United States
Environmental Protection
Agency

Office Of Information
Resources Management
Washington, D.C. 20460

&EPA

2100
Information Resources
Management Policy Manual

⊕EPA

TRANSMITTAL

Classification No.: 2100 CHG 12

Approval Date: 7/19/96

INFORMATION RESOURCES MANAGEMENT POLICY MANUAL

1. **PURPOSE.**   This Transmittal issues revised material for the IRM Policy Manual.

2. **EXPLANATION.**   The revised Chapter 10, Records Management, integrates Agency records management principles and organization with Federal records management requirements, and includes electronic records.

3. **FILING INSTRUCTIONS.**   Post receipt of this Transmittal on the Checklist in front of the manual.

Remove Pages	Insert Pages
Chapter 10, dtd 7/21/87	Chapter 10, dtd 7/19/96

I Mei Chan, Central Directives Officer
Organization and Management Consulting Services

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Organization and Management Consulting Services
Office of Administration and Resources Management

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REMARKS

SUBJECT: EPA IRM POLICY MANUAL

ATTACHED IS A COPY OF THE AGENCY'S IRM POLICY MANUAL. WE HAVE PROVIDED THESE LARGE BINDERS SO THAT YOU CAN MAINTAIN OIRM POLICY GUIDELINES WITH THE POLICY MANUAL.

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FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Jean Sammon/IMSD	Phone No. 475-8673

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TRANSMITTAL

Classification No.: 2100 CHG 10	
Approval Date: 10/23/95	

IRM POLICY MANUAL

1.   <u>PURPOSE</u>.   This Transmittal issues revised material for the IRM Policy Manual.

2.   <u>EXPLANATION</u>.   Chapter 8, <u>Information Security</u>, establishes EPA's Agencywide Information Security Program and assigns roles and responsibilities for information security within EPA.

3.   <u>FILING INSTRUCTIONS</u>.   Post receipt of this Transmittal on the Checklist in front of the Manual.

<u>Remove Pages</u>

Chapter 8, dtd 7/21/87

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Chapter 8, dtd 10/23/95

David R. Alexander, Director
Organization and Management Consulting Services

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Classification No.: 2100 CHG 9

Approval Date: 7/17/95

IRM POLICY MANUAL

1.   <u>PURPOSE</u>.   This Transmittal issues new material for the IRM Policy Manual.

2.   <u>EXPLANATION</u>.   Chapter 19 establishes an agency-wide Information and Date Management Program.

3.   <u>FILING INSTRUCTIONS</u>.   Post receipt of this Transmittal on the Checklist in front of the Manual.

<u>Remove Pages</u>	<u>Insert Pages</u>
Table of Contents, dtd 5/1/95	Table of Contents, dtd 7/17/95
	Chapter 19, dtd 7/17/95

Judith M. King
Judith M. King, Chief
Agency Management Analysis Branch

Management and Organization Division
Office of Administration and Resources Management

♦EPA

TRANSMITTAL

Classification No.: 2100 CHG 6	**Addressee**
Approval Date: 9/28/94	

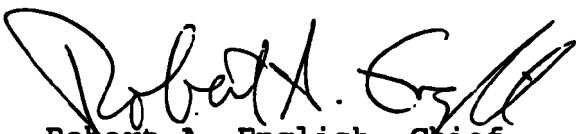## INFORMATION RESOURCES MANAGEMENT POLICY MANUAL

1. **PURPOSE**. This Transmittal provides new material for the IRM Policy Manual.

2. **EXPLANATION**. Chapter 17, *System Life Cycle Management*, establishes the life cycle requirements of EPA's automated information applications systems.

3. **FILING INSTRUCTIONS**. Post receipt of this Transmittal on the Checklist in front of the Manual.

<u>Remove Pages</u>

Table of Contents, dtd 6/1/93

<u>Insert Pages</u>

Table of Contents, dtd 9/28/94
Chapter 17, 9/28/94

Robert A. English, Chief
Agency Management Analysis Branch

Management and Organization Division
Office of Administration and Resources Management

INTRODUCTION

♺EPA TRANSMITTAL

IRM POLICY MANUAL

1. **PURPOSE.** This Transmittal issues new material for the IRM Policy Manual.

2. **EXPLANATION.** Chapter 18 establishes principles and requirements that govern the acquisition of Agency Federal Information Processing (FIP) resources.

3. **FILING INSTRUCTIONS.** Post receipt of this Transmittal on the Checklist in front of the Manual.

