, total the daily occurrences and volumes from all locations on your system and report this number on the DMR. For counting occurrences, each location on the sanitary sewer system where there is an overflow, spill, release, or diversion of wastewater on a given day is counted as one occurrence. For example, if on a given day overflows occur from a manhole at one location and from a damaged pipe at another location then you should record two occurrences for that day.

7. Contributing Industries and Pretreatment Requirements

   A. The following pollutants may not be introduced into the treatment facility:

      1. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit (°F) or 60 degrees Centigrade (°C) using the test methods specified in 40 C.F.R. § 261.21;

      2. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0 s.u., unless the works is specifically designed to accommodate such discharges;

      3. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference* or Pass Through**;

      4. Any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause Pass Through or Interference with the POTW;

      5. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 °C (104 °F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;

      6. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

      7. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

      8. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

   B. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act (CWA), including any requirements established under 40 C.F.R. Part 403.

   C. The permittee shall provide adequate notice to the Division of the following:

      1. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants; and

      2. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Any notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

* According to 40 C.F.R. § 403.3(k), the term *Interference* means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

1. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

2. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the CWA, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

** According to 40 C.F.R. § 403.3(p), the term *Pass Through* means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

8. Hydrograph Controlled Release (HCR) Condition

A. The permittee must monitor the upstream flow. Receiving stream flow shall be measured immediately upstream from the discharge location.

B. The permittee shall maintain the approved flow monitoring equipment. Records shall be kept and available for inspection upon request.

C. The daily discharge flow is restricted as follows:

a. During the months of (May-October) the daily average discharge flow must be less than or equal 70% of the daily average stream flow. The permittee shall report the number of days per month that the facility discharger exceeds the above percentage.

b. During the months of (November-April) the daily average discharge flow must be less than or equal 35% of the daily average stream flow. The permittee shall report the number of days per month that the facility discharge exceeds the above percentage.

9. The permittee may use any EPA approved method based on 40 C.F.R. Part 136 provided the minimum quantification level (MQL) for the chosen method is equal to or less than what has been specified in chart below:

Pollutant	MQL (mg/l)
TRC	0.033

The permittee may develop a matrix specific method detection limit (MDL) in accordance with Appendix B of 40 C.F.R. Part 136. For any pollutant for which the permittee determines a site specific MDL, the permittee shall send to DEQ, NPDES Permits Branch, a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that a site specific MDL was correctly calculated. A site specific MQL shall be determined in accordance with the following calculation:

$$MQL = 3.3 \times MDL$$

Upon written approval by Permits Branch, the site specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

10. Monitoring Frequency Reduction

The permittee may request a one-time monitoring frequency reduction for pollutants listed in Part I, Section A, *Effluent Limitations and Monitoring Requirements*. Any request for a monitoring frequency reduction must be submitted in writing to DEQ, and signed by the Responsible Official, in accordance with Part III.D.11.A of the permit.

The following requirements must be met before a review of the monitoring frequency reduction request will be performed:

A. Compliance with the permit limits for at least the last two (2) years for the pollutants for which a request has been made for a monitoring frequency reduction;

B. No operational or design changes have been made to the facility for at least the last two (2) years (or during period of review, if greater than two (2) years), and are not anticipated for the remaining term of this permit.

If the above conditions are met, a detailed review of the DMR data will be performed for the pollutants for which a monitoring frequency reduction has been requested. Compliance with the limits does not guarantee a monitoring frequency reduction will be granted. Data must show that the average concentration of the pollutants in the discharge are less than 75% of the permit limits for a monitoring frequency reduction to be granted.

If a monitoring frequency reduction is granted, the frequency can be reduced by no more than half the rate of the corresponding frequency listed in Part I, Section A, *Effluent Limitations*

and Monitoring Frequencies. For example, a monitoring frequency of 4 per month will not be reduced to less than 2 per month. Additionally, the frequency will be no less frequent than monthly.

PART III
STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. **Duty to Comply**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Water Act and the Arkansas Water and Air Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; and/or for denial of a permit renewal application. **Any values reported in the required Discharge Monitoring Report (DMR) which are in excess of an effluent limitation specified in Part I shall constitute evidence of violation of such effluent limitation and of this permit.**

2. **Penalties for Violations of Permit Conditions**

The Arkansas Water and Air Pollution Control Act provides that any person who violates any provisions of a permit issued under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year, or a fine of not more than twenty-five thousand dollars ($25,000) or by both such fine and imprisonment for each day of such violation. Any person who violates any provision of a permit issued under the Act may also be subject to civil penalty in such amount as the court shall find appropriate, not to exceed ten thousand dollars ($10,000) for each day of such violation. The fact that any such violation may constitute a misdemeanor shall not be a bar to the maintenance of such civil action.

