



WA Laboratory Accreditation Fundamentals Storm Water 6PPD Sub Group

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The Accreditation Unit

- In BOS Section of EAP
- 2 Microbiology Auditors
- 6 Chemistry Auditors
- 1 Administrative Specialist
- 1 Supervisor





Accreditation Professionals

Rebecca Wood- Supervisor



• Kamilee Ginder- Auditor Organics LC Specialist



Ryan Zboralski- Organics GC Specialist



 Ruth Powers-Piccone- Microbiology Auditor- Western Region



 Jason Gillilan- Microbiology Auditor- Central and Eastern Regions



Accreditation Professionals

Louise White- Administrative Specialist



Daniel Baker- Auditor General Chemistry Specialist



Julia Dolan- Auditor Metals Specialist



Kendra Anderson- Auditor Inorganics Central and Eastern Regions



Andrea Allen-Auditor Inorganics Western Regions



What do these people do all day?

- Accredit 430 Laboratories across the nation
- Process Initial applications
- Annual Renewals
- Technical Reviews
- Audits
- Technical Support



What is Accreditation?

 Accreditation is the formal recognition that a laboratory has the technical competence and the systems in place to perform an identified scope of work, defined by regulations, and is capable of producing accurate and defensible data.

Accreditation Means

The laboratory's quality system, staff, facilities and equipment, test methods, records, and reports have been evaluated.

This evaluation demonstrates that the laboratory has the capability to provide accurate, defensible data.

Why WA Accreditation?

- Ecology Policy 22-02
- Uniquely positioned to understand the specific needs of Ecology and WA DOH





	Chapter 22: External Environmental Operations Executive Policy 22-02			
DEPARTMENT OF ECOLOGY State of Washington				
	Resource Contact:	Quality Assurance Officer	Established:	January 23, 1990
	References:	Chapter 173-50 WAC Ecology Form 070-152 Ecology Form 070-152a	Revisions Effective:	January 28, 2008

Requiring Use of Accredited Environmental Laboratories

Purpose:	To ensure all environmental data used by Ecology for decision making is generated by laboratories capable of providing accurate and legally defensible data, shown by their successful participation in Ecology's Lab Accreditation Program.
Application:	This policy applies to all Ecology employees, represented and non-represented, whenever they order or oversee submitting environmental data to Ecology from a laboratory providing environmental analytical services, or whenever environmental data is submitted to Ecology through a contractual process.

1. Lab Accreditation Unit Oversees Ecology's Lab Accreditation Program.

The Lab Accreditation Unit of the Environmental Assessment (EA) Program is responsible for determining whether a laboratory meets accreditation standards established in Chapter 173-50 of the Washington Administrative Code (WAC). Any laboratory, within or outside the state, may apply for accreditation. The Lab Accreditation Unit will maintain a list of currently accredited labs and the analytical parameters and methods for which each lab is accredited. Ecology employees and other interested parties may request this information from the Lab Accreditation Unit. It is also available by clicking here

(http://www.ecy.wa.gov/programs/eap/labs/documents/AllAccreditedLabListInternet.pdf).

2. Managers Use Accredited Laboratories.

Ecology employees responsible for ordering or overseeing lab services or data submittal to Ecology through regulations, permits, or contractual agreements must ensure the laboratories performing these environmental analyses are accredited by the Lab Accreditation Unit for the specific analytical tests submitted to Ecology.

Applicable environmental data include, but are not limited to, results from analysis of water, sediment, sludge, air, soil, plant and animal tissue, and hazardous waste analyzed in a laboratory. Applicable analyses include chemical, physical, biological, microbiological, radiological, or other scientific determinations that provide recorded qualitative and/or quantitative results derived from laboratory analyses.



Executive Policy 22-02

Purpose

To ensure all environmental data used by Ecology for decision making is generated by laboratories capable of providing accurate and legally defensible data, shown by their successful participation in Ecology's Lab Accreditation Program.

