

# Field-Only Certification

Presented by Frank Hall,  
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# Overview

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# Outline

- What is Laboratory Certification?
- Why Certification?
- Am I a Laboratory?
- What are considered field parameters?
- What do I need to apply?
- Field-only quality control
- What are the deadlines for certification?



# What is Laboratory Certification?

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# What is Laboratory Certification?

- Laboratory certification is a process that provides formal recognition to the managerial and technical competence of a laboratory performing specific analyses defined by a certifying body or environmental program.



# Why Certification?

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# Why Laboratory Certification?

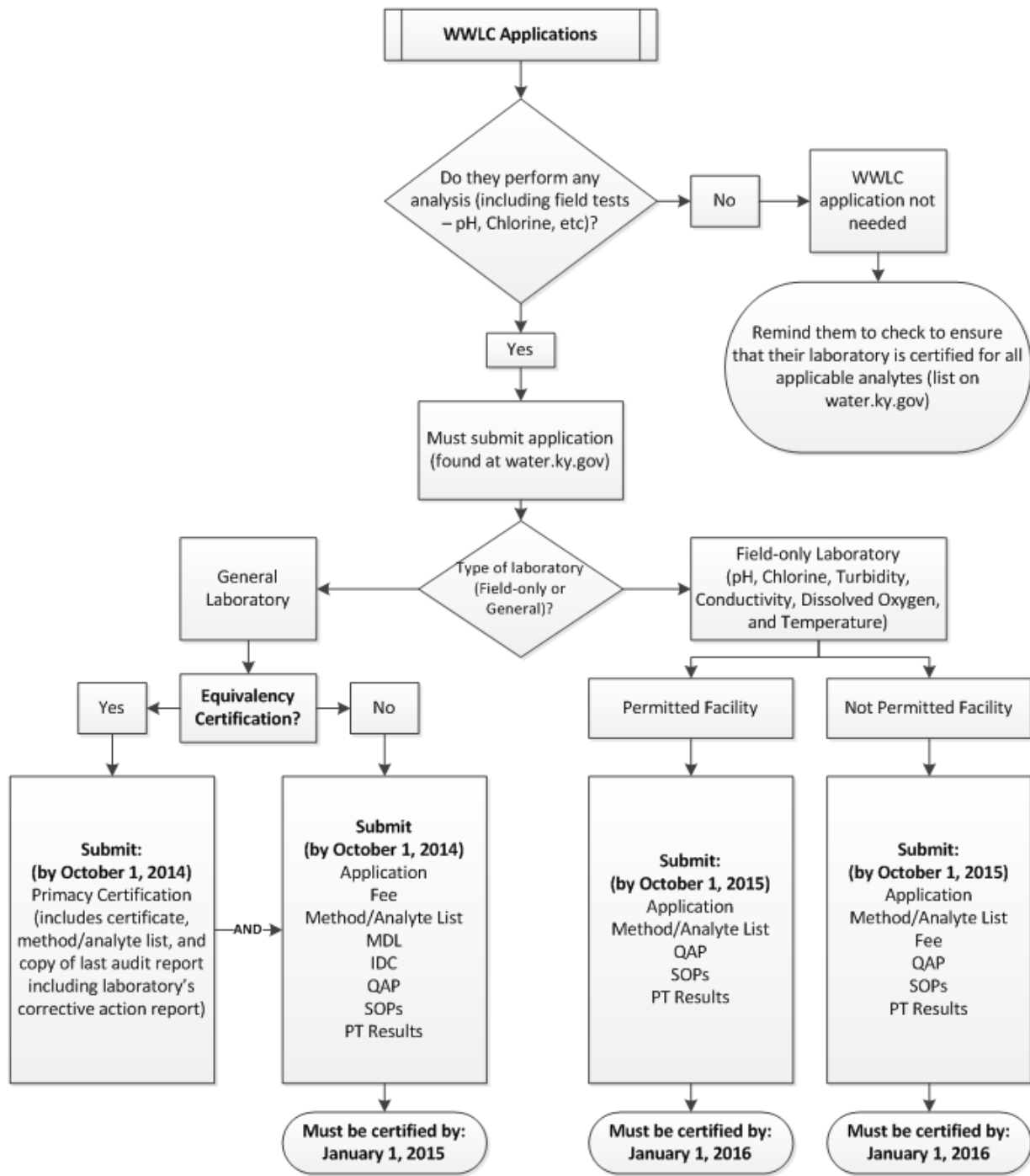
- NOI (Notice of Intent) filed October 7, 2010 regarding coal industry DMR data inconsistencies.
- Performed PAI's (Performance Audit Inspections) that included 27 laboratories performing wastewater analysis to meet the requirements of the KPDES permits.
- Found poor documentation with little to no quality assurance/quality control (QA/QC) being performed.
- There was no uniform standard of quality for the data being produced and no accountability for the laboratories actually performing the work.
- KRS 224.10-670 gave the cabinet the statutory authority to promulgate administrative regulations establishing standards for the operation of laboratories.



