



FREQUENTLY ASKED QUESTIONS

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Division of Water Resources

2014 Toxicology Workshop
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PRESENTATION GOALS

- Program Update – Reorganization, Staffing, Rules Review
- Frequently Asked Questions
- Common Findings
- What to Expect in an Inspection
- Field Parameter Documentation Requirements
- Questions



REORGANIZATION

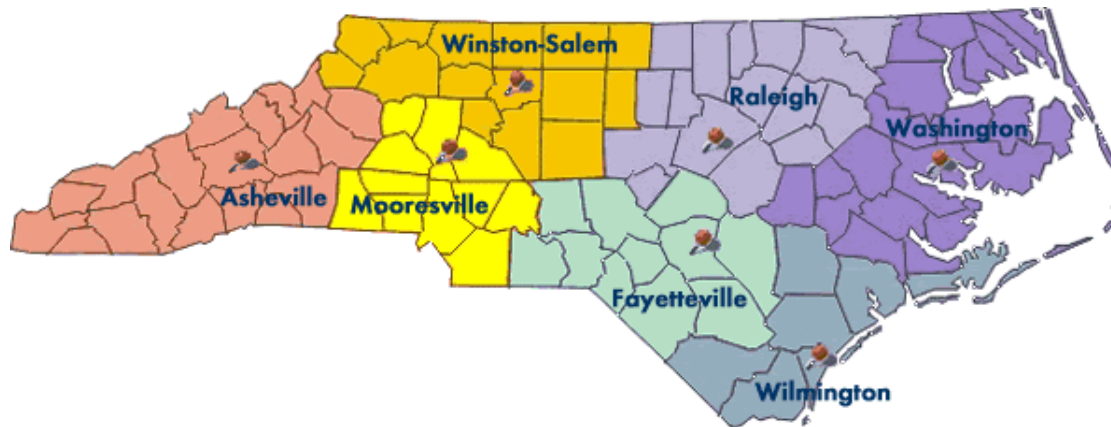


- The Division of Water Quality (DWQ) merged with the Division of Water Resources (DWR) and will be known as the **Division of Water Resources** now.
- The Laboratory Section merged with the Environmental Sciences Section and will be known as the **Water Sciences Section (WSS)**.
- **Ms. Dianne Reid** is the new WSS Section Chief.
- The **Laboratory Certification Branch** is in the Water Sciences Section.



NC WW/GW LC PROGRAM

- There are currently 5 auditors (down from 8) and 1 vacancy (the program has lost 4 positions total over the last 3 years).
- The program is fee funded.
- Certifies approximately **700 laboratories** reporting analytical results to the Department.



- Auditors are generally assigned to laboratories by region.



RULES REVIEW

- **House Bill 74 and Regulatory Reform Act** – among other items, proposed a mandate that all rules expire within ten years of their effective dates, unless readopted.
- **N.C. Gen. Stat. §150B-21.3A**, adopted in 2013, requires state agencies to review existing rules **every 10 years**.
- An initial review will be completed during the next five years, and thereafter rules will be reviewed on a 10-year review cycle.
- The Laboratory Certification Rule [15A NCAC 2H .0800] is to be reviewed in **October, 2014**. Will invite public comment for 60 days.



RULES REVIEW

The Department is required to evaluate each of the existing rules and make an initial determination from one of these three classifications:

- **Necessary with substantive public interest*** – the agency has received public comment on the rule within the past two years or the rule affects the property interest of the regulated public, and the agency knows or suspects that any person may object to the rule.
- **Necessary without substantive public interest** – the agency determines that the rule is needed, and the rule has not had public comment in the last two years. This category includes rules that identify information that is readily available to the public, such as an address or telephone number.
- **Unnecessary** – the agency determines that the rule is obsolete, redundant or otherwise not needed.

***This was the Department's initial classification for most of the rules in 15A NCAC 2H .0800.**



RULES REVIEW

- After receiving public comments, the agency will submit a final classification and a report of responses to each objection to a rule classification to the **Rules Review Commission (RRC)**. The report will be posted on the RRC and Office of Administrative Hearings (OAH) websites.
- The RRC will review the final classification and, if it agrees, will send a report to the **Joint Legislative Administrative Procedure Oversight (APO) Committee** at the General Assembly (GA). They will:
 - Finalize
 - Finalized 61st day if APO does not meet
 - Recommend to GA a further review the next year



RULES REVIEW

- “**Unnecessary**” rules will be removed from the Code without any further agency action.
- “**Necessary without substantive interest**” rules will remain in the Code.
- “**Necessary with substantive interest**” rules must be readopted as if they are new rules following the permanent rulemaking process set forth in G.S. § 150B.
- If an agency does not readopt a rule, the rule will be removed from the Code.
- If an agency does not conduct a review, the rule will expire and will be removed from the Code unless required to conform or implement federal law.

