



Federal Advisory Committee on  
Detection and Quantitation  
Approaches and Uses in Clean  
Water Act (CWA ) Programs  
- Introduction, Alice Shorett

June 21-22, 2005

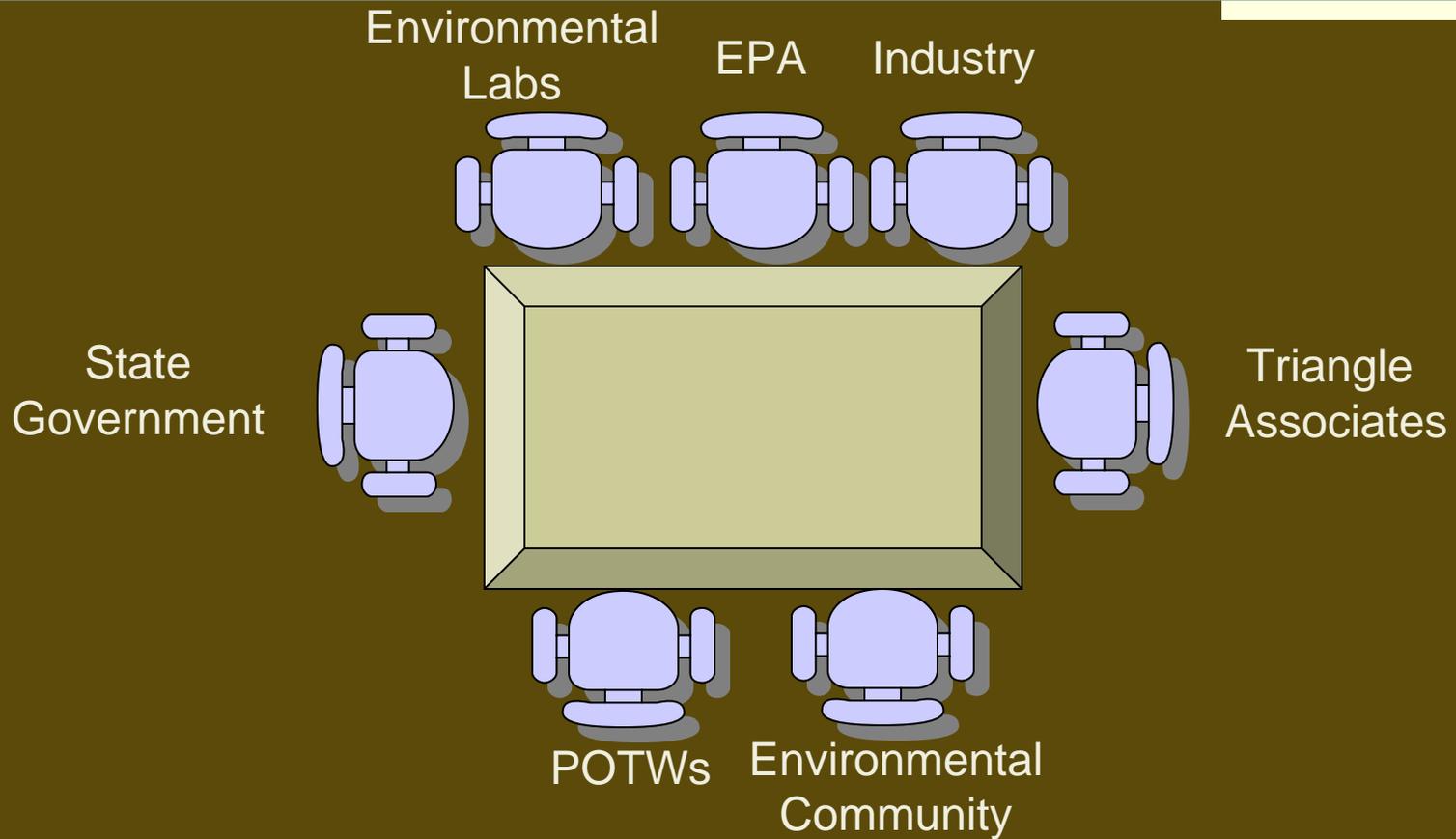
Alexandria, VA

# Welcome

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# Introductions



# Agenda

## DAY 1

- EPA welcome, Purpose, Hopes for the process
- Introductions
- FACA – an overview
- Agenda review, review and approval of ground rules
- Statements of interest by advisory committee members and hopes for the process
- Process design and schedule
- Common base of information
- Key policy questions initial discussion
- Public comment

## DAY 2

- Key policy questions (cont'd)
- Initial discussion of detection and quantitation methodologies
- Initial discussion of what parties need from detection and quantitation methodologies that will lead to criteria
- Identification of terms needing common definitions
- Discussion of pilot testing
- Technical Work Group composition and assignments
- Public comment
- Review expectations, summary statement, wrap-up and next steps

