EPA INFORMATION PROCEDURES

OFFICE OF ENVIRONMENTAL INFORMATION

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Issued by the EPA Chief Information Officer,
Pursuant to Delegation 1-19, July 7, 2005

Data Exchange Procedure:

EPA's Commitment to Centralized Electronic Data Exchange

Office of Environmental Information (OEI)

1. PURPOSE: The purpose of the Data Exchange Procedure is to establish requirements and responsibilities for the electronic collection and exchange of environmental information, including regulatory and non-regulatory data, by all core mission segments of the EPA Enterprise Architecture. The procedures promote standardized methods and technologies to improve business processes and data quality, reduce burden on Agency partners and increase the return on investment for information technology projects.

2. SCOPE AND APPLICABILITY: EPA's Enterprise Architecture identifies the Information Sharing Segment as the primary solution for collecting and exchanging environmental information and data. The Agency's Central Data Exchange (CDX) services comprise the Agency's information sharing segment. This procedure is intended to apply to programs that leverage enterprise services identified in EPA's Enterprise Architecture to support data collection or exchange activities from states and other delegated programs although it is contemplated that it may also include intra-Agency exchanges where these make sense for cost or efficiency reasons. This Procedure applies to all EPA Programs, Regions and laboratories supported by the core mission segments of the EPA Enterprise Architecture that receive or exchange data for *voluntary or regulatory* purposes for environmental programs (e.g. under Title 40 CFR). It applies to electronic data exchanged from machine-to-machine and to users uploading data directly via the Internet. It applies to entities whether they are operating behind their own data center firewalls or "in the cloud." Because CDX is the Agency's designated system to support the implementation of EPA's CROMERR regulation, regulatory collections that fall under CROMERR *must use* CDX's CROMERR services to ensure that their data collection or exchange processing has met Agency enforceability requirements.

Finally, OEI intends for this procedure to support current and future Quality Standards for Environmental Data Collection, Production and Use by both EPA and non-EPA (external) organizations.

3. EFFECTIVE DATES: For program collection systems that fall within the scope of this Procedure in the planning stages, this procedure is effective immediately. Agency data collection systems that fall within the scope of this Procedure under development or in steady state, in noncompliance with this procedure, must obtain a waiver from the Agency's Chief Information Officer and comply with this procedure at the point of their next major system enhancement.

Recertification Date:
This procedure will be reviewed and, if appropriate, recertified three years from the issue date, unless superseded or rescinded prior to that date.

4. AUDIENCE: All EPA programs, Regions, laboratories and grant recipients that electronically collect or exchange data with states, tribes, localities, industry, federal agencies and other organizations or countries. Senior Information Officials (SIOs), Information Management Officers (IMOs), Regional Administrators, senior program managers, senior research managers, system mangers and other officials responsible for oversight of EPA programs and information technology investments are responsible for its execution.

5. BACKGROUND: EPA's Enterprise Architecture created segment architectures, in response to requirements of the Federal Enterprise Architecture (FEA) to organize information technology solutions for meeting business needs and reducing IT costs. The Information Sharing Segment (ISS), established by the Office of Management and Budget (OMB) in the FEA, creates business processes, methodologies and information technologies promote information use and exchange among structured networks of governmental and other organizations. EPA's implementation of the ISS is the Central Data Exchange (CDX) which provides a suite of services to support data collection and exchange with external partners and stakeholders such as states, tribes, localities, industry, federal agencies and other organizations or countries.

The CDX enables EPA program offices and others exchanging data to use CDX processes, services and technologies to meet business needs and data exchange requirements. The CDX suite of services include:

1. Business process analysis, management and re-engineering

2. Registration – Identity management, authorization and authentication

3. Data collection and exchange

4. Data transformation and quality assurance

5. Discovery and publishing

6. Security, records management and systems monitoring

The CDX meets requirements of the Government Paperwork Elimination Act (GPEA) to provide an option for all EPA external data exchange partners to conduct business with the Agency electronically and in a standardized way. Consistent with the Clinger-Cohen Act, CDX minimizes the need to maintain redundant data collection infrastructures and reduces burden saving resources for EPA and entities that provide or exchange data with EPA. CDX provides services for states, Tribes and other regulated entities to comply with EPA's Cross-Media Electronic Reporting Rule (CROMERR).

The CDX is also EPA's point of presence on the Environmental Information Exchange Network. On July 7, 2009, the EPA Administrator signed a memorandum, in response to Resolution 09-4 from the Environmental Council of States, requesting continued commitment among EPA program offices to use the Exchange Network for major national environmental systems. Through CDX and the Exchange

Network, EPA is working with federal, State, tribal, and local government agencies, and industry to continue to support the growth of streamlined, electronic reporting and data sharing with partners and stakeholders.