3. **Permit Actions**

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to the following:

A. Violation of any terms or conditions of this permit.
B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge.
D. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
E. Failure of the permittee to comply with the provisions of APC&EC Rule 9 (Permit fees) as required by Part III.A.11 herein.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

4. **Toxic Pollutants**

Notwithstanding Part III.A.3, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under APC&EC Rule 2, as amended, or Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitations on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standards or prohibition and the permittee so notified.

The permittee shall comply with effluent standards, narrative criteria, or prohibitions established under APC&EC Rule 2, as amended, or Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. **Civil and Criminal Liability**

Except as provided in permit conditions for "Bypass of Treatment Facilities" (Part III.B.4), and "Upset" (Part III.B.5), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of this permit or applicable state and federal statues or regulations which defeats the regulatory purposes of the permit may subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

6. **Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

7. **State Laws**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

8. **Property Rights**

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

9. **Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. **Applicable Federal, State or Local Requirements**

Permittees are responsible for compliance with all applicable terms and conditions of this permit. Receipt of this permit does not relieve any operator of the responsibility to comply with any other applicable federal requirements such as endangered species, state or local statute, ordinance or regulation.

11. **Permit Fees**

The permittee shall comply with all applicable permit fee requirements (i.e., including annual permit fees following the initial permit fee that will be invoiced every year the permit is active) for wastewater discharge permits as described in APC&EC Rule 9 (Rule for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit under the provisions of 40 C.F.R. §§ 122.64 and 124.5(d), as adopted in APC&EC Rule 6 and the provisions of APC&EC Rule 8.

SECTION B – OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. **Proper Operation and Maintenance**

A. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup 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.

B. The permittee shall provide an adequate operating staff which is duly qualified to carryout operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit.

2. **Need to Halt or Reduce not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or discharges or both until the facility is restored or an alternative method of

treatment is provided. This requirement applies, for example, when the primary source of power for the treatment facility is reduced, is lost, or alternate power supply fails.

3. **Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment or the water receiving the discharge.

4. **Bypass of Treatment Facilities**

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 C.F.R. § 122.41(m)(1)(i).

A. Bypass not exceeding limitation

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.B and 4.C.

B. Notice

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part III.D.6 (24-hour notice).

C. Prohibition of bypass

1. Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(c) The permittee submitted notices as required by Part III.B.4.B.

2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part III.B.4.C(1).

5. **Upset Conditions**

A. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part III.B.5.B of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

B. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the specific cause(s) of the upset.
2. The permitted facility was at the time being properly operated.
3. The permittee submitted notice of the upset as required by Part III.D.6.
4. The permittee complied with any remedial measures required by Part III.B.3.

C. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. **Removed Substances**

A. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State. The Permittee must comply with all applicable state and Federal regulations governing the disposal of sludge, including but not limited to 40 C.F.R. Parts 257, 258, and 503.

B. Any changes to the permittee's disposal practices described in the Statement of Basis, as derived from the permit application, will require at least 180 days prior notice to the Director to allow time for additional permitting. Please note that the 180 day notification requirement may be waived if additional permitting is not required for the change.

7. **Power Failure**

The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators, or retention of inadequately treated effluent.

SECTION C – MONITORING AND RECORDS

1. **Representative Sampling**

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director. Intermittent discharge shall be monitored.

2. **Flow Measurement**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +/- 10% from true discharge rates throughout the range of expected discharge volumes and shall be installed at the monitoring point of the discharge.

Calculated Flow Measurement

For calculated flow measurements that are performed in accordance with either the permit requirements or a Division approved method (i.e., as allowed in the *Other Specified Monitoring Requirements* condition under Part II), the +/- 10% accuracy requirement described above is waived. This waiver is only applicable when the method used for calculation of the flow has been reviewed and approved by the Division.

3. **Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under 40 C.F.R. Part 136, unless other test procedures have been specified in this permit. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals frequent enough to ensure accuracy of measurements and shall ensure that both calibration and maintenance activities will be conducted. An adequate analytical quality control program, including the analysis of sufficient standards, spikes, and duplicate samples to ensure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. At a minimum, spikes and duplicate samples are to be analyzed on 10% of the samples.

4. **Penalties for Tampering**

The Arkansas Water and Air Pollution Control Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under the Act shall be guilty of a misdemeanor and upon conviction thereof

shall be subject to imprisonment for not more than one (1) year or a fine of not more than ten thousand dollars ($10,000) or by both such fine and imprisonment.

5. **Reporting of Monitoring Results**

40 C.F.R. § 127.11(a)(1) and 40 C.F.R. § 127.16(a) require that monitoring reports must be reported on a Discharge Monitoring Reports (DMR) and filed electronically. Signatory Authorities must initially request access for a NetDMR account. Once a NetDMR account is established, access to electronic filing should use the following link https://cdx.epa.gov. Permittees who are unable to file electronically may request a waiver from the Director in accordance with 40 C.F.R. § 127.15. Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR dated and submitted no later than the 25th day of the month, following the completed reporting period beginning on the effective date of the permit.

6. **Additional Monitoring by the Permittee**

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 C.F.R. Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated on the DMR.