# Discussion on Ground Rules

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- Review and discuss comments received during convening calls
- Hear suggested amendments to resolve issues on draft
- Approve final version of ground rules

# Ground Rules: What You Told Us

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- They generally look good
- Ground rules are an important tool
- Specific questions/comments:
  - Meeting attendance
  - Expectations for keeping constituents informed
  - Consensus decision-making
  - Final report
  - Technical Work Group
  - Facilitator roles

# Ground Rules

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- A. Purpose
- B. Roles and Responsibilities of EPA
- C. Roles and Responsibilities of Committee Members
- D. Roles and Responsibilities of the Facilitators
- E. Roles and Responsibilities of the Designated Federal Officer
- F. Meeting Content
- G. Draft and Working Documents
- H. Communication During Process
- I. Internal Decision-making
- J. Membership
- K. Technical Work Group
- L. Schedule
- M. Observers and Informational Materials
- N. Products

# A. Purpose

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EPA approves analytical methods (i.e., test procedures) used for monitoring and reporting chemical pollutants under the Clean Water Act. EPA's analytical methods specify detection limits to determine if a pollutant is present. Quantitation limits describe the concentration of a pollutant that can be measured with a known level of confidence. States, Tribes and EPA Regions that administer and enforce permit limits on direct discharges into water often use these values as reporting and compliance limits. Additionally, States and localities may use these values in administering and enforcing pretreatment programs for indirect discharges.

The major objectives of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs will be to provide group advice and consensus recommendations on approaches for the development of detection and quantitation procedures and uses of these procedures in Clean Water Act programs.

# B. Roles and Responsibilities of EPA

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## C. Roles and Responsibilities of Committee Members

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- Members commit to attending all committee meetings in-person so they can participate in meeting discussions and vote on matters under discussion. A schedule of meetings will be agreed to at the initial committee meeting.
- Members commit to search for opportunities for consensus or compromise and for creative solutions.
- All members of the committee will be responsible to engage their constituency and will seek to clearly articulate their constituency's concerns and goals regarding the issues.

# D. Roles and Responsibilities of the Facilitators

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# E. Roles and Responsibilities of the Designated Federal Officer

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# F. Meeting Content

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# G. Draft and Working Documents

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# H. Communication During Process

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- All committee members accept the responsibility to keep their associates and constituency groups informed of the progress of the discussions and to seek advice and comments.

# I. Internal Decision-making

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- Consensus is defined as agreement of all members and consensus will be the method of determining committee agreement on issues.
- In the absence of consensus, the committee will report different perspectives held on the issue and the rationale behind the perspectives.
- All reports will be reviewed and approved by the committee.
- The committee will take no official action, such as offering advice or recommendations, with fewer than 16 Advisory Committee members in attendance.

# J. Membership

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# K. Technical Work Group

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# L. Schedule

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# M. Observers and Informational Material