Application

This policy applies to all Ecology employees, represented and nonrepresented, whenever they order or oversee submitting environmental data to Ecology from a laboratory providing environmental analytical services, or whenever environmental data is submitted to Ecology through a contractual process.

WAC 173-50

Establishes the State Program for implementing the WA State Environmental Laboratory Accreditation Program

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2023 Rule Making

Updated Fee Structure
Clarified Lab Standards

https://app.leg.wa.gov/WAC/default.aspx?cite=173-50



What Laboratories do we accredit?

- Approximately 450 Laboratories across the nation.
- Manchester Environmental Laboratory (MEL)
- Commercial Laboratories
- Health District Laboratories
- Municipal WWTP Laboratories
- Industrial Laboratories
- Academic Laboratories

Question

When a lab requests a method addition, explain what is required in the technical review (for the method to be added to the lab scope) prior to the onsite audit?



Parameter addition requests

- Parameter addition requests are subject to a technical review by LAU staff
- Technical reviews are conducted by the lead auditor or by a subject lead depending upon the complexity of the request
- Additions can be requested on the renewal application, or at any other time via email

Technical Reviews for Direct Accreditation

- Standard Operating Procedure-must be comprehensive
- Recent Performance Testing Results-must pass
- Bench Sheet with recent data-must demonstrate defensible documentation
- Demonstration of Capability-must pass method requirements
- Method Detection Limit Study-must be performed according to EPA Standards.
- Certificates of Analysis for Standards
- Instrument studies and extraction/digestion logs.

Technical Reviews for the Determination of Accreditation Status

- Technical report is issued-includes recommendation for accreditation status.
- Revised accreditation documents
- Additions awarded prior to an onsite assessment are in Interim Status
- Additions can be awarded provisionally pending requested corrections
- Additions can be denied pending requested corrections

6PPD-Q Specifics

- EPA published Draft Method 1634 January 2024
- Prior to January 2024 all accreditation requests for 6PPD-Q were based upon laboratory SOP.
- Laboratories accredited by SOP will be required to transition to the EPA Method.
- Generally we give a year for method transitions.
- We continue to process requests for SOP that were already submitted.
- In some cases where labs have applied for 1634 Draft we are accrediting for SOP, when they do not meet specific EPA Method criteria.
- NO PTs available. We require Blind to the Analyst Studies.

Why does the 6PPD-Q process take so long?

- Emerging contaminant. Methodology was recently developed. EPA Method is still in draft form.
- As we process requests for SOP we must also be aware of requirements in EPA Draft 1634.
- The Methodology is complex.
- One subject matter expert auditor to process all LC requests including PFAS & 6PPD-Q.
- 6PPD-Q began as a research project, we must now apply accreditation standards including defensibility, traceability.
- SOPs must include correct and consistent definitions.

Fundamentals of the technical review for accreditation by SOP

- It all begins with an excellent SOP.
- Precursor and product ions.
- 6PPD-Q standards.
- Quality Control.
- Equations
- Quantitation and Detection Limits.
- Defensibility and Traceability

About EPA Draft Method 1634 January 2024

- Performance Based using LCMSMS.
- Equivalency Requirements.
- Developed for use in Clean Water Act Programs. Does not include solid materials.
- The Methodology is complex.
- (EIS) 13C6-6PPD-Q
- (NIS) D5-6PPD-Q
- Quantitative determination of 6PPD-Q concentration is made using the primary quantitation ion with respect to the EIS.
- Results for 6PPD-Q are recovery corrected by the isotope dilution method.

Fundamentals of the technical review for EPA 1634

- SOP must follow EPA Draft 1634 and specify any method modifications.
- Demonstrate equivalency for method modifications.
- Use the correct labeled standards for NIS and EIS.
- All method required QC is included and not modified.
- EIS is used as the internal standard for the calibration curve.
- The NIS is used to check the EIS, for overall data quality
- Isotope dilution used.

Accreditation Status for 6PPD-Q

- MEL accredited for SOP
- King County Accredited for SOP
- Tacoma Environmental Request in Review
- UW Urban Waters Request in Review
- Eurofins Sacramento Request received.