7. **Retention of Records**

The permittee shall retain records of all monitoring information, including 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 a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

8. **Record Contents**

Records and monitoring information shall include:

A. The date, exact place, time and methods of sampling or measurements, and preservatives used, if any.
B. The individual(s) who performed the sampling or measurements.
C. The date(s) and time analyses were performed.
D. The individual(s) who performed the analyses.
E. The analytical techniques or methods used.
F. The measurements and results of such analyses.

9. **Inspection and Entry**

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D – REPORTING REQUIREMENTS

1. **Planned Changes**

The Permittee shall give notice to the Director as soon as possible but no later than 180 days prior to any planned physical alterations or additions to the permitted facility [40 C.F.R. § 122.41(l)]. Notice is required only when:

A. The alteration or addition to a permitted facility may meet one of the criteria for new sources at 40 C.F.R. § 122.29(b).
B. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants subject to effluent limitations in the permit, or to the notification requirements under 40 C.F.R. § 122.42(b).

2. **Anticipated Noncompliance**

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. **Transfers**

The permit is nontransferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. **Monitoring Reports**

Monitoring results shall be reported at the intervals and in the form specified in Part III.C.5. **Discharge Monitoring Reports must be submitted even when no discharge occurs during the reporting period.**

5. **Compliance Schedule**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the

cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

6. **Twenty-four Hour Report**

Please be aware that the notifications can be sent by email to water-enforcement-report@adeq.state.ar.us or at 501-682-0624 for immediate reporting:

A. The permittee shall report any noncompliance which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances to the Enforcement Branch of the Office of Water Quality of DEQ. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain the following information:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue.
3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

B. The following must be reported within 24 hours:

1. Any unanticipated bypass which exceeds any effluent limitation in the permit.
2. Any upset which exceeds any effluent limitation in the permit.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit.

C. The Director may waive the written report on a case-by-case basis if the notification has been received within 24 hours to the Enforcement Branch of the Office of Water Quality of the DEQ.

7. **Other Noncompliance**

The permittee shall report all instances of noncompliance not reported under Parts III.D.4, 5, and 6, at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.6.

8. **Changes in Discharge of Toxic Substances for Industrial Dischargers including Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers**

The Director shall be notified as soon as the permittee knows or has reason to believe:

A. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant including those listed in 40 C.F.R. § 401.15 which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 C.F.R. § 122.42(a)(1).

B. That any activity has occurred or will occur which would result in any discharge on a non-routine or infrequent basis of a toxic pollutant including those listed in 40 C.F.R. § 401.15 which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 C.F.R. § 122.42(a)(2).

9. **Duty to Provide Information**

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit. Information shall be submitted in the form, manner and time frame requested by the Director.

10. **Duty to Reapply**

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The complete application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be implemented through procedures outlined by APC&EC Rule 6.

11. **Signatory Requirements**

All applications, reports, or information submitted to the Director shall be signed and certified as follows:

A. All **permit applications** shall be signed as follows:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.
(b) The manager of one or more manufacturing, production, or operation facilities, provided: the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship: by a general partner or proprietor, respectively.

3. For a municipality, State, Federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

   (a) The chief executive officer of the agency.
   (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

B. All **reports** required by the permit and **other information** requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above.
2. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
3. The written authorization is submitted to the Director.

C. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

12. **Availability of Reports**

Except for data determined to be confidential under 40 C.F.R. Part 2 and APC&EC Rule 6, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Environmental Quality. As required by the Regulations, the name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

13. **Penalties for Falsification of Reports**

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report,

plan, or other document filed or required to be maintained under this permit shall be subject to civil penalties specified in Part III.A.2 and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

14. **Other Information**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

PART IV
DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act and 40 C.F.R. § 122.2 shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. **"7-Day average" ("average weekly")** the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week
2. **"Act"** the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended
3. **"Administrator"** the Administrator of the U.S. Environmental Protection Agency
4. **"APC&EC"** the Arkansas Pollution Control and Ecology Commission
5. **"Applicable effluent standards and limitations"** all State and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards of performance, toxic effluent standards and prohibitions, and pretreatment standards
6. **"Applicable water quality standards"** all water quality standards to which a discharge is subject under the federal Clean Water Act and which has been (a) approved or permitted to remain in effect by the Administrator following submission to the Administrator pursuant to Section 303(a) of the Act, or (b) promulgated by the Director pursuant to Section 303(b) or 303(c) of the Act, and standards promulgated under (APC&EC) Rule 2, as amended
7. **"Best Management Practices (BMPs)"** activities, practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the State; includes treatment technologies, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw sewage; may include structural devices or nonstructural practices
8. **"Bypass"** the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 C.F.R. § 122.41(m)(1)(i)
9. **"Composite sample"** a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing a minimum of 4 effluent portions collected at equal time intervals (but not closer than one hour apart) during operational hours, within the 24-hour period, and combined proportional to flow or a sample collected at more frequent intervals proportional to flow over the 24-hour period
10. **"Daily Discharge"** the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling
    A. **Mass Calculations:** for pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of pollutant discharged over the sampling day
    B. **Concentration Calculations:** for pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day
11. **"Daily Maximum"** the highest allowable "daily discharge" during the calendar month
12. **"Director"** the Director of the Division of Environmental Quality
13. **"Dissolved oxygen limit"** shall be defined as follows:

