ADEQ
MINOR SOURCE AIR PERMIT

Permit #: 2095-A

IS ISSUED TO:

Litte Rock Wastewater - Adams Field
1001 Temple Street
Little Rock, AR  72202
Pulaski
AFIN:  60-02135

THIS PERMIT IS Litte Rock Wastewater - Adams Field’s AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT’S MINOR SOURCE AIR PERMIT AND THE APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 ET SEQ.) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

__________________________________________  ____________________________
Mike Porta                      Date
Interim Chief, Air Division
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Section I: FACILITY INFORMATION

PERMITTEE: Litte Rock Wastewater - Adams Field

AFIN: 60-02135

PERMIT NUMBER: 2095-A

FACILITY ADDRESS: 1001 Temple Street
                  Little Rock, AR  72202

COUNTY: Pulaski

CONTACT PERSON: Lynn Hyke

CONTACT POSITION 2095-A

TELEPHONE NUMBER: 501-688-1526

REVIEWING ENGINEER: Kimberly O'Guinn

UTM Zone 15

UTM North-South (Y): Zone 15

UTM East-West (X): Zone 15
Section II: INTRODUCTION

Summary

Little Rock Wastewater Utility (LRWU) operates Adams Field Treatment Plant located in Little Rock, AR. LRWU is planning improvements to its Adams Field Wastewater Treatment Plant which include the addition of a standby generator and three (3) odor control towers. The odor control equipment will capture and remove \( \text{H}_2\text{S} \) from incoming sewage that is released into the atmosphere. The standby generator will provide emergency power in the case of loss of service. This permit is the initial permit for the existing facility.

Process Description

Odor Control Unit

Incoming Sewage contains hydrogen sulfide from the partial decomposition of the sewage in the collection system prior to reaching the waste water treatment plant. This condition is more pronounced in the summer months when the temperature is higher and the sewage volume is reduced. This reduced flow results in an increased travel time in the collection system, which allows more time for anaerobic conditions to become established and the production of \( \text{H}_2\text{S} \) to increase. During this period, the utility plans to operate the odor control system continuously.

During the colder, wetter months, the travel time is shorter and the temperatures are cooler resulting in much less production of \( \text{H}_2\text{S} \) in the collection system. After gaining some operational experience, the utility may shut down part or all of the odor control system during these periods. In this scenario, any incoming \( \text{H}_2\text{S} \) would be released as fugitive emissions, which has been the case since the beginning of operations in the 1960’s.

Three (3) identical Bioway Purspring 10000 units (SN-01) will be installed in parallel to treat air associated with incoming raw sewage. The air will be collected from the Raw Sewage Pump Station Wet Well, the Preliminary Treatment Building, the Influent Screen Chamber, and the Septic/Vacuator Holding Tank.

The incoming air will contain between 40 ppmv and 100 ppmv \( \text{H}_2\text{S} \). It will be collected and routed to three 40 ft high, 12 ½ ft diameter stacked towers. Each tower contains two (2) layers of media and is equipped with a top water spray. The water is provided from the make-up water pumps which draw water from the final clarifier effluent (W-3 water).

As the air passes over the media it \( \text{(H}_2\text{S)} \) passes through the aqueous phase. Subsequently, the microorganisms present on the media degrade the compounds. The recirculated wastewater provides the nutrients for the microorganisms.

Standby Generator

A 1,750 kW standby generator is also being installed. The generator will be fired with No. 2 diesel. Diesel fuel will be stored in a 7,000 gallon tank located above grade, immediately beneath the generator. The generator, (SN-02) is an insignificant activity pursuant to Regulation No. 19, Appendix A, Group A, #1 and #13.
Regulations

The facility is subject to regulations under the *Arkansas Air Pollution Control Code* (Air Code). The following table is a summary of the facility's total emissions.

**Table 1 - Total Allowable Emissions**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emissions Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb/hr</td>
</tr>
<tr>
<td>H$_2$S</td>
<td>0.2</td>
</tr>
</tbody>
</table>
Section III: PERMIT HISTORY

Permit #2095-A is the initial permit for this facility.
Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee will not exceed the emission rates set forth in the following table. [§18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999 (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

<table>
<thead>
<tr>
<th>SN</th>
<th>Description</th>
<th>Pollutant</th>
<th>lb/hr</th>
<th>tpy</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Odor Control Scrubber (Total for 3 Units)</td>
<td>H$_2$S</td>
<td>0.2</td>
<td>0.7</td>
</tr>
</tbody>
</table>

2. The permittee will not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-31]

3. The permittee will not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [§18.901 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

4. The permittee shall maintain a water flow through the scrubbers at a minimum of 40 gallons per minute total. The water flow shall be measured and recorded at least once per 24-hour shift. [§18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

5. The permittee shall maintain records which demonstrate compliance with Specific Condition #4. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. [§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

6. The permittee shall maintain and operate the scrubber in serviceable condition as prescribed by the manufacturer during the operation of this plant. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
Section V: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated April 22, 2005.

Table 3 - Insignificant Activities

<table>
<thead>
<tr>
<th>Description</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,750 kW Standby Generator</td>
<td>A-13</td>
</tr>
<tr>
<td>7,000 gal diesel tank</td>
<td>A-1</td>
</tr>
</tbody>
</table>
Section VI: GENERAL CONDITIONS

1. Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.

2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

3. The permittee will notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [§19.704 of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19) and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [§19.410(B) of Regulation 19 and/or §18.309(B) of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit; such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
7. The permittee will test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start-up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

8. The permittee will provide: [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
   a. Sampling ports adequate for applicable test methods;
   b. Safe sampling platforms;
   c. Safe access to sampling platforms;
   d. Utilities for sampling and testing equipment.

9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [§19.303 of Regulation 19 and/or §18.1104 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [§19.601 of Regulation 19 and/or §18.1101 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
   a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.
   b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
   c. The permittee must submit to the Department, within five business days after the
occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.

11. The permittee will allow representatives of the Department upon the presentation of credentials: [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
   a. To enter upon the permittee’s premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
   b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
   c. To inspect any monitoring equipment or monitoring method required in this permit;
   d. To sample any emission of pollutants; and
   e. To perform an operation and maintenance inspection of the permitted source.

12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [§19.410(A) of Regulation 19 and/or §18.309(A) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated §8-1-106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or, deliberate falsification or omission of relevant information. [§19.407(B) of Regulation 19 and/or §18.307(B) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
17. This permit supersedes and voids all previously issued air permits for this facility. [Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A §8-1-105(c)]