Remove Pages	Insert Pages
√Table of Contents, dtd 12/21/94	√Table of Contents, dtd 5/1/95
	√Chapter 18, dtd 5/1/95

Judith M. King, Chief
Agency Management Analysis Branch

Management and Organization Division
Office of Administration and Resources Management

TRANSMITTAL

Classification No.:

2100 CHG 7

Approval Date:

12/21/94

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IRM POLICY MANUAL

1.   **PURPOSE.**   This Transmittal issues revised material for the IRM
Policy Manual.

2.   **EXPLANATION.**   Chapter 7 covers the principles that govern the
realm of Agency telecommunications including voice, video and all
data communications.   It defines the roles and responsibilities of
organizations involved in the planning, design, development,
delivery, operation and maintenance of voice, video and data
communications.

3.   **FILING INSTRUCTIONS.**   Post receipt of this Transmittal on the
Checklist in front of the Manual.

Remove Pages	Insert Pages
√Table of Contents, dtd 9/28/94	√Table of Contents, dtd 12/21/94
√Chapter 7, dtd 6/6/88	√Chapter 7, dtd 12/21/94

Judith M. King, Chief
Agency Management Analysis Branch

Rec'd 6/23/95
Updated 6/26/95

Management and Organization Division
Office of Administration and Resources Management

⊕EPA

TRANSMITTAL

Classification No.:   2100   CHG 6

Approval Date: 9/28/94

INFORMATION RESOURCES MANAGEMENT POLICY MANUAL

1.   <u>PURPOSE</u>.   This Transmittal provides new material for the IRM Policy Manual.

2.   <u>EXPLANATION</u>.   Chapter 17, <u>System Life Cycle Management</u>, establishes the life cycle requirements of EPA's automated information applications systems.

3.   <u>FILING INSTRUCTIONS</u>.   Post receipt of this Transmittal on the Checklist in front of the Manual.

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Table of Contents, dtd 6/1/93   Table of Contents, dtd 9/28/94
                                  Chapter 17, 9/28/94

Robert A. English, Chief
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Office of Administration and Resources Management

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2100 CHG 5	
Approval Date:	
5/25/1993	
6/1/1993	

INFORMATION RESOURCES MANAGEMENT POLICY MANUAL

1. **PURPOSE**. This Transmittal provides new material for the IRM Policy Manual.

2. **EXPLANATION**. Chapter 15, <u>Electronic Office Equipment Access for the Disabled</u>, assigns responsibilities and requirements to ensure that disabled employees have access to electronic office equipment. Chapter 16, <u>EPA Internal Electronic Signature Policy</u>, defines the roles and responsibilities that govern the use of electronic signatures.

3. **FILING INSTRUCTIONS**. Post receipt of this Transmittal on the Checklist in front of the Manual.

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Table of Contents, dtd 4/20/1993	Table of Contents, dtd 6/1/1993
	Chapter 15, dtd 5/25/1993
	Chapter 16, dtd 6/1/1993

Robert A. English, Chief
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Office of Administration and Resources Management

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TRANSMITTAL

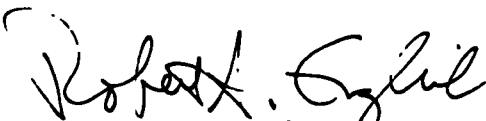| Classification No.: 2100 CHG 4	Addressee
Approval Date: 4/20/1993	

IRM POLICY MANUAL

1.   **PURPOSE**. This Transmittal provides new material for the IRM Policy Manual.

2.   **EXPLANATION**.   Chapter 14, <u>EPA Rulemaking Docket Policy</u>, establishes the principles and defines the roles and responsibilities governing the management of EPA rulemaking dockets.

3.   **FILING INSTRUCTIONS**. Post receipt of this Transmittal on the Checklist in front of the Manual.

Remove Pages	Insert Pages
Table of Contents, dtd 5/17/90	Table of Contents, dtd 4/20/93
	Chapter 14, dtd 4/20/93

Robert A. English, Chief
Agency Management Analysis Branch

rec'd & updated 5/21/93.

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Management and Organization Division
Office of Administration and Resources Management

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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 Perruccelli, Director
Management and Organization Division

CHECKLIST OF EPA TRANSMITTALS

TITLE
INFORMATION RESOURCES MANAGEMENT POLICY MANUAL

When kept current, this checklist permits the user to see at a glance which transmittals have been filed.

