

# Guidance for a New Era of Ambient Air Monitoring

# Quality Assurance Handbook for Air Pollution Measurement Systems – Volume II Part 1 Or the “Red book”

- Revisions are scheduled to occur every 5 years
- With the introduction of the National Ambient Air Monitoring Strategy (NAAMS), initiated changes in the Code of Federal Regulations (CFR) both for monitoring and for Quality Assurance resulting in changes to the ambient monitoring community’s main guidance document
- Hotlinks to additional information are available in the electronic version.

# Section 1

Update on responsibilities of organizations involved with ambient air monitoring

## OAQPS

- Provide program management oversight to new programs
- Implement adequate quality assurance of ambient monitoring programs
  - National Performance Evaluation Program

Introduction of Primary Quality Assurance Organization vs. Reporting Organization

# Primary Quality Assurance Organization

- Proposed in revisions to 40 CFR Part 58 Appendix A Section 3.1
- A new means for pooling data assessment
- Measurement uncertainty among stations can be expected to be homogeneous
- Identified by each individual state
- Separate from Reporting Organization although a Primary Quality Assurance Organization may also be a Reporting Organization

# Quality Assurance (QA) Workgroups

- National QA Strategy Workgroup
  - Consists of OAQPS, Regional, State, Local and Tribal Representatives
- Handbook Revision Workgroup
  - Same members as above with addition of NERL representatives
  - Working through series of conference calls, proposed revisions routed through work group
  - Work group provided input on issues that need to be addressed as well as any clarification on current issues

# Section 2

- The Ambient Air Monitoring Network
- Historical overview
- Advent of the National Ambient Air Monitoring Strategy (NAAMS)
  - NCore or “Core” Monitoring Sites
    - NCore Level 1
      - Research type site
    - NCore Level 2
      - Trends sites – representative of the air mass in a region, not the highest concentration site
      - Where possible leveraged with Speciation and National Air Toxics Trend Sites.
    - NCore Level 3
      - Analogous to current SLAMS sites
      - One or more gaseous pollutants

# Section 2

- Prevention of Significant Deterioration (PSD)
  - In proposed revisions to 40 CFR Part 58, combined Appendices A & B
    - Appendix A covers NCore monitoring
    - Appendix B covers PSD monitoring

# Section 5.0

- Documentation & Record Keeping
  - Electronic Records
  - Data Raw & Reported
  - Quality Management Plans (QMP)
  - Quality Assurance Project Plans (QAPP)
    - Standard Operating Procedures (SOP)

# Section 14.0

- Data Acquisition & Information Management
- Data Review
  - Outlier
- Real Time Data Acquisition
  - Public Reporting and AIRNow
  - Annual Certification of Data
  - AQS Reporting
- Information Management
  - Appendix outlining an example for a monitoring organization

# Next Steps

- Section 6.0
  - Incorporate NCore information: sampling
  - Meteorological parameters with NCore 2 monitoring: wind speed, wind direction, temperature, relative humidity
    - Challenge becomes recommending appropriate QA guidance of meteorological data

- Section 7.0

- Revise information for sampling manifolds

- Ensure consistency between information in CFR concerning acceptable sampling material and what is in the Red book
    - Recommend sampling manifolds to be able to meet needs of monitoring program