Quality Assurance Update

Region 9 QA Office

Quality Policy

Environmental data operations are governed by two policies:

- **CIO 2105 (formerly EPA Order 5360.1)**
  This is what is currently used by everyone

- **CIO 2106**
  Applicable to Agency products and services

These policies are supported by Standards and Guidance to make them usable by everyone

Standards and Guidance

Standards are mandatory

These stipulate what <u>must</u> be done – they are essentially the required aspects of data quality

Guidance is advisory

It informs and suggests ways in which the Standards can be met. It is <u>not mandatory</u> and is intended to be helpful to everyone.

Two Standards

Quality Standards for Environmental Data Collection, Production, and Use:

- **Internal -** *CIO Standard 2106-S-01*

- **External -** *CIO Standard 2106-S-02*

They are similar, but tailored to meet the needs of specific users, and to cover the same technical areas.

CIO Standard 2106-S-02 applies to tribes

- **External Standard replaces**

  – **QA/R-2 for Quality Management Plans (QMPs)**
  – **QA/R-5 for Quality Assurance Project Plans (QAPPs)**

- **Organizations still need to develop QMPs and QAPPs**

- **Plans still require approval before environmental data are collected, produced, or used**

Two Guidance Documents

Guidance Documents to be used with the Standards:

- *CIO Guidance 2106-G-02 QMP*

- *CIO Guidance 2106-G-05 QAPP*

These address the QA requirements of the new standards, replace previous related guidance documents, and provide greater clarity with examples for relevant QA activities

Five Year Policy

- **Region 9 Policy is QA Plans should be revisited every five years**
  - **Grant Condition**
  - **Negotiated Work Plan**
  - **Discussions with EPA Project Officer**

Revised Plan Contents

- **Most of plan unchanged**
- **Changes in existing effort**
  - **Staff**
  - **Analytes**
  - **Sampling locations**
  - **Data quality objectives or action limits**
- **Other Expectations**
  - **Results of past efforts**
  - **Rationale for changes**

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Difference from existing

- **A more comprehensive consideration of the use of data from existing sources**

- **An improved section on evaluating models**

- **More emphasis on how to evaluate and resolve differences between what was planned for, and what was attained**

- **A succinct list of QMP requirements (Annex A)**

- **QAPPs described using *Plan-Do-Check-Act (P-D-C-A)***

- **A succinct list of QAPP requirements (Annex B)**

Coverage of the QAPP Guidance

There are 4 chapters:
1. **Introduction**
2. **QAPP for Collection of Data by Direct Measurement**
3. **QAPP for Evaluating Existing Data**
4. **QAPP for Development, Modification and Use Models**

…and 5 appendices:
A. **Checklist of QAPP Elements**
B. **Data Quality Indicators**
C. **Quality Control Samples**
D. **Data Review, Verification, Validation, and Evaluation**
E. **Crosswalks**

Difference from existing:

The new QAPP Guidance includes everything currently in the old QA/G-5 and adds:

- Qualitative comparisons to acceptance criteria
- Evaluation of unconventional measurements
- Qualitative and quantitative evaluations of usability
- Use of existing data
- Expanded section on qualitative comparisons
- Updated information on modeling
- Use of data quality indicators
- Use of quality control samples

The new QMP Guidance is, new

Application

- Policy applies regardless of program (water, air, etc.)
- Policy applies regardless of the type of QA document (QMO, QAPrP, QAPP, SAP)
- Policy applies regardless of organization (tribe, state, nonprofit)
- Policy applies regardless of type of measurement activity