



2100

Information Resources

Management Policy Manual



TRANSMITTAL

Classification No.: 2100

Addressee

Approval Date: 7/21/87

INFORMATION RESOURCES MANAGEMENT
POLICY MANUAL - 1987 Edition

1. PURPOSE: This Transmittal provides the new Information Resources Management Policy Manual.
2. EXPLANATION: The IRM Policy Manual establishes a policy framework for the Information Resources Management Program in EPA.
3. SUPERSESSION: The ADP Manual and all its changes.
4. FILING INSTRUCTIONS: Post receipt of date of this Transmittal on the Checklist in front of the Manual. File the attached material in a three ring binder.

Kathy Petruccelli, Director
Management and Organization Division

Originator
EPA Form 1315-12 (5-86)

Information Management and Services Division/OIRM

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CHECKLIST OF EPA TRANSMITTALS

TITLE	INFORMATION RESOURCES MANAGEMENT POLICY MANUAL
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When kept current, this checklist permits the user to see at a glance which transmittals have been filed.

SERIES	SERIES	SERIES
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INTRODUCTION

1. PURPOSE. This manual establishes a policy framework for the Information Resources Management (IRM) Program in the U.S. Environmental Protection Agency (EPA) (also referred to as the Agency). Information Resources Management means planning, budgeting, organizing, directing, training and controlling information. It encompasses both information itself and related resources such as personnel, equipment, funds and technology. This document is intended to provide EPA with a structure for the implementation of the Brooks Act of 1965, the Paperwork Reduction Act of 1980, the Privacy Act of 1974, the Freedom of Information Act of 1966, as amended in 1974 and 1986, the Federal Records Management Amendments of 1976 and policies and regulations issued by the Office of Management and Budget (OMB) and the General Services Administration (GSA), the two primary oversight agencies for Federal IRM programs.

In addition, this manual establishes the authorities and responsibilities under which the IRM Program will function at EPA. The manual is limited to the IRM policy domain in order to provide the primary documents in a concise and consolidated manner. Detailed procedures and operating guidelines such as the EPA Freedom of Information Act, Privacy Act and Records Management Manuals are issued separately.

2. SCOPE AND APPLICABILITY. This manual applies to all EPA organizations and their employees. It also applies to the facilities and personnel of agents (including State agencies, contractors and grantees) of the EPA who are involved in IRM related activities.
3. BACKGROUND. The Paperwork Reduction Act of 1980 (P.L. 96-511), herein referred to as the "Act," introduced Information Resources Management to the Federal Government, emphasizing information as a resource with associated costs and values. The Act established a broad mandate for agencies to perform their information activities in an efficient, effective manner. Concepts advanced by the Act through the IRM approach include the life cycle management of information activities (i.e., creation, collection, and use); information functions (i.e., automatic data processing, records management, reports management, and telecommunications); the integrated approach to managing information resources (i.e., total systems concept) and the promotion and use of new technologies to improve the effective use and dissemination of information.

The objectives of this Act are to reduce costs, improve the efficiency and effectiveness of information systems and information technology in the Federal Government and to provide specific mechanisms to control and reduce the paperwork burden on the public.

The Act requires each agency head to designate a senior official to carry out the agency's information management activities in an effective and efficient manner and in full compliance with the information policies and guidelines prescribed by the Director of OMB.

Among other things, the Act requires each agency to:

- ° Develop and maintain an inventory of its information systems and review periodically its information management activities
- ° Ensure its information systems do not overlap with each other or duplicate the systems of other agencies
- ° Assign to the designated senior official the responsibility for the conduct of and accountability for any acquisitions made pursuant to delegations of authority from GSA.

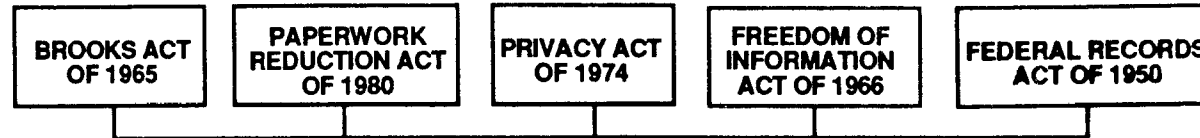
The Act also states that the Director of OMB, with the advice and assistance of the Administrator of GSA, shall selectively review, at least once every three years, the information management activities of each Federal agency.

4. FEDERAL AUTHORITIES. A number of Federal laws, regulations and policies prescribe, recommend or suggest policies, procedures and reporting requirements for managing information resources in all Federal agencies. Specific references will be made in the subsequent chapters of this manual. A compendium of key legislation, directives and regulations is found in Appendix B of this manual. The exhibit on the following page presents a structural framework for Information Resources Management in EPA.
5. EPA IRM AUTHORITIES AND ORGANIZATION. The primary responsibility for managing EPA's IRM Program is shared by the Office of Policy, Planning and Evaluation (OPPE) and the Office of Administration and Resources Management's Office of Information Resources Management (OIRM). Other Offices listed on pages iv-vi are also involved with supporting the Agency's IRM Program.

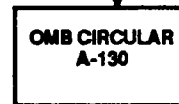
FRAMEWORK FOR EPA INFORMATION RESOURCES MANAGEMENT MANAGEMENT POLICIES

IRM POLICY MANUAL

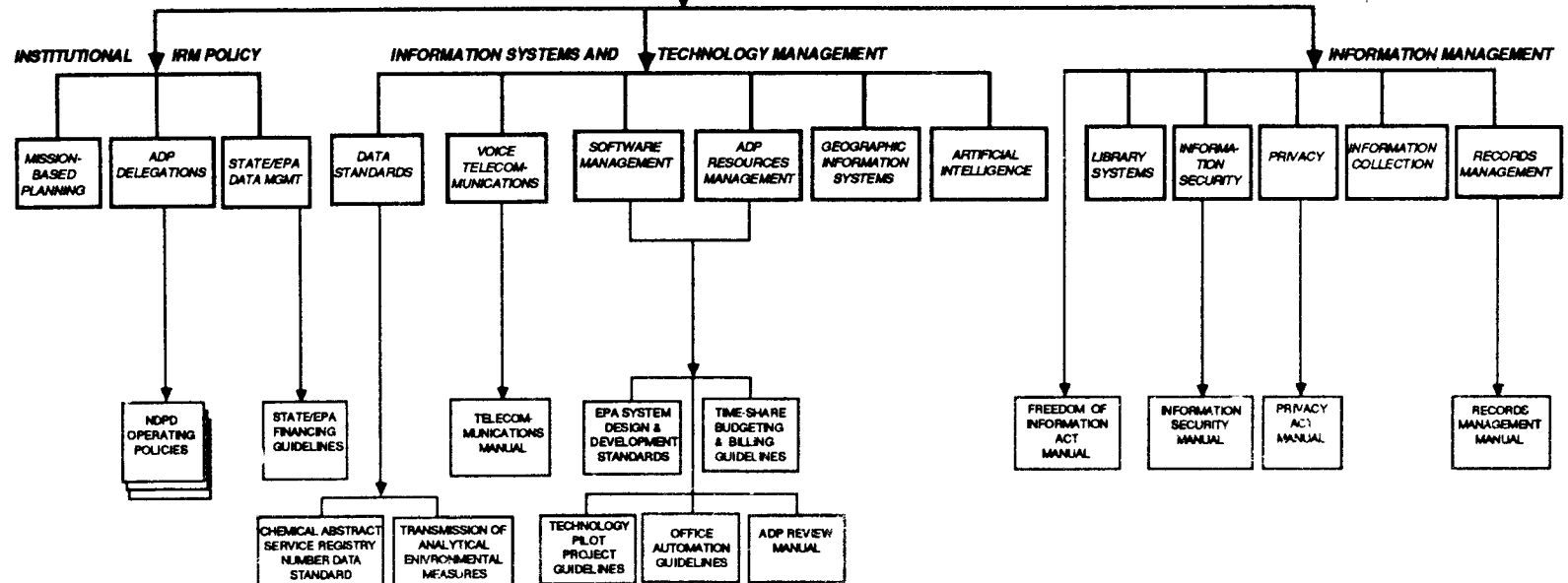
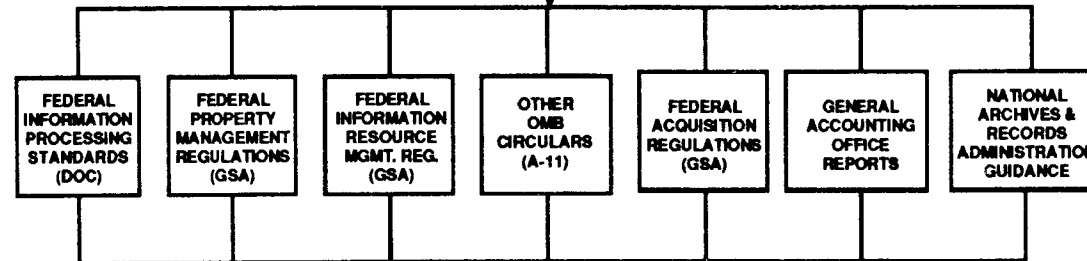
PRIMARY
LEGISLATION



PRIMARY
FEDERAL
POLICY



SECONDARY
FEDERAL
POLICY/
GUIDANCE



EPA IRM
POLICY

EXAMPLES OF
EPA IRM POLICY
GUIDELINES &
PROCEDURES

- a. Office of Policy, Planning and Evaluation. The Assistant Administrator for Policy, Planning and Evaluation (OPPE) is the Senior Official responsible for directing and overseeing the Agency's activities administered under the Paperwork Reduction Act of 1980. The Assistant Administrator of OPPE has delegated much of the Act's authority to the the Director, Office of Information Resources Management (OIRM). However, the Assistant Administrator of OPPE has retained authority for managing and developing policy for EPA's IRM Program in regulatory situations, reviewing all Agency rules, regulations and other data collection instruments to ensure that the Agency does not impose an unnecessary paperwork burden on the public. This Assistant Administrator also retains authority for managing the clearing process for data collection instruments. The vehicle for this activity is the Information Collection Request (ICR) clearance process. OPPE is also responsible for collecting, preparing and submitting the Agency's Information Collection Budget (ICB) to the Office of Management and Budget (OMB).
- b. Office of Information Resources Management. The Director, OIRM, has the primary functional responsibility for IRM policy development and overall management of the Agency's IRM Program. This includes the planning, development and operation of information systems and services in support of the Agency's administrative, programmatic and research functions. It also includes administering Agency programs for library systems and services, records management, information security as well as implementing the requirements of the Privacy Act. OIRM is also responsible for:
 - ° Acquisition management of office automation hardware and software
 - ° Review and approval of technical specifications for software requested by OARM, ORD and the program offices
 - ° Management of Agency-wide ADP support contracts.

- c. Office of Administration and Resources Management, RTP (OARM-RTP) and the National Data Processing Division (NDPD-RTP). The Director, OIRM, has delegated to the Director, Office of Administration and Resources Management-RTP (OARM-RTP), functional responsibility for the acquisition, management and operation of ADP resources including telecommunications resources as defined in Chapters 6 and 7 of this Manual. The Director, OIRM has delegated to the Director, OARM-RTP, authority to approve requisitions for ADP equipment, computer services and telecommunications. The Director, National Data Processing Division (NDPD), is responsible for implementing these functions. In particular, this includes:
- Acquisition management of hardware not delegated to the Senior IRM Officials
 - Acquisition of general purpose, non-application specific software such as operating systems, data base management systems, etc.
 - Approval of system-oriented proprietary software.
- d. Office of General Counsel. The Office of General Counsel provides legal opinions, legal counsel and litigation support for the Agency's implementation of the requirements of the Privacy Act and the Freedom of Information Act.
- e. Office of the Administrator. In coordination with the Office of General Counsel, the Office of the Administrator manages the implementation of the requirements of the Freedom of Information Act.
- f. Office of External Affairs. The Office of External Affairs (OEA) manages EPA's press services, serves as congressional liaison and coordinates communications with State and local governments. OEA also has responsibility for the review and clearance of proposed legislation and reports on current and pending legislation.
- g. Assistant Administrators, Associate Administrators, Regional Administrators, Heads of Headquarters Staff Offices, the General Counsel and the Inspector General. These senior managers are responsible for ensuring that activities carried out by their respective organizations

comply with Federal and EPA IRM policies and regulations. To assist them in meeting their IRM responsibilities, the General Counsel and the Inspector General and each Assistant Administrator, Associate Administrator and Regional Administrator have designated a Senior Information Resources Management Official (SIRMO), whose responsibilities are described in the following section. It should be noted that the SIRMO in the Office of Executive Support for the Office of the Administrator serves the two Associate Administrators as well as all of the Staff Offices in the Office of the Administrator.

- h. Senior Information Resources Management Official. Senior Information Resources Management Officials (SIRMOs) are responsible for directing and managing office-wide information resources planning and budgeting and for assuring that the information systems and information technology acquisitions within their organizations comply with Federal and EPA policies and regulations.
- i. IRM Steering Committee. The IRM Steering Committee is chaired by the Director, OIRM, and has members representing EPA national and Regional programs, the EPA research community and the States. The Committee is responsible for advising OIRM concerning IRM policies, resources and priorities and assisting OIRM in communicating and implementing these policies and priorities within EPA. The Committee assists OIRM in conducting periodic reviews of the Agency's information resources and the policies and programs for managing these resources and in designing improvements where needed.

6. OBJECTIVES. The objectives of EPA's IRM Program are to:

- a. Support program and administrative components in the fulfillment of their responsibilities by providing them with high-quality information services in the most efficient and cost-effective manner.
- b. Use effectively the capabilities afforded through rapidly evolving information related resources and technologies in support of the Agency's mission and implementation of EPA's basic programs, with a focus on achieving environmental results.

- c. Ensure that EPA information, goals, policies, plans and strategies comply with Federal IRM laws and regulations and that they support Agency missions.
- d. Facilitate the integration and coordination of information systems across media, functional and program lines.
- e. Provide adequate security for proprietary or privileged information maintained in EPA information systems.
- f. Minimize unnecessary duplication of information systems and data bases.
- g. Reduce the Federal information collection burden on members of the public and on State and local governments.
- h. Promote data sharing with States and other Federal agencies to achieve environmental results.
- i. Provide effective automated data processing systems, computing and telecommunications resources and facilities.
- j. Promote productive utilization of EPA's human resources in support of the Agency's mission.

CHAPTER 1 - IRM MANAGEMENT CONTROLS/REVIEW AND APPROVAL

1. PURPOSE. This policy establishes the principles and requirements that govern the management controls over EPA's IRM Program. This policy also defines the general delegations of authority which reflect the decentralized management structure of the IRM program. The framework of this policy draws from the basic management functions of planning, budgeting, acquisition, data management and evaluation to present a comprehensive management overview of EPA's IRM Program.
2. SCOPE AND APPLICABILITY. This policy applies to all EPA organizations and their employees. It also applies to the facilities and personnel of agents (including State agencies, contractors and grantees) of EPA who are involved in IRM activities.
3. BACKGROUND.
 - a. As noted in Section 5-c of this chapter, the Office of Information Resources Management (OIRM) has been delegated primary responsibility for managing EPA's IRM Program. However, the decentralized nature of this program requires the involvement and cooperation of all organizational units on an Agencywide basis.
 - b. The delegations of authority in EPA's IRM Program reflect the decentralized management structure of the Agency.
 - c. Management controls involved with EPA's IRM Program reflect a combination of internal Agency organizational requirements as well as those imposed on all Federal agencies by Congress and oversight agencies.
4. AUTHORITIES. (See Appendix B for further detail.)
 - a. OMB Circulars A-130, A-11, A-76, A-127, A-123, OMB Bulletins 86-12 and 86-19.
 - b. Federal Information Processing Standards Publications (FIPS PUBS).
 - c. Federal Information Resources Management Regulations (FIRMRS).

- d. The Brooks Act (P.L. 89-306).
- e. The Paperwork Reduction Act of 1980 (P.L. 96-511).
- f. GSA Bulletins.

5. DELEGATIONS OF AUTHORITY.

- a. As noted in the introduction of this manual, the EPA Administrator has designated the Assistant Administrator for Policy, Planning and Evaluation (OPPE) as the Senior Official responsible for directing and overseeing EPA's activities administered under the Paperwork Reduction Act of 1980.
- b. While the Assistant Administrator for OPPE has delegated much of the authority under the Act, he retained authority for managing and developing policy for EPA's IRM Program in regulatory situations, reviewing all Agency rules and regulations and other data collection instruments to ensure that the Agency does not impose an unnecessary paperwork burden on the public. The Assistant Administrator for OPPE also retains authority for managing the clearance process for data collection instruments. The vehicle for this activity is the Information Collection Request (ICR) clearance process. OPPE is also responsible for collecting, preparing and submitting the Agency's Information Collection Budget (ICB) to OMB. The Assistant Administrator for OPPE has delegated authority to manage other functions related to EPA's IRM Program to the Assistant Administrator for Administration and Resources Management (OARM) who in turn has redelegated the authority in this area to the Director, OIRM.
- c. The Director, OIRM, has primary functional responsibility for IRM policy development and overall management of the Agency's IRM Program. This includes the planning, development and operation of information systems and services in support of the Agency's administrative, programmatic and research functions. It also includes administering Agency programs for library systems and services, records management, information security and implementation of the requirements of the Privacy Act.

- d. EPA's Delegations Manual (Delegation 1-10) on automatic data processing (ADP), a copy of which is found in Exhibit 1-A of this chapter, cites the authorities which were originally delegated to the Assistant Administrator for Administration and Resources Management (OARM) and which have been subsequently redelegated to the Director, OIRM. This includes the authority to approve requisitions for ADP equipment, telecommunications, studies and services, including the authority to determine and approve:
- (1) The ADP technical content of solicitation packages.
 - (2) The evaluation criteria to be used for evaluation of ADP components of proposals.
 - (3) Preaward procedures for ADP components of proposals, including nominations for membership on the evaluation panel, contractor demonstrations and benchmarks and facility reviews as required.
 - (4) Postaward procedures for ADP components of procurements including acceptance testing and site inspection.

ADP supplies (i.e., diskettes, tape, paper, cables) are considered as normal office supplies. They are exempt from the management controls applied to EPA's IRM program.

The authority to approve requisitions for ADP equipment, computer services and telecommunications was redelegated by the Director, OIRM, to the Director, OARM-RTP. A further delegation has been made to the Director, NDPD.

- e. Subject to certain conditions, the authority to approve acquisitions for microcomputer equipment, software and support services that conform to Agency standards has been delegated by the Director, OIRM, to:
- (1) Assistant Administrators
 - (2) Associate Administrators
 - (3) Inspector General
 - (4) General Counsel
 - (5) Regional Administrators

As noted in this delegation, which is found in Exhibit 1-B of this chapter, the officials specified above may further redelegate their authority in this area to their Senior Information Resources Management Officials (SIRMOs), provided that formal notification is provided to the Director, OIRM.

6. CONTROLS RELATED TO BASIC MANAGEMENT FUNCTIONS. The following sections describe management controls for IRM planning, budgeting, acquisition, data management and evaluation of IRM activities and requirements.

a. IRM Planning.