SERIES			SERIES			SERIES		
NUMBER	DATE	INI-TIAL	NUMBER	DATE	INI-TIAL	NUMBER	DATE	INI-TIAL
2100	7/21/87							
CHG1								
CHG2								
CHG3								
5/21/93 CHG4	4/20/1993	KUJ						
6/28/93 chg5	6/1/93	LR						
Chg 6	9/28/94	SLD						
6/26/95 7		SLD						
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CHG 11	7/19/96	KM						

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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.
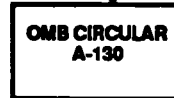
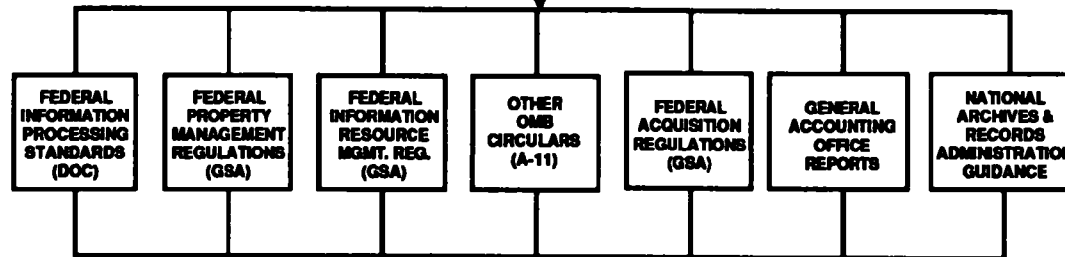# FRAMEWORK FOR EPA INFORMATION RESOURCES MANAGEMENT MANAGEMENT POLICIES

PRIMARY LEGISLATION

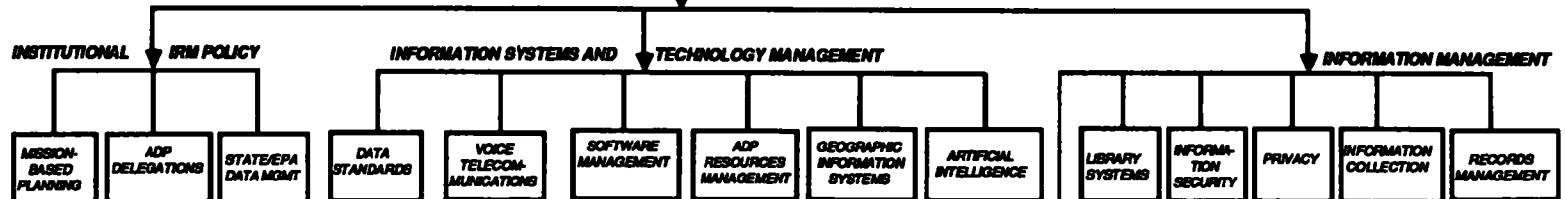| BROOKS ACT OF 1965 | PAPERWORK REDUCTION ACT OF 1980 | PRIVACY ACT OF 1974 | FREEDOM OF INFORMATION ACT OF 1966 | FEDERAL RECORDS ACT OF 1950 |

PRIMARY FEDERAL POLICY

OMB CIRCULAR A-130

SECONDARY FEDERAL POLICY/ GUIDANCE

| FEDERAL INFORMATION PROCESSING STANDARDS (DOC) | FEDERAL PROPERTY MANAGEMENT REGULATIONS (GSA) | FEDERAL INFORMATION RESOURCE MGMT. REG. (GSA) | OTHER OMB CIRCULARS (A-11) | FEDERAL ACQUISITION REGULATIONS (GSA) | GENERAL ACCOUNTING OFFICE REPORTS | NATIONAL ARCHIVES & RECORDS ADMINISTRATION GUIDANCE |

EPA IRM POLICY

INSTITUTIONAL IRM POLICY   *INFORMATION SYSTEMS AND TECHNOLOGY MANAGEMENT*   *INFORMATION MANAGEMENT*

| MISSION-BASED PLANNING | ADP DELEGATIONS | STATE/EPA DATA MGMT | DATA STANDARDS | VOICE TELECOM-MUNICATIONS | SOFTWARE MANAGEMENT | ADP RESOURCES MANAGEMENT | GEOGRAPHIC INFORMATION SYSTEMS | ARTIFICAL INTELLIGENCE | LIBRARY SYSTEMS | INFORMA-TION SECURITY | PRIVACY | INFORMATION COLLECTION | RECORDS MANAGEMENT |