A. when limited in the permit as a minimum monthly average, shall mean the lowest acceptable monthly average value, determined by averaging all samples taken during the calendar month.
B. when limited in the permit as an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value

14. **"Division"** the Division of Environmental Quality (**DEQ**)
15. **"*E. coli*"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads; for *E. coli*, report the 7-Day Average as the geometric mean of all "daily discharges" within a calendar week and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml
16. **"Fecal Coliform Bacteria (FCB)"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads; for FCB, report the 7-Day Average as the geometric mean of all "daily discharges" within a calendar week and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml
17. **"Grab sample"** an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement
18. **"Industrial User"** a nondomestic discharger, as identified in 40 C.F.R. Part 403, introducing pollutants to a publicly owned treatment works (POTW)
19. **"Instantaneous flow measurement"** the flow measured during the minimum time required for the flow-measuring device or method to produce a result in that instance; to the extent practical, instantaneous flow measurements coincide with the collection of any grab samples required for the same sampling period so that together the samples and flow are representative of the discharge during that sampling period
20. **"Instantaneous Maximum"** no value measured during the reporting period may fall above the stated value
21. **"Instantaneous Minimum"** no value measured during the reporting period may fall below the stated value
22. **"Monitoring and Reporting"** when a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date; for monitoring requirements for an effluent characteristic of monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25th of the month following the sampling; for monitoring requirements for an effluent characteristic of Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25th of the month following the monitoring period end date
    A. **MONTHLY** a calendar month or any portion of a calendar month for monitoring requirement frequency of once/month or more frequently.
    B. **BI-MONTHLY** two (2) calendar months or any portion of 2 calendar months for monitoring requirement frequency of once/2 months or more frequently
    C. **QUARTERLY:**
        1. a **fixed calendar quarter** or any part of the fixed calendar quarter for a non-seasonal effluent characteristic with a measurement frequency of once/quarter; fixed calendar quarters are January through March, April through June, July through September, and October through December
        2. a **fixed three month period** (or any part of the fixed three month period) of or dependent upon the seasons specified in the permit for a seasonal effluent characteristic with a monitoring requirement frequency of once/quarter that does not coincide with the fixed calendar quarter; seasonal calendar quarters are May through

July, August through October, November through January, and February through April

D. **SEMI-ANNUAL** the fixed time periods January through June, and July through December (or any portion thereof) for an effluent characteristic with a measurement frequency of once/6 months or twice/year

E. **ANNUAL or YEARLY** a fixed calendar year (January through December) or any portion of the fixed calendar year for an effluent characteristic or parameter with a measurement frequency of once/year

23. **"Monthly Average"** the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month; for Fecal Coliform Bacteria (FCB) or *E. coli*, report the Monthly Average as the geometric mean of all "daily discharges" within a calendar month (see Part IV.15 and IV.16 above)
24. **"National Pollutant Discharge Elimination System"** the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 402, 318, and 405 of the Clean Water Act
25. **"POTW"** Publicly Owned Treatment Works; a treatment works (see Part IV.29 below) which is owned by a state or municipality
26. **"Reduction of $CBOD_5$/BOD_5 and TSS Formula"** [(Influent – Effluent) / Influent] × 100
27. **"Severe property damage"** substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass; does not include economic loss caused by delays in products
28. **"Sewage sludge"** the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW; any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW
29. **"Treatment works"** any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes, of a liquid nature to implement section 201 of the Act, or necessary to recycle reuse water at the most economic cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities, and any works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment
30. **Units of Measure:**
    "cfs" cubic feet per second
    "µg/l" micrograms per liter or parts per billion (ppb)
    "MGD" million gallons per day
    "mg/l" milligrams per liter or parts per million (ppm)
    "ppm" parts per million
    "s.u." standard units
31. **"Upset"** an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee; does not include noncompliance to the extent caused

by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless, or improper operations

32. **"Visible sheen"** the presence of a film or sheen upon or a discoloration of the surface of the discharge; a sheen can also be from a thin glistening layer of oil on the surface of the discharge
33. **"Weekday"** Monday – Friday.

Final Statement of Basis

This Statement of Basis is for information and justification of the permit requirements only. Please note that it is not enforceable. This permitting decision is for renewal of the discharge Permit Number AR0020001 with Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ) Arkansas Facility Identification Number (AFIN) 34-00059 to discharge to Waters of the State.