**Am I a Laboratory?**

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# Field Parameters

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# Field Parameters

- Short hold time or immediate tests
  - pH
  - Conductivity
  - Turbidity
  - Chlorine
  - Dissolved oxygen
  - Temperature



# Application

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# The Application

- [Water.ky.gov](http://Water.ky.gov)
  - Programs
    - Laboratory Certification
      - Wastewater Lab Certification
        - » KWLCP Application Essentials
        - » KWLCP Application Form



# What needs submitted?

- Application
- Payment
- QAP
- SOPs
- Successful Proficiency Test Study (PT)



**Field-Only QC**

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# QC Requirements

- WWLC
    - Chapter II
  - Field Analysis Quality Control
- 4.3.1 The following quality control measures apply to a certified laboratory performing residual chlorine, pH, conductivity, and turbidity analyses in the field:
- 4.3.1.1 Calibration of instruments shall be performed daily (when in use), using a primary standard;
  - 4.3.1.2 A calibration verification shall be performed daily (when in use) using a second source. This may be accomplished using a secondary standard;
  - 4.3.1.3 A method blank shall be analyzed daily (when in use, excluding pH); and
  - 4.3.1.4 A quality control sample (QCS) shall be analyzed at least quarterly. A purchased second source standard in 4.3.1.2 that is a primary standard meets this requirement and no additional QCS is needed.
- 4.3.2 The following quality control measures apply to a certified laboratory performing dissolved oxygen, residual chlorine, pH, temperature, conductivity, and turbidity analyses in the field:
- 4.3.2.1 Duplicate analysis of samples shall be performed once per batch of twenty samples, at a minimum. Sample batches may extend beyond one day.
- 4.3.3 The following quality control measures apply to a certified laboratory performing in-line or continuous monitoring:
- 4.3.3.1 Analysis of a grab sample shall be performed utilizing an off-line meter once per month, at a minimum. This sample shall be evaluated as a duplicate analysis; and
  - 4.3.3.2 The meter utilized for duplicate analysis shall meet the requirements established in 4.3.1 above.





# PT Requirements

- Proficiency Test Study
  - pH
  - Residual Chlorine
  - Conductivity
  - Turbidity

# QC Summary

	QC							
	MB		CV		QCS		DUP	
	Frequency	Acceptance Criteria *	Frequency	Acceptance Criteria *	Frequency	Acceptance Criteria *	Frequency	Acceptance Criteria
pH	N/A	N/A	Daily	0.1 SU	Qtrly	5%	1/20	20% RPD
Temperature	N/A	N/A	N/A	N/A	N/A	N/A	1/20	20% RPD
Conductivity	Daily	<RL	Daily	10%	Qtrly	10%	1/20	20% RPD
TRC	Daily	<RL	Daily	10%	Qtrly	10%	1/20	20% RPD
Turbidity	Daily	<RL	Daily	10%	Qtrly	10%	1/20	20% RPD
DO	N/A	N/A	N/A	N/A	N/A	N/A	1/20	20% RPD

\* May utilize acceptance criteria off of the manufacture's certificate of analysis.

- If the result are outside of the established acceptance range repeat once, if outside the acceptance range the second analysis do not use the meter and investigate the cause of the problem (i.e. user error, bad standards, etc).