EXAMPLES OF EPA IRM POLICY GUIDELINES & PROCEDURES

| NDPD OPERATING POLICIES | STATE/EPA FINANCING GUIDELINES | TELECOM-MUNICATIONS MANUAL | EPA SYSTEM DESIGN & DEVELOPMENT STANDARDS | TIME-SHARE BUDGETING & BILLING GUIDELINES | FREEDOM OF INFORMATION ACT MANUAL | INFORMATION SECURITY MANUAL | PRIVACY ACT MANUAL | RECORDS MANAGEMENT MANUAL |

| CHEMICAL ABSTRACT SERVICE REGISTRY NUMBER DATA STANDARD | TRANSMISSION OF ANALYTICAL ENVIRONMENTAL MEASURES | TECHNOLOGY PILOT PROJECT GUIDELINES | OFFICE AUTOMATION GUIDELINES | ADP REVIEW MANUAL |

iii

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 Adminis-
    trator 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 instru-
    ments. 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 responsibile for implementing these functions. In particular, this includes:

  ° Acquisition management of hardware not delegated to the Senior IRM Officials

  ° Acquistion 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 Assis-
tant 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 environ-
        mental 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

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. <u>DELEGATIONS OF AUTHORITY</u>.

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 Adminis-
    trator 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, develop-
    ment 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) <u>Information Collection</u>. 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) <u>OMB Bulletin for Federal Information Systems and Technology Planning</u> - 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) <u>OMB Bulletin for Management Review/Management Improvement Planning</u> - 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) <u>Section 43 of OMB Circular A-11, "Preparation and
        Submission of Budget Estimates"</u> - 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) <u>Timeshare Budget</u> - 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) <u>Environmental Monitoring Budget Special Analysis</u> -
        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) <u>Information Collection Budget</u> - 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 utiliza-
        tion 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 effective-
   ness. 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) <u>Acceptance Testing</u> - 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) <u>Systems Security</u> - 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) <u>User Support and Training</u> - To ensure optimally efficient operation of Agency information systems, it is critical that EPA managers provide their staff adequate user support and training.

e. <u>IRM Evaluations</u>. The following evaluations and reviews are conducted to help the Agency assess the adequacy of its information systems and resources:

(1) <u>Special Studies and Management Reviews</u> - 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) <u>ADP Reviews</u> - 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 manage-
     ment 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)   <u>Internal</u> - 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   1200 TN95
                                                   3/26/84

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.

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 signifi-
        cant investments must be evaluated through such analyses
        as information requirements studies, benefit-cost
        assessments and life cycle planning studies.

6. <u>RESPONSIBILITIES</u>.

    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 invest- ment 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 substan-
    tial 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 environ-
      mental 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 require-
        ments 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 informa-
              tion 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 informa-
              tion 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 delega-
tion 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 require-
   ments; 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 soft-
   ware 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. <u>RESPONSIBILITIES</u>.

a. The Office of Information Resources Management (OIRM) is responsible for:

(1) Managing information resources, functions and activities within EPA, in accordance with the Paper-work 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 specifi-
        cations, 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 capabi-
     lities 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 maintenence); (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

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 applica-
    tion 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 implementa-
            tion 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 provi.es information and
              comments on proposed data st.ndards.

        (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.   <u>DEFINITIONS</u>.

    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.   <u>PROCEDURES AND GUIDELINES</u>. Procedures and guidelines for the
Agency data standards program will be issued under separate
cover.

CHAPTER 6

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. FIRMR, 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 inter-
        changeably with no significant distinction. Automated
        mated 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 - TELECOMMUNICATIONS

1.   PURPOSE. This policy establishes the principles that govern
     the electronic transfer of information between and among
     Agency sites and organizational components, and also between
     and among the Agency and the larger environmental protection
     community (e.g., State and local government, grantees, and
     contractors). It also defines the roles and responsibilities
     of organizations involved with the planning, design,
     development, delivery, operation, and maintenance of Agency
     telecommunications services.

2.   SCOPE AND APPLICABILITY. Agency telecommunications
     includes all voice, video, and data communications (e.g.,
     communication via telephone, electronic mail and bulletin
     board services, voice processing, video/audio conference,
     satellite, radio frequency, and facsimile equipment),
     including directory, locator, and operator services. This
     policy affects all employees of the Agency and the larger
     EPA community, e.g., its contractors, grantees, and
     participants in cooperative agreements. The EPA-State data
     exchange is also importantly a part of the Agency
     telecommunications plan and program.

