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EPA Classification No.: CIO 2133-p-2 (formerly 2128.02.0) Approval Date: 06/28/07

CIO Transmittal No.: 07-002

Review Date: 06/2010

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*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19, dated 07/07/2005*

## DATA STANDARDS MAINTENANCE

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### 1. PURPOSE

These procedures establish the key steps to follow for maintenance and revision of EPA data standards and implementation guidance.

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### 2. SCOPE AND APPLICABILITY

These procedures apply to all EPA organizations and their contractors engaged in the design, development, operation, or maintenance of Agency information systems or applications.

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### 3. AUDIENCE

The audience for these procedures includes all EPA programs, regions, laboratories, offices and contractors/grantees developing and maintaining systems for the Agency.

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### 4. BACKGROUND

Data standards are documented agreements on the format and definition of common data. Consistent use of data standards across the enterprise and with our information exchange partners promotes the efficient sharing of information. Employing common terminology and common data element definitions enables the integration of databases, and environmental assessment and analysis of data from disparate sources, improves data integrity, and maximizes the use of shared resources.

As stated in the Data Standards Policy, EPA shall develop, implement, maintain and oversee two types of data standards:

1. Data exchange within an EPA Program Office, by two or more EPA offices, between EPA and federal agencies, or between EPA and international partners. These data standards are developed, approved, and promulgated by EPA according to the Chief Information Officer (CIO) mandated approval process.

2. Data exchange with partners across the Exchange Network. These standards are developed, approved, and promulgated through the Exchange Network in collaboration with Network partners and promulgated by EPA using the CIO mandated approval process. EPA shall use Exchange Network Data standards in Exchange Network data exchange flows and tools. Development and maintenance of Exchange Network standards is governed under the policies and procedures of the Exchange Network and not by these procedures.

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## 5. AUTHORITY

- a. US EPA Data Standards Policy (<http://www.epa.gov/irmpoli8/policies.htm>)
  - b. US EPA Enterprise Architecture Policy (<http://www.epa.gov/irmpoli8/policies.htm>)
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## 6. PROCEDURES

- a. Proposal for Data Standard and/or Implementation Guidance Revision
    1. The Data Standard Steward shall review the standard(s) under his/her purview no less than every two years for currency and accuracy. He/she is expected to confer with members of the community of interest associated with the standard. If there are issues that need to be resolved, the Data Standard Stewards may convene a formal group to assist in drafting a proposal for data standard revision. Data Standards Branch (DSB) shall provide assistance on technical data standards issues.
    2. The Data Standard Steward may propose a data standard and/or implementation guidance revision by discussing the proposal with DSB. DSB will communicate the revision proposal, through agreed channels, to the CIO. (Anyone using the data standard and implementation guidance is urged to communicate any needs for revision with the data standard steward or with DSB).
    3. CIO [designee] determines if revisions are major or minor.
    4. CIO [designee] commissions a feasibility analysis for major data standard revisions. A feasibility analysis is not required for minor data standard or implementation guidance revisions.
    5. CIO [designee] reviews the feasibility analysis and makes one of the following recommendations: 1) request additional information from the proposing party, 2) postpone the revision, 3) reject the request or 4) order the revision to proceed.
  - b. Development of Minor Data Standard Revisions (generally editorial or to correct an error) and/or Implementation Guidance
    1. CIO [designee] assigns resources.
    2. DSB drafts changes, assigns version number, designates a retirement date and required date of implementation for the new version.
    3. CIO [designee] reviews and approves changes.
    4. DSB posts final revised data standard and/or implementation guidance to the Data Standard Web site and in the Environmental Data Registry (EDR).
  - c. Development of Major Data Standards Revisions (have an impact on users)
    1. CIO authorizes revision.
    2. Action Team is recruited from community of interest.
    3. Collaborative space is opened for Action Team deliberations.
    4. Action Team Charter is developed by team members to outline scope of work and level of effort
    5. DSB trains the Action Team in how to perform a data standards revision.
    6. Action Team develops draft revised data standard.
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- d. Data Standards Review Procedures for Major Revisions
1. **Draft revised data standard is posted on collaborative site for review.**
  2. **All within the community of interest are notified of availability for review.**
  3. **Action Team reviews comments of community of interest and develops a resolution matrix.**
  4. **Action Team resolves comments and notifies submitters.**
  5. **Action Team forwards draft through the QIC process to the CIO for approval for submission for public comment.**
  6. **CIO [designee] approves draft for public comment.**
  7. **Federal Register Notice is published if external information exchanges are affected.**
  8. **Action Team reviews public comments and develops a resolution matrix.**
  9. **Action Team resolves comments and notifies submitters.**
  10. **Action Team forwards revised draft with version number to QIC for recommendation to the CIO.**
- e. Data Standard Approval Procedures for Major Revisions
1. **QIC reviews and sends draft revised data standard to CIO with recommendation.**
  2. **CIO approves and promulgates final revision.**
  3. **Final revised data standard is made accessible on the Data Standard Web site and in the Environmental Data Registry (EDR).**

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## 7. RELATED DOCUMENTS

None

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## 8. ROLES AND RESPONSIBILITIES

- a. Chief Information Officer (CIO) or designee shall:
1. **request revision of a data standard and/or implementation guidance;**
  2. **approve drafts of major data standard and/or implementation guidance revisions for Federal Register publication and review (if affect external information exchanges); and,**
  3. **approve and promulgate a final revised data standard and implementation guidance.**
- b. Senior Information Official (SIOs) shall:
1. **promote the use and maintenance of data standards; and,**
  2. **identify the need for data standards revision sooner than the two year cycle if appropriate.**
- c. Information Management Officers (IMOs), Information Resources Management Branch Chiefs (IRM BCs) shall:
1. **assist in the selection of data stewards for standards relevant to their program concerns, and;**
  2. **assist in the nomination of action team members for standards development and**
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revision in subject areas relevant to their program concerns.