- (1) Mission-based Planning. EPA is highly dependent on its information resources to carry out program and administrative functions in a timely, efficient and accountable manner. Because of the expensive and capital intensive nature of information and information technology, it is Federal policy that all managers plan effectively for the acquisition and management of information and information technology through the annual preparation of mission-based IRM plans. (Reference Chapter 2 of this manual). In EPA, all national program managers and Regional offices submit their plans to the Director, OIRM, who is responsible for reporting the contents of the plans to the Administrator and other senior EPA management officials. Mission-based IRM plans are tied to the budget process and are used to support investment decisions made during the budget preparation process.
- (2) Planning Requirements for Acquiring and Managing Personal Computers (PCs). The basic purpose of the PC Plan is to ensure that appropriate provisions are made to provide effective management and support of this technology. All Headquarters and Regional offices must submit a PC Plan and qualify for a delegation of PC approval authority in order to acquire personal computer hardware or software. Delegations will be made to those offices that have (1) designated a SIRMO to exercise the delegation on behalf of the Assistant or Regional Administrator, (2) received OIRM approval for their PC Plan and (3) designated and arranged appropriate training for a PC Site Coordinator(s) to manage PC ordering,

processing and user support and develop security provisions for safeguarding these resources. Plans must be approved by the SIRMO in order to receive consideration by OIRM. Delegated officials, including PC Site Coordinators, will review PC procurement requests in light of approved plans and may then submit approved procurement requests to PCMD for placement/issuance of PC orders under the contract.

- (3) Information Collection. The principles governing the information collection planning process are described in greater detail in Chapter 9 of this manual. From a management control perspective, it is important that Agency managers determine, before the information collection is initiated, that data are not already available elsewhere in the program, Agency or external sources. It is also necessary in the planning stage to design statistically valid sampling and collecting efforts and to determine that the cost of collecting the data does not exceed the value of the data to the program and EPA mission accomplishment.
- (4) OMB Bulletin for Federal Information Systems and Technology Planning - OMB issues a bulletin on an annual basis which requires all Federal agencies to submit their strategic plans for information systems and technology. This plan contains the following kinds of information: a description of the agency's program priorities and a discussion of how information technology is being used to meet those priorities; a list of the agency's major information systems; and a description of significant information technology initiatives.
- (5) OMB Bulletin for Management Review/Management Improvement Planning - The Office of the Comptroller is responsible for coordinating and reporting EPA's management improvement plan to OMB. OIRM contributes to the Agency's plan by reporting milestones for initiatives which will improve the overall management of the Agency from an IRM perspective.

b. Budgeting.

- (1) Section 43 of OMB Circular A-11, "Preparation and Submission of Budget Estimates" - In EPA, this reporting requirement is referred to as "Short-Term ADP Planning." This report identifies and documents the Agency's information technology activities, the cost of those activities and the program initiatives that the technology supports. OIRM is responsible for coordinating the collection and reporting of this information for the Agency.
- (2) Timeshare Budget - OARM-RTP with the assistance of OIRM, and in consultation with Agency components, prepares and submits the Agency timeshare budget. Timeshare requests are represented as a program element (PE) in the Agency's budget which is submitted to OMB. Once the budget is approved by Congress, OIRM administers the timeshare budget throughout the Agency in accordance with the needs and requests of Agency components and OARM-RTP guidance.
- (3) Environmental Monitoring Budget Special Analysis - The purpose of this periodic analysis is to evaluate the investments supporting the Agency's environmental monitoring strategies. All major program offices are required to provide their individual monitoring analysis with their budget submissions. OPPE is responsible for assessing these reviews. The final product evaluates the resource requirements and priorities for monitoring activities across the Agency.
- (4) Information Collection Budget - During the third quarter of each fiscal year, OMB issues a bulletin which requires that agencies submit their projected reporting burden on the public for the forthcoming fiscal year. OPPE is responsible for coordinating and reporting the information collection budget for EPA.

c. Procurement/Acquisition.

- (1) Acquisitions are evaluated to meet GSA and other applicable regulations. Policies on EPA's IRM acquisitions are enforceable by OIRM, the Grants Administration Division (GAD) and the Procurement and Contracts Management Division (PCMD).
- (2) From a management control perspective, PCMD inserts language into contracts to ensure that the contractors adhere to certain standards. Some of these standards are mandated by the Federal Information Resources Management Regulations (FIRMRs), Federal Standards and the Federal Information Processing Standards (FIPS). Other standards are developed by OIRM and NDPD. They are responsible for determining what standards apply to a particular procurement.
- (3) OIRM provides ADP support services through centrally managed and administered contracts; program offices may submit procurement requests for such services to OIRM. OIRM provides guidance on effective utilization of these contracts and prepares the required delivery orders which are issued by PCMD.

d. Data Management. In the operation of any of EPA's automated systems there are a number of controls which are imposed in order to maintain efficiency and effectiveness. The following is a brief list of principal controls that program and system managers need to observe in the development, operation and maintenance of their systems:

- (1) Data Standards - Organizations responsible for system management are responsible for conforming with established Agency data standards. OIRM is responsible for establishing the data standards for the Agency and ensuring that those standards meet the Agency objective of promoting data sharing. Chapter 5 of the EPA Policy Manual provides further information on this subject.
- (2) Systems Documentation - It is Agency policy that adequate documentation must be developed for all EPA automated systems. This is important to ensure management control and continuity of service. Without adequate documentation, full utilization of a system cannot be realized.

- (3) Acceptance Testing - Prior to implementing a system, appropriate acceptance testing must be conducted. Such activity serves to determine the reliability of functions as well as identify problems, both in the documentation and in the actual operation of the system. Acceptance testing must include proper documentation of test results.
 - (4) Systems Security - As stated in Chapter 8 of this manual, "It is EPA policy to protect adequately sensitive information and sensitive applications from improper use, alteration or disclosure, whether accidental or deliberate. Information and applications will be protected to the extent required by applicable law and regulations in accordance with the degree of their sensitivity in order to ensure the cost-effectiveness of the security program."
 - (5) User Support and Training - To ensure optimally efficient operation of Agency information systems, it is critical that EPA managers provide their staff adequate user support and training.
- e. IRM Evaluations. The following evaluations and reviews are conducted to help the Agency assess the adequacy of its information systems and resources:
- (1) Special Studies and Management Reviews - A variety of special studies and reviews are conducted by OIRM alone or in concert with Agency program offices. The scope of such reviews may vary depending on the subject matter and the goals and objectives established for the review or study.
 - (2) ADP Reviews - These reviews are conducted by OIRM as well as program managers. All ADP review activity must be coordinated with the Office of the Inspector General which has the lead responsibility to perform independent reviews of EPA's activities. An ADP review is an evaluation of an information system, ADP equipment, operations or an ADP organization, to determine if the intended or expected functions are being accomplished. The general purpose of such a review is to improve management of information resources by ensuring that ADP systems and services are being managed in compliance with standards,

operating procedures and policies. (Specific guidance on conducting this type of review is found in the Agency's Directives System - EPA 2115 Guide for ADP Review).

- (3) Contract Performance Reviews - OIRM, in concert with PCMD, conducts regular (three times per year) reviews of contractor performance through meetings with delivery order project officers and the contractor under the ADP support contracts managed by OIRM. These meetings provide a forum to share information about experiences during delivery order performance that relate to key performance and contract administration issues.
- (4) Risk Analyses - OMB Circular A-130 requires that all automated installations undergo a periodic risk analysis to ensure that appropriate, cost-effective safeguards are in place. This risk analysis will be conducted on new installations, on existing installations undergoing significant change and on existing installations at least every 5 years.
- (5) GSA Triennial Review - This review is a government-wide three-year planning and reporting cycle set forth to meet the requirements established by the Paperwork Reduction Act of 1980. Agencies are required to perform reviews of their information resources management activities and prepare synopses and updates of these reviews to GSA on a yearly basis for a three-year duration. The objective of the Triennial Review Program is to ensure that agencies are carrying out their information management activities in an efficient, effective and economical manner. OIRM is responsible for managing the review process with input from the program offices.

f. IRM Reporting Requirements.

- (1) External - The following is a list of external reporting requirements related to EPA's IRM program:
 - (a) OMB Bulletin for Federal Information Systems and Technology Planning
 - (b) OMB Bulletin for Management Review/Management Improvement Planning

- (c) Section 43 of OMB Circular A-11
 - (d) GAO Systems Inventory
 - (e) ADP Equipment Data Systems to GSA
 - (f) Information Collection Budget
 - (g) Information Security Program Data to GSA
 - (h) Privacy Act Annual Report to OMB
- (2) Internal - The following is a list of internal reporting requirements relating to EPA's IRM program:
- (a) Mission-Based Plans
 - (b) PC Plans
 - (c) Information System Inventory Updates
 - (d) Timeshare Budget
 - (e) Special IRM Budget Analysis (Addendum)
 - (f) Environmental Monitoring Budget Special Analysis

EXHIBIT 1-A

DELEGATIONS

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GENERAL, ADMINISTRATIVE AND MISCELLANEOUS

1-10. ADP

1. AUTHORITY. To approve requisitions for ADP equipment, telecommunications, studies, and services, including the authority to determine and approve:
 - a. The ADP technical content of solicitation packages
 - b. The evaluation criteria to be used for evaluation of ADP components of proposals
 - c. Preaward procedures for ADP components of proposals, including membership on the evaluation panel, contractor demonstrations and benchmarks, and facility reviews as required
 - d. Postaward procedures for ADP components of procurements including acceptance testing and site inspection.
2. TO WHOM DELEGATED. The Assistant Administrator for Administration and Resources Management.
3. REDELEGATION AUTHORITY. These authorities are redelegated to the Director, Office of Information Resources Management. The authority to approve requisitions for ADP equipment, computer services, and telecommunications is further redelegated to the Director, Office of Administration and Resources Management, RTP. All of the above authorities may be redelegated further.

MICROCOMPUTER REQUISITIONS

4/24/87

OIRM 1-10A1. AUTHORITY

To approve requisitions for microcomputer equipment, software and support services.

2. TO WHOM DELEGATED

- a) Assistant Administrators
- b) Associate Administrators
- c) Inspector General
- d) General Counsel
- e) Regional Administrators

3. REDELEGATION AUTHORITY

- a) The officials specified above may further redelegate this authority to a Senior Information Resources Management Official designated by them to have full responsibility for information resources management matters within their purview, provided that formal notification of this designation and redelegation is provided to the Director, Office of Information Resources Management.
- b) The Senior Information Resources Management Officials designated by the above named officials may redelegate this authority to the heads of major EPA field installations, provided that there is prior notification to and approval by the Director, Office of Information Resources Management.

4. LIMITATIONS


- a) The authorities delegated and redelegated herein may be exercised only upon approval of the organization's Personal Computer Acquisition and Management Plan by the Director, Office of Information Resources Management, and only in a manner that conforms to the provisions of the approved Plan.

- 2 -

- b) Microcomputer equipment and software are to be obtained from contracts established by the Office of Information Resources Management unless the required items are not available from those contracts or the ordering organization first documents that it is in the interest of the Agency to obtain these products from another source, and such documentation has been reviewed and approved by the Senior Information Resources Management Official or, in the event that further redelegation has been made, by the field installation head.
- c) Individual requisitions for microcomputer equipment and software that are to be obtained from sources other than the contracts established by the Office of Information Resources Management may not exceed \$50,000 without prior approval by the Director, Office of Information Resources Management.
- d) Requisitions for microcomputer equipment and software that do not conform to Agency standards may not exceed the following dollar limits in any single fiscal year without prior approval by the Director, Office of Information Resources Management:
 - (1) \$50,000 by each Assistant Administrator, Associate Administrator, the General Counsel, the Inspector General, Regional Administrator or their designated Senior Information Resources Management Official.
 - (2) \$10,000 for each major field site that has been redelegated authority to approve microcomputer requisitions pursuant to paragraph b) of Section 3. above.
- e) Requisitions that require synopsis in the Commerce Business Daily (i.e., sole source requisitions for specified make and model equipment costing \$10,000 or more, for open market purchases costing \$25,000 or more, and purchases from GSA Schedule contracts costing \$50,000 and more) require approval by the Director, Office of Information Resources Management prior to publication of the synopsis.
- f) Requisitions for local area network equipment or software must have prior approval from the Director, National Data Processing Division.

- 3 -

- g) Requisitions approved pursuant to the authorities delegated and redelegated hererin may not exceed the limits of the ADP procurement authority delegated to the Environmental Protection Agency by the General Services Administration.



Edward J. Hanley
Director, Office of Information
Resources Management

CHAPTER 2 - MISSION-BASED PLANNING

1. PURPOSE. This policy establishes the principles that govern Agencywide planning for EPA's investments in and management of information resources and technology. This policy also defines roles and responsibilities for implementing these principles.
2. SCOPE AND APPLICABILITY. This policy applies to all EPA national program managers and Regional offices.
3. BACKGROUND.
 - a. Information is an Agency asset, just as property, funds and personnel are Agency assets. EPA is highly dependent upon its information resources to carry out program and administrative functions in a timely, efficient and accountable manner.
 - b. Information and information technology represent an expensive and capital intensive investment of EPA's human and other operational resources. It is essential, therefore, that EPA plan for its investment and management of information resources.
 - c. As a result, an Agencywide Information Resources Management (IRM) planning process must be established. Furthermore, as required by OMB Circular A-130, planning must be based in programs and missions to ensure that the acquisition and use of information resources support the requirements of EPA's program and administrative functions.
 - d. Investment decisions on the acquisition and use of information resources can be made only through the budget process. Planning must be tied to the budget so that budget decisions are derived from plans and, conversely, so that budgetary constraints are reflected in the plans.
 - e. The management, control and responsibility for information resources within EPA is decentralized. Consequently, planning for information investments and management is also decentralized. The value of a decentralized process is that it engages the active participation of EPA managers in the decision-making process and allows them to respond to environmental as well as administrative priorities as they change over time.

4. AUTHORITIES.

- a. OMB Circular A-130, Management of Federal Information Resources.

5. POLICY. It is EPA policy to plan effectively for the acquisition and management of information and information technology through the annual preparation of mission-based information resource management (IRM) plans.

- a. Mission-based IRM plans are strategic in nature covering a three-to-five year period and updated annually to reflect real-time changes in each major national program office.
- b. Mission-based IRM plans are linked to the Agency's Priority List which defines the Agency's mission and to the Agency's Operating Guidance which specifies IRM priorities and actions over a one-to-two year period.
- c. The plans will be tied to the budget process and will be completed in time to support investment decisions made during the budget preparation process.
- d. Mission-based IRM planning explicitly evaluates information requirements necessary to achieve EPA and program missions and priorities. These requirements are assessed in the context of existing and planned resources and Agencywide policies and standards governing the effective management of information and information technology.
- e. Planning for significant investments in and management of information must be supported by analyses of the life cycle of the information requirement from the initial stages of information system design through operational stages of system start-up and maintenance. Consideration must be given to the full range of information support needs from data collection and entry to ongoing training, user support, quality control and system administration.
- e. Mission-based IRM plans must be evaluated periodically to ensure that EPA and program missions and priorities are fully supported. In particular, any planning for significant investments must be evaluated through such analyses as information requirements studies, benefit-cost assessments and life cycle planning studies.

6. RESPONSIBILITIES.

- a. The Office of Information Resources Management is responsible for:
 - (1) Developing and issuing guidance for the development of mission-based information resources management plans in accordance with OMB Circular A-130.
 - (2) Determining, in consultation with the IRM Steering Committee and Senior IRM Officials, which major national programs are responsible for preparing and updating mission-based IRM plans.
 - (3) Developing and issuing guidance for an Agencywide review of information investments.
 - (4) Providing guidance to the Administrator and EPA's senior management on EPA's investment in and management of information resources and technology.
 - (5) Responding to OMB and other external requests on EPA's plans and budgets for the acquisition and use of information technology.
- b. The Assistant Administrators, Associate Administrators, General Counsel, Inspector General and Regional Administrators are responsible for:
 - (1) Appointing a Senior IRM Official who is responsible for management and oversight of the information resource management program in his/her respective organization. The Senior IRM Official in the Office of Executive Support for the Office of the Administrator serves the two Associate Administrators as well as all of the Staff Offices in the Office of the Administrator.
- c. Senior IRM Officials for major national programs are responsible for:
 - (1) Ensuring the development of mission-based resource management plans responsive to EPA and program information requirements.

- (2) Ensuring that these plans are integrated into budgets for information investments which are reflected in formal planning and budgeting submissions.
 - (3) Establishing an information resource management program consistent with the organizational mission, organizational information plans and Agency policy.
- c. The National Data Processing Division is responsible for:
 - (1) Translating the mission-based plan into specific ADP resources requirements.
 - (2) Developing the actual Timeshare Budget required to provide the ADP resource requirements identified by (1).

7. DEFINITIONS.

- a. "Mission-based Planning" refers to the planning for an agency's investments and management of information resources and technology that are required to achieve the agency's missions and priorities. These plans are tied to the budget process and are used to support investment decisions made during the budget preparation process. These plans are strategic in scope but are updated annually to reflect progress in implementation, program changes, changes that affect information requirements and advances in technology.
- b. "Life Cycle Costs" means the sum total of all the direct, indirect, recurring, nonrecurring and other related costs incurred or predicted to be incurred in the formulation of requirements and feasibility studies, and in the design, development, production, operation, maintenance and support of an information system throughout its useful life.

8. PROCEDURES AND GUIDELINES. Procedures and guidelines for the Agency's Mission-based Planning Program will be issued on an annual basis under separate cover.

CHAPTER 3 - STATE/EPA DATA MANAGEMENT

1. PURPOSE. This policy establishes the principles that govern the management and sharing of data between EPA and State environmental agencies and the information systems that handle these data. This policy also defines roles and responsibilities for implementing and ensuring adherence to these principles.
2. SCOPE AND APPLICABILITY. This policy is applicable to all EPA programs and Regional offices that develop and operate information systems that are used by the States or that contain data reported to EPA by States.
3. BACKGROUND.
 - a. The underlying rationale for EPA's policy on State delegation includes a recognition that more effective environmental protection results when Federal goals and regulations are implemented in a fashion that is responsive to the diversity of local conditions. EPA's policies on information management must reflect this same balance of compliance with Federal statutes and priorities and responsiveness to local diversity.
 - b. Federal policy, as most recently set forth in OMB Circular A-130, specifies that Federal agencies may "not require Federal information systems that unduly restrict the prerogatives of heads of State and local government units..."
 - c. EPA remains responsible and accountable to the President, the Congress and the public for progress toward meeting national goals and for ensuring that Federal statutes are adequately enforced. In accordance with "EPA Policy on Oversight of Delegated Environmental Programs," April 4, 1984, the Agency has the responsibility to oversee the conduct of delegated inter-governmental programs, to enhance State capabilities to administer environmental protection programs and to analyze the status of State, regional and national environmental quality through ongoing monitoring and data collection efforts.
 - d. EPA's policy of delegating program implementation responsibility to States means that the ultimate effectiveness of the Agency depends, to a very large

extent, on the effectiveness of State program managers. Among the several factors that determine the success of State program managers is their capacity to obtain and use management and environmental information.

- e. EPA's ability to oversee and support State performance of delegated programs, and to report on these programs to the President, the Congress and the public, is also heavily dependent upon accurate and timely State information resources and systems.
- f. EPA seeks to improve environmental decisions by more consistent and reliable estimation of health risk based on sound data and analysis methods and by integrating permitting, regulatory and compliance efforts across program lines. Improvement in the information management systems will result in more timely, quality assured data, a more integrated risk assessment and overall better State/EPA program management.
- g. Although each has requirements that differ in detail and emphasis, there are substantial benefits to EPA and to State agencies if both have timely, reliable access to the same basic management and environmental information.
- h. Most EPA programs have developed data systems to receive State reports and to provide the reports and analysis required by national program managers. There are substantial benefits to EPA when States agree to meet Agency reporting requirements by entering data directly into these systems. In at least some cases, States also benefit by gaining access to data and information systems capabilities that they cannot develop on their own. However, the benefits to States from using EPA information systems to report or to process data depend on several factors:
 - (1) The existing State investment in its own information systems
 - (2) The accessibility and reliability of the EPA systems for both entering and retrieving data
 - (3) The reliability and quality of EPA user support

- (4) The extent to which EPA systems contribute to State management objectives as the integration of environmental and management data, both across programs delegated from EPA and other State programs
- (5) The costs in using such systems both in actual dollars and resources necessary for use.