1. PERMITTING AUTHORITY

The issuing office is:

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

2. APPLICANT

The applicant's mailing address is:

City of Tuckerman Wastewater Treatment Plant
P.O. Box 1068
Tuckerman, AR 72473

The facility address is:

City of Tuckerman Wastewater Treatment Plant
Allen Street
Tuckerman, AR 72473

3. PREPARED BY

The permit was prepared by:

Terry Liu, P.E.
Staff Engineer
NPDES Discharge Permits Section
Office of Water Quality
(501) 682-0653
Email: liu@adeq.state.ar.us

Jessica Sears, P.E.
Engineer Supervisor
NPDES Discharge Permits Section
Office of Water Quality
(501) 682-0621
Email: jessica.sears@adeq.state.ar.us

4. PERMIT ACTIVITY

Previous Permit Effective Date:	July 1, 2016
Previous Permit Expiration Date:	June 30, 2021

The permittee submitted a permit renewal application on December 23, 2020, with all additional information received by December 28, 2020. The current discharge permit is being

reissued for a 5-year term in accordance with regulations promulgated at 40 C.F.R. § 122.46(a).

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

APC&EC - Arkansas Pollution Control and Ecology Commission
BAT - best available technology economically achievable
BCT - best conventional pollutant control technology
BMP - best management practice
BOD_5 - five-day biochemical oxygen demand
BPJ - best professional judgment
BPT - best practicable control technology currently available
$CBOD_5$ - carbonaceous biochemical oxygen demand
CD - critical dilution
C.F.R. - Code of Federal Regulations
cfs - cubic feet per second
COD - chemical oxygen demand
COE - United States Corp of Engineers
CPP - continuing planning process
CWA - Clean Water Act
DMR - discharge monitoring report
DO - dissolved oxygen
ELG - effluent limitation guidelines
EPA - United States Environmental Protection Agency
ESA - Endangered Species Act
FCB - fecal coliform bacteria
gpm - gallons per minute
MGD - million gallons per day
MQL - minimum quantification level
NAICS - North American Industry Classification System
NH_3-N - ammonia nitrogen
$NO_3 + NO_2$-N - nitrate + nitrite nitrogen
NPDES - National Pollutant Discharge Elimination System
O&G - oil and grease
Rule 2 - APC&EC Rule 2
Rule 6 - APC&EC Rule 6
Rule 8 - APC&EC Rule 8
Rule 9 - APC&EC Rule 9
RP - reasonable potential
SIC - standard industrial classification
SSO - sanitary sewer overflow
TDS - total dissolved solids
TMDL - total maximum daily load
TP - total phosphorus

TRC - total residual chlorine
TSS - total suspended solids
UAA - use attainability analysis
USF&WS - United States Fish and Wildlife Service
USGS - United States Geological Survey
WET - whole effluent toxicity
WQMP - water quality management plan
WQS - Water Quality standards
WWTP - wastewater treatment plant

Compliance and Enforcement History:

The compliance and enforcement history for this facility can be reviewed by using the following web link:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0020001_Compliance%20Review_20210112.pdf

5. SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT

The permittee is responsible for carefully reading the permit in detail and becoming familiar with all of the changes therein:

1. The mailing address was removed from the cover page.
2. $CBOD_5$ limits were updated due to a change in rounding procedures.
3. The NH_3-N 7-day average limit for the months of May-October was updated based on Rule 2.512.
4. The year-round instantaneous minimum limit for DO is revised from 2.0 mg/l to 3.0 mg/l. See Item No. 12.A of this Statement of Basis for further information.
5. TRC effluent limits were included in Part IA with a schedule of compliance in Part IB of this permit. See Item No. 12.A of this Statement of Basis for further information.
6. This facility will be required to have at least a Class III operator in Part II.1. No schedule of compliance is included since the operator has the appropriate license.
7. The requirement to monitor the influent $CBOD_5$ and TSS in Part II.2 of the previous permit was removed from this permit.
8. The Sanitary Sewer Overflows (SSOs) reporting condition was revised in Part II.6.
9. The sludge disposal condition, Part II.8 in the previous permit, was removed from the permit. Sludge disposal is addressed in Part III.B.6 of the permit.
10. TRC testing requirement was include in Part II.9.
11. The monitoring frequency reduction condition was included in Part II.10.
12. The installation of the USGS stream gage equipment in Part II.9.D of the previous permit was removed.
13. Part III.C.5 of the permit now requires that DMRs be submitted electronically via NetDMR.
14. Twenty-four hour report condition was revised in Part III.D.6.
15. The discharge of toxic substances condition was revised in Part III.D.8.
16. Other Information in Part III.D.14 was included in the permit.

6. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION

The outfall is located at the following coordinates based on the renewal application and verified with Google Earth using WGS84:

Latitude: 35° 43’ 08.9” N; Longitude: 91° 11’ 13.7” W

The receiving waters named:

Tuckerman Ditch, thence to Village Creek, thence to the White River in Segment 4C of the White River Basin. The receiving stream with assessment unit of AR_11010013_006 (the closest stream with an assigned reach number is Village Creek) is a Water of the State classified for secondary contact recreation, raw water source for domestic (public and private), industrial, and agricultural water supplies; propagation of desirable species of fish and other aquatic life; and other compatible uses.