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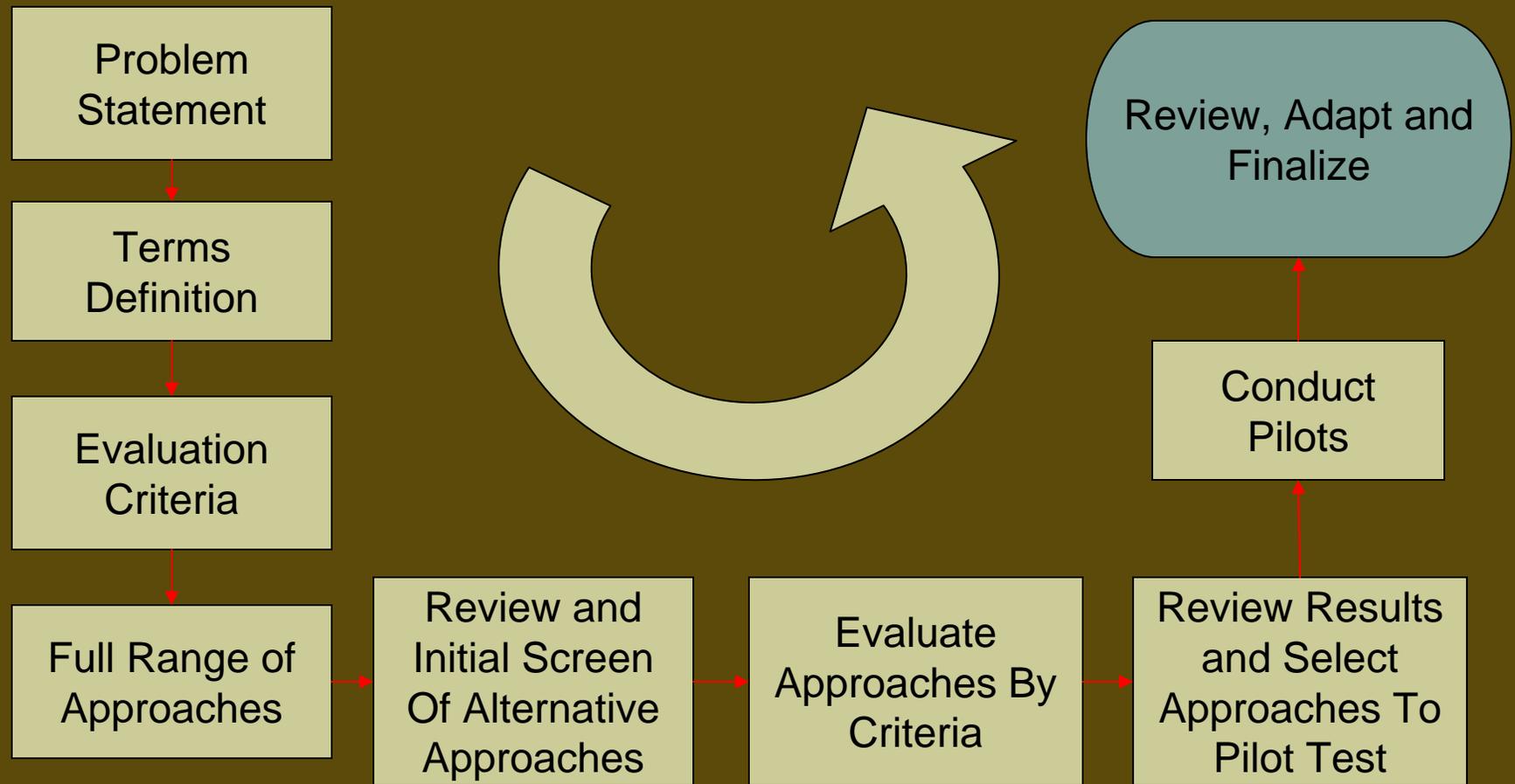
- To the extent possible, teleconference facilities will be provided to allow Technical Work Group members and interested citizens to observe the discussions of the committee.
- A time will be set aside in the agenda of each meeting for observers to offer their comments. Those who want to submit written comments for the committee's consideration may do so.

# N. Products

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- The final report of the process shall be approved by the committee.
- There will be a single report encompassing both issues on which there is agreement and issues on which there are differing perspectives.
- The goal of the process will be to develop group advice and consensus recommendations on approaches for the development of detection and quantitation procedures and uses of these procedures in Clean Water Act programs.

# Consultative Process Framework



# Process Design – What We Heard

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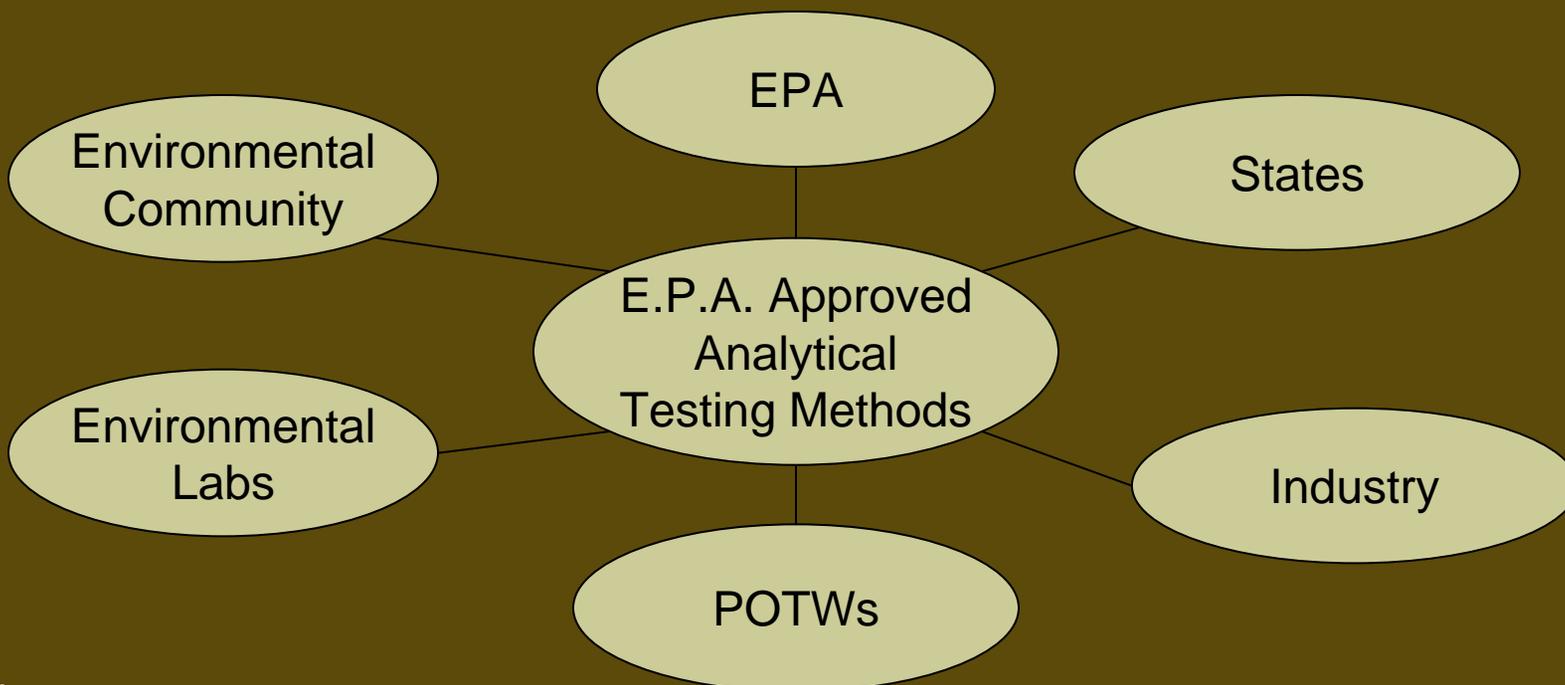
- Good approach; flexibility is important
  - Two-tiers: federal advisory committee and Technical Work Group
  - Pilot test of promising procedures is an important aspect
  - Timetable for completion in about a year
- Common base of information and agreement on definition of terms essential
- Location and duration of meetings