RULES REVIEW

- If you would like to receive notices regarding rules undergoing rules review that are open for public comment under N.C. Gen. Stat. §150B-21.3A, please subscribe to our **mailing list** here:

<https://lists.ncmail.net/mailman/listinfo/denr.rules>

- The Rules Review Commission will be broadcasting meeting audio of the monthly RRC meeting. To receive this **webcast**, enter the following location in your web browser or click the link:

<http://wms.its.state.nc.us/oahlive>

- **DENR** Rules Review website:

<http://rulesreview.ncdenr.gov/>

- Office of Administrative Hearings (OAH) **Rules Review Commission** website:

<http://www.ncoah.com/rules/RRC.html>



FREQUENTLY ASKED QUESTIONS

- Qualifiers – carry through to DMR
- Process control vs. compliance analyses
- Calibration of meters for the field – home, lab, on site
- Meters – annually vs. 12 months



FREQUENTLY ASKED QUESTIONS

- Record retention - log books, bound, bench sheets, original records
- Records on site – operator log vs. lab data
- PTs – Sept 30 deadline
- Regional office staff checklist
- Field certificate versus Field Parameters – Approved Procedure documents



COMMON FINDINGS

Total Residual Chlorine

- Hach Method ULR 10014 vs. SM 4500 Cl G
 - Filter – must for Hach method, can not for SM
 - Liquid reagents – must for Hach, may for SM
 - Flow-thru cell – must for Hach, may for SM

- Calibration blank – no DPD, used to zero meter

- Reagent blank - contains DPD, required when reagent water is used to prepare standards - prepared daily standards and annual curve verifications. Must be $\leq \frac{1}{2}$ Reporting Limit

- Gel standards
 - Not used for annual curve verification – daily QC check
 - Documentation must link gel standard verification to instrument
 - May be used after manufacturer's expiration date



COMMON FINDINGS

Total Residual Chlorine verifications

Verification should consist of:

- A standard at or below permit limit (equal to the PQL) - REQUIRED
- A standard at the compliance limit (50 ppb)
- One standard between the PQL and compliance limit
- A 200 ppb standard if using gel standards
- A 400 ppb standard to bracket PT samples

EXAMPLE: 10, 20, 50, 200, 400 ppb


Acceptance criteria:

- Standards $\geq 50 \mu\text{g/L}$ must check $\pm 10\%$
- Standards $< 50 \mu\text{g/L}$ must check $\pm 25\%$
- R must be ≥ 0.995

NOTE: Labs are no longer required to analyze a second source standard if using an internal verified curve.

COMMON FINDINGS

Total Residual Chlorine verifications, continued

- Inform the service provider of permit limit for TRC
 - Inform the service provider of standard concentrations to be used for TRC curve verification
 - Submit TRC gel standard for verification
 - Provide documentation requirements
 - Review results - do they meet the proper acceptance criteria
 - Documentation must include:
 - Instrument ID
 - Lab and analyst performing the verification
 - Date of verification
 - Standard traceability
 - Measurements – including Reagent Blank
 - Calculated % recoveries
 - Assigned value of gel standard
- 

COMMON FINDINGS

- Reporting Data Without Proper Certification
- Analysts not following SOPs/SOPs not following the analyst
- Data Not Meeting Regulatory Level
- Incomplete Documentation (empty spaces are an auditor magnet)
- Inadequate system of traceability



COMMON FINDINGS

- Not analyzing PTs in the same manner as environmental samples
- Not documenting the preparation and/or analysis of PTs
- Corrective Action Report not submitted for unacceptable PT results
- Improper error corrections



COMMON FINDINGS

- Not qualifying data that does not meet QC requirements (raw data, client reports and DMRs)
- Not analyzing matrix spikes where required
- Not making proper volume adjustments when analyzing matrix spike duplicates (MSDs) – 1 – 10% rule
- Not evaluating precision and both recoveries for accuracy when MS/MSDs are analyzed



COMMON FINDINGS

- Evaluating QC results (must calculate to evaluate)
- Incorrect TRC Reporting Level
- Incorrect TSS/TDS/TS Reporting Levels
- Reporting zeroes on the DMR
- **Being afraid to ask when you have a question!**



HOW DO I PREPARE FOR AN AUDIT?

- Don't stress!
- Don't be afraid to ask – our job is to help you comply with Rules and methods
- During an audit you have our undivided attention – make use of it
 - Answers to burning questions
 - Recommendations for process improvement
 - Troubleshooting
- A two-way street – I always learn something new on an audit
- Have all records – benchsheets, calibration logs, traceability logs, SOPs, etc.
- Have all field instruments and meters
- Have buffers and reagents available



PRE-AUDIT RESOURCES

- Laboratory Certification Website www.dwqlab.org
- Checklists/Auditor Guides
- 40 CFR Part 136 – Clean Water Act
- Subscribe to the DWQ Lab_Cert Listserv
- Other facilities
- Professional Organizations
- Last Inspection Report
- Request a Technical Assistance Visit
- YOUR ASSIGNED AUDITOR!!!!



FIELD PARAMETERS DOCUMENTATION REQUIREMENTS

- Indelible ink
- Date and time of sample collection
- Sample analysis time
 - One time for collection/analysis for *in-situ* or immediate analyses – pH, TRC, SC, DO, Temperature
- Sample site – facility name, location, ID, etc.
- Collector name or initials



FIELD PARAMETERS DOCUMENTATION REQUIREMENTS

- Meter calibration - including time
- Reagent blank and/or calibration blank – TRC
- True values of calibration standards or buffers
- True value of check standard or buffer
- Value obtained for standard or buffer
- Proper units of measure



FIELD PARAMETERS DOCUMENTATION REQUIREMENTS

- Instrument identification
- Traceability of reagents, standards, consumables, etc.
- Parameter analyzed
- Data qualifiers, when applicable
- Equipment maintenance (recommended)
- Post analysis calibration verifications – pH, TRC, SC, DO – if applicable



QUESTIONS?

ONLY EASY ONES...

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