7. 303(d) LIST, TOTAL MAXIMUM DAILY LOADS, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS

A. 303(d) List

The receiving stream is not listed on the 2018 303(d) list. However, the discharge travels approximately 1.5 miles in Tuckerman Ditch before the confluence with assessment unit AR_11010013_006 of Village Creek. Village Creek is on the 2018 303(d) list in category 5 for dissolved oxygen (DO). Since this permit already contains a DO limit along with limits on oxygen demanding parameters, no further permit action is required at this time.

B. Applicable Total Maximum Daily Load (TMDL) Reports

A TMDL report entitled “TMDLs for Turbidity for Village Creek, AR” was completed by FTN Associates, Ltd. on January 6, 2006. The report states that “the wasteload allocation (WLA) for the point sources was set to zero because the surrogate being used for turbidity (TSS) is considered to represent inorganic suspended solids (i.e., soil and sediment particles from erosion or sediment resuspension). The suspended solids discharged by point sources in the study area are assumed to consist primarily of organic solids rather than inorganic solids. Discharges of organic suspended solids from point sources are already addressed by DEQ through their permitting of point sources to maintain water quality standards for dissolved oxygen.” Since the facility currently has effluent limits for TSS, no further permitting action is required at this time.

C. Endangered Species

No comments on the application were received from the USF&WS. The draft permit and Statement of Basis were sent to the USF&WS for their review.

D. **Anti-Degradation**

The limitations and requirements set forth in this permit for discharge into waters of the State are consistent with the Anti-degradation Policy and all other applicable water quality standards found in APC&EC Rule 2.

8. **OUTFALL, TREATMENT PROCESS DESCRIPTION, AND FACILITY CONSTRUCTION**

The following is a description of the facility described in the application:

A. Design Flow: Hydrograph Controlled Release (HCR) with a design flow of 0.22 MGD

B. Type of Treatment: a two-cell facultative pond, polishing pond, recycle pump, coagulant chemical addition, sand filter system, chlorination, and dechlorination

C. Discharge Description: treated municipal wastewater

D. Facility Status: This facility is classified as a minor municipal since the design flow of the facility listed above is less than 1.0 MGD.

E. Facility Construction: This permit does not authorize or approve the construction or modification of any part of the treatment system or facilities. Approval for such construction must be by permit issued under Rule 6.202.

9. **ACTIVITY**

Under the Standard Industrial Classification (SIC) code of 4952 or North American Industry Classification System (NAICS) code of 221320, the applicant's activities are the operation of a sewage treatment plant.

10. **INDUSTRIAL WASTEWATER CONTRIBUTIONS**

Currently, it does not appear the facility receives process wastewater from any significant industrial users as defined by 40 C.F.R. § 403.3(v). In accordance with 40 C.F.R. §§ 403.5(a)(1) and (b), General and Specific Pretreatment Prohibitions and reporting requirements are deemed appropriate at this time.

11. **SEWAGE SLUDGE PRACTICES**

Sludge accumulates in the lagoons. Any change to the sludge disposal method shall be in accordance with Part III.B.6 of the permit.

12. **DEVELOPMENT AND BASIS FOR PERMIT CONDITIONS**

The Division of Environmental Quality has determined to issue a permit for the discharge described in the application. Permit requirements are based on federal regulations (40 C.F.R. Parts 122, 124, and Subchapter N), the National Pretreatment Regulation in 40 C.F.R. Part

403 and regulations promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.). All of the information contained in the application, including all of the submitted effluent testing data, was reviewed to determine the need for effluent limits and other permit requirements.

The following is an explanation of the derivation of the conditions of the permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons suggesting the decisions as required under 40 C.F.R. § 124.7.

Technology-Based Versus Water Quality-Based Effluent Limitations and Conditions

Following regulations promulgated at 40 C.F.R. § 122.44, the permit limits are based on either technology-based effluent limits pursuant to 40 C.F.R. § 122.44(a) or on State water quality standards and requirements pursuant to 40 C.F.R. § 122.44(d), whichever are more stringent as follows:

Parameter	Water Quality-Based		Technology-Based/BPJ		Previous Permit		Permit Limit	
	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l	Monthly Avg. mg/l	7-day Avg. mg/l
Flow, as a percentage of Upstream Flow (Max Daily Avg.)								
(May – October)	N/A	70%	N/A	N/A	N/A	70%	N/A	70%
(November – April)	N/A	35%	N/A	N/A	N/A	35%	N/A	35%
$CBOD_5$	20	30	25	40	20.0	30.0	20	30
TSS	N/A	N/A	30.0	45.0	30.0	45.0	30.0	45.0
NH_3-N								
(April)	14.9	14.9	N/A	N/A	14.9	14.9	14.9	14.9
(May – October)	10.0	10.1	N/A	N/A	10.0	15.0	10.0	10.1
(November – March)	15.0	22.5	N/A	N/A	15.0	22.5	15.0	22.5
DO	3.0 (Inst. Min.)		N/A		2.0 (Inst. Min.)		3.0 (Inst. Min.)	
FCB (col/100 ml)	1000	2000	N/A	N/A	1000	2000	1000	2000
TRC								
(May – October)	0.022 (Inst. Max.)		N/A		Report (Inst. Max.)		0.022 (Inst. Max.)	
(November – April)	0.032 (Inst. Max.)		N/A		Report (Inst. Max.)		0.032 (Inst. Max.)	
pH	6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.		6.0-9.0 s.u.	