3.   BACKGROUND. The EPA is an information-intensive
     organization, both in terms of production and consumption.
     Agency telecommunications provide the infrastructure through
     which Agency business is conducted. The stringent
     timeframes associated with much of this business demand
     maintenance of an efficient, effective, and reliable
     telecommunications environment. The design, development,
     and maintenance of such an environment requires compatible
     equipment, procedures, and close coordination between the
     central service organization and its clients.

4.   AUTHORITIES.

     a.   Public Law 89-306, Brooks Act of 1965.
     b.   Public Law 98-369, Competition in Contracting Act of
          1984.
     c.   Public Law 96-511, Paperwork Reduction Act. of 1980, as
          amended.
     d.   Public Law 100-235, Computer Security Act of 1987.
     e.   Public Law 93-579, Privacy Act of 1974.
     f.   Federal IRM Regulation (FIRMR), Part 210-21.6, Use of
          Government Telephone Systems
     g.   FIRMR Part 201-39, Acquisition of Federal Information
          Processing Resources by Contracting.
     h.   FIRMR Part 201-20.305.1, Regulatory Delegations.

i. FIRMR Part 201-20.305.2, Special Agency Delegations.
j. FIRMR Part 201-20.306, Delegation of Authority for
    Telecommunications Resources.
k. FIRMR Part 201-21.601, Authorized Use of Long Distance
    Telecommunications Services.
l. FIRMR Part 201-21.603, Listening-in to or Recording
    Telephone Conversations.
m. FIRMR Part 201-24.102, Consolidated Local
    .Telecommunications Services.
n. FIRMR Part 201-24.203, Telecommunications Assistance
    Programs and Services.
o. FIRMR Bulletins:
    (1) C-3, Federal ADP and Telecommunications Standards
         Index.
    (2) C-9, Nonmandatory GSA Services and Assistance
         Programs.
    (3) C-10, Telecommunications Accessibility for Hearing
         and Speech Impaired Individuals.
    (4) C-15, Mandatory Local Telecommunications Services.
    (5) C-16, Emergency Telecommunications.
    (6) C-18, Federal Telecommunications System (FTS2000).
    (7) C-19, Information System Security (INFOSEC).
    (8) C-20, National Security and Emergency Preparedness
         (NSEP) Telecommunications.
p. Code of Federal Regulations (CFR) Title 5, Part 735 and
    Title 41, Part 201.
q. Manual of Regulations and Procedures for Federal Radio
    Frequency Management, National Telecommunications and
    Information Administration (NTIA), U.S. Department of
    Commerce.
r. OMB Circular A-130, Management of Federal Information
    Resources.
s. Federal Information Processing Standards.

5. POLICY.

    a. The Agency's telecommunications network is planned,
        acquired, and managed as a corporate resource.

    b. All Agency telecommunications activities and operations
        shall be in conformance with prevailing Federal law and
        regulations, and with pertinent General Services
        Administration (GSA) and National Telecommunications
        and Information Administration (NTIA) policies and
        procedures for Federal agencies.

    c. Since consistency and compatibility are essential to
        reliable, accurate communications within EPA and its
        larger community, any project or program involving

connection to the Agency network system or use of telecommunications, including provisions for the maintenance of current systems, is subject to Agency policy and review and approval by central Agency network systems management.

d. Agency access to the Internet is provided by the central Agency network systems management. Individual Headquarters or Regional Offices, laboratories or field sites shall not procure commercial subscription services for use within any EPA facility or install analog modems within any EPA facility for the purpose of Internet access without approval of the central Agency network systems management.

e. All requirements for use of radio frequencies, including purchase of radio equipment that emits radio frequencies and inauguration of change in the use of any frequency and radio call signs will be submitted to the central Agency network systems management for review and coordination with the National Telecommunications and Information Administration's Frequency Assignment Sub-Committee.

f. Since telecommunications is a rapidly-changing technology, operational standards and procedures are developed and modified, as appropriate, by the central Agency network systems management to assure the integrity and currency of the Agency telecommunications capability.

g. In accordance with the Agency's systems life cycle management policy, all Agency application development efforts, including those supported by contractors shall include an evaluation for overall system architecture needs, including telecommunications implications. This evaluation shall be made available for central Agency network systems management review prior to application development. The initial description of system network and capacity and security needs shall be included in the System Management Plan. All application development collaboratively undertaken by EPA within the larger EPA community (e.g., grantees, multinational organizations, State agencies) shall be similarly reviewed.