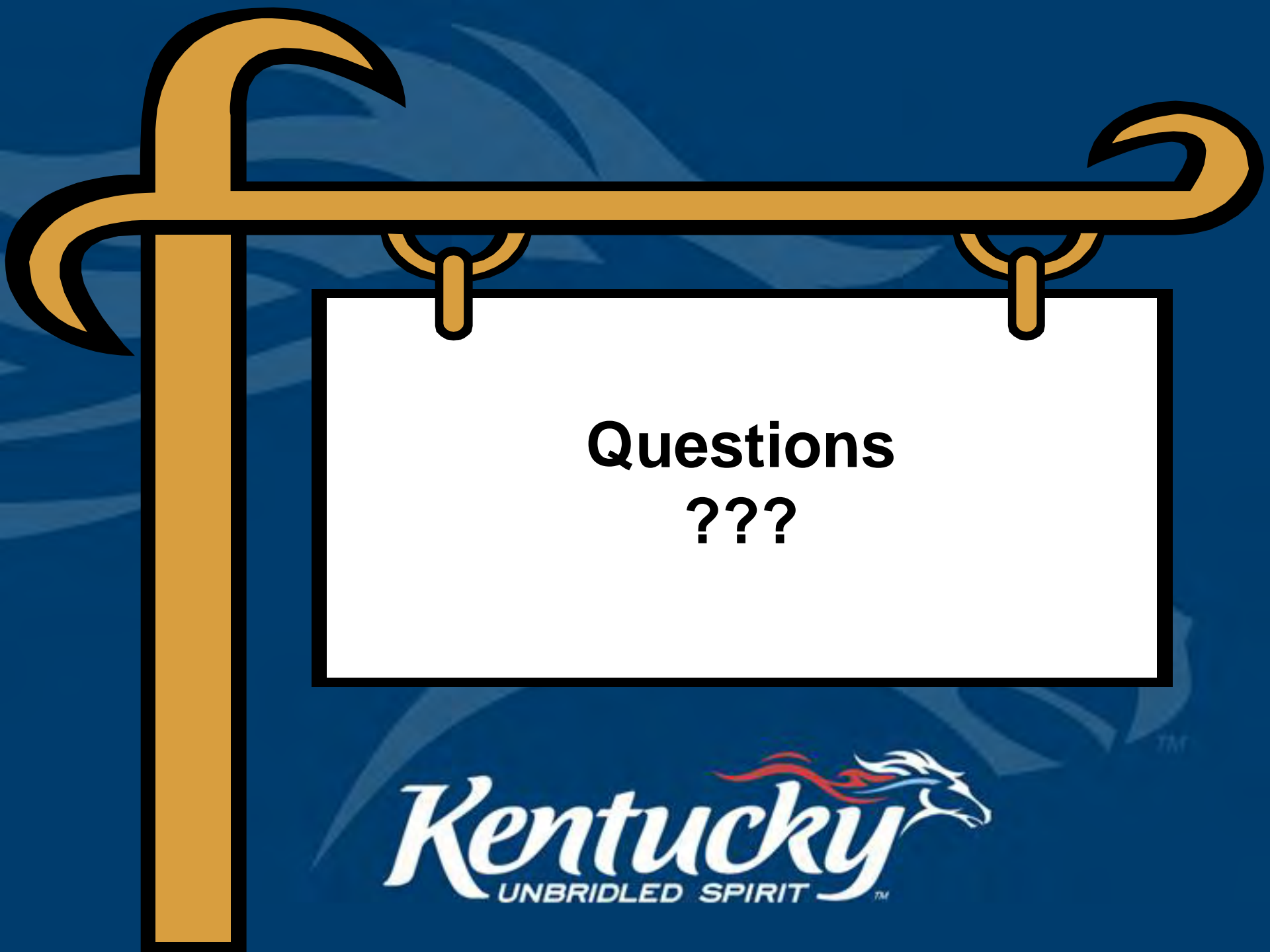
# Deadlines

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# Deadlines

- **General laboratories**
  - Submit application by:
    - **October 1, 2014**
  - Obtain certification by:
    - **January 1, 2015**
- **Field-only laboratories**
  - Submit application by:
    - **October 1, 2015**
  - Obtain certification by:
    - **January 1, 2016**





**Questions  
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# Contact Information

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