The CDX is also compliant with the Agency Network Security Policy, ensuring that information technology resources attached to the EPA network are consistent with, and supportive of, a secure network IT infrastructure design. All CDX services and technology are compliant with all applicable information security laws, regulations, policies, and guidance. These include but are not limited to: the Federal Information Security Management Act (FISMA), OMB Circular A-130, Presidential Executive Order 13231, and Agency directives and policies.

The Central Data Exchange and EPA's participation in the Exchange Network are governed under the Agency's Quality and Information Council umbrella by the Exchange Network Subcommittee – or "QIC-ENS." Those bodies are also responsible for developing the fee structure that supports CDX. The Exchange Network Subcommittee is responsible for codifying the fee structure and financial support that CDX receives from the Agency outside of the Office of Environmental Information and for ensuring that the Office of Environmental Information receives the required financial support from each system annually. QIC membership is defined by the QIC and Exchange Network Subcommittee membership and is decided by each participating program or office.

6. AUTHORITY:

Statutes

- **Clinger-Cohen Act of 1996 (P.L. 104-106).** The Act gives the Agency's CIO responsibility for "developing, maintaining, and facilitating the implementation of a sound and integrated information technology architecture for the executive agency" (Sec. 5125(b)(2)) and for "promoting the effective and efficient design and operation of all major information resources management processes for the executive agency, including improvements to work processes of the executive agency" (Sec. 5125(b)(3)).

- **Government Paperwork Elimination Act (GPEA) of 1998 (P.L. 105-277).** This Act requires Federal agencies to provide electronic reporting options to regulated entities.

- **E-Government Act of 2002 (P.L. 107-347).** This Act is designed to enhance the management and promotion of electronic Government services and processes.

Regulations

- **Cross-Media Electronic Reporting Rule (CROMERR) (40CFR Part 3). October 13, 2005.** This rule provides the legal framework for electronic reporting under all of the Environmental Protection Agency's environmental regulations. CROMERR applies to: (a) regulated entities that submit reports and other documents to EPA under Title 40 of the Code of Federal Regulations, and (b) states, tribes, and local governments that are authorized to administer EPA programs under Title 40.

Policies

- **CIO Policy Transmittal 06-001: Enterprise Architecture Policy:** This policy establishes the EPA EA Program in order to maximize the business value of EPA's investment in information technology and minimizes the amount of unnecessary

redundancy resulting from disparate planning and development efforts.

- **System Life Cycle Management Policy, EPA Classification Number: CIO 2121.0 (formerly 2100.5). April 7, 2006.** This policy promotes effective and efficient solution(s) for designing and operating information systems through a process of progressive steps to ensure proper management review, approval, and compliance with EPA and federal requirements.

- **CIO 2122-P-01.0: Enterprise Architecture Governance Procedure**

Guidance

- **OMB Circular A-130, "Management of Federal Information Resources" (1996).** This Circular clarifies the requirements of the Clinger-Cohen Act and requires agencies to "use electronic collection techniques where such techniques can reduce burden on the public, increase the efficiency of government programs, reduce costs to the government and the public, and/or provide better service to the public" (Sec. 8(l)(3)).

- **CIO 2122 – S/G 01.0: Architecture Standard and Guidance**

- **"Getting Started with the Central Data Exchange". February 8, 2007 (and routinely updated).** This guidance describes the steps in detail for successfully implementing a new data flow through CDX and provides the necessary tools to assist program offices in developing their initial requirements and scope of work. http://intranet.epa.gov/cdxintra

7. PROCEDURES:

New or existing information collections promulgated by EPA are required to develop and submit Information Collection Requests (ICR's) to the Office of Management and Budget in concert with the Office of Information Collection. These ICR's should identify whether the data collection will use the Agency's Information Sharing Segment architecture, and specifically CDX. When a new collection is identified that does not already use CDX, the office responsible for the collection should contact the Director of the Information Exchange and Services Division to learn how to incorporate CDX services into their electronic data exchange or collection.

8. RELATED DOCUMENTS:

- **"Implementation Plan for the National Environmental Information Exchange Network,"** approved by the State/EPA Information Management Workgroup on February 12, 2002; http://www.sso.org/ecos/eie/Iplan_Feb2002.PDF

- **"Cross-Media Electronic Reporting Final Rule: Cost Benefit Analysis**". Office of Information Collection, Office of Environmental Information, U.S. EPA. January 31, 2003.

- "**Exchange Network Strategic Plan**," July 2007

- "**CDX Best Practices**," June 2008

Websites:

- CDX Website: http://www.epa.gov/cdx
- Environmental Information Exchange Network Website: http://www.exchangenetwork.net

9. ROLES AND RESPONSIBILITIES:

Chief Information Officer or Designee:

- Provide direction on information collection priorities;
- Ensure implementation of the Data Exchange Procedure;
- Serve as OEI's lead for strategic and tactical planning for eGovernment goals;
- Approve and provide direction on allocation of OEI resources for information collection; and
- Serve as sponsor for OEI Enterprise Tools.