4. AUTHORITIES.

- a. OMB Circular A-130, Management of Federal Information Resources.

5. POLICY. It is EPA policy that Agency reporting requirements and information systems will be responsive to the information needs of State environmental agencies and will take into account the diversity among States in terms of organization, resources and program responsibilities. EPA systems that process and store data obtained from States will adhere to data management policies that avoid duplication of data and effort and promote integrated environmental program planning and management, both within States and between States and EPA. EPA will assure timely and reliable State access to any Agency information system that contains data obtained from States in response to EPA reporting requirements.

- a. As required by OMB Circular A-130, EPA will adhere to reporting and information systems policies that do not unduly restrict State prerogatives to plan and manage information resources in response to State policy and management priorities.
- b. EPA information systems that process and store data provided by States in response to EPA reporting requirements will, insofar as practical, be developed and operated to accommodate State management needs. More specifically:
 - (1) EPA will ensure that States are afforded an active role in developing, improving and modifying information systems through the establishment of user groups, policy groups and other mechanisms which promote continuing State/Federal interaction.
 - (2) EPA will, insofar as practical, design such systems with the flexibility to accommodate State needs for related data standards that facilitate State information systems planning and the integration of data across EPA and State program lines.

- (3) EPA will develop such systems in adherence to technology and data standards that facilitate State information systems planning and the integration of data across EPA and State program lines.
 - (4) EPA will design such systems to accept direct, electronic transmission of data from States that operate their own information systems.
 - (5) EPA will design such systems to support direct, electronic transmission of data to States from EPA systems to support local data analysis.
 - (6) EPA will strive to achieve consistency in design and access methods consistent with current industry technology.
- c. New EPA systems and data bases developed to process and store data obtained from State environmental agencies shall be designed to support timely and reliable State access to these data. Existing EPA systems that contain State data should allow for timely and reliable State access. Timely and reliable State access will vary according to the nature of the data and the system; however, for EPA's major national systems and data bases, it means:
- (1) Direct, on-line State access to current data files
 - (2) The use of software and data communications technologies that adhere to Agency standards and that support efficient State access for reporting and retrieval of data
 - (3) The provision of documentation and user assistance to State users on a consistent and current basis.
- d. For those States which agree to meet EPA reporting requirements by directly entering data into EPA systems, the Agency will regard such data as the official State record of the delegated program. EPA will not unilaterally change these data, since doing so would force the State to maintain a separate system of records.
- e. EPA will allow the States at their option to enter data regarding non-delegated programs into the EPA systems.

However, States are not mandated to meet the same requirements in the non-delegated programs that they are obliged to meet for the delegated ones.

- f. EPA will support the use of State grant funds to develop State information resources and technology to the extent that doing so is consistent with the purposes for which these funds were appropriated. EPA will seek State proposals which assign funds from one or more EPA grants for information resources and technology that:
 - (1) Promote the integration of environmental planning and management across State and EPA program lines
 - (2) Foster improved data sharing between EPA and the State.
- g. EPA will design and manage its computing and data communications network to support timely and reliable State access to EPA systems and data bases. EPA's pursuit of this goal will be based on the following assumptions:
 - (1) The achievement of this goal is dependent on the constraints of available resources.
 - (2) EPA does not seek to be the primary or the "first choice" computing resource for any State environmental agency.
 - (3) EPA does not seek to provide computing and telecommunications services to States in lieu of or in competition with either State or commercial sources.
- h. EPA recognizes one of the advantages of sharing data is reduced reporting by the States. Therefore, if a State is entering data directly into the EPA system, EPA will, insofar as practicable, adhere to data management policies that avoid duplication of data and effort and not require that the State report this information in additional formats.

6. RESPONSIBILITIES.

- a. The Office of Information Resources Management shall:
 - (1) Develop guidelines and programs to ensure that

Agency reporting requirements and information systems are defined and implemented in accord with this policy.

- (2) Provide guidance and assistance to Assistant Administrators, Associate Administrators and Regional Administrators in implementing the requirements of this policy.
- (3) Plan and oversee the acquisition, deployment and use of information technology within EPA to ensure support for effective management and sharing of data by EPA and State environmental agencies.
- (4) Ensure EPA compliance with Federal statutes and regulations governing the acquisition, operation and use of information technology employed to share data between EPA and State agencies.
- (5) Evaluate and report on the effectiveness of Agency activities in achieving the goals of this policy.

b. National Data Processing Division shall:

- (1) Design and manage the acquisition and operation of data processing and telecommunications resources to support effective management and exchange of data between EPA and State environmental agencies.
- (2) Develop standards for EPA data processing and telecommunications technology services that support the goals of this policy.
- (3) Provide technical advice and assistance to EPA and, upon request, to State environmental agencies concerning the acquisition and implementation of information technology to achieve the goals of this policy.

c. Assistant Administrators and Associate Administrators shall assure:

- (1) That State agency requirements for information and information technology are addressed in the design and implementation of EPA programs.

- (2) That the information systems and data management practices of programs and activities under their direction are in accord with this policy.
 - (3) Effective State participation in the design and operation of national information systems and data bases that contain data reported by States and provide timely and reliable access by States to such data bases.
- d. Regional Administrators shall assure that:
- (1) State requirements for information and information technology are effectively addressed in State delegation agreements, State grants and other agreements between EPA and States.
 - (2) Regional procedures for handling and validating State-reported data guarantee the integrity and accessibility of such data as required by this policy.
 - (3) The Regional Office has an effective program to foster and support State/EPA data management and sharing that meets at a minimum EPA Federal reporting requirements.
- e. The Office of Administration shall:
- (1) Develop and implement policies and procedures to assure that information collection and processing activities performed by EPA contractors and grantees comply with this policy.

7. DEFINITIONS.

- a. "Data" refers to a collection of unorganized facts that have not yet been processed into information.
- b. "Data Base" is a collection of integrated data that can be used for a variety of applications.
- c. "Data Communications" refers to computer-to-computer, computer-to-device, device-to-computer communications and other communications such as a record, tele-processing and telemetry.

- d. "Information Technology" refers to the hardware and software used in connection with government information, regardless of the technology involved, whether computers, telecommunications, micrographics or others.
 - e. "Software" refers to computer programs, procedures, rules and associated documentation pertaining to the operation of a computer system.
 - f. "Telecommunications" is the transmission and/or reception of information by telephone, telephone lines, telegraph, radio or other methods of communication over a distance. The information may be in the form of voice, pictures, text and/or encoded data.
8. PROCEDURES AND GUIDELINES. Procedures and guidelines will be issued under separate cover.

CHAPTER 4 - SOFTWARE MANAGEMENT

1. PURPOSE. This policy establishes the principles and requirements that govern the planning, acquisition, development, maintenance and use of Agency software resources. This policy also defines the roles and responsibilities for implementing these principles and requirements.
2. SCOPE AND APPLICABILITY. This policy applies to all EPA organizations and their employees. It also applies to the personnel of agents (including State agencies, contractors and grantees) of EPA who are involved in the design, development, acquisition, operation and maintenance of Agency software, data and information systems. The requirements of this policy apply to existing as well as new or modified/enhanced software systems.
3. BACKGROUND.
 - a. Directly or indirectly, most EPA managers are involved with automated information systems or the information resources management process. This involvement can be with the information itself and related resources, e.g., personnel, equipment, funds, systems and technology (hardware and software). As agencies become increasingly dependent on information technology to accomplish their basic missions, it is essential that these technologies be acquired and used in a rational way.
 - b. The EPA software management program is needed to manage and protect EPA information as a valuable national resource; promote cross-media analysis and information interchange for environmental results; reduce costs while maximizing benefits for program management and improve the quality, uniformity and maintenance of software products.
 - c. The objectives of EPA's software management program include the following:
 - (1) Secure EPA's investment in information collection, processing, dissemination, use, storage and disposition.

- (a) Much of EPA's software investment is "custom" software (i.e., developed by in-house or contractor staff), as opposed to software commercially marketed or developed by other government agencies.
 - (b) It is important that systems development, operation and maintenance be managed to ensure that this investment yields software products which are sound, maintainable and not subject to disruption.
- (2) Improve the quality, uniformity and maintenance of software systems.
 - (a) Decisions regarding the selection of such items as computer environment, programming languages, processing techniques, ergonomic screen design, terminal key functions and documentation products have been left up to the individual project officer, contractor or in-house developers.
 - (b) This has resulted in some successful systems, while others have been hampered by maintenance difficulties attributed to the lack of an effective software management program.
- (3) Improve the cost-effective acquisition, development, maintenance and ongoing operation of software systems.
 - (a) EPA spends a significant amount of its information resource dollars on custom software development, maintenance and ongoing operation of information systems.
 - (b) Improving the cost-effectiveness of these efforts can be achieved by standardizing techniques, methods, products and tools for systems engineering for all phases of the information systems life cycle and by the acquisition and use of commercial software where appropriate.
- (4) Promote inter-agency cooperation and sharing of software and data.

- (5) Improve the end-user computing environment and access to EPA's information resources.
 - (a) EPA is increasingly relying on end-user computing. The key to end-user computing is the availability of easy-to-use software tools and "ready-to-go" applications software.
 - (b) This can be achieved through several measures, including standardizing and supporting software tools for the end-user computing environment; providing training, software revisions and user support; expanding the "information center" approach to support the end-user computing environment; promoting access by Agency staff to information systems and resources; and developing and disseminating systems engineering standards and guidelines for all software life cycle phases of end-user developed applications.
 - (6) Develop plans for future software investments in areas with high payoff for the Agency's mission.
 - (a) While tools such as fourth generation languages have measurable benefits and significant productivity gains, there are future areas of software investment which promise even greater benefits and gains.
 - (b) These include greater reliance on generic, off-the-shelf software applications, as opposed to developing custom software; office automation software with greater levels of integration of functions, features and capabilities; expert systems or artificial intelligence applications for EPA mission and program goals; geographic information systems for environmental analysis; and the development and enforcement of software engineering standards to gain a greater degree of discipline and rigor in the software process.
- d. The policies described in the remainder of this chapter provide a framework for establishing this software management program.

4. AUTHORITIES.

- a. OMB Circular No. A-130, Management of Federal Information Resources, December 12, 1985.
- b. NBS FIPS PUB 38, Guidelines for the Documentation of Computer Programs and Automated Data Systems, February 15, 1976.
- c. NBS FIPS PUB 64, Guidelines for Documentation of Computer Programs and Automated Data Systems for the Initiation Phase, August 1, 1979.
- d. NBS FIPS PUB 105, Guidelines for Software Documentation Management, June 6, 1984.
- e. NBS FIPS PUB 106, Guidelines on Software Maintenance.
- f. NBS FIPS PUB 101, Guidelines for Lifecycle Validation, Verification and Testing of Computer Software.
- g. EPA Office Systems Feasibility Study, Implementation and Operational Guidelines, January 1985 (OIRM).
- h. EPA ADABAS Application Development Procedures Manual, October 17, 1984 (revised December 2, 1985), NDPD.

5. POLICY. It is EPA policy to enhance the management of software throughout its life cycle. It is also EPA policy that software developed by or acquired for the Agency will use EPA standard software tools and adhere to EPA standards and guidelines.

- a. The use of existing government and commercially available and tested software application packages is required wherever technically and economically feasible.
- b. Whenever custom programming is required, maximum use of automated tools for software design, development, testing and maintenance will be made.
- c. EPA offices and staff will jointly acquire and share software resources wherever possible. This applies to the acquisition of proprietary software products and development of software under contract or with in-house resources. Software that has the potential for being shared will be developed or acquired after an evaluation of the general requirements of interested offices.

- d. Copyright laws and other measures designed to protect legitimate proprietary interests in software and data must be rigidly enforced. Classified and unclassified data and software must be protected from improper access, use, alteration, manipulation or unauthorized disclosure as a result of criminal, fraudulent or other improper actions.
- e. In the absence of overriding efficiency considerations, all software resources must: satisfy functional requirements; provide interfaces consistent with users' needs and skill levels; meet users' availability needs; provide data integrity; provide response times acceptable to users under routine and unusual conditions (i.e., peak workloads, equipment failure); and meet users' security requirements.
- f. EPA program officials will adhere to Federal Information Processing Standards (FIPS) and guidelines as published or adapted for the Agency in developing, documenting, maintaining and using software applications.
- g. EPA program officials managing the development or ongoing operation of software applications are responsible for the management of life cycle costs, conformance to software standards and data base administration procedures, training, operations maintenance and user support and evaluation.
- h. The development of all application systems will conform to the Agency's system development life cycle methodology.
- i. The use of fourth generation or other non-procedural languages and tools is recommended in lieu of third generation, procedural language-based custom development efforts. Customized third generation or procedural languages and tools may be required to meet functional requirements for reasons of security, portability and efficiency. The use of assembler languages is restricted to exceptional situations, such as when modifying an existing program written in assembler language, writing a program for an operating system and an application requiring the use of assembler language.
- j. All EPA applications systems development efforts must use the Agency's standard application programming languages.

- k. Applications should be designed to require the least possible amount of computer operator and programmer support for execution.
- l. EPA program officials will periodically review all software resources to determine and prevent obsolescence of software. Indicators of obsolescence include: dependence on obsolete peripherals; running in an emulation mode; inadequate operating system or documentation and more than 5 years since the last substantial redesign.
- m. Information technology provided to EPA employees and their agents is to be used for official business only. EPA managers and supervisors are responsible for ensuring appropriate use of this technology by their employees.

6. RESPONSIBILITIES.

- a. The Office of Information Resources Management (OIRM) is responsible for:
 - (1) Managing information resources, functions and activities within EPA, in accordance with the Paperwork Reduction Act of 1980 (P.L. 96-511), Federal Information Processing Standards (FIPS), OMB Circular No. A-130 (Management of Federal Information Resources) and other Federal regulations.
 - (2) Defining EPA software management/engineering policies, standards and guidelines in the interests of standardization, productivity and effective management of software and information resources.
 - (3) Review and approval of technical specifications for software requested by OARM, ORD and the program offices.
 - (4) Publishing plans and guidance for administrative, program and research/laboratory systems.
 - (5) Conducting compliance reviews.

- b. The Assistant Administrators, Associate Administrators, Regional Administrators, Laboratory Directors, Headquarters Staff Directors, General Counsel and Inspector General are responsible for:
 - (1) Ensuring compliance with software management policies, standards and guidelines.
 - (2) Managing the software life cycle, process and products within their program(s).
- c. The Senior IRM Officials are responsible for:
 - (1) Approving microcomputer proprietary software.
 - (2) Initially approving requisitions for acquisitions of information technology prior to their review by NDPD and/or OIRM.
- d. The Director, National Data Processing Division, is responsible for:
 - (1) Acquiring all general purpose, non-application specific software such as operating systems, data base management systems, etc.
 - (2) Approving system-oriented proprietary software.
- e. The Procurement and Contracts Management Division and the Grants Administration Division are responsible for:
 - (1) Ensuring that all policy, standards and guidelines specified by OIRM are incorporated in Requests for Proposals (RFPs), Interagency Agreements (IAGs), Cooperative Agreements, Grants, Contracts and Sub-Contracts.
- f. Each EPA Manager, Supervisor, or Project Officer engaged in information resources management activities is responsible for:
 - (1) Conforming to the software management/engineering program policies, methods, standards, guidelines and techniques contained in this and related documents.

- g. Each EPA employee, contractor and grantee engaged in information resources management activities is responsible for:
 - (1) Conforming to Agency software management/engineering program policies, methods, standards, guidelines and techniques.

7. DEFINITIONS

- a. "Application Software" means software specifically produced for the functional use of a computer system, e.g., payroll, inventory control, environmental monitoring and scientific modeling.
- b. "Artificial Intelligence, Expert, or Knowledge-based Systems" refers to a class of systems that employ decision rules developed through human experience and from human knowledge to solve problems that require a high degree of human expertise.
- c. "Data Base Management System (DBMS)" is the software product that provides data structure containing unrelated data stored, so as to optimize accessibility, control redundancy and offer multiple views of the data to multiple application programs.
- d. "Documentation" refers to information to support the effective design, management, operation, maintenance and transferability of ADP resources, and to facilitate the interchange of information. Documentation includes analysis, technical documents and specifications which are produced in the software life cycle (e.g., project request, feasibility study, cost/benefit, functional requirements, data requirements, system/subsystem specifications, program specifications, data base specifications, test plan, user's manual, operations manual, test reports and maintenance procedures).
- e. "Fourth Generation (4GL) Programming Language" refers to modern programming languages (e.g., INFO, FOCUS) designed for end-users or to increase programmer productivity, which have a number of tools such as English language

syntax, dictionaries, screen builders and reference to data by name. These languages tend to be dependent on specific computer architectures and are not usually transportable. They usually imply a proprietary Data Base Management System (DBMS) or Data Management System (DMS).

- f. "Geographic Information System (GIS)" is a system that combines geographic and/or cartographic analysis capabilities with a computer data base system that can support data entry, data management, data manipulation and data display.
- g. "Non-procedural Language" see definition for Fourth Generation (4GL) Programming Language under "e".
- h. "Procedural or High Order Language" see definition for Third Generation Language (3GL) under "o".
- i. "Software" means computer programs, procedures, rules and possibly associated documentation and data pertaining to the operation of a computer system.
- j. "Software Engineering" refers to the discipline of applying software tools, techniques and methodologies to promote software quality and productivity.
- k. "Software Life Cycle" is the period of time beginning when a software product is conceived and ending when the product no longer performs the functions for which it was designed. The software life cycle is typically broken into phases, such as requirements, design, programming and testing, installation and operation and maintenance.
- l. "Software Maintenance" means the performance of those activities required to keep a software system operational and responsive after it is accepted and placed into operation. It is the set of activities which result in changes to the originally accepted (baseline) product. These changes consist of modifications required to: (1) insert, delete, extend and enhance the baseline system (perfective maintenance); (2) adapt the system to changes in the processing environment (adaptive maintenance) and (3) fix errors (corrective maintenance).

- m. "Software Tools" refers to packaged, often commercial, computer program(s) used to help develop, test, analyze or maintain computer programs, data and information systems. Examples include statistical software such as SAS, SPSS, sort systems, etc.
 - n. "Testing" refers to examining the behavior of a program by executing the program on sample data sets.
 - o. "Third Generation (3GL) Programming Language" is a programming language that usually includes features such as nested expressions and parameter passing, that can run on a variety of different computer systems and are independent of machine architecture (e.g., COBOL, BASIC, FORTRAN, PL/I). It is a problem oriented language that facilitates the expression of a procedure as an explicit algorithm. In contrast to fourth generation programming language, third generation programming language is usually independent of a data base management system and is transportable between different computer architectures.
8. PROCEDURES AND GUIDELINES. Procedures and guidelines for the Agency's software management program will be issued under separate cover.