h. In planning for any relocation or facility modification, telecommunications requirements shall be specifically addressed, and appropriate funding

obtained.

i. Provision of all Agency telecommunications services,
    including planning, acquisition, installation,
    management, and operations, shall be accomplished
    through the Telecommunications Service Request (TSR)
    system and approval procedures established in Agency
    operational directives.

j. Direct connection from a non-EPA Local Area Network
    (LAN) (e.g., State LAN) to the EPA network is
    specifically prohibited, owing to potential instability
    this would introduce.

k. Telecommunication services provided to EPA employees,
    contractors, and grantees are to be used for 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.

l. 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.

m. 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. 3120.1A, "Conduct and
    Discipline." Repeated abuse may result in suspension
    or dismissal.

n. 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.

o. 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 without formal
    approval from the General Services Administration.

6.   **RESPONSIBILITIES**.

    a.   The Office of Information Resources Management is
        responsible for providing central Agency network
        systems management services including:

        (1) telecommunications design, acquisition, planning,
            installation, management and operation;

        (2) developing and promulgating policy, procedures,
            standards and guidance governing the operation of
            the Agency's telecommunications network and
            services (this includes development and
            acquisition of Agency applications requiring
            telecommunications support and guidance on the
            security of telecommunications systems);

        (3) providing technical assistance and guidance for
            the Agency in implementing the requirements of
            Federal and Agency telecommunications law,
            regulation and policy;

        (4) providing the Designated Agency Representative to
            act for the Agency in transactions with the
            General Services Administration (GSA) to obtain
            FTS2000 services;

        (5) maintaining the Agency central personnel locator
            database suitable for electronic distribution and
            for directory publication;

        (6) coordinating with the General Services
            Administration all Agency requests for installing
            devices to listen-in to or record telephone
            conversations; and

        (7) reviewing and approving Agency telecommunication
            system and service procurements and changes that
            require GSA approval under the FIRMR.

    b.   The Office of Acquisition Management is responsible for
        reviewing all contracts to ensure compliance with
        acquisition-related Federal and Agency
        telecommunications law, regulations, and policy, such
        as the Brooks Act and the FIRMR.

    c.   The Assistant Administrators, Associate Administrators,
        Staff Offices within the Office of the Administrator,
        the General Counsel, the Inspector General, and

Regional Administrators are responsible for ensuring that:

(1)   systems and applications designed and developed for their respective Offices comply with applicable Federal telecommunications law, regulations, and Agency policy;

(2)   any necessary funding for telecommunications relocation or facility modification is obtained for their respective Support Accounts as described (in section 5.h) above; and.

(3)   Agency locator information is authenticated and updated for each organizational component and location for their respective organizations as personnel join or leave the organization.

d.   Regional Administrators and Laboratory Directors are responsible for telephone operations in Regional Offices and laboratories, respectively, not otherwise assigned to the central Agency systems network management.

e.   The Senior Information Resources Management Officials (SIRMOs) are responsible for assisting their Assistant Administrators and Regional Administrators in:

(1)   maintaining current awareness of Agency telecommunications policy and directives for applicability and implementation in their respective organizations; and

(2)   assuring that relevant Agency information on telecommunications is appropriately distributed.

f.   EPA Managers and supervisors are responsible for making sure their employees are knowledgeable of and adhere to the Agency's telecommunications policy.

g.   Each EPA employee, contractor, and grantee is responsible for complying with the Agency's telecommunications policy.

7.   DEFINITIONS.

a.   "Central Agency network system management" refers specifically to the organization within the Office of Information Resources Management responsible for the

telecommunications function. The Agency's major system managers in program offices are key clients and advisors to the central network management group.

b. The Agency telecommunications network includes the Wide Area Network (WAN), the Metropolitan Area Network (MAN), Local Area Networks (LANs), connectivity to the Internet, FTS2000, and to the States.

    (1) "Local Area Network" (LAN) is a communications system that connects a number of personal computers/workstations and their peripheral components within a small geographical area, usually a single building or a single floor in a building.

    (2) "Metropolitan Area Network" (MAN) is a communications system that connects computers and/or LANs over a metropolitan area or campus. Typically MANs provide connectivity for organizational components in the same geographic area that are not co-located in a building.

    (3) "Wide Area Network" (WAN) is a communication system that connects computers and/or LANs over a very large area, e.g. nationwide.