A. **Justification for Limitations and Conditions of the Final Permit**

Parameter	Water Quality or Technology	Justification
Discharge Flow as % of Upstream Flow	Water Quality	Water Quality Model dated March 31, 2021, CWA § 402(o), and previous permit
$CBOD_5$	Water Quality	Water Quality Model dated March 31, 2021, CWA § 402(o), and previous permit
TSS	Technology	40 C.F.R. § 133.102(b), 40 C.F.R. § 122.44(l), and previous permit
NH_3-N	Water Quality	Rule 2.512, Water Quality Model dated March 31, 2021, CWA § 402(o), and previous permit
DO	Water Quality	Rule 2.505, Water Quality Model dated March 31, 2021, CWA § 402(o), and previous permit
FCB	Water Quality	Rule 2.507, CWA § 402(o), and previous permit
TRC	Water Quality	Rule 2.409, CWA § 402(o), and previous permit
pH	Water Quality	Rule 2.504, CWA § 402(o), and previous permit

TSS

To be eligible for discharge limitations based on treatment equivalent to secondary standards, the POTW must meet the three criteria listed in 40 C.F.R. § 133.101(g). Based on the reported DMR data, the maximum value for the 30-day average effluent for the POTW was found to be 22.5 mg/l since November of 2019. The minimum level of effluent quality attainable by secondary treatment in terms of TSS, listed in 40 C.F.R. § 133.102(b)(1), is 30.0 mg/l. This demonstrates that the TSS effluent concentrations, through proper operation and maintenance, do not consistently exceed the secondary treatment standards set in 40 C.F.R. § 133.102. Therefore, the TSS limits in the previous permit will be continued.

NH_3-N

Based on the toxicity calculations, the NH_3-N limits have been revised from 15.0 to 10.1 mg/l for the 7-day average during the months of May – October in accordance with Rule 2.512

DO

Based on the updated modeling analysis, the year-round instantaneous minimum limit is revised from 2.0 mg/l to 3.0 mg/l in order to meet water quality standards in the receiving stream.

TRC

EPA considers concentrations at the edge of the mixing zone higher than 0.011 mg/l (Chronic Criterion) or 0.019 mg/l (Acute Criterion) to be toxic to aquatic organisms. A review of the TRC data submitted during the previous permit term show the average TRC value of 0.512 mg/l. Toxicity calculations, using the currently permitted HCR flow restrictions for critical and primary seasons, show that the Chronic Toxicity Criteria will be exceeded if the concentration of TRC in the discharge exceeds 0.022 mg/l during May – October and 0.032 mg/l during November – April. A link to the TRC evaluation spreadsheet is included below.

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0020001_Toxicity-Based%20TRC%20Calculations_20210127.pdf

Since the effluent level of TRC is higher than EPA's Chronic Toxicity Criteria, the discharge has the reasonable potential (RP) to violate the water quality criteria. Therefore, the Division must include TRC requirements in the permit to comply with APCEC Rule 2.409 which forbids the discharge of toxic pollutants in amounts which are toxic. A TRC limit based on meeting the EPA criteria in the receiving stream has been included in the permit with a schedule of compliance.

The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC shall be measured within fifteen (15) minutes of sampling. To demonstrate compliance with the TRC limit, the permittee must determine the effluent concentration by using any EPA approved test method established in 40 C.F.R. Part 136 capable of meeting a detection level of 0.033 mg/l or lower. If TRC is not detected at the required detection level (i.e., lab result is "ND"), the permittee may report a value of "0" on the Discharge Monitoring Report (DMR) thereby demonstrating compliance with the limit. Please note that if the required detection level is not met, TRC must be reported at the detection level achieved.

B. Anti-backsliding

The permit is consistent with the requirements to meet Anti-backsliding provisions of the Clean Water Act (CWA), Section 402(o) [40 C.F.R. § 122.44(l)]. The final effluent limitations for reissuance permits must be as stringent as those in the previous permit, unless the less stringent limitations can be justified using exceptions listed in CWA 402(o)(2), CWA 303(d)(4), or 40 C.F.R. § 122.44(l)(2)(i).

The permit meets or exceeds the requirements of the previous permit.