CHAPTER 5 - DATA STANDARDS

1. PURPOSE. This policy establishes the EPA Data Standards Program. The purpose of this program is to provide consistent definition of data and to facilitate cross-media use of data. This policy sets forth Agency principles on data standards and assigns organizational responsibilities for implementing and administering common data standards.
2. SCOPE AND APPLICABILITY. This policy applies to all Environmental Protection Agency (EPA) organizations and their employees. It also applies to the facilities and personnel of agents (including contractors and grantees) of EPA who design, develop, operate or maintain Agency information and information systems. This policy applies to automated and manual systems developed for programs or administrative purposes. The requirements of this policy apply to existing data elements as well as new data elements.
3. BACKGROUND.
 - a. Integration of information and data bases is difficult because program offices use disparate formats and names for similar data elements.
 - b. There is a need to make and support decisions based on standard information and data collected that cuts across the Agency's programs.
 - c. Specific programs, such as the Ground-water program, have an increasing need to share data from other programs, other agencies, States and local governments. This adds credence to the need for acceptable data standards to facilitate exchange of information.
 - d. Information technology has reached a point at which the sharing of data among automated systems is technically feasible.
 - e. The Agency has implemented standards for hardware and software that facilitate the sharing of data among programs.
 - f. To support effectively the use of common definitions of environmental data with State programs, EPA must have common definitions for data elements and an intra-agency capability to share data.

- g. Organizations outside EPA have been establishing data standards which are accepted nationally or internationally. These pre-existing standards, such as Chemical Abstract Service (CAS) registry numbers, may serve as the best data standard for certain data elements.
- h. There is a growing need for agreement on the definition of Agencywide parametric data entities such as "site" and "facility."
- i. The Agency has a facilities inventory system that lists facilities regulated by the various programs in EPA. The inventory includes the different names and addresses for a single facility. This system will be a critical part of the Agency data standards effort.
- j. At a minimum, there are six major areas which would benefit from the use of data standards: data used in more than one program, facilities and site data, geographic data, measurement data, health and environmental effects data and core office systems data.

4. AUTHORITIES.

- a. 15 CFR, Part 6 Subtitle A, Standardization of Data Elements and Representations.
- b. OMB Circular A-130, Management of Federal Information Resources.

5. POLICY. It is EPA policy to create and maintain consistency in the form of data elements that have more than one application within the Agency. This consistency will permit the cross media approach necessary to achieve environmental results. The data standards will reflect the Agency's program priorities.

- a. As required by OMB Circular A-130, EPA will adhere to Federal Information Processing Standards (FIPS), except where it can be demonstrated that the costs of using a standard exceed the benefits of the standard or will impede the Agency in accomplishing its mission.
- b. All organizational components of EPA, their contractors or grantees will promote the full utilization of Federal and Agency data standards and representations in the design and development of information systems.

- c. Data elements, codes and representations already in use by the Agency will be evaluated and adopted as Agency standards wherever practicable.
- d. Data elements, codes and representations may be recommended for standardization by any program office within EPA.
- e. Geographical information systems developed by the Agency must conform to an established set of appropriate data standards which permit the use of the system by all relevant programs and State agencies.
- f. All relevant facilities or sites data must be stored in the Agency's facility or site inventory systems.

6. RESPONSIBILITIES.

- a. The Office of Information Resources Management (OIRM) shall:
 - (1) Provide effective leadership in developing, promulgating and enforcing the policies of the Agency data standards program.
 - (2) Coordinate the evaluation and approval process of all data standards with the Assistant Administrators, Regional Administrators, Office Directors and Senior Information Resources Management Officers.
 - (3) Exercise final approval authority for the adoption of data standards. Grant waivers to the implementation of approved Agency data standards.
 - (4) Support other EPA data administration efforts, e.g., encourage cross reference files for non-standard information. Encourage the use of data element dictionaries.
 - (5) Propose and apply effectively data elements or representations for use by more than one organizational component of EPA as Agency standards.
 - (6) Publish and promulgate approved Agency standards in an EPA Data Standards Catalog.
- b. Assistant Administrators, Associate Administrators, Regional Administrators, Laboratory Directors, Headquarters Staff Office Directors, General Counsel, Inspector General, and SIRMOS shall:

- (1) Implement approved Agency data standards that are published under the provisions of this policy.
- (2) Establish an organization-wide data standards work group which reviews and provides information and comments on proposed data standards.
- (3) Propose the adoption of data standards for Agency use within the environmental community.
- (4) Submit requests for waivers or deferments to the use of Agency data standards to OIRM.

7. DEFINITIONS.

- a. "Data Element" is a unit of information used to describe data characteristics and attributes, e.g., eyes - blue or BL.
- b. "Data Standards" are standards used generally, but not exclusively, for automated systems to ensure that one type of data is defined the same way in all systems. A similar definition means having the same name, the same number of maximum characters and the same type and content of data in all systems where a specific data item appears.
- c. "Information Technology" refers to the hardware and software used in connection with government information, regardless of the technology involved, whether computers telecommunications, micrographics or others.
- d. "Media" means Water, Air, Hazardous Waste and Pesticides and Toxic Substances program offices.
- e. "System" is the organized set of procedures used to collect, transmit and disseminate information whether automated or manual.

8. PROCEDURES AND GUIDELINES. Procedures and guidelines for the Agency data standards program will be issued under separate cover.

CHAPTER 6 - ADP RESOURCES MANAGEMENT

1. PURPOSE. To establish policies pertaining to the acquisition, management and operation of Agency automated data processing (ADP) resources.
2. SCOPE AND APPLICABILITY. This policy applies to all Agency national programs and Regional offices. Within this policy, ADP resources are defined as the following:
 - a. Large-scale, mainframe computers located at the National Computer Center, RTP.
 - b. Distributed processors located anywhere in the Agency.
 - c. Microcomputers used as desktop computing resources located anywhere in the Agency.
 - d. Data communications equipment including switching, concentration and front-end processors located anywhere in the Agency.
 - e. Data facilities used as intra-office, inter-office or wide-band network circuits.
 - f. Operating system software, telecommunications software, multi-user, third party application software.
3. BACKGROUND. The OMB and GSA require that each Federal Agency establish internal policies and procedures for the efficient management of ADP resources. The National Data Processing Division, OARM-RTP, within the authority of the Office of Information Resources Management, provides the following:
 - a. Computing and telecommunications services to Agency allowance holders at a pre-determined level as defined in general or specific Service Level Agreements.
 - b. Planning, oversight, management, operation and acquisition of all automated data processing resources in the Agency.
 - c. Assessment and introduction of new computing and telecommunications resources as appropriate to maintain effective and efficient delivery of automated data processing services.

4. AUTHORITIES.

- a. Public Law 89-306, The Brooks Act, which provides for the economic and efficient purchase, lease, maintenance, operation and utilization of ADP resources by Federal departments and agencies.
- b. Public Law 98-369, Competition in Contracting Act, which requires, among other things, that full and open competition be utilized in the acquisition of supplies and services and that specifications not be unnecessarily restrictive of competition.
- c. OMB Circular A-130, Management of Federal Information Resources, which establishes policy for the management of Federal information resources.
- d. FIRM, 41 CFR, Chapter 201, which provides Government-wide policies, procedures and guidelines pertaining to the procurement and management of ADP resources.

5. POLICY.

- a. EPA will plan, budget, acquire, maintain and operate all ADP resources in a cost-effective manner consistent with applicable Federal standards and regulations and which meet the documented mission needs of the various programs within the Agency.
- b. EPA will operate the National Computer Center as a computing and telecommunications facility designed to provide large mainframe computing services to EPA employees and contractors.
- c. EPA will operate the National Data Communications System which will provide terminal access and host-to-host communications between and among all computing resources in the Agency.
- d. EPA will provide management oversight, including procedures operating policy and change control for minicomputers and microcomputers located anywhere in the Agency.
- e. Information technology provided to EPA employees and their agents is to be used for official business only. EPA managers and supervisors are responsible for ensuring appropriate use of this technology by their employees.

6. RESPONSIBILITIES.

- a. Office of Information Resources Management is responsible for:
 - (1) Providing management guidelines and planning oversight for all Agency ADP resources.
 - (2) Managing a planning process which identifies the ADP requirements of the various programs in the Agency.
 - (3) Acquisition management of office automation.
 - (4) Acquisition of information technology supporting scientific and technical applications.
- b. The National Data Processing Division is responsible for:
 - (1) Planning and acquisition management of hardware not delegated to the Senior IRM Officials.
 - (2) The operation and maintenance of all centralized, mainframe ADP resources.
 - (3) Delegation, where appropriate, for the operation and maintenance of Agency ADP resources (distributed processors and microcomputers) to other programs within the Agency.
 - (4) Compliance with all applicable Federal regulations addressing acquisition, operation and accounting (including full-costing and chargeback) of ADP resources.
 - (5) Preparing procedures and guidance for the operation, maintenance and use of Agency ADP resources.
 - (6) Administering the Agency's timeshare accounting and billing systems and procedures.
 - (7) Developing and managing the Agency's ADP security and facility disaster recovery procedures.
 - (8) Providing ADP training and user support.

- c. The Assistant Administrators, Associate Administrators, Regional Administrators, Headquarters Staff Office Directors, Laboratory Directors, General Counsel, and Inspector General are responsible for:
 - (1) Ensuring compliance with the policies, standards and guidance for the use of Agency ADP resources.
 - (2) Developing mission-based requirements for ADP resources e.g., computer capacity planning.
 - (3) Operating and maintaining, as defined by NDPD, all delegated resources.
 - (4) Administering the Agency's timeshare accounting for their organization.
 - (5) Providing ADP training and user support for their organization.
- d. The Senior Information Resources Management Officials (SIRMOS) are responsible for:
 - (1) Initial approval of requisitions for acquisition of information technology prior to their review by NDPD and/or OIRM.

7. DEFINITIONS.

- a. "Automated Data Processing" (ADP) refers to the production, conversion, reduction, destruction, storage, transfer or communication of data by electronic digital computers and related peripheral devices. The term "electronic data processing" (EDP) and ADP are frequently used interchangeably with no significant distinction. Automated data processing may be performed by a stand-alone unit or by several connected units.
- b. "Automated Data Processing Equipment" refers to electronic components and equipment regardless of use, size, capacity or price that are designed to be applied to the solution or processing of a variety of problems or applications.
- c. "Central Processing Unit (CPU)" is that part of a computer that interprets and executes program instructions and communicates with the input, output and storage devices. It consists of the control unit and the arithmetic/logic unit.

- d. "Data Communications" refers to computer-to-computer, computer-to-device and device-to-computer communications and other communications such as a record, tele-processing and telemetry.
- e. "Distributed Processing" involves the use of computers of intelligent terminals at a number of sites that share the control, storage and/or computing functions of the central computing system, thus giving the end user data processing capabilities. The various stations, or network nodes, are connected by telecommunications lines.
- f. "Hardware" refers to physical equipment such as the computer and its related peripheral devices, tape drives, disk drives, printers, etc.
- g. "Mainframe" connotes a large computer.
- h. "Microcomputer" is one of a large variety of general purpose computers manufactured utilizing one or more micro-processors. Microcomputers can range from computers with relatively small amounts of memory to computers with large amounts of random access memory and several peripheral devices. Typically, an end user microcomputer is of desktop size and requires no special environmental site preparation.
- i. "Minicomputer" refers to a computer somewhere in size between a microcomputer and a mainframe. These units are characterized by higher performance than microcomputers, richer instruction sets, higher price and a proliferation of high-level languages, operating systems and networking methodologies.
- j. "Network" is a computer system using data communications equipment to connect two or more computers.
- k. "Operating System" refers to software that controls and supports the execution of computer programs and contributes to optimal use of the computing system. An operating system may provide services such as resource allocation, scheduling, input/output control, error recovery and data management. Although operating systems are predominantly software, partial or complete firmware implementations are possible.

1. "Service Level Agreement" refers to a documented contract between the National Data Processing Division (NDPD) and any client organization which describes the services which will be provided by NDPD to the client. There are two basic types of Service Level Agreements. One is a generic documented service description which applies to all client organizations and the other is a specific agreement with an individual client organization. The latter is developed primarily where the level of service requested is beyond the normal service levels contained in the generic service agreement. Service Level Agreements generally contain a description of availability, capacity, workload, performance, reliability and cost.
 - m. "Telecommunications" refers to the transmission and/or reception of information by telephone, telephone lines, telegraph, radio or other methods of communications over a distance. The information may be in the form of voice, pictures, text and/or encoded data.
 - n. "Timeshare" is a procedure that allows many users to simultaneously access and use the resources of a central computer through remote terminals.
8. PROCEDURES AND GUIDELINES. Procedures and guidelines regarding the management of the Agency's ADP resources will be issued under separate cover.

CHAPTER 7 - VOICE COMMUNICATIONS

1. PURPOSE. To establish policies governing the selection, installation, use, maintenance and administration of telephone systems in the Environmental Protection Agency.
2. SCOPE AND APPLICABILITY. These policies apply to the management of telephone and associated services for all locations and programs.
3. BACKGROUND. The Brooks Act, P.L. 89-306, establishes the General Services Administration (GSA) as the overseer of telecommunications facilities and services used by most elements of the Federal Government, including the Environmental Protection Agency. The following policies are provided as guidance for telecommunications planning and operation within the overall framework of GSA regulations.

Detailed information on telecommunications authority, responsibility, services, administration, equipment and service guidelines, locators and directories, teleconferencing, record communications and radio services is provided in "EPA Volume 4820-1, Telecommunications."

4. AUTHORITIES. Federal Information Resources Management Regulations: Title 41, Subtitle E, Chapter 201, Parts 6, 8, 11, 21, 23, 38, 39, 40, and 41.

5. POLICY.

- a. General

- (1) Each EPA program will be provided the telephone service it requires to function effectively. Agency telecommunications staff will identify and implement the most cost-effective solutions commensurate with the demands of operational requirements and the applicable Federal Information Resources Management Regulations (FIRMRs).
 - (2) Telephone services provided to EPA employees are to be used for official business only. EPA managers and supervisors are responsible for controlling use of these services by their employees.

b. Cost Planning and Control

- (1) Each designated official whose program has a budget for telephone service will develop annual projections for telecommunications expenses, which can be used to identify variations from expected cost/expenditure levels.
- (2) Each designated official whose program has a budget for telephone service will include in new or revised cost tracking systems the capability of allocating costs to their major operating elements.
- (3) Each designated official whose program receives a bill for telephone services will review the billing for accuracy and completeness, determining that the charges represent services received or equipment actually in place.
- (4) Each bill will be certified for payment by an official who has knowledge of its accuracy and completeness.

c. Use of Long Distance Telephone Services

- (1) The Federal Telecommunications System (FTS) long distance network and other Government provided long distance services are to be used to conduct official business only. Official business may include personal emergency calls and calls determined by a supervisor to be necessary in the interest of the government.
- (2) Examples of calls which can be authorized as being necessary in the interest of the government include: a brief (e.g. 2-3 minutes) daily call to locations within the local commuting area (the area from which the employee regularly commutes) to speak with spouse or minor children or to those responsible for them, to see how they are; brief calls to locations within the local commuting area to arrange for emergency repairs to an employee's residence or automobile; a brief (e.g. 8-10 minutes) daily call to employee's own residence if an employee is traveling for more than one night on Government business in the U.S.; calls to notify family, doctor, etc., when an employee is injured on the job; calls to notify family of a

schedule change when an employee is traveling on Government business; calls to notify family of a schedule change when an employee is required to work overtime without advance notice; calls to locations within the local commuting area that can be reached only during working hours, such as a local government agency or physician.

- (3) Personal calls that must be made during working hours can be placed from government phones using the commercial long distance network provided there is no expense to the government. These calls must either be placed to an 800 toll free number, charged to a non-government number (e.g. third party or collect), or charged to a personal telephone credit card.
- (4) Personal emergency calls, calls of a personal nature which are authorized by a supervisor to be necessary in the interest of the government, and other authorized personal calls that must be placed during working hours must not adversely affect the performance of official duties, should be of reasonable duration and frequency, and must be such that they could not have reasonably been made at another time.

d. Control of Long Distance Telephone Usage

- (1) All long distance telephone charges to EPA are subject to supervisory review. Where possible, employees will be asked to review records of calls placed from their assigned lines or extensions, to verify that calls were placed for official business.
- (2) Making unauthorized calls at government expense, even if the caller intends to reimburse the government, is prohibited by federal law (31 U.S.C. 1348(b)). Employees who place unauthorized calls at government expense will be required to pay for the cost of the calls and will be subject to disciplinary action according to the EPA Order No. 3120.1, "Conduct and Discipline." Repeated abuse may result in suspension or dismissal.

- (3) Call detail reports as maintained by EPA are subject to the requirements of the Privacy Act. All EPA locations and programs operating a system to generate call detail reports must comply with the provisions of the Privacy Act, including publication, disclosure, and record security provisions.

e. Equipment Standards

- (1) Telephone equipment procured for use at EPA locations must meet Agency standards for technical compatibility. These standards, which are defined by the Telecommunications Manager, are designed to promote connectivity, flexibility, ease of maintenance and possible system growth or redesign.
- (2) Each EPA location will establish a standard pattern of telephone equipment and lines for its various types of work stations: managerial, supervisory, technical, clerical and laboratory. This pattern will be designed to provide appropriate service for the installation at least cost and will conform to national technical standards.
- (3) In addition to technical merit and life cycle cost, telephone systems will be evaluated for user control over installation, relocation, repair, cost of use and system administration. Evaluation credit will be given for system features that allow moves and changes to be made easily by EPA employees and that provide information on troubles, traffic, trunk use and other areas which have direct cost implications. Evaluation criteria used for selection of contractors must appear in the associated RFP and will be approved by the appropriate procurement authority prior to use.

f. Procurement Approvals

- (1) All telephone system and service procurements and changes that require GSA approval under the FIRMR will be submitted to the Central Telecommunications Staff in the planning or early procurement stage for review and coordination with the GSA Authorizations Staff. Actions requiring approval are detailed in "EPA Manual 4820-1, Telecommunications."

- (2) All requirements for use of radio frequencies, including purchase of radio equipment and inauguration or change in the use of any frequency, will be submitted to the Central Telecommunications Staff for review and coordination with the National Telecommunications and Information Administration's Frequency Assignment Sub-committee.
- (3) All procurements of telephone equipment or services by EPA locations or programs will be submitted to the Central Telecommunications Staff for technical clearance, to insure compatibility with other telephone and facsimile equipment, dial tone to data interface units, approved building wiring specifications and general technical standards.

g. Inventory of Telephone Assets

- (1) Each EPA location will maintain a record of telephone lines, equipment and features which can be used to support review and validation of monthly vendor billings and the annual inventory of telephone assets required by the FIRMR.

h. Voice Telephone Monitoring

- (1) Listening to and recording telephone conversations without specific legal authorization is prohibited. No unannounced telephone recording devices of any kind shall be installed or used in EPA.
- (2) An exception to the prohibition of use of telephone recording devices may be made with the approval of the EPA Administrator to accommodate a handicapped employee who may require recording equipment in order to perform required job functions.

i. Building Wiring

- (1) All new telephone wiring installed by EPA locations and programs will conform to standards established and updated by the Central Telecommunications Staff. These standards will permit efficient installation and relocation of both voice and data terminals and transmission equipment.

6. RESPONSIBILITIES.

- a. The Director, National Data Processing Division, is responsible for:
 - (1) Development of telecommunications policy and practices for both voice and integrated voice-data systems.
 - (2) Review and approval of all telecommunication changes and procurements subject to Federal Information Resources Management Regulation review.
 - (3) National and Headquarters telecommunication operations (e.g., facsimile networking, radio frequency management, off-premise FTS terminations).
 - (4) Providing telecommunications assistance to all field locations.
- b. Regional Administrators and Laboratory Directors are responsible for:
 - (1) Regional office and laboratory telephone operations, not otherwise assigned to NDPD.