    (4) "Internet," or "the Internet," is a collaboratively managed network of networks which provides access to thousands of domestic and foreign networks for file and message transfer and for remote login capability.

c. "EPA-State data exchange" refers to the sharing of data between EPA and State environmental agencies through telecommunications technologies.

d. "FTS2000" is the term applied to the mandatory-use contracts for national networks/telecommunications services and X.400 message transfer to Federal agencies, managed by the General Services Administration (GSA).

e. "Telecommunications facilities" means equipment used for such modes of transmission as telephone, data, facsimile, video, radio, audio, and such corollary items as switches, wire, cable, access arrangements, and communications security facilities.

f.   "Telecommunications resources" means telecommunications equipment, facilities, software and services.

g.   "Telecommunications services" means the transmission, emission, or reception of signals, signs, writing, images, sounds, or intelligence of any nature, by wire, cable, satellite, fiber optics, laser, radio, or any other electronic, electromagnetic, or acoustically coupled means. The term includes the telecommunications facilities necessary to provide such services.

h.   "Telecommunications Service Request" (EPA Form 5020-1) is the single Agency form approved for requesting telecommunications technical assistance and/or services, and for documenting approvals required by Agency telecommunications directives.

i.   "Locator" is the centralized Agency database containing all employee names, mailing address, and telephone numbers. It is made available in electronic form and published in hard copy.

j.   " Protocol" refers to a specific set of rules, procedures, standards, or conventions applying to format and timing of data transmission between two devices. A standard procedure that two data devices must accept and use to be able to understand each other.

k.   "Wireless" refers communication techniques that utilize methods of transmission other than electrical signals through wires. These methods usually rely on some form of atmospheric wave propagation, such as radio frequency, microwave or infrared.

8.   PROCEDURES, STANDARDS AND GUIDANCE.

a.   National Data Processing Division Operational Directives contain procedural information relating to the operation of and obtaining services from the central Agency network systems management.

b.   The Federal Information Processing Standards (FIPS) address a variety of topics dealing with telecommunications, including standards and computer network protocols.

    c.   The Federal Information Resources Management Regulation
          (FIRMR) and FIRMR Bulletins also address a variety of
          telecommunications issues, including the acquisition,
          management and use of this FIP resource.

CHAPTER 8 - INFORMATION SECURITY

1. **PURPOSE**. This document establishes a comprehensive, Agencywide 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) of the EPA who are involved in designing, developing, operating, maintaining, or accessing 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 effectively fulfill 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's 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.

g.   All Federal information and information systems
     are *sensitive* for at least one of three reasons:
     the need for *availability*, the need for *integrity*,
     and/or the need for protection from
     disclosure(*confidentiality*). Compromising any of
     these three security goals (i.e., availability,
     integrity, or confidentiality) may have a
     significant impact on Agency programs or
     operations.

4.   AUTHORITIES.

     a.   Computer Security Act of 1987

   b.   Office of Management and Budget (OMB) Circular
        A-130, Management of Federal Information Resources

   c.   Privacy Act of 1974, as amended

   d.   Paperwork Reduction of 1995 (P.L. 104-13)

   e.   Trade Secrets Act, 18 U.S.C Section 1905

   f.   The Freedom of Information Act of 1974 (5 U.S.C.
        Section 552)

5. POLICY. It is EPA policy to adequately protect
    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. EPA
    declares all of the Agency's information to be
    sensitive. In order to ensure the cost-effectiveness
    of the security program, information and applications
    will be protected to the extent required by applicable
    law and regulation in accordance with the degree of
    their sensitivity.

   a.   Sensitivity levels for information and information
        systems (i.e., low, medium, high) shall be
        determined by the responsible information managers
        within each organization, as described in Section
        3 of the EPA Information Security Manual.

   b.   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.

   c.   As required by OMB Circular No. A-130, all
        automated installations will undergo a periodic
        risk analysis to ensure that appropriate,
        cost-effective safeguards, commensurate with the
        installation's level of sensitivity, 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.

   d.   Within an installation risk analysis, an
        organization may choose to define the security

safeguards which serve as general protection standards for application and manual systems at the installation. These comprehensive installation-wide risk analyses can eliminate the need for performing individual risk analyses and security plans for systems not warranting individual analyses and plans (e.g., low-sensitive systems). The EPA Information Security Manual, the EPA Risk Analysis Guideline, and FIPS PUB 65, Guideline for Automatic Data Processing Risk Analysis, contain guidance for performing risk analyses.

e.   Appropriate administrative, physical, and technical safeguards shall be incorporated into all new automated data processing (ADP) application systems (including personal computer-based applications) and major modifications to existing systems.

