DIVISION OF
ENVIRONMENTAL QUALITY

Sarah Huckabee Sanders
GOVERNOR
Shane E. Khoury
SECRETARY

July 1, 2024

Donna McChristian, Laboratory Director
Paul R. Noland WWTP
1400 North Fox Hunter Rd
Fayetteville, AR 72701

RE: Paul R. Noland WWTP Laboratory Data Audit
AFIN: 72-00102 Permit No.: AR0020010

Dear Ms. McChristian,

Division of Environmental Quality (DEQ) performed a laboratory data audit of the Paul R. Noland WWTP, 14oo North Fox Hunter Rd, Fayetteville, Arkansas in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the rules promulgated thereunder. The Laboratory Audit Report details eleven (11) findings that need to be addressed and nine (9) recommendations for your consideration to help the laboratory function more efficiently and improve recordkeeping.

Please provide a written response to each finding that includes, but is not limited to,

- The corrective action to be taken,
- The estimated time to complete the corrective action,
- And a demonstration, if necessary, that the corrective action was sufficient to resolve the deficiency.

The corrective action response is due by July 31, 2024, and may be emailed to WaterLab@adeq.state.ar.us.

If you have any questions, please contact Lessie Redican at 501-682-0937 or by email at lessie.redican@adeq.state.ar.us or Stacie Wassell by email at Stacie.wassell@adeq.state.ar.us.

Sincerely,

Lessie Redican

Lessie Redican,
Laboratory Branch Manager, Office of Water Quality
Division of Environmental Quality

Cc: Richard Healy, Enforcement Branch Manager, Office of Water Quality
Jason Bolenbaugh, Compliance Manager, Office of Water Quality
Stacie Wassell. Associate Director, Office of Water Quality

ENVIRONMENTAL QUALITY

LABORATORY DATA AUDIT REPORT

Paul R. Noland WWTP
Permit Number: AR0020010

Introduction

The Arkansas Department of Energy and Environment Division of Environmental Quality (DEQ), Office of Water Quality Laboratory conducted a data audit of the Paul R. Noland WWTP in-house laboratory (Pemittee) pursuant to the Part III, Section B, Condition 1 and Part III, Section C, Condition 3 of Permit AR0000591 and 40 C. F. R. § 136. The purpose of the audit was to verify that Permittee is complying with Part III, Section B, Condition 1 and Part III, Section C, Condition 3 of Permit AR0022365 and 40 C. F. R. § 136, and correctly implementing approved analytical methods, including acceptable quality control, and maintaining adequate laboratory documentation.

DEQ performed a data document audit and reviewed documents submitted by Permittee. The findings and recommendations are set forth below.

This Laboratory Audit Report reports only on the documents submitted to DEQ for review. This report may not include all deficiencies in the provided documents. No representation is made as to any documents not specifically commented upon.

Summary of Findings and Recommendations

	Findings	Recommendations
General Recordkeeping	1	1
Dissolved Oxygen	1	2
Ammonia	1	0
CBOD	0	1
pH	1	1
Fecal Coliform	2	2
TSS and TDS	2	1
T. Phosphorus	1	1
Calibration Records	1	0
DMRQA	1	0
TOTAL	11	9

I. General Recordkeeping

During the laboratory data audit, DEQ noted one (1) finding and one (1) recommendation. The finding was common to most of the analyses, but only included in General Recordkeeping to avoid repetitive findings.

#		Description	Correction Date	Completion Date
1.	Finding	Standard Methods QAQC for Method Blanks is that the Method Blank be less than half the Reporting Limit, and that a Minimum Reporting Limit standard be analyzed with each batch of 20 or less samples. The recovery of the MRL standard is +/- 50%. Revise any affected SOPs to reflect these requirements.		
2.	Recommendation	With MUR 2023 in effect June 17, 2024, it is time to update the Method References to meet the changes in 40 CFR 136.	January 1, 2025	

II. Analysis: Dissolved Oxygen (DO)

During the laboratory data audit, DEQ noted one (1) finding and two (2) recommendations.