CHAPTER 8 - INFORMATION SECURITY

1. PURPOSE. This document establishes a comprehensive, Agency-wide security program to safeguard Agency information resources. This document sets forth the Agency's information security policy for both manual and automated systems and assigns individual and organizational responsibilities for implementing and administering the program.
2. SCOPE AND APPLICABILITY. This document applies to all EPA organizations and their employees. It also applies to the facilities and personnel of agents (including contractors and grantees) of the EPA who are involved in designing, developing, operating or maintaining Agency information and information systems.
3. BACKGROUND.
 - a. Information is an Agency asset, just as property, funds and personnel are Agency assets. The EPA is highly dependent upon its information resources to carry out program and administrative functions in a timely, efficient and accountable manner.
 - b. The EPA relies on its information collection authority under various enabling statutes to fulfill effectively its environmental missions. The willingness of the regulated community and State and local agencies to supply requested information in a cooperative and timely fashion depends on their confidence that the information will be adequately protected.
 - c. The Agency's information resources are exposed to potential loss and misuse from a variety of accidental and deliberate causes. This potential loss and misuse can take the form of destruction, disclosure, alteration, delay or undesired manipulation. Moreover, the Agency can be subject to acute embarrassment and litigation if certain business or personal information is inadvertently or maliciously disclosed.
 - d. As a result, it is essential that an overall program be established to preserve and adequately protect the Agency's information resources. At the same time, it is equally essential that the program not unnecessarily restrict information sharing with other Federal agencies,

universities, the public and State and local environmental authorities. Such information sharing has historically played a vital role in the overall fulfillment of the Agency environmental mission.

- e. The management, control and responsibility for information resources within EPA are decentralized. Consequently, the management and responsibility for information security are also decentralized. An important example of this is the expanding use of personal computers, networking, distributed data bases and telecommunications. These trends place new responsibilities on office managers, research personnel and others not previously considered information processing professionals. The "computer center" can not be relied upon to protect Agency operations. Controls must be implemented and maintained where they are most effective.
- f. In determining responsibilities for information security, it is useful to define a framework of owner/custodian/user. Owners are those who create or maintain information. Custodians are typically suppliers of information services who possess, store, process and transmit the information. These roles are often not discrete; the owner is often the principal custodian and user of the information.

4. AUTHORITIES.

- a. OMB Circular A-130, Management of Federal Information Resources.

5. POLICY. It is EPA policy to protect adequately sensitive information and sensitive applications, maintained in any medium (e.g., paper, computerized data bases, etc.), from improper use, alteration or disclosure, whether accidental or deliberate. Information and applications will be protected to the extent required by applicable law and regulation in accordance with the degree of their sensitivity in order to ensure the cost-effectiveness of the security program.

- a. Information security measures will be applied judiciously to ensure that automated systems operate effectively and accurately and to ensure the continuity of operation of automated information systems and facilities that support critical agency functions.

- b. As required by OMB Circular No. A-130, all automated installations will undergo a periodic risk analysis to ensure that appropriate, cost-effective safeguards are in place. This risk analysis will be conducted on new installations, on existing installations undergoing significant change and on existing installations at least every five years.
- c. Appropriate administrative, physical and technical safeguards shall be incorporated into all new ADP application systems (including PC-based applications) and major modifications to existing systems.
- d. As required by OMB A-130, all new applications will undergo a control review leading to formal certification. Existing sensitive applications will be recertified every three years.
- e. Access to sensitive personnel information and employment applications will be limited to appropriate personnel in accordance with procedures established by the Office of Personnel Management and monitored by the EPA Office of the Inspector General.
- f. Appropriate ADP security requirements will be incorporated into specifications for the acquisition of ADP related services and products.
- g. An information security awareness and training program will be established so that all Agency and contractor personnel are aware of their information security responsibilities.
- h. Information security must be a major factor in evaluating the use of microcomputers. Microcomputer systems software is typically rudimentary and affords little or no protection to information and programs. Consequently, networked microcomputers, the ability to download data from larger, protected computers onto microcomputers and microcomputer data processing, generally present problems in information security (for example, problems of access control or control over the dissemination of information). All EPA employees and managers must be aware of the information security implications of storing and processing sensitive information on microcomputers, whether networked or stand-alone.

- i. Therefore, it is EPA policy to discourage the use of microcomputers for storing or processing sensitive information, unless cognizant EPA employees and managers have made sure that adequate information security measures are in use. If adequate information security cannot be maintained, an alternative system configuration must be used.
- j. Information security violations will be promptly reported to appropriate officials, including the Inspector General.

6. RESPONSIBILITIES.

- a. The Office of Information Resources Management is responsible for:
 - (1) Developing and issuing an information security policy in accordance with all applicable Federal laws, regulations and executive orders.
 - (2) Ensuring that all Agency organizational units are in compliance with the information security program.
 - (3) Establishing training criteria and coordinating the development of an information security training and awareness program.
 - (4) Providing guidance on selecting and implementing safeguards.
 - (5) Participating as it deems appropriate, in management and internal control reviews conducted by the Office of the Comptroller to ensure compliance with the information security program.
- b. Each "Primary Organization Head" (defined by EPA Order 1000.24 as the Deputy Administrator, Assistant Administrators, Regional Administrators, the Inspector General and the General Counsel) is responsible for:
 - (1) Ensuring that sensitive information and applications within the organization are adequately protected.

- (2) Establishing an organization-wide program for information security consistent with organizational mission and Agency policy, including assigning responsibility for the security of each installation to a management official(s) knowledgeable in information technology and security.
 - (3) Assuring annually the Assistant Administrator for Administration and Resources Management that organizational information resources are adequately protected. This will be done as part of the internal control review process required under OMB Circular No. A-123 (revised) and implemented under EPA Order 1000.24.
 - (4) Making sure that all automated installations within the organization undergo a periodic "risk analysis" to ensure that appropriate, cost-effective safeguards are in place.
 - (5) Ensuring the continuity of operations of automated information systems and facilities that support critical functions.
 - (6) Making sure that appropriate safeguards are incorporated into all new organizational application systems and major modifications to existing systems, that all new organizational applications undergo an information security review leading to formal certification and that existing sensitive applications are recertified every three years.
 - (7) Making sure that Federal employees and contractor personnel understand their security responsibilities and that organizational security regulations are properly distributed.
 - (8) Making sure that all organizational procurements of ADP equipment, software and services incorporate adequate security provisions.
- c. The Director, Facilities Management and Services Division (FMSD), is responsible for:

- (1) Establishing and implementing physical security standards, guidelines and procedures in accordance with EPA information security policy.
 - (2) Establishing and implementing standards and procedures for National Security Information in accordance with EPA information security policy and all applicable Federal laws, regulations and executive orders.
- d. The Procurement and Contracts Management Division and the Grants Administration Division are responsible for:
- (1) Ensuring that Agency grant and contract policies, solicitations and award documents contain provisions concerning the information security responsibilities of contractors and grantees that have been promulgated by OIRM.
 - (2) Establishing procedures to ensure that contractors and grantees are in compliance with their information security responsibilities. Project Officers are responsible for ensuring contractor compliance with security requirements on individual contracts. Violations shall be reported to the contracting officer, Inspector General and appropriate OIRM official. Specific violations involving National Security Information shall be reported to the Director, FMSD and the Contracting Officer.
- e. The Office of the Inspector General is responsible for:
- (1) Establishing and implementing personnel security standards, guidelines and procedures in accordance with EPA information security policy and all applicable Federal laws and regulations.
 - (2) Conducting or arranging investigations of known or suspected personnel security violations as it deems appropriate.
- f. The Office of the Comptroller is responsible for:
- (1) Allowing OIRM to review written internal control reports so that OIRM is aware of the status of information security weaknesses.

- g. Each EPA Manager and Supervisor is responsible for:
 - (1) Making sure their employees are knowledgeable of their information security responsibilities.
 - (2) Ensuring that their employees adhere to the organizational information security program established by the applicable Primary Organization Head.
- h. Each EPA Employee, Contractor and Grantee is responsible for:
 - (1) Complying fully with his/her information security responsibilities.
 - (2) Limiting his/her access only to information and systems he/she is authorized to see and use.
 - (3) Adhering to all Agency and organizational information security policies, standards and procedures.
 - (4) Reporting information security violations to appropriate officials. Violations involving National Security Information shall also be reported to the Director, FMSD.

7. DEFINITIONS.

- a. "Applications Security" means the set of controls that makes an information system perform in an accurate and reliable manner, only those functions it was designed to perform. The set of controls includes the following: programming, access, source document, input data, processing storage, output and audit trail.
- b. "Confidential Business Information" includes trade secrets, proprietary, commercial/financial information, and other information that is afforded protection from disclosure under certain circumstances as described in statutes administered by the Agency. Business information is entitled to confidential treatment if: (1) business asserts a confidentiality claim, (2) business shows it has taken its own measures to protect the information, (3) the information is not publicly available or

(4) disclosure is not required by statute and the disclosure would either cause competitive harm or impair the Agency's ability to obtain necessary information in the future.

- c. "Information" means any communication or reception of knowledge such as facts, data or opinions, including numerical, graphic, or narrative forms, whether oral or maintained in any medium, including computerized data bases (e.g., floppy disk and hard disk), papers, microform (microfiche or microfilm), or magnetic tape.
- d. "Information Security" encompasses three different "types" of security: applications security, installation security and personnel security. In total, information security involves the precautions taken to protect the confidentiality integrity and availability of information.
- e. "Information System" means the organized collection, processing, transmission and dissemination of information in accordance with defined procedures, whether automated or manual.
- f. "Installation" means the physical location of one or more information systems, whether automated or manual. An automated installation consists of one or more computer or office automation systems including related peripheral and storage units, central processing units, telecommunications and operating and support system software. Automated installations may range in size from large centralized computer centers to stand-alone personal computers.
- g. "Installation Security" includes the use of locks, badges and similar measures to control access to the installation and the measures required for the protection of the structure housing the installation from accident, fire and environmental hazards. In addition to the above physical security measures, installation security also involves ensuring continuity of operations through disaster planning.
- h. "National Security Information" means information that is classified as Top Secret, Secret or Confidential under Executive Order 12356 or predecessor orders.

- i. "Personnel Security" involves making a determination of an applicant's or employee's loyalty and trustworthiness by ensuring that personnel investigations are completed commensurate with position sensitivity definitions and according to the degree and level of access to sensitive information.
- j. "Privacy" is the right of an individual to control the collection, storage and dissemination of information about himself/herself to avoid the potential for substantial harm, embarrassment, inconvenience or unfairness.
- k. "Risk Analysis" is a means of measuring and assessing the relative vulnerabilities and threats to a collection of sensitive data and the people, systems and installations involved in storing and processing that data. Its purpose is to determine how security measures can be effectively applied to minimize potential loss. Risk analyses may vary from an informal, quantitative review of a micro-computer installation to a formal, fully quantified review of a major computer center.
- l. "Sensitive Information" means information that requires protection due to the risk and magnitude of loss or harm that could result from inadvertent or deliberate disclosure, alteration or destruction of the information. For the purposes of this program, information is categorized as being either sensitive or not sensitive. Because sensitivity is a matter of degree, certain sensitive information is further defined as being "highly" sensitive.

Highly Sensitive: This is information whose loss would seriously affect the Agency's ability to function, threaten the national security or jeopardize human life and welfare. Specifically, information of this type includes National Security Information, information critical to the performance of a primary Agency mission, information that is life critical and financial information related to check issuance, funds transfer and similar asset accounting/control functions.

Other Sensitive: This is information whose loss would acutely embarrass the Agency, subject the Agency to litigation or impair the long-run ability of the Agency to fulfill its mission. Information of this type includes Privacy Act information, Confidential Business Information, enforcement confidential information, information that the Freedom of Information Act exempts from disclosure, budgetary data prior to release by OMB and information of high value to the Agency or a particular organization (see below).

The sensitivity if any, of all other information, shall be determined by the organizational owner of the information. While a precise set of criteria for determining the sensitivity of this other information cannot be provided, the cost of replacing the information and the problems that would result from doing without the information are primary factors to consider in determining sensitivity.

- m. "Sensitive Applications (or Systems)" are applications which process highly sensitive or sensitive information or are applications that require protection because of the loss or harm which could result from the improper operation or deliberate manipulation of the application itself. Automated decision-making applications are highly sensitive if the wrong automated decision could cause serious loss.

- 8. PROCEDURES AND GUIDELINES. Standards, procedures and guidelines for the Agency information security program will be identified and issued under separate cover in the "Information Security Manual." This manual will identify and reference, as appropriate existing procedures in the information security area, such as the "Privacy Act Manual," the "National Security Information Security Handbook," and Confidential Business Information manuals like the TSCA Security Manual.

9. PENALTIES FOR UNAUTHORIZED DISCLOSURE OF INFORMATION.

- a. EPA employees are subject to appropriate penalties if they knowingly, willfully or negligently disclose sensitive information to unauthorized persons. Penalties may include, but are not limited to, a letter of warning, a letter of reprimand, suspension without pay, dismissal, loss or denial of access to sensitive information (including National Security Information), or other penalties in accordance with applicable law and Agency rules and regulations, which can include criminal or civil penalties. Each case will be handled on an individual basis with a full review of all the pertinent facts. The severity of the security violation or the pattern of violation will determine the action taken.
- b. Non-EPA personnel who knowingly, willfully or negligently disclose sensitive information to unauthorized persons will be subject to appropriate laws and sanctions.

CHAPTER 9 - INFORMATION COLLECTION

1. PURPOSE. This policy establishes objectives, responsibilities and procedures for preparation, review and clearance of Agency efforts to collect or obtain information from the public in support of Agency missions.
2. SCOPE AND APPLICABILITY. This policy applies to all EPA organizational units and their employees. It also applies to agents of EPA (including State agencies, contractors and grantees) who are involved in information collection activities.
3. BACKGROUND.
 - a. The Paperwork Reduction Act of 1980 (P.L. 96-511) was formulated to remedy deficiencies Congress perceived in Federal information related activities, particularly related to the paperwork burden imposed by Government on the public. The Act and resultant OMB and GSA policy intend for the creation or collection of information to be carried out within the context of efficient and economical management.
 - b. EPA can be characterized as an 'information-based' agency in the sense that in developing and implementing its programs, it constantly requires the collection or generation of data. Indeed, in many cases, this information component plays the decisive role determining both the resources that the Agency will need and the substantive direction that its programs will take. Given its importance to the organization, therefore, the decision to collect information ought to reflect the policy interests of the Agency.
 - c. This chapter presents those policy interests with respect to information so that decisions to collect or generate and maintain data can be made in a principled and coordinated manner on an Agencywide basis.
 - d. The Agency's information policy rests on the following two general premises:

- (1) That justification for an information collection must derive from the role that this information plays in supporting a program mission of the Agency.
- (2) That, given a number of acceptable options for using information to support a program mission, an information collection ought to represent the most economical alternative in terms of both cost to the Agency and burden on the public.

Sections 5-a through 5-c of this chapter expand on this first premise. Sections 5-d through 5-f expand on the second.

4. AUTHORITIES.

- a. Paperwork Reduction Act of 1980 (Public Law 96-511).
- b. OMB Regulation 5 CFR 1320, Controlling Paperwork and Burden on the Public.
- c. OMB Circular A-130, Management of Federal Information Resources.

5. POLICY.

- a. The data requirements of the information collection must be clearly dictated by the need to support decisions that serve an identifiable program mission. Data requirements here include:
 - (1) The data elements being collected. Each data element must be clearly relevant to the decisions to be supported.
 - (2) The number of individuals about whom (and from whom) these data elements are being collected. This "quantity" of information must be appropriate to what the decisions at hand require.
 - (3) The requirements for quantifiable levels of precision in survey estimates. The level of precision chosen must reflect the survey's intended role in a decision-making process.

- (4) The choice of individuals about whom (and from whom) data elements are being collected in case studies. The analysis plan for such a study must explain why this approach is being taken and why study of the individuals in questions is relevant to the decisions to be made.
- b. The provisions for collecting, storing and managing the data must be appropriate to the decisions the information will be used to support, taking into account:
 - (1) The data requirements themselves
 - (2) Who will be providing the data
 - (3) Who will be using the data
 - (4) The time frame within which that use will occur.
- c. The cost of the information collection (in terms both of resources expended by the Agency and of burden imposed on the public) must be commensurate with both the importance of the program mission in question and the contribution that the information makes to decisions that serve this mission. Specifically,
 - (1) Taking into account both the use of information and the cost, the information collection should result in a net social benefit--that is, whether or not this can be quantified, in some clear sense the information should be worth more than it costs to collect
 - (2) The proportion of the Agency's resources (including the amount of burden placed on the public) devoted to the collection and use of the information should reflect the relative priority of the program mission being served.
- d. The information collection must reflect the choice of the least costly alternative that will satisfy the decision-making needs to the given program mission. In this context, "cost" represents the total of Agency and public resources devoted to supplying, collecting, processing, storing and using the information.

- e. The information collection must not generate a body of data that duplicates information already available to the Federal government--bearing in mind that what counts as "duplicate data" will be relative to the decision-making needs which the data will be used to satisfy.
- f. The information collection should be designed to maximize its usefulness by ensuring that, so long as costs do not rise disproportionately and program priority needs are not compromised:
 - (1) The collection takes advantage of the opportunities to serve multiple needs, both within and outside the Agency
 - (2) The data are collected and maintained in a form that is compatible with the broadest range of information systems to which they are likely to be relevant.

6. RESPONSIBILITIES.

- a. The Office of Policy, Planning and Evaluation is responsible for:
 - (1) Overseeing Agency compliance with Federal information collection policies and guidelines.
 - (2) Promulgating and maintaining Agency guidance for compliance with Federal information collection requirements under the Paperwork Reduction Act.
 - (3) Reviewing proposed legislation or regulations which involve information collection requirements to assess the costs to the Agency and the paperwork burden imposed on the public.
 - (4) Providing training and technical assistance to Agency personnel in the development and clearance of information collection requests.
 - (5) Reviewing each information collection request to ensure consistency with Federal policy and criteria specified in Section 1320.4(b) of the Paperwork Reduction Act that the collection of information:

- (a) Is the least burdensome necessary for the proper performance of the Agency functions to comply with legal requirements and achieve program objectives
 - (b) Is not duplicative of information otherwise accessible to the Agency
 - (c) Has utility and good quality. The agency must seek to minimize the cost to itself of collection, processing, and using the information, but shall not do so by means of shifting disproportionate costs or other burdens onto the public.
- (6) Coordinating OMB clearance of EPA information collection requests including responding to inquiries from OMB, maintaining records of transmittals and clearances and notifying program offices of OMB action.
- (7) Coordinating the annual submission of an Information Collection Budget for the Agency.
- b. The Assistant Administrators, Associate Administrators, General Counsel, Inspector General and Regional Administrators are responsible for:
 - (1) Implementing the guidelines required by the Office of Management and Budget under the Paperwork Reduction Act of 1980 within their offices.
 - (2) Ensuring that their information collection activities within their offices shall have received prior OMB clearance and the appropriate OMB control number.
 - (3) Reviewing and approving their offices' information collection requests for submission to OMB.
 - (4) Ensuring that their information collections are not duplicative, require as little burden from respondents as possible and have practical utility.