# Process Design and Schedule

MONTHS												
	J	J	A	S	O	N	D	J	F	M	A	M
PLENARY SESSIONS	⌋			⌋			□			□		□
TECHNICAL WORKGROUP(S)		***	***		***	***		***	***	**	**	
	Definition of terms			Evaluation of options with criteria					Pilots			

# Common Base of Information

## Analytical Testing Methods for Wastewater and Why They Matter



### Questions:

- What are your primary responsibilities that are related to or impacted by analytical testing methods?
- How do you use the results of these methods in carrying out your responsibilities?
- What issues or concerns do you have about the current procedures to establish detection and quantitation limits?

# Agenda

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## DAY 2

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# Key Policy Issues (from Day 1)

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- Implementation
- Laboratory issues
- Balance
- Criteria
- Definitions
- Costs
- Broad policy
- One-size-fits-all
- Procedures

# D & Q Procedures to Consider

## Detection

- EPA's method detection limit (MDL)
- ASTM's International Interlaboratory Detection Estimate (IDE)
- American Chemical Society (ACS) limit of detection (LOD)
- International Organization for Standardization/International Union of Pure and Applied Chemistry – ISO/IUPAC critical value (CRV)
- ISO/IUPAC minimum detectable value (MDV)
- American Council of Independent Laboratories (ACIL) Critical Value
- USGS Long-term Detection Limit (USGS LT-MDL)
- Inter-industry Analytical Group Sensitivity Test and Full-Range Validation Study
- NELAC uncertainty limit calculations
- Huvaux and Vos procedure
- Consensus Group detection limit (developed from ACIL procedure)
- Some combination of these?

## Quantitation

- EPA minimum level (ML) of quantitation
- ASTM International interlaboratory quantitation estimate (IQE)
- ACS limit of quantitation (LOQ)
- ISO/IUPAC LOQ
- EPA Lowest Concentration Minimum Reporting Level (LCMRL)
- NELAC uncertainty limit calculations
- Some combination of these?
- OSW Quantitation Limit procedure

# Common Issues From the Situation Assessment

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- Variability and reliability of results within labs, between labs and over time
- Ambiguity of procedure at 40 CFR Part 136, Appendix B
- Matrix effects
- Accuracy and quality of results
- Incidences of false positives and false negatives
- What results should be reported
- Need for common set of terms
- Need for single nationwide approach

# Questions

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1. What does your interest group need from a final package of methodologies?
2. What do you need to know, in order to participate in future meetings at the policy level?

# Terms Needing Definition

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- Detection
- Quantitation
- Reporting Limit
- False Positive Rate
- False Negative Rate
- Others?

# Concept of Pilot Testing Procedures

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- Is it a good idea?
- If so,
  - What would the nature of the pilot testing be;
  - Who would do the testing;
  - How extensive does the pilot testing need to be (could it be done using existing data? A simple proof of test?);
  - When and how long would the pilot testing take; and
  - How many and what size laboratories should be involved

# Technical Work Group: Principles for Composition

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- Balance of interests similar to the federal advisory committee
- Technical expertise
- Practical experience with how procedures play out in permitting and compliance
- Manageable group size