#		Description	Correction Date	Competition Date
3.	Finding	QC elements, #3: A Proficiency Test needs to be added annually for DO.		
4.	Recommendation	Procedure: Is there a warmup time for the meter before calibration? When the probe has been out of use for an extended period, define “an extended period”.		
5.	Recommendation	Maintenance: how do you keep up with when to replace the probe cap? Is there an indication that it might need to be done sooner than 365 days?		

III. Analysis: Ammonia

During the laboratory data audit, DEQ noted one (1) finding.

#		Description	Correction Date	Competition Date
6.	Finding	No indication of distillation before analysis as required by 40 CFR 136, unless there is a comparability study on file to show distillation is not needed for each sample type.		

ENVIRONMENTAL QUALITY

IV. Analysis: Carbonaceous Biochemical Demand ($CBOD_5$)

During the laboratory data audit, DEQ noted no findings and one (1) recommendation.

		Description	Correction Date	Competition Date
7.	Recommendation	Format SOP such that bullet points are not used. This will make each chemical and reagent easier to identify. Add specifications to the chemicals such as ACS grade or ultrapure. Vendor part numbers make reordering easier, but be sure to include “or equivalent” to avoid having to revise the SOP in case of a vendor change.		

V. Analysis: pH

During the laboratory data audit, DEQ noted one (1) finding and one (1) recommendation.

#		Description	Correction Date	Competition Date
8.	Finding	Lacks Lot numbers and/or expiration dates for calibration buffers and QC check buffer.		
9.	Recommendation	Establish a maintenance logbook for pH probe cleaning and maintenance.		

VI. Analysis: Fecal Coliform Bacteria

During the laboratory data audit, DEQ noted two (2) findings and two (2) recommendations.

#		Description	Correction Date	Competition Date
10.	Finding	Remove the example calculations for TSS and VSS from section 8. Include how to read the IDEXX MPN table.		
11.	Finding	A method blank and a known quantity laboratory control should be analyzed with each batch.		
12.	Recommendation	Add a copy of the Quanti-Tray 2000 MPN table as an attachment to the SOP.		
13.	Recommendation	Modify Section 9, 6b to reflect that change in QC requirements.		

ENVIRONMENTAL QUALITY

VII. Analysis: Total Suspended Solids (TSS) and Total Dissolved Solids (TDS)

During the laboratory data audit, DEQ noted two (2) findings and one (1) recommendation.

#		Description	Correction Date	Competition Date
14.	Finding	No indication of daily calibration checks of analytical balance before use.		
15.	Finding	Contradiction in QC for TSS and TDS, check Quality Control sections vs. Reagents.		
16.	Recommendation	Add pore size to glass fiber filter description to assure the filters and data remain consistent.		

VIII. Analysis: Total Phosphorus

During the laboratory data audit, DEQ noted one (1) finding and one (1) recommendation.

#		Description	Correction Date	Competition Date
17..	Finding	SOP lists a reagent required as an Internal Standard that is a DMR/WP known. Should this be a LCS standard? Also, the Quality Control section (10) says that Internal Standards are not applicable to the method.		
18.	Recommendation	As in the CBOD SOP, a format change to eliminate bullet points should be considered.		

IX. Calibration Records

During the laboratory data audit, DEQ noted one (1) finding.

#		Description	Correction Date	Competition Date
19.	Finding	Accuracy Certificates do not indicate annual re-certification of thermometers and weights against NIST traceable units.		

X. Proficiency / DMRQA Records

During the laboratory data audit, DEQ noted one (1) finding.

#		Description	Correction Date	Competition Date
20..	Finding	Need to add a proficiency test for Dissolved Oxygen.		

XI. Training Logs No findings or Recommendations.
XII. Bench Sheets and Data No findings or Recommendations.
XIII. QA Records No findings or Recommendations.
XIV. Sample collection No findings or Recommendations.
XV. Flow Measurements No findings or Recommendations.