7. DEFINITIONS.

- a. "Burden" - refers to the total time, effort, or financial resources expended by persons to provide information to the Agency. This includes the time to read or hear, develop, modify, construct or assemble; to conduct tests, inspections, polls, observations necessary to obtain the information; to organize, review, maintain, disclose, or report the information; and to store, file or maintain the information.
- b. "Information Collection" - refers to obtaining or soliciting facts or information by the Agency through the use of written report forms, application forms, schedules, questionnaires, reporting or recordkeeping requirements, or other similar methods calling for either answers to:
 - (1) Identical questions posed to, or identical reporting or recordkeeping requirements imposed on, ten or more persons, other than agencies, instrumentalities, or employees of the United States
 - (2) Questions posed to agencies, instrumentalities, or employees of the United States which are to be used for general statistical purposes.
- c. "Information Collection Request" - refers to the method by which the Agency communicates the specifications for a collection of information to potential respondents, including a written report form, application form, schedule, questionnaire, oral communication, reporting or recordkeeping requirement or other similar method.
- d. "Information Collection Budget" - refers to a limit imposed annually by OMB allowing the Agency to conduct information collection activities. The figure is expressed in hours of burden on the public.
- e. "Practical Utility" - refers to the ability of the Agency to use the information it collects, particularly the capability to process such information in a timely and useful fashion.

- f. "Recordkeeping Requirement" - is a requirement imposed by the Agency on persons or businesses to maintain specified records that are not customarily kept as ordinary business records. These records are not necessarily provided to the Agency.
- 8. PROCEDURES AND GUIDELINES. Procedures and guidelines will be issued under separate cover.

CHAPTER 10 - RECORDS MANAGEMENT

1. PURPOSE. This policy prescribes objectives, responsibilities and procedures for the conduct of the Agency's records/information management program.
2. SCOPE AND APPLICABILITY. This policy applies Agencywide to both program and administrative records.
3. BACKGROUND. Records created or acquired by an official or employee of the Agency in the course of conducting Government business are the property of the United States Government. Persons who create or acquire custody or possession of official records by virtue of their positions as officials or employees do not necessarily attain a proprietary interest in such records. Official records are public records and belong to the Government rather than to the employee. The penalties for the willful and unlawful destruction, removal from files and private use of official records are contained in 18 U.S.C. 2071. All EPA employees are responsible for reporting any actual or threatened unlawful loss or removal of official records to the Agency Records Management Officer, Information Management and Services Division.

Detailed information on records management procedures and guidance are contained in the EPA Records Management Manual.

4. AUTHORITIES.
 - a. Federal Records Act of 1950, as amended (44 U.S.C. 3101-3107).
 - b. 36 CFR 1220 and 41 CFR 201-22.
 - c. Paperwork Reduction Act of 1980.
 - d. OMB Circular A-130, Management of Federal Information Resources.
5. POLICY.
 - a. The Agency shall make and preserve records to provide adequate and proper documentation of the organization, functions, policy decisions, procedures and essential

transactions; and to protect the legal and financial rights of the Government and of persons directly affected by Agency activities.

- b. As required by law, the official records of the Agency shall not be destroyed without the prior approval of the National Archives and Records Administration. This approval authority is provided in the form of EPA Records Control Schedules. These schedules list official records of the Agency (including many non-official records) and prescribe the periods of authorized retention. All EPA employees are responsible for insuring that records disposal actions agree with these schedules.
- c. Records (of all media, paper, electronic, audiovisual, maps, etc.) shall be retained in accordance with Agency retention schedules. After the specified record retention period, records shall be disposed of or forwarded to the Federal Records Center per Agency procedures.
- d. The Agency shall preserve and protect information that is vital to the essential functions of the Agency during a national emergency or that is essential to the legal rights and interests of individual citizens and the Government.
- e. The Agency shall apply, whenever practicable, appropriate standards and file structures to facilitate efficient filing, storage and retrieval of records.
- f. The acquisition and use of state-of-the-art information storage and retrieval systems (e.g., microform, electronic digital image, computer assisted retrieval), shall be approved when technically feasible, cost-effective and when it most appropriately satisfies program needs.
- g. The Agency shall establish uniform criteria for the acquisition of information storage and retrieval technologies.
- h. Machine-readable and audiovisual records (i.e., microform records) shall be maintained and protected in accordance with applicable statutes and regulations.
- i. The acquisition of filing equipment and supplies for use within the Agency shall be as economical as possible to meet filing requirements. Filing equipment is not to be

requested solely to improve appearance, office decor, elevate status nor because of a desire for the latest design. Letter-size equipment shall be used unless there is a requirement for legal-size. Used or reconditioned equipment shall be used when available. As equipment becomes excess to local needs, it shall be turned into the Property Office for further disposition.

- j. The integrity of the Agency's official files shall be insured at all times, so that all official records relating to the operations of the Agency are documented in the official files.

6. RESPONSIBILITIES.

- a. The Assistant Administrators, Inspector General, General Counsel, Associate Administrators, Regional Administrators, Laboratory Directors and Headquarters Staff Office Directors shall provide for the implementation of the records/information management program within their respective areas. They shall:

- (1) Assure that the objectives of the EPA records management program are achieved. These objectives include the following:
 - (a) Prevent the creation of unnecessary records in any media.
 - (b) Promote the application of filing systems and structures for the efficient organization, maintenance and use of records to facilitate retrieval and use.
 - (c) Ensure that records of continuing value are preserved but that valueless or non-current information are disposed of or transferred to storage in a timely manner in accordance with Agency records control and disposition schedules.
 - (d) Ensure that the acquisition and use of all direct paper to microform systems and equipment or electronic digital image are technically feasible, cost-effective and most appropriately satisfy program needs.

- (e) Ensure that appropriate criteria justifying the acquisition of information storage equipment are applied.
 - (f) Preserve and protect information that is vital to the essential functions of the Agency during a national emergency or that is essential to the legal rights and interests of individual citizens and the Government.
 - (g) Provide for the Agencywide management of machine-readable and audiovisual records in accordance with applicable statutes and regulations.
- (2) Designate individuals within their respective areas to act as Records Management Officers and Vital Records Officers.
- (3) Assure that file custodians are designated within their area of responsibility.
- (4) Assure that records control schedules are applied to the records in their area.
- b. The Director, Information Management and Services Division shall provide overall supervision and policy guidance in records management on an Agencywide basis.
- c. Records Management Officers.
 - (1) The Agency Records Management Officer in the Information Management and Services Division, shall:
 - (a) Develop policy, directives, instructional materials governing the organization, maintenance and disposition of all records, including machine-readable and audiovisual.
 - (b) Provide staff advice, guidance, assistance and training in all aspects of the records/information management program.
 - (c) Coordinate program efforts and evaluate program effectiveness by making periodic surveys of information systems.

- (d) Coordinate the review and approval of requests for source document micrographics/electronic image storage and retrieval systems, equipment and services.
 - (e) Review and approve acquisition of records storage equipment at Headquarters.
 - (f) Plan and coordinate the EPA Vital Records Program.
 - (g) Coordinate the retirement and retrieval of Headquarters records to the Federal Records Center.
- (2) Records Management Officers at Headquarters shall serve as coordinators of the records program in their areas.
- (3) Records Management Officers in Regional offices and laboratories, when designated, shall perform responsibilities corresponding to those of the Agency Records Management Officer (see subparagraph c(1) above) in their areas.

7. DEFINITIONS.

- a. "Administrative Records" are the records which reflect routine, transitory, and internal housekeeping activities relating to subjects and functions common to all offices.
- b. "Agency Records Management Officer" is the title of the designated staff official whose responsibility is to plan, develop and coordinate the Agency records management program.
- c. "Electronic Digital Image Storage and Retrieval Systems" is the technology that converts and stores images and information in digital form.
- d. "Federal Records Centers" are the depositories established by the National Archives and Records Administration for the housing of non-current, inactive or permanent records pending ultimate disposition in accordance with the Agency Record Control Schedules.

- e. "Filing Equipment" refers to any equipment used to provide storage for information e.g., lateral, vertical, mechanized and ADP.
- f. "Filing Supplies" are items such as folders, guides, cross-reference sheets and charge-out cards.
- g. "Information Management" describes the processes necessary for the creation, use and disposal of information regardless of the media on which it is recorded.
- h. "Maintenance of Records" refers to the grouping, filing, storing and safeguarding of records.
- i. "Micrographics" refers to the science and technology of document and information microfilming and associated microform systems including the following:
 - (1) "Microfilm" is a high resolution film containing an image or images greatly reduced in size from the original which is recorded on the film.
 - (2) "Microfiche" is a sheet of film containing multiple microimages in a grid pattern. It usually contains a heading or title which can be read without magnification.
 - (3) "Microform" is any form containing microimages.
 - (4) "Microimages" refers to information, such as a page of text or a drawing, too small to be read without magnification.
- j. "Program Record" refers to records created, received and maintained by an agency in the conduct of the mission functions for which it is responsible. The term is used in contrast with administrative, housekeeping or facilitative records.
- k. "Records" are recorded information of continuing administrative, fiscal, legal, historical or informational value, including published materials, papers, maps, photographs, microfilm, audiovisual, machine-readable materials (ADP tapes/disks) or other documentary material,

regardless of physical form or characteristics, made or received by the agency that evidences organization, functions, policies, decisions, procedures, operations or other activities of the Government.

- (1) "Classified Records" are records designated as "Top Secret," "Secret" or "Confidential" which are restricted to processing or use by cleared individuals and require special protection.
- (2) "Current Records" are records or files presently in the physical custody of organizational units, the maintenance of which is required for the conduct of current work.
- (3) "Nonrecord Material" includes blank forms, library materials and working papers of fleeting value such as drafts, worksheets, informal notes, slips, etc.
- (4) "Official Record File" refers to documentation including all background material resulting from specific transactions, operations or processes which are accumulated and maintained in file equipment. It may include any media such as film, microform, cards, papers and magnetic tapes and disks.
- (5) "Permanent Records" refers to records of continuing value which are considered to be so valuable or unique in documenting the history of the agency or for informational content that they should be preserved "forever" as part of the National Archives of the United States.
- (6) "Confidential Business Information" means any information in any form received by EPA from any person, firm, partnership, corporation, association or local, State or Federal agency or foreign government which contains trade secrets or commercial or financial information, and which has been claimed as confidential by the person submitting it and has not been determined to be non-confidential under the procedures in 40 CFR Part 2.

- (7) "Semi-active and Inactive Records" refers to records worthy of preservation, have long term permanent value and will be retired from expensive office space and equipment to the area Federal Records Center for storing, servicing, and ultimate disposition in accordance with EPA records control schedules.
 - (8) "Temporary Records" are records created incidental to performance of the mission. They are "operational", "support" and "service" type records which are considered to be of temporary value to the Agency and will be destroyed at some time.
 - l. "Records Control Schedules" refers to a list for systematic disposition of agency records, including their retention, transfer, retirement or destruction, performed in accordance with approved disposition authority from the United States Archivist, National Archives and Records Services.
 - m. "Records Management Officer" is the title of designated staff officials whose responsibilities are to assist the Agency Records Management Officer by carrying out the policies of the records management program in their respective organizational units.
 - n. "Records Management" describes the management of the media on which information is recorded.
 - o. "Vital Records" refers to records critical to the continued operation of the agency and records essential to the preservation of the legal rights and interests of employees and individual citizens, in wartime or disaster.
8. PROCEDURES AND GUIDELINES. Procedures and guidelines are issued under separate cover in the EPA Records Management Manual EPA Directive 2160.

CHAPTER 11 - PRIVACY

1. PURPOSE. This policy establishes Agency principles for protecting the privacy of individuals who are identified in the Environmental Protection Agency's information systems and informs Agency employees and officials of their rights and responsibilities under the Privacy Act (5 U.S.C. 552a). It supplements the EPA regulations in Part 16, Title 40, Code of Federal Regulations (CFR) and the Agency's Privacy Act Manual.
2. SCOPE AND APPLICABILITY. This policy applies to any records under the control of the Agency from which information on a subject individual is retrieved by a personal identifier assigned to the individual. The identifier may be the name of the individual, a number, a symbol or any other specific retriever assigned to such individual. This policy applies to such records maintained by the Agency in-house or maintained by a contractor or grantee on behalf of the Agency to accomplish an Agency function.
3. BACKGROUND. In order to protect individual privacy, Congress passed the Privacy Act of 1974 (5 U.S.C. 552a) which sets forth requirements for Federal agencies when they collect, maintain or disseminate information about individuals. The Act requires that Federal agencies respect the privacy of individuals by (a) collecting a minimum of information necessary on individuals, (b) safeguarding the information and (c) allowing individuals to inspect and correct any erroneous information. The EPA has developed this policy and the Privacy Act Manual to implement these requirements.
4. AUTHORITIES.
 - a. The Privacy Act of 1974, 5 U.S.C. 552a, as amended.
 - b. OMB Circular No. A-130, Management of Federal Information Resources.
 - c. OMB's Privacy Act Implementing Guidelines published at 40 Federal Register 28948.
 - d. 40 CFR Part 16, EPA's Privacy Act Regulations.

5. POLICY.

- a. The Agency will safeguard personal privacy in its collection, maintenance, use and dissemination of information about individuals and make such information available to the individual in accordance with the requirements of the Privacy Act.
- b. To the greatest extent practicable, information about an individual shall be collected directly from the individual if the information may be used to make decisions with respect to the individual's rights, benefits and privileges under Federal programs.
- c. Information that the Agency collects and maintains about individuals shall be relevant and necessary to the accomplishment of the Agency's purpose as required by statute or Executive Order. The office concerned shall establish the relevancy of and need for the information, as well as the authority to collect it.
- d. The information that is maintained in a System of Records shall be kept as accurate, relevant, current and complete as possible to ensure fairness to the individual.
- e. At least sixty days prior to creation of a new System of Records or significant alteration to an existing System, the Agency shall submit documentation to OMB and the Congress and publish a notice of the System in the Federal Register.
- f. When EPA creates a new Privacy Act system of records, it must prepare a written Privacy Act Statement. Each time the Agency requests that an individual provide information, including a social security number, to be maintained in the Privacy Act system of records, the Privacy Act Statement shall be made available to the individual. The Statement will inform the individual of the legal authority for collecting the information, whether disclosure of the information by the individual is mandatory or voluntary, the purpose for which the information is being collected, the routine uses which may be made of the information, and the effects on the individual if the individual does not provide the information. When EPA asks an individual

to provide his or her social security number and that number is not to be incorporated into a Privacy Act system of records, the Agency must, nevertheless, inform the individual of the authority for collecting the social security number, the uses to be made of the number, and whether disclosure of the number by the individual is voluntary or mandatory.

- g. The Agency, upon written request from a subject individual, shall notify the individual that it is maintaining a record on him/her and must grant the individual access to the record, unless the Agency has published a rule exempting the System of Records from this requirement. In addition, the Agency shall amend such record upon request, unless the Agency has published a rule exempting the System from this requirement, whenever the subject individual proves that the record is not accurate, relevant, current or complete. If the Agency does not grant access to or amend an individual's record upon request, it shall inform the individual of its refusal to grant access to or amend such record and advise him/her of his/her appeal rights.
- h. The Agency must not disclose information from records maintained in a System of Records to any person or agency, except with the written consent of the individual to whom the record pertains. There are, however, twelve exceptions which permit disclosures without consent of the individual. Any other disclosure of the records (other than to the subject individual) is unauthorized. See the Privacy Act Manual for further discussion of these exceptions.
- i. Except for disclosures to EPA officials and employees with an official need to know and disclosures required to be made under the Freedom of Information Act, an accounting of the disclosures that are made from a System of Records must be maintained by the System Manager. Each accounting must include the date, nature and purpose of disclosure and the name and address of the person or agency to whom the disclosure was made. The accounting must be retained for the life of the record or for five years after disclosure, whichever is longer.

6. RESPONSIBILITIES.

- a. The Assistant Administrators, Inspector General, General Counsel, Associate Administrators, Regional Administrators, Laboratory Directors and Headquarters Staff Office Directors are responsible for:

- (1) Implementing the Privacy Act and the requirements specified in this policy and the Privacy Act Manual within their respective areas. They are responsible for designating an appropriate EPA employee to serve as System Manager for an existing or proposed System of Records.
- b. Director, Information Management and Services Division, (IMSD), Office of Information Resources Management is responsible for providing overall management and policy guidance.
- c. The Chief, Information Management Branch, IMSD, is the Privacy Policy Officer and is responsible for policy, procedures and oversight of the Act. He/she administers activities related to establishment, alteration or termination of Systems.
- d. The General Counsel serves as the EPA Privacy Appeals Officer and is responsible for interpreting the Act, reviewing Privacy Act notices, regulations, policy statements and related documents for legal form and substance and deciding all written appeals of negative determinations.
- e. The Director, Personnel Management Division is responsible for reviewing proposed or altered systems for personnel management implications.
- f. Each Manager and Supervisor is responsible for implementing the provisions of this Manual and the Privacy Act Manual within their respective areas.
- g. The System Manager is responsible for:
 - (1) Applying approved Privacy Act policies and procedures relating to an existing or proposed System of Records and, when appropriate, implementing additional practices and procedures to cover special conditions or situations that may arise within the System of Records. In addition, the System Manager is responsible for:
 - (a) Preparing documentation required by the Privacy Act, including notices of new, altered or terminated System of Records for publication in the Federal Register.

- (b) Making initial decisions whether to grant an individual access to his/her records or amend such records and whether to extend the date of initial determination concerning requests for access to or amendment of records under the Act.
- (c) Safeguarding the System under his/her jurisdiction.
- (d) Informing employees having access to a System of Record of the penalties under the Privacy Act.

7. DEFINITIONS.

- a. "Access" means availability of a record to a subject individual.
- b. "Disclosure" means the availability or release of a record to anyone other than the subject individual.
- c. "Individual" means a citizen of the U.S. or an alien lawfully admitted for permanent residence. It does not include businesses or corporations and, in certain circumstances, may not include sole proprietorships, partnerships or persons acting in a business capacity identified by the name of one or more persons.
- d. "Maintain" means to collect, use or disseminate when used in connection with the term "record"; and, to have control over or responsibility for a System of Records when used in connection with the term, "System of Records."
- e. "Personal identifier" is any individual number, symbol or other identifying designation assigned to an individual, but not a name, number, symbol or other identifying designation that identifies a product, establishment or action.
- f. "Record" means any collection or grouping of information about an individual that is maintained by the agency, including but not limited to the individual's education, financial transactions, medical history and criminal or employment history and that contains his/her name or an identifying number, symbol or other identifier assigned to the individual, such as a finger or voice print or photograph.

- g. "Routine use" means, with respect to the disclosure of a record to a person or agency other than EPA, the use of a record for a purpose which is compatible with the purpose for which the record was collected. It includes disclosures required to be made by statute other than the Freedom of Information Act, 5 U.S.C. 552. It does not include other disclosures which are permitted to be made without the consent of the subject individual pursuant to Section 552a(b) of the Privacy Act, such as disclosures to EPA employees who have official need for the record, to the Bureau of the Census, to the General Accounting Office or to the Congress.
 - h. "Subject individual" is the individual to whom a record pertains.
 - i. "System Manager" is the EPA employee designated as the responsible manager of a System of Records.
 - j. "System of Records" within the meaning of the Privacy Act is a group of any records under the control of the Agency from which information is retrieved by an individual's name or some personal identifier, such as a social security number assigned to the individual.
8. PROCEDURES AND GUIDELINES. Procedures for carrying out the provisions of this Chapter are found in the Privacy Act Manual. Other guidance is found in:
- a. Forms Management Manual, Chapter 1, for forms developed in connection with the Privacy Act.
 - b. Federal Acquisition Regulations Subpart 24.1 and EPA Acquisition Regulations Subpart 15-24.1 for contracts involving collection and maintenance of information on individuals.
 - c. Delegations Manual 1-33 for authority to make determinations on appeals from the initial denial and to make determinations on correction or amendment.
 - d. Reports Management Manual, Chapter 4, for policy on collecting information from the public.
 - e. Records Management Manual, Chapters 1 and 3, for management and disposal of records.