- d. Data Standards Branch (DSB) shall:
1. **provide expertise and administrative support to Action Teams for major data standards and/or implementation guidance revisions;**
  2. **shepherd data standard and/or implementation guidance revision through the review/approval process;**
  3. **conduct Federal Register announcement and review process for major revisions of data standards and/or implementation guidance if they affect external information exchanges;**
  4. **post final revised data standard and/or implementation guidance on the Data Standards Web site and in the Environmental Data Registry (EDR); and,**
  5. **in the case of minor revisions (editorial) the DSB will be responsible for drafting, posting, advising the CIO, and alerting the communities of interest to the revisions.**
- e. Data Standard Steward shall:
1. **perform assessments of data standard and implementation guidance for quality and accuracy to determine the need for revision no less than every two years;**
  2. **convene community of interest for input as appropriate; and,**
  3. **request revision of a data standard and/or implementation guidance to the DSB which will be conveyed to the CIO through the agreed process.**
- f. Quality Information Council shall:
1. **review the major revisions of data standards and implementation guidance and make recommendations to CIO for approval.**

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## 9. DEFINITIONS

- a. **Action Team: A team of subject matter experts that develops or modifies a data standard and/or data standard implementation guidance document.**
  - b. **Business Rules: Rules developed for implementation of a data standard in a specific system/application.**
  - c. **Chief Information Officer (CIO): The Assistant Administrator for Environmental Information, responsible for establishing an innovative center of excellence that advances the creation, management and use of information as a strategic resource at EPA.**
  - d. **Community of Interest: A group that can be defined by their common interests, needs or goals, e.g., a group of scientists, database designers, analysts, librarians with a common interest in drinking water monitoring data.**
  - e. **Data Standard: documented consensus-based agreement on the format and definition of common data.**
  - f. **Data Standards Branch (DSB): organization that manages EPA's data standards program to promote efficient sharing of environmental information among EPA, states, tribes and other information partners through the cooperative development of data standards. DSB is located in the Office of Environmental Information, Office of Information Collection.**
  - g. **Data Standard Revision Action Team Charter: A designation of the definition, scope and the level of effort needed for the revision of a data standard.**
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- h. Data Standard Steward: **A subject matter or data standards expert responsible for the quality, accuracy and revision of a data standard.**
- i. Exchange Network: **A partnership of states, tribal entities, and US EPA for the purpose of creating a network for the exchange of environmental information. The governance of the network is shared by US EPA and the states.**
- j. Feasibility Analysis: **An analysis to discover issues that may be associated with development, modification, or implementation of a proposed data standard. Usually the activity begins with an assessment of Agency business needs and a review of relevant existing standards (International, National, EPA, etc.).**
- k. Implementation Guidance: **General guidance for implementation of a data standard for all systems/applications within the Agency. It may contain common business rules applicable to all systems/applications.**
- l. Major Data Standards Revision: **A revision of the data standard which will have an impact on systems/application implementation. For example, the addition, deletion or change of a data element(s) or data element definition(s), or a change in the choice of a mandatory code set.**
- m. Minor Data Standards Revision: **A revision of the data standard which will not have an impact on its implementation. For example, editorial corrections of spelling or syntax errors, a change in format to make consistent with new data standards, or to correct a minor error.**
- n. Quality Information Council (QIC): **EPA senior level managers that advise and assist the CIO with formulation of policies on major cross-cutting quality and information issues.**
- o. Required Implementation Date: **The date, stated in the data standard, by which the data standard must be incorporated into all applicable agency systems (directly or by mapping system/application data elements to the standardized data elements) or the date by which a waiver for each system/application not complying with the data standard shall be obtained and recorded.**
- p. Retirement Date: **The date upon which a version of a data standard has been superseded by a new version. The old version should no longer be used unless a waiver is obtained and recorded.**
- q. Senior Information Official (SIO): **The SIO in each Headquarters and Regional Office will be the primary, central point of accountability for the effective oversight, coordination and management of information, information technology, and related issues.**
- r. Trading Partners: **Entities which report to or exchange information with US EPA.**

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## 10. WAIVERS

See Procedures for Requesting Data Standard Conformance Waivers

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## 11. RELATED POLICIES, STANDARDS AND GUIDANCE

- a. Procedures for Requesting a Data Standard Conformance Waiver
  - b. Procedures for Data Standards Development
  - c. Procedures for Data Standards Implementation
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## 12. MATERIAL SUPERSEDED

none

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EPA Classification No.: 2128.0-P-02.0

CIO Approval Date: 06/28/07

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CIO Transmittal No.: 07-002

Review Date: 06/2010

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**13. ADDITIONAL INFORMATION**

For further information, please contact the Office of Environmental Information, Office of Information Collection, Data Standards Branch.

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*Molly A. O'Neill, Assistant Administrator  
and Chief Information Officer  
Office of Environmental Information*