



Charge Questions & Meeting Format

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Meeting Purpose

The purpose of this meeting is to review ORD's implementation of its PFAS research and development portfolio

ORD's PFAS research and development portfolio:

- Includes research to:
 - **Develop methods** and approaches for measuring PFAS
 - Better **understand risks** to human health and the environment from PFAS
 - Identify and evaluate **approaches for addressing PFAS** in the environment
- Spans all National Research Programs and National Research Centers



Agenda Overview

- Meeting sessions are organized around the charge questions
- Each session has:
 - Two, introductory plenary presentations
 - Virtual breakout rooms (presentations and discussion)
 - Plenary Q&A session
- Day 1: Charge questions 1 and 2
- Day 2: Charge question 3, public comments
- Charge questions solicit:
 - General feedback on research implementation
 - Feedback on a specific issue under the research topic
- Time available for Executive Committee deliberations on both days



Charge Question 1

“Total PFAS” Methods (Day 1)

- Many stakeholders have identified a need for validated “total PFAS” methods to quantitatively measure non-specific PFAS in environmental samples
- ORD has developed targeted and non-targeted methods for PFAS and is currently working to develop “total PFAS” methods

In addition to evaluating the implementation of ORD’s analytic methods research, what suggestions and recommendations can the Executive Committee offer on the utility of “total PFAS” methods and other analytical approaches for identifying “total PFAS” in environmental samples?



Charge Question 1

Plenary Presentations

- Overview of PFAS analytical methods research and development (Chris Impellitteri)
- “Total PFAS” methods (Alice Gilliland)

Breakout Room 1

Water Methods

- Validated EPA methods for aqueous samples
- Methods for other environmental media
- Non-targeted analysis of water
- Development of an adsorbable organic fluorine screening method

Breakout Room 2

Air Methods

- OTM-45
- Additional air methods under development
- Wet deposition measurement method
- Total organic fluorine method

- Clarifying questions on charge question 1 content (plenary)

Human Health Effects (Day 1)

- Due to the large number of PFAS, there is an emerging consensus on the need to use category-based approaches to assess and address potential PFAS toxicity
- Structure-based categories are most common, and ORD is evaluating additional features for use in categorizing PFAS for human health risk assessment

In addition to commenting on ORD's ongoing approach for categorizing PFAS, what suggestions and recommendations can the Executive Committee offer on common category characteristics that would maximize the utility of the resulting PFAS categories for the broadest set of decision contexts?



Charge Question 2

Plenary Presentations

- Overview of human health effects research (Annette Guiseppi-Elie)
- Tiered toxicity testing strategy (Rusty Thomas)

Breakout Room 1

Toxicity Testing

- New approach methods (toxicity and toxicokinetics)
- *In vivo* toxicity testing
- Epidemiological studies

Breakout Room 2

Assessments

- Final PFBS assessment
- Draft IRIS assessments for PFBA, PFHxA, PFHxS, PFNA and PFDA
- Systematic evidence maps

- Clarifying questions on charge question 2 content (plenary)



Charge Question 3

Treatment Field Studies (Day 2)

- Data on the efficacy and costs of different approaches for removing PFAS from the environment and managing PFAS and PFAS-containing materials are needed to inform risk management decisions
- ORD is conducting field studies to gather data on real-world applications of technologies, and communities around field study locations have expressed concerns about field studies

In addition to commenting on the implementation of ORD's PFAS treatment research, what suggestions and recommendations can the Executive Committee offer on approaches for working with communities in potential field study locations?



Charge Question 3

Plenary Presentations

- Overview of PFAS treatment and destruction research (Greg Sayles)
- PFAS Innovative Treatment Team (Tim Watkins)

Breakout Room 1

Bench- and Pilot-Scale Studies

- Drinking water treatment
- Thermal treatment
- Non-combustion technologies
- Mechanochemical destruction

Breakout Room 2

Field Studies

- Waste management
- Land application of biosolids
- Thermal treatment
- Source characterization

- Clarifying questions on charge question 3 content (plenary)



Virtual Breakout Rooms

- Each session includes two, topic-specific virtual breakout rooms
- BOSC members will be split into two groups
 - Group A will start in Breakout Room 1
 - Group B will start in Breakout Room 2
 - Groups will switch breakout rooms after 30 minutes
 - Placement in groups and breakout rooms will happen automatically
- Each breakout room will include:
 - 3-4 5-minute presentations by ORD scientists (15-20 minutes)
 - 10-15 minutes for open discussion