- f. Freedom of Information Act Manual for Freedom of Information procedures.
 - g. Federal Register Document Drafting Handbook for preparation of Federal Register documents.
 - h. Facilities and Support Services Manual, Security Volume, Part III, Chapter 13, for security requirements for Privacy Act data.
9. PENALTIES. The Privacy Act imposes criminal penalties directly on individuals if they violate certain provisions of the Act. Any Federal employee, for instance, is subject to a misdemeanor charge and a fine of not more than \$5,000 whenever such employee:
- a. Knowing that disclosure is prohibited, willfully discloses in any manner records in a System of Records to any person or agency not entitled to access to such records.
 - b. Willfully maintains a System of Records without publishing the prescribed public notice on the System in the Federal Register.
 - c. Knowingly and willfully requests or obtains any record from any System of Records under false pretenses. (The penalty for violation of this provision is not limited to Federal employees).
- (The System Manager is responsible for making employees working with a System of Records fully aware of these provisions and the corresponding penalties.)

CHAPTER 12 - LIBRARY SERVICES

1. PURPOSE. This policy establishes principles that govern the operation of the EPA library network.
2. SCOPE AND APPLICABILITY. This policy applies to all EPA employees and contractors responsible for providing information/library services. It also applies to officials who contribute to the Headquarters library official collection of EPA reports.
3. BACKGROUND. Efficient and cost-effective access to information and data about the environment and related scientific, technical, management, and policy information is critical to the ability of the U.S. Environmental Protection Agency (EPA) to carry out its mission. EPA recognized this when it established a library network in the early 1970's to support staff in EPA Headquarters, the 10 Regional Offices, and in the 13 research laboratories and field sites across the country. This approach is consistent with OMB Circular A-130, "Management of Federal Information Resources", which states that the collection of information by Federal agencies be carried out within the context of efficient, effective, and economical management.
4. AUTHORITIES. OMB Circular A-130, Management of Federal Information Resources.
5. POLICY. It is EPA policy that the library network provide EPA staff with access to high quality, cost-effective information and data about environmental and related issues critical to carrying out the Agency's mission. The librarians, as information brokers, shall promote the available information resources through outreach to EPA staff. The EPA libraries shall provide State agencies and the general public with access to the library collection. EPA program managers shall provide the EPA library network with copies of final technical reports and guidance. Copies of these documents shall also be sent to the National Technical Information Service (NTIS).
6. RESPONSIBILITIES. The Information Services Branch which is part of the Information Management and Services Division, Office of Information Resources Management, serves as the

"National Program Manager" and is responsible for coordinating the major activities of the EPA library network. In the Regional Offices, responsibility for managing the library function is generally placed in the Regional Management Divisions, although in a few Regions the libraries are the responsibility of the Office of Public Affairs. In the laboratories, responsibility for managing the libraries may vary from site to site. The role of the National Program Manager is to work with the library network and its managers to provide the following services:

- a. Assessment of EPA program staff needs for information and provision of services to meet those needs.
- b. Online searches of commercial databases and, as appropriate, EPA databases, to supply EPA staff with needed information. Where possible, provision of State environmental agencies with relevant information services.
- c. Access to the EPA library network collection of books, journals, maps, and materials produced in microform.
- d. Access to information resources of other federal, academic and special libraries through interlibrary loan.
- e. Development of specialized services, e.g., Hazardous Waste Collection, guides to information resources, including documents, databases, and directory information and selective dissemination assistance.
- f. Coordination with other related EPA functions.
- g. Provision of translation services to EPA staff.

APPENDIX A - GLOSSARY

1. Administrative Records - The records which reflect routine, transitory, internal housekeeping activities relating to subjects and functions common to all offices.
2. Agency Records Management Officer - The title of the designated staff official whose responsibility is to plan, develop and coordinate the agency records management program.
3. Application Security - The set of controls that makes an information system perform, in an accurate and reliable manner, only those functions it was designed to perform. The set of controls includes the following: programming, access, source document, input data, processing, storage, output and audit trail.
4. Application Software - Software specifically produced for the functional use of a computer system, e.g., payroll, inventory control, environmental monitoring and scientific modeling.
5. Artificial Intelligence, Expert, or Knowledge-based Systems - A class of systems that employs decision rules developed through human experience and from human knowledge to solve problems that require a high degree of human expertise.
6. Automatic Data Processing - The production, conversion, reduction, destruction, storage, transfer or communication of data by electronic digital computers and related peripheral devices. The term "electronic data processing" (EDP) and "automatic data processing" (ADP) are frequently used interchangeably with no significant distinction. Automatic data processing may be performed by a stand alone unit or by several connected units.
7. Automatic Data Processing Equipment - Electronic components and equipment regardless of use, size, capacity or price that are designed to be applied to the solution or processing of a variety of problems or applications.
8. Central Processing Unit (CPU) - That part of a computer that interprets and executes program instruction and communicates with the input, output and storage devices. It consists of the control unit and the arithmetic/logic unit.

9. Classified Records - Records which are restricted to processing or use by cleared individuals, and require special protection, e.g., "top secret," "secret" or "confidential."
10. Commercially Available Software - Software that is available through lease or purchase in the commercial market from a concern representing itself to have ownership or marketing rights in the software. Software that is furnished as part of the ADP system but that is separately priced is included.
11. Confidential Business Information - This type of information includes trade secrets, proprietary and commercial/financial information. Business information is entitled to confidential treatment if: (1) business asserts a confidential claim, (2) business shows it has taken its own measures to protect the information, (3) the information is not publicly available or (4) disclosure is not required by statute and the disclosure would either cause competitive harm or impair the Agency's ability to obtain necessary information in the future.
12. Core Systems Standards - The EPA term for a set of standards for end-user interface, software engineering, data interchange and documentation for general purpose computer software to perform functions which are common to many different offices (e.g., project tracking or correspondence control). Core systems are targeted for the personal computer (PC) and office automation computer systems.
13. Current Records - Records or files presently in the physical custody of organizational units, the maintenance of which is required in the conduct of current work.
14. Data - Collection of unorganized facts that have not yet been processed into information.
15. Data Base - Collection of integrated data that can be used for a variety of applications.
16. Data Base Management - A systematic approach to storing, updating and retrieval of information stored as data items, usually in the form of records in a file.
17. Data Base Management System (DBMS) - The software product that provides a data structure containing unrelated data stored so as to optimize accessibility, control redundancy and offer multiple views of the data to multiple application programs.

18. Data Communications - Computer-to-computer, computer-to-device and device-to-computer communications and other communications such as a record, tele-processing and telemetry.
19. Data Element - A unit of information used to describe data, data characteristics and attributes, e.g., eyes - blue or BL.
20. Data Standards - Standards used generally, but not exclusively, for automated systems to ensure that one type of data is defined the same way in all systems.
21. Designated Senior Official - The individual appointed by the head of an agency who has responsibility for directing the agency's activities administered under the Paperwork Reduction Act of 1980.
22. Distributed Processing - Involves the use of computers or intelligent terminals at a number of sites that share the control, storage and/or computing functions of the central computing system, thus giving the end-user data processing capabilities. The various stations, or network nodes, are connected by telecommunications lines.
23. Distributed Network - This term refers to a network architecture in which nodes, or communications processors, are connected directly or indirectly to each other and share the communications processing functions.
24. Documentation - Information to support the effective design, management, operation, maintenance and transferability of ADP resources, and to facilitate the interchange of information. Documentation includes analysis, technical documents and specifications which are produced in the software life cycle (e.g., project request, feasibility study, benefit/cost analysis, functional requirements, data requirements, system/subsystem specifications, test plan, users' manual, operations manual, test reports and maintenance procedures).
25. Electronic Digital Image Storage and Retrieval Systems - The technology that converts and stores images and information in digital form.
26. Electronic Mail - A generic term describing the use of digital computer and other technologies (e.g., facsimile) in the generation and transmission or distribution of messages.

27. End-Users - The ultimate customers or recipients of computer services.
28. Essential Elements of Information (EEIs) - This term is modeled after the Department of Defense and National Aeronautics and Space Administration Data Item Descriptions (DIDs). The EEIs represent the set of information for a given system's life cycle products (e.g., software management plan, software design document) that are required for a specific systems development project or for an existing system's operation. EEIs are required for the successful management of a project.
29. Federal Records Centers - The depositories established by the National Archives and Records Administration for the housing of non-current, inactive or permanent records pending ultimate disposition in accordance with the Agency Record Retention and Control Schedules.
30. Filing Equipment - Any equipment used to provide storage for information, e.g., lateral, vertical, mechanized and ADP.
31. Filing Supplies - Items such as folders, guides, cross-reference sheets and charge-out cards.
32. Fourth Generation (4GL) Programming Language - The term refers to modern programming languages (e.g., INFO, FOCUS) designed for end-users or to increase programmer productivity, which have a number of tools such as English language syntax, dictionaries, screen builders and reference to data by name. These languages tend to be dependent on specific computer architectures and are not usually transportable. They usually imply a proprietary database management system (DBMS) or data management system (DMS).
33. Geographic Information System (GIS) - A computer-based system that combines geographic and/or cartographic analysis capabilities with a computer data base system that can support data entry, data management, data manipulation and data display capabilities.
34. Hardware - Physical equipment such as the computer and its related peripheral devices, tape drives, disk drives, printers, etc.

35. Highly Sensitive Information - Information whose loss would seriously affect the agency's ability to function, threaten the national security or jeopardize human life and welfare. Specifically, information of this type includes National Security Information, information critical to the performance of a primary agency mission, information that is life critical and financial information related to check issuance, funds transfer and similar asset accounting/control functions.
36. Host Computer - Central computer to which computers or other input/output devices are connected in a distributed data processing environment.
37. Information - Any communication or reception of knowledge such as facts, data or opinions, including numerical, graphic or narrative forms, whether oral or maintained in any medium, including computerized data bases, paper, microform or magnetic tape.
38. Information Collection Budget (ICB) - An annual submission to the Office of Management and Budget (OMB) of burden on the public related to information that Federal agencies propose to collect from non-Federal sources during a fiscal year. ("Burden" includes, but is not limited to, the estimated time required to read instructions and generate, review, report and keep records on information in response to Federal requests or requirements.) The ICB is similar to EPA's fiscal budget except that it deals in burden hours rather than dollars and is not submitted to Congress.
39. Information Management - The processes necessary for the creation, use and disposal of information regardless of the media on which it is recorded.
40. Information Processing - To copy, exchange, read, combine mathmatically or logically, record, store, transmit or write information from one medium or format to another.
41. Information Resources Management (IRM) - The planning, budgeting, organizing, directing, training and controls associated with information. The term encompasses both information itself and related resources such as personnel, equipment, funds and technology.

42. IRM Steering Committee - At EPA this group is chaired by the Director, Office of Information Resources Management (OIRM) and has members representing EPA national and Regional programs, the EPA research community and the States. The Committee is responsible for advising OIRM concerning IRM policies, resources and priorities and assisting OIRM in communicating and implementing these policies and priorities within EPA. The Committee assists OIRM in conducting periodic reviews of the Agency's information resources and the policies and programs for managing these resources and in designing improvements where needed.
43. Information Security - This term encompasses three different types of security: applications security, installation security and personnel security. In total, information security involves the precautions taken to protect the confidentiality, integrity and availability of information.
44. Information System - The organized collection, processing, transmission and dissemination of information in accordance with defined procedures, whether automated or manual.
45. Information Systems Inventory (ISI) - A collection of descriptive data regarding the Agency's automated and manual information systems. The data base for EPA's ISI resides on an IBM PC/AT and provides for the retrieval of over 500 manual and automated information systems and applications which have been identified by administrative and program offices.
46. Information Technology - The hardware and software used in connection with government information, regardless of the technology involved, whether computers, telecommunications, micrographics or others.
47. Installation - The physical location of one or more information systems, whether automated or manual. An automated installation consists of one or more computer or office automation systems, including related peripheral and storage units, central processing units, telecommunications and operating and support system software. Automated installations may range in size from large centralized computer centers to stand-alone personal computers.

- 48. Installation Security - The use of locks, badges and similar measures to control access to the installation and the measures required for the protection of the structure housing the installation from accident, fire and environmental hazards. In addition to the above physical security measures, installation security also involves ensuring continuity of operations through disaster planning.
- 49. Life Cycle The complete time span of a system from the origin of the idea that leads to the creation of the system to the end of its useful life.
- 50. Life Cycle Costs - The sum total of all the direct, indirect, recurring, nonrecurring and other related costs incurred or predicted to be incurred in the formulation of requirements and feasibility studies, and in the design, development, production, operation, maintenance and support of an information system throughout its useful life.
- 51. Mainframe - This term connotes a large computer.
- 52. Maintenance of Records - This term refers to the grouping, filing, storing and safeguarding of business records.
- 53. Major Information System - An information system that requires special continuing management attention because of its importance to an agency mission; its high development, operating or maintenance costs; or its significant impact on administration of agency programs, finances, property or other resources. In this context, high development, operating or maintenance cost means either (1) the cost of initial development from conception through implementation exceeds one million dollars or (2) the cost of operating and maintaining the system in any fiscal year exceeds 500 thousand dollars.
- 54. Management Information System (MIS) - A computer-based or manual information system having applications in support of management activities.
- 55. Microcomputer - One of a large variety of general purpose computers manufactured utilizing one or more microprocessors. Microcomputers can range from computers with relatively small amounts of memory to computers with large amounts of random

access memory and several peripheral devices. Typically, an end-user microcomputer is of desktop size and requires no special environmental site preparation.

- 56. Microfilm - High resolution film containing an image or images greatly reduced in size from the original that is recorded on the film.
- 57. Microfiche - A sheet of film containing multiple microimages in a grid pattern. It usually contains a heading or title which can be read without magnification.
- 58. Microform - Any form containing microimages.
- 59. Micrographics - The science and technology of document and information microfilming and associated microform systems including microfilm, microfiche and microimages.
- 60. Minicomputer - A computer somewhere in size between a microcomputer and a mainframe. These units are characterized by higher performance than microcomputers, richer instruction sets, higher price and a proliferation of high-level languages, operating systems and networking methodologies.
- 61. Mission-based Planning - The process of planning for an agency's investments in and management of information resources and technology that are required to achieve the agency's missions and priorities. At EPA all national program managers and Regional offices are responsible for developing mission-based plans for their respective organizations. Mission-based plans are tied to the budget process and are used to support investment decisions made during the budget preparation process. These plans are strategic or long range in scope but are updated annually to reflect progress in implementation, program changes, changes that affect information requirements and advancements in technology.
- 62. National Security Information - Information that is classified as "Top Secret," "Secret" or "Confidential" under Executive Order 12356 or predecessor orders.
- 63. Network - Computer system using data communications equipment to connect two or more computers.
- 64. Non-procedural Language - See definition for Fourth Generation (4GL) Language.

- 65. Official Record File - Used in the context of records management, this term refers to documentation including all background material resulting from specific transactions, operations or processes which are accumulated and maintained in files equipment. They may include any media such as film, microfilm, cards, papers and magnetic tapes and disks.
- 66. Operating System - Software that controls and supports the execution of computer programs and contributes to optimal use of the computing system. An operating system may provide services such as resource allocation, scheduling, input/output control, error recovery and data management. Although operating systems are predominantly software, partial or complete firmware implementations are possible.
- 67. Permanent Records - Records of continuing value which are considered to be so important or unique in documenting the history of the Agency or for informational content that they should be preserved "forever" as part of the National Archives of the United States.
- 68. Personal Computer - Microcomputer used by individuals for various personal uses in the home or office.
- 69. Procedural or High Order Language - See definition for Third Generation Language (3GL).
- 70. Program - Step-by-step set of instructions that directs the computer to perform certain operations.
- 71. Program Records - Records created, received and maintained by an agency in the conduct of the mission functions for which it is responsible. The term is used in contrast with administrative or facilitative records.
- 72. Proprietary - Any item, usually commercial software or a specialized data base, for which the Government or public does not have unlimited rights.
- 73. Privacy - The right of an individual to control the collection, storage and dissemination of information about himself/herself to avoid the potential for substantial harm, embarrassment, inconvenience or unfairness.

74. Records - In records management parlance, this term refers to recorded information of continuing administrative, fiscal, legal, historical or informational value, including published materials, papers, maps, photographs, microfilm, audiovisual, machine-readable materials (ADP tapes/disks) or other documentary material, regardless of physical form or characteristics, made or received by the agency that evidences organization, functions, policies, decisions, procedures, operations or other activities of the Government.
75. Records Control Schedules - This term refers to the list of scheduled reviews of agency records to determine their disposition.
76. Records Management - This term describes the management of the media on which information is recorded and the control of all the agency's program and administrative records.
77. Records Management Officer - The title of the designated staff officials whose responsibilities are to assist the operating Agency Records Management Officer by carrying out the policies of the records management program in their respective organizational units.
78. Risk Analysis - A means of measuring and assessing the relative vulnerabilities and threats to a collection of sensitive data and the people, systems and installations involved in storing and processing that data. Its purpose is to determine how security measures can be effectively applied to minimize potential loss. Risk analyses may vary from an informal, quantitative review of a microcomputer installation to a formal review of a major computer center.
79. Semi-active Records - This term refers to records worthy of preservation, that have long term permanent value and will be retired from expensive office space and equipment to the area Federal Records Center for storing, servicing and ultimate disposition in accordance with Agency Records Control Schedules.
80. Senior Information Management Official (SIRMO) At EPA this term has been used to designate those individuals who are responsible for directing and managing information resources planning and budgeting and for assuring that the information systems and information technology acquisitions within their organizations comply with Federal and EPA policies and regulations.

81. Sensitive Application Systems - Systems that process sensitive information and require protection because of the loss or harm which could result from the improper operation or deliberate manipulation of the application itself. Automated decision-making application systems are highly sensitive if the wrong decision could cause serious loss.
82. Sensitive Information - Information that requires protection due to the risk and magnitude of loss or harm that could result from inadvertent or deliberate disclosure, alteration or destruction of the information.
83. Service Level Agreement - A Service Level Agreement is a documented contract between the National Data Processing Division (NDPD) and any client organization which describes the services which will be provided by NDPD to the client. There are two types of Service Level Agreements. One is a generic documented service description which applies to all client organizations and the other is a specific agreement with an individual client organization. The latter is developed primarily where the level of service requested is beyond the normal service levels contained in the generic service agreement. Service Level Agreements generally contain a description of availability, capacity, workload, performance, reliability and cost.
84. Software - Computer programs, procedures, rules and associated documentation pertaining to the operation of a computer system.
85. Software Engineering - This term refers to the discipline of applying software tools, techniques and methodologies to promote software quality and productivity.
86. Software Life Cycle - The period of time beginning when a software product is conceived and ending when the product no longer performs the function for which it was designed. The software life cycle is typically broken into phases such as requirements, design, programming and testing, installation and operation and maintenance.
87. Software Maintenance - The performance of those activities required to keep a software system operational and responsive after it is accepted and placed into operation. It is the

set of activities which result in changes to the originally accepted (baseline) product. These changes consist of modifications required to: (1) insert, delete, extend and enhance the baseline system (performance maintenance); (2) adapt the system to changes in the processing environment (adaptive maintenance); and (3) fix errors (corrective maintenance).