Senior Information Officials

- Are responsible for implementing this Procedure within their organization.

Information Management Officers:

- Provide guidance to Senior Information Officials and to Program Office System leads on existing and new information collection laws, EPA regulations, standards, and procedures;
- Provide guidance and direction to Program Office System Leads on best use of resources for application development activities; and
- Consult with and provide recommendations to OEI on data flow projects and activities.
- Approves payments and ensures transfer of funds per guidance from their QIC- ENS member (if not the same individual).

Program Office System Leads:

- Provide all program application requirements as early as possible to optimize the development process;
- Use CDX services for data collections that fall under CROMERR and other CDX services for data collection;
- Ensure that data exchanges comply with current law as well as with EPA and federal regulations, policies and procedures;
- Engage subject matter experts and other stakeholders to ensure that program data collection requirements are met; and
- Serve as lead on contracting activities related to data flow development or enhancement.

Program Office Branch Chiefs:

- Ensure that strategic, budget, and tactical plans consider the full life cycle of data collection efforts.

Office of Information Collection:

- Provide awareness and guidance to Program Offices on CDX services to ensure the most efficient solution for the Program Office
- Exercise an Agency stewardship function to ensure that data collection or exchange regimes provide the most efficient and effective solution for the Agency;
- Facilitate exchanges of data via the Exchange Network among trading partners;
- Work with Program Offices to develop strategies for developing data exchanges;

- Provide technical and contractual support for data flows;
- Test/validate data flows prior to their introduction into the production environment;
- Ensure the operational integrity of all production data flows;
- Assist program offices in meeting EPA and federal standards;
- Update guidance on the required use of CDX core and discretionary services;
- Participate in IPTs (integrated project teams) and engage the appropriate OEI contacts; and
- Work with Program Offices to process and monitor funding for CDX data flow planning, development, and O&M.

9. DEFINITIONS:

- **Archiving:** For the purposes of CDX, the process of securely storing data and documents in the exact format received by the submitter.

- **Central Data Exchange (CDX):** The gateway through which environmental data is received and processed to meet EPA's program requirements. EPA's central point of entry on the Exchange Network for receiving and/or exchanging environmental data.

- **Data Exchange/Data Flow:** Any instance where environmental data are received by the Agency via the Internet or other form of telecommunication from external entities or where data are exchanged across the Environmental Information Exchange Network.

- **E-Government:** The Government's use of Internet-based applications to enhance the delivery of information and services to the public and other government entities and/or to improve the efficiency, effectiveness, or quality of Government operations.

- **Electronic Signature**: As defined in EPA's Cross-Media Electronic Reporting Rule (CROMERR), "electronic signature means any information in digital form that is included in or logically associated with an electronic document for the purpose of expressing the same meaning and intention as would a handwritten signature if affixed to an equivalent paper document with the same reference to the same content...." (See section 40 CFR Section 3.3 for the complete definition, and definitions of related terms.)

- **Enterprise Tool:** These enable the rapid development of applications and systems across the Agency by leveraging a common infrastructure to provide functionality required by many of the information technology (IT) systems owned and/or operated by EPA.

- **Environmental Information Exchange Network:** An Internet-based information network among EPA, States, Tribes, and other entities that facilitates standards-based, secure data exchanges among partners. The Exchange Network supports efforts to collect and store data electronically, provide secure access to real-time data, and integrate environmental information. **Also referred to as the "Exchange Network".**

- **Integrated Project Teams (IPTs):** Include the project manager and the technical, legal, and program federal and contractor personnel needed to complete the tasks.

10. WAIVERS:

The Assistant Administrator/Chief Information Officer (AA/CIO) of OEI is authorized to issue Waivers for

specific data exchanges if, in his/her judgment, the responsible Program Office has presented a compelling case for not using the Central Data Exchange in accordance with this procedure. The waiver consists of a memorandum no longer than two pages from the Assistant Administrator of the program requesting the waiver to the AA/CIO providing the rationale for the waiver and/or explaining when the system will come into compliance if it is currently out of compliance. Note that if a waiver request affects a collection that falls under the Agency's CROMERR regulation, then the AA/CIO will have to publish a federal register notice to that effect.

11. CONTACT INFORMATION:

For additional questions or concerns about the scope and applicability of using Central Data Exchange for a data collection project, please contact the Chief of Information Exchange Technology Branch in the Office of Environmental Information.

Malcolm D. Jackson, Assistant Administrator
and Chief Information Officer, Office of Environmental Information