C. Limits Calculations

1. Mass Limits:

   The facility discharges via Hydrograph Controlled Release (HCR). Per this discharge method, the discharge flow is dependent on stream flow. The stream flow and thus

the discharge flow are never constant. Due to this variability in discharge flows, mass limits have not been included

2. 7-Day Average Limits:

The 7-day average limits for NH_3-N (November through March) and $CBOD_5$ are based on Section 5.4.2 of the Technical Support Document for Water Quality-based Toxics Control:

7-day average limits = monthly average limits × 1.5

The 7-day average limit for TSS is based on 40 C.F.R. § 133.102(b)(2).

The 7-day average NH_3-N limits for the months of April through October are based on the requirements of Rule 2.512.

The 7-day average limit for FCB is based on Rule 2.507.

D. **208 Plan (Water Quality Management Plan)**

The 208 Plan, developed by the DEQ under provisions of Section 208 of the federal Clean Water Act, is a comprehensive program to work toward achieving federal water goals in Arkansas. The initial 208 Plan, adopted in 1979, provides for annual updates, but can be revised more often if necessary. The 208 Plan is being revised to add Instantaneous Maximum TRC limits of 0.022 mg/l during May – October and 0.032 mg/l during November – April, and revise the year-round Instantaneous Minimum DO limit from 2.0 mg/l to 3.0 mg/l.

13. **SAMPLE TYPE AND FREQUENCY**

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40 C.F.R. § 122.48(b)] and to ensure compliance with permit limitations [40 C.F.R. § 122.44(i)(l)].

Requirements for sample type and sampling frequency have been based on the previous discharge permit.

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
Flow	daily	instantaneous	daily	instantaneous
Upstream Flow	daily	calculated	daily	calculated
Flow, as percentage of Upstream Flow	daily	calculated	daily	calculated
$CBOD_5$	two/month	grab	two/month	grab
TSS	two/month	grab	two/month	grab

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
NH_3-N	two/month	grab	two/month	grab
DO	two/month	grab	two/month	grab
FCB	two/month	grab	two/month	grab
TRC	once/month	grab	once/month	grab
pH	two/month	grab	two/month	grab

14. **PERMIT COMPLIANCE SCHEDULE**

A Schedule of Compliance has been included in this permit for TRC. Compliance with all permit requirements is required in accordance with the schedule provided in Part IB of the permit. The Division has chosen to exercise its discretion provided for in Rule 2 to allow a three-year Schedule of Compliance for the new limits. Therefore, the TRC limits will be effective three years after the effective date of the permit. In the interim, monitoring and reporting for TRC are required. Additionally, the permittee has the option to undertake any study deemed necessary to meet the final limitations during the interim period. Any additional treatment must be approved and construction approval granted prior to final installation.

15. **MONITORING AND REPORTING**

The applicant is at all times required to monitor the discharge on a regular basis and report the results monthly. The monitoring results will be available to the public.

16. **SOURCES**

The following sources were used to draft the permit:

A. Application No. AR0020001 received December 23, 2020, with all additional information received by December 28, 2020.
B. Arkansas Water Quality Management Plan (WQMP).
C. APC&EC Rule 2.
D. APC&EC Rule 3.
E. APC&EC Rule 6, which incorporates by reference certain federal regulations included in Title 40 of the Code of Federal Regulations at Rule 6.104.
F. 40 C.F.R. Parts 122, 125, 133 and 403.
G. Discharge permit file AR0020001.
H. Discharge Monitoring Reports (DMRs).
I. "2018 Integrated Water Quality Monitoring and Assessment Report," DEQ.
J. "2018 List of Impaired Waterbodies (303(d) List)," DEQ, May 2020.
K. "TMDLs for Turbidity for Village Creek, AR", FTN Associates, Ltd., January 6, 2006.
L. USGS Streamstats web-based program.
M. Continuing Planning Process (CPP).

N. Technical Support Document for Water Quality-based Toxic Control.
O. Inspection Report dated July 29, 2020.
P. Compliance Review Memo from Danielle Harbin to Terry Liu dated January 12, 2021.
Q. Planning Review Memo dated January 26, 2021.
R. Operator License Class Spreadsheet dated January 26, 2021.
S. Water Quality Model dated March 31, 2021.

17. PUBLIC NOTICE

The public notice of the draft permit was published for public comment on September 12, 2021. The last day of the comment period was thirty (30) days after the publication date. No public comments were received on the draft permit.

A copy of the permit and public notice were sent via email to the Corps of Engineers, the Regional Director of the U.S. Fish and Wildlife Service, the Department of Parks, Heritage, and Tourism, the EPA, and the Arkansas Department of Health.

18. PERMIT FEE

In accordance with Rule 9.403(C)(1), the annual fee for the permit is calculated from the Design Flow (Q, in MGD) as follows:

Fee = \$200 + (5,600 × Q) = \$200 + (5,600 × 0.22 MGD) = \$1,432

19. POINT OF CONTACT

For additional information, contact:

Terry Liu, P.E.
Permits Branch, Office of Water Quality
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317
Telephone: (501) 682-0653