88. Software Tools - This term refers to packaged, often commercial computer program(s) used to help develop, test, analyze or maintain computer programs, data and information systems. Examples include statistical software such as SAS, SPSS, sort systems, etc.
89. System - The organized set of procedures used to collect, process and array information whether automated or manual.
90. Telecommunications - The transmission and/or reception of information by telephone, telephone lines, telegraph, radio or other methods of communication over a distance. The information may be in the form of voice, pictures, text and/or encoded data.
91. Telecommunications Network - An interconnected set of locations or devices linked by communications facilities, including telephone lines and microwave and satellite connections.
92. Temporary Records - Records created incidental to performance of the mission of the agency and considered to be of short term value.
93. Testing - This term refers to the examination of the behavior of a program by executing the program on sample data sets.
94. Third Generation (3GL) Programming Language - A programming language that usually includes features such as nested expressions and parameter passing, that can run on a variety of different computer systems and are independent of machine architecture (e.g., COBOL, BASIC, FORTRAN, PL/1). It is a problem oriented language that facilitates the expression of a procedure as an explicit algorithm. In contrast to fourth generation programming language, third generation programming language is normally independent of a data base management system and is transportable between different computer architectures.

95. Threshold - A point, usually expressed in dollars, above which specific actions are required. For instance, a sole-source procurement of data processing equipment having an estimated value below the \$250,000 threshold does not require a delegation of procurement authority from the General Services Administration, while a procurement above that threshold does require a delegation.
96. Timeshare - This procedure allows many users to access and use simultaneously the resources of a central computer through remote terminals. Access privileges are usually purchased by (or charged back to) the user, based on a formula of various unit prices. The chargeback formula may include charges for use of the computer's central processing unit, adding or altering data on a computer storage disk, computer tape handling and storage and the amount of time a user has interacted with the computer (connect time). Other items may be included in the chargeback formula which are inherent in delivering the computer services to the user.
97. Triennial Review - This review is a government-wide three-year planning and reporting cycle set forth to meet the requirements established by the Paperwork Reduction Act of 1980. Agencies are required to perform reviews of their information resources management activities and prepare synopses and updates of these reviews to GSA on a yearly basis for a three-year duration. The objective of the Triennial Review Program is to ensure that agencies are carrying out their information management activities in an efficient manner. In EPA OIRM is responsible for managing the review process with input from the program offices.
98. Vital Records - Records essential to the continued operation of the Agency and to the preservation of the legal rights and interests of employees and individual citizens, in wartime and disaster.
99. Voice Communications - The transmission and switching of voice traffic by public and private facilities. The public-switched network is an example of a public facility; private branch exchanges (PBX) and private voice lines exemplify private facilities.
100. Word Processing - Computer-based system for inputting, editing, storing and printing of documents.

CHAPTER 13 - LOCATIONAL DATA

1. PURPOSE. This policy establishes the principles for collecting and documenting latitude/longitude coordinates for facilities, sites and monitoring and observation points regulated or tracked under Federal environmental programs within the jurisdiction of the Environmental Protection Agency (EPA). The intent of this policy is to extend environmental analyses and allow data to be integrated based upon location, thereby promoting the enhanced use of EPA's extensive data resources for cross-media environmental analyses and management decisions. This policy underscores EPA's commitment to establishing the data infrastructure necessary to enable data sharing and secondary data use.
2. SCOPE AND APPLICABILITY. This policy applies to all Environmental Protection Agency (EPA) organizations and personnel of agents (including contractors and grantees) of EPA who design, develop, compile, operate or maintain EPA information collections developed for environmental program support. Certain requirements of this policy apply to existing as well as new data collections.
3. BACKGROUND.
 - a. Fulfillment of EPA's mission to protect and improve the environment depends upon improvements in cross-programmatic, multi-media data analyses. A need for available and reliable location identification information is a commonality which all regulatory tracking programs share.
 - b. Standard location identification data will provide a return yet unrealized on EPA's sizable investment in environmental data collection by improving the utility of these data for a variety of value-added secondary applications often unanticipated by the original data collectors.
 - c. EPA is committed to implementing its locational policy in accordance with the requirements specified by the Federal Interagency Coordinating Committee for Digital Cartography (FICCDC). The FICCDC has identified the collection of latitude/longitude as the most preferred coordinate system for identifying location. Latitude and longitude are coordinate representations that show locations on the surface of the earth using the earth's equator and the prime meridian (Greenwich, England) as the respective latitude and longitude origins.

- d. The State/EPA Data Management Program is a successful multi-year initiative linking State environmental regulatory agencies and EPA in cooperative action. The Program's goals include improvements in data quality and data integration based on location identification.
 - e. Readily available, reliable and consistent location identification data are critical to support the Agencywide development of environmental risk management strategies, methodologies and assessments.
 - f. OIRM is committed to working with EPA Programs, Regions and Laboratories to apply spatially related tools (e.g., geographic information systems (GIS), remote sensing, automated mapping) and to ensure these tools are supported by adequate and accurate location identification data. Effective use of spatial tools depends on the appropriate collection and use of location identifiers, and on the accompanying data and attributes to be analyzed.
 - g. OIRM's commitment to effective use of spatial data is also reflected in the Agency's comprehensive GIS Program and OIRM's coordination of the Agency's National Mapping Requirement Program (NMRP) to identify and provide for EPA's current and future spatial data requirements.
4. AUTHORITIES.
- a. 15 CFR, Part 6 Subtitle A, Standardization of Data Elements and Representations
 - b. Geological Survey Circular 878-B, A U.S. Geological Survey Data Standard, Specifications for Representation of Geographic Point Locations for Information Interchange
 - c. Federal Interagency Coordinating Committee on Digital Cartography (FICCDC)/U.S. Office of Management and Budget, Digital Cartographic Data Standards: An Interim Proposed Standard
 - d. EPA Regulations 40 CFR 30.503 and 40 CFR 31.45, Quality Assurance Practices under EPA's General Grant Regulations

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5. POLICY.

- a. It is EPA policy that latitude/longitude ("lat/long") coordinates be collected and documented with environmental and related data. This is in addition to, and not precluding, other critical location identification data that may be needed to satisfy individual program or project needs, such as depth, street address, elevation or altitude.
- b. This policy serves as a framework for collecting and documenting location identification data. It includes a goal that a 25 meter level of accuracy be achieved; managers of individual data collection efforts determine the exact levels of precision and accuracy necessary to support their mission within the context of this goal. The use of global positioning systems (GPS) is recommended to obtain lat/longs of the highest possible accuracy.
- c. To implement this policy, program data managers must collect and document the following information:
 - (1) Latitude/longitude coordinates in accordance with Federal Interagency Coordinating Committee for Digital Cartography (FICCDC) recommendations. The coordinates may be present singly or multiple times, to define a point, line, or area, according to the most appropriate data type for the entity being represented.

The format for representing this information is:

+/-DD MM SS.SSSS (latitude)
+/-DDD MM SS.SSSS (longitude)

where:

- Latitude is always presented before longitude
- **DD** represents degrees of latitude; a two-digit decimal number ranging from 00 through 90
- **DDD** represents degrees of longitude; a three-digit decimal number ranging from 000 through 180

- **MM** represents minutes of latitude or longitude; a two-digit decimal number ranging from 00 through 60
 - **SS.SSSS** represents seconds of latitude or longitude, with a format allowing possible precision to the ten-thousandths of seconds
 - **+** specifies latitudes north of the equator and longitudes east of the prime meridian
 - **-** specifies latitudes south of the equator and longitudes west of the prime meridian
- (2) Specific method used to determine the lat/long coordinates (e.g., remote sensing techniques, map interpolation, cadastral survey)
- (3) Textual description of the entity to which the latitude/longitude coordinates refer (e.g., north-east corner of site, entrance to facility, point of discharge, drainage ditch)
- (4) Estimate of accuracy in terms of the most precise units of measurement used (e.g., if the coordinates are given to tenths-of-seconds precision, the accuracy estimate should be expressed in terms of the range of tenths-of-seconds within which the true value should fall, such as "+/- 0.5 seconds")
- d. Recommended labelling of the above information is as follows:
- "Latitude"
 - "Longitude"
 - "Method"
 - "Description"
 - "Accuracy."
- e. This policy does not preclude or rescind more stringent regional or program-specific policy and guidance. Such guidance may require, for example, additional elevation measurements to fully characterize the location of environmental observations.
- f. Formats, standards, coding conventions or other specifications for the method, description and accuracy information are forthcoming.

6. RESPONSIBILITIES.

- a. The Office of Information Resources Management (OIRM) shall:
 - (1) Be responsible for implementing and supporting this policy
 - (2) Provide guidance and technical assistance where feasible and appropriate in implementing and improving the requirements of this policy
- b. Assistant Administrators, Associate Administrators, Regional Administrators, Laboratory Directors and the General Counsel shall establish procedures within their respective organizations to ensure that information collection and reporting systems under their direction are in compliance with this policy.

While the value of obtaining locational coordinates will vary according to individual program requirements, the method, description and accuracy of the coordinates must always be documented. Such documentation will permit other users to evaluate whether those coordinates can support secondary uses, thus addressing EPA data sharing and integration objectives.

- 7. WAIVERS. Requests for waivers from specified provisions of the policy may be submitted for review to the Director of the Office of Information Resources Management. Waiver requests must be based clearly on data quality objectives and must be signed by the relevant Senior IRM Official prior to submission to the Director, OIRM.
- 8. PROCEDURES AND GUIDELINES. The Findings and Recommendations of the Locational Accuracy Task Force supplement this policy. More detailed procedures and guidelines for implementing the policy are issued under separate cover as the Locational Data Policy Implementation Guidelines.

APPENDIX B - PRIMARY FEDERAL IRM STATUTES AND REGULATIONS1. Brooks Act, Oct. 30, 1965, Public Law 89-306

This Act is the primary law governing the overall Federal acquisition and management of automatic data processing equipment. Passed in 1965, the Act requires Federal agencies to purchase, lease, maintain, operate and utilize ADP equipment in an economical and efficient manner. The Act also provides for coordinated government-wide ADP management with specific roles for the General Services Administration, the Department of Commerce and the Office of Management and Budget.

2. Paperwork Reduction Act of 1980, Public Law 96-511

The primary objective of this Act is to reduce paperwork and enhance the economy and efficiency of the government and private sector by improving Federal information policy development and implementation. It established a new management structure for the government's information activities. The structure is composed of (1) an OMB Office of Information and Regulatory Affairs to develop and implement consistent information policy and (2) senior officials appointed within each agency to ensure effective and efficient management of the agency's information resources. The following broad objectives for improving the management of Federal information resources were established:

- a. Coordinating, integrating and, to the extent practicable and appropriate, making uniform, Federal information policies and practices.
- b. Minimizing the Federal paperwork burden for individuals, State and local governments and others.
- c. Minimizing the cost to the Federal government of collecting, maintaining, using and disseminating information.
- d. Making maximum use of information collected by the Federal government.
- e. Ensuring that automatic data processing and telecommunications technologies are acquired and used by the Federal government in a manner that improves service

delivery and program management, increases productivity, reduces waste and fraud and reduces the information processing burden for the Federal government and for persons who provide information to the Federal government.

- f. Ensuring that the collection, maintenance, use and dissemination of information by the Federal government is consistent with applicable laws relating to confidentiality and privacy.

3. Privacy Act of 1974, Public Law 93-579

The Act provides certain safeguards for individuals against an invasion of personal privacy by requiring agencies to identify what records are being collected, maintained, used or disseminated on an individual; provide access and copies of such records; ensure the lawful purpose and prevent misuse of such records. The Act imposes criminal penalties directly on individuals if they violate certain provisions of the Act.

4. Freedom of Information Act of 1966, Public Law 89-487, as amended by Public Law 93-502, Nov. 21, 1974, amended Nov/Dec. 1986

The Act allows the public to inspect and copy certain general agency information, agency rules, opinions, orders and proceedings. The 1974 amendments established: (1) time limits for agency determinations, (2) index publications, (3) uniform fees for search and duplication and (4) requirements for an annual report.

5. Federal Records Management Amendments of 1976, Public Law 94-575

The amendments required the establishment of standards and procedures to ensure efficient and effective Federal records management practices. Specific goals are (1) accurate and complete documentation of the policies and transactions of the Federal government; (2) control of the quantity and quality of records produced; (3) establishment and maintenance of control mechanisms to prevent the creation of unnecessary records and to prevent ineffective and uneconomical agency operations; (4) simplified activities, systems and procedures for records creation, maintenance and use; (5) judicious preservation and disposal of records; and (6) continuous attention to records--from creation to disposition--with emphasis on the prevention of paperwork.

6. Competition in Contracting Act of 1984, Public Law 98-369

The Competition in Contracting Act considerably strengthened the regulations governing all procurements. It requires each agency to designate a "competition advocate" and requires full and open competition in as many procurements as possible. Significantly, the Act considers both "competitive negotiation" and purchases from negotiated schedule contracts as full and open competition. The Act prescribes the following exceptions that justify noncompetitive procurements:

- a. The property or services are available from only one responsible source.
- b. There is "unusual and compelling urgency."
- c. It is desirable to award the contract to a particular source in order to maintain the existence of a supplier or to meet the terms of an international agreement.
- d. Noncompetitive procurement is specifically authorized by statute.
- e. The disclosure of the agency's needs would compromise national security.
- f. The head of the agency determines that is it "necessary in the public interest" to use noncompetitive procedures and notifies Congress in writing 30 days before award of the contract.

In addition, the Act established a special procedure to resolve disputes between agencies and vendors of ADP equipment. Under this procedure, the Board of Contract Appeals at GSA is given authority to suspend procurement authority if necessary, and to issue a decision on the protest within 45 working days after the protest is filed.

7. OMB Circular A-130, Management of Federal Information Resources

Issued by OMB to implement the Paperwork Reduction Act, OMB Circular A-130 supercedes several other circulars and provides guidance for Federal agencies in adopting and implementing the Information Resources Management (IRM) approach mandated by the Act. Under Circular A-130, Federal agencies shall:

- a. Establish multi-year strategic planning processes for acquiring and operating information technology that meet program and mission needs, reflect budget constraints and form the basis for their budget requests.
- b. Establish systems of management control that document the requirements that each major information system is intended to serve and provide for periodic review of those requirements over the life of the system in order to determine whether the requirements continue to exist and whether the system continues to meet the purposes for which it was developed.
- c. Make the official whose program the information system supports responsible and accountable for the products of that system.
- d. Meet information processing needs through interagency sharing and from commercial sources, when it is cost-effective, before acquiring new information processing capacity.
- e. Share available information processing capacity with other agencies to the extent practicable and legally permissible.
- f. Acquire information technology in a competitive manner that minimizes total life cycle costs.
- g. Ensure that existing and planned major information systems do not unnecessarily duplicate information systems available from other agencies or from the private sector.
- h. Acquire off-the-shelf software from commercial sources, unless the cost-effectiveness of developing custom software is clear and has been documented.
- i. Acquire or develop information systems in a manner that facilitates compatibility.
- j. Assure that information systems operate effectively and accurately.

- k. Establish a level of security for all agency information systems commensurate with the sensitivity of the information and the risk and magnitude of loss or harm that could result from improper operation of the information systems.
 - l. Assure that only authorized personnel have access to information systems.
 - m. Plan to provide information systems with reasonable continuity of support, should their normal operations be disrupted in an emergency.
 - n. Use Federal Information Processing and Telecommunications Standards except where it can be demonstrated that the costs of using a standard exceed the benefit or the standard will impede the agency in accomplishing its mission.
 - o. Not require program managers to use specific information technology facilities or services unless it is clear and is convincingly documented, subject to periodic review, that such use is the most cost-effective method for meeting program requirements.
 - p. Account for the full costs of operating information technology facilities and recover such costs from government users.
 - q. Not prescribe Federal Information system requirements that unduly restrict the prerogatives of heads of State and local government units.
 - r. Seek opportunities to improve the operation of government programs or to realize savings for the government and the public through the application of up-to-date information technology to government information activities.
8. OMB Circular A-11, Transmittal Memorandum No. 54, Preparation and Submission of Budget Estimates, July 19, 1983

Circular No. A-11 provides instructions relating to the annual budget process. It includes information on reviewing estimates for new or expanding programs that reflect determinations made pursuant to Executive Order No. 12291, the Paperwork Reduction Act of 1980 and the "information collection budget" process.

9. OMB Circular A-76, Policies for Acquiring Commercial or Industrial Services Needed by Government, March 29, 1979

This Circular establishes the general policy that "the government's business is not to be in business" and that government agencies should rely on the private sector to obtain commercial or industrial goods and services. Government commercial or industrial activities are allowed only on a very limited exception basis, which recognizes that certain activities are inherently governmental and should be performed by Federal employees. A Cost Comparison Handbook implements the principles contained in the Circular. The handbook provides detailed instructions for developing a comprehensive and valid comparison of the estimated cost to the government of acquiring a product or service by contract versus providing it with in-house, government resources. The handbook attempts to establish consistency, ensure that all substantive factors are considered in making cost comparisons and achieve a desirable level of uniformity among agencies in comparative cost analyses.

10. OMB Circular A-121, Cost Accounting, Cost Recovery, and Inter-agency Sharing of Data Processing Facilities, Sept. 16, 1980

This Circular establishes policies to promote effective and efficient management and use of certain data processing facilities. The policies prescribe business-like procedures which require agencies to:

- a. Account for the full cost of operating data processing facilities.
- b. Allocate all costs to users according to the service they receive.
- c. Share excess data processing capacity with other agencies.
- d. Recover the cost of interagency sharing.
- e. Evaluate interagency sharing as a means of supporting major new data processing applications.

11. OMB Circular A-123, Internal Control Systems, Aug. 16, 1983

This Circular prescribes policies and standards to be followed by executive departments and agencies in establishing, maintaining, evaluating, improving and reporting on internal

controls in their program and administrative activities. Agencies must maintain effective systems of accounting and administrative control. All levels of management must involve themselves in assuring the adequacy of controls. New programs must be designed so as to incorporate effective systems of internal control. All systems must be evaluated on an ongoing basis and weaknesses, when detected, must be promptly corrected. Reports are to be issued, as required by the Federal Managers' Financial Integrity Act, on internal control activities and the results of evaluations.

12. OMB Circular A-127, Financial Management Systems

This Circular prescribes policies and procedures to be followed by executive departments and agencies in developing, operating, evaluating and reporting on financial management systems. The Circular establishes objectives for financial management and accounting systems which all agencies are required to meet. The objectives are concerned with ensuring that financial management data are recorded, stored and reported in a manner to facilitate systems operations (i.e., ensuring financial management data meet the criteria of usefulness, timeliness, reliability, completeness, comparability, consistency, efficiency and economy); systems integrity; support for management and full financial disclosure.

The Circular also requires agencies to establish and maintain a single, integrated financial management system, which may be supplemented by subsidiary systems. The intent of this requirement is to ensure that data entered into the agency's financial management system is entered only once and transferred automatically to appropriate accounts or other parts of the system or systems. New or substantially revised systems must be developed on an interagency basis and must be designed to meet the needs of all participating agencies. Agencies are allowed to expend funds only for financial management systems that meet the requirements of Circular A-127.

13. Federal Information Processing Standards (FIPS) (Dept. of Commerce)

A series of documents issued by the National Bureau of Standards (DOC) in accordance with the Brooks Act of 1965, Public Law 89-306. The FIPS contain standards and guidelines concerned with the standardization of computer hardware,

software (data representations, operative systems, programming languages) and systems. FIPs are mandatory for each Federal agency.

14. Federal Information Resource Management Regulations (FIRMR)
(GSA), 41 CFR Chapter 201

Regulations published by the General Services Administration to provide guidance for the procurement, utilization and disposition of ADP resources and equipment by each Federal agency.

15. National Archives and Records Administration Regulation
36 CFR 1220 and 41 CFR 201-22

Regulations issued by the National Archives and Records Administration to establish standard records management practices throughout the Federal government.