f.   As required by OMB Circular A-130, all new applications will undergo a control review leading to formal certification. Existing sensitive applications will be recertified every three years. In instances where application safeguards are adequately defined within an *installation's* risk analysis, as described in 5c, separate application control reviews and certification/recertifications are not necessary.

g.   Appropriate ADP security requirements will be incorporated into specifications for the acquisition of ADP-related services and products.

h.   An information security awareness and training program will be established so that all Agency and contractor personnel are aware of their information security responsibilities.

i.   Microcomputers which store or process moderately or highly sensitive information must incorporate the safeguards necessary to ensure the protection of the information. 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, and the Inspector General when warranted.

k. Federal and contractor personnel participating in the design, development, operation, or maintenance of sensitive applications, or accessing sensitive information, shall have an appropriate level of background screening (ranging from minimal background checks to full background investigations) depending on the sensitivity of the information to be handled, and the risk and magnitude of loss or harm that could be caused by the individual.

6. <u>RESPONSIBILITIES</u>.

a. The Office of Information Resources Management is responsible for:

(1) Developing and defining an information security program 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 awareness training 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.

(6) Establishing the minimum information security control environment required by the Agency to protect both its ADP resources and its information from theft, damage, and unauthorized use.

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. Each Primary
       Organization Head must ensure that their
       organization's information security program
       provides security-awareness training based on
       the security awareness training criteria
       established by OIRM.

(3)   Providing annual assurance to 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)   Ensuring that all automated installations
       within the organization undergo a periodic
       "risk analysis" to ensure that appropriate,
       cost-effective safeguards, commensurate with
       the installation's level of sensitivity, are
       in place.

(5)   Ensuring the continuity of operations of
       automated information systems and facilities
       that support critical functions.

(6)   Ensuring that appropriate safeguards are
       incorporated into all new organizational
       information systems and major modifications
       to existing systems; that all new
       organizational information systems undergo an
       information security review leading to formal
       certification; and that existing sensitive
       information systems are recertified every
       three years.

(7) Ensuring that Federal employees and contractor personnel understand their security responsibilities and that organizational security regulations are properly distributed.

(8) Ensuring 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, controls, 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, including the Atomic Energy Act of 1954, as amended, and regulations issued under that Act.

d. Office of Grants and Debarment is responsible for:

(1) Ensuring that Agency interagency agreement policies, solicitations, and award documents contain provisions (as promulgated by OIRM) concerning the information security responsibilities of interagency contractors. This also applies to grantees that access EPA information or information systems.

(2) Establishing procedures to ensure that interagency contractors (and grantees accessing EPA information or information systems) are in compliance with their information security responsibilities. Violations shall be reported as appropriate to the Project Officer, OIRM official, and/or Inspector General. Specific violations involving National Security Information shall be reported to the Director, FMSD, the Inspector General, and the Contracting Officer.

e. The Office of Acquisition Management is
    responsible for:

    (1) Ensuring that Agency contract policies,
         solicitations, and award documents contain
         provisions (as promulgated by OIRM)
         concerning the information security
         responsibilities of contractors.

    (2) Establishing procedures to monitor contractor
         compliance with information security
         responsibilities as specified in contracts
         let by the Agency.

f. Each Project Officer (PO), Delivery Order Project
    Officer (DOPO), and Work Assignment Manager (WAM)
    is responsible for:

    1)   Ensuring contractor compliance with
         information security requirements on
         individual contracts, delivery orders, or
         work assignments, respectively. Violations
         shall be reported as appropriate to the
         Contracting Officer, OIRM official, and/or
         Inspector General. Specific violations
         involving National Security Information shall
         be reported to the Director, FMSD, the
         Inspector General, and the Contracting
         Officer.

    2)   Ensuring that contractors have the
         appropriate level of background screening
         when accessing EPA information or information
         systems under a contract (PO responsibility),
         delivery order (DOPO responsibility), or work
         assignments (WAM responsibility).

g. The Office of Inspector General is responsible
    for:

    (1) Establishing and implementing personnel
         security procedures for the screening of all
         individuals (both Federal and contractor
         personnel) participating in the design,
         development, operation, or maintenance of
         sensitive applications as well as those
         having access to sensitive data.

    (2) Reviewing allegations of waste, abuse,

mismanagement, or criminal activity involving information security.

h.   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.

i.   Senior Information Resource Management Officials (SIRMOs) are responsible for approving information security plans and certifying sensitive systems within their primary organizations.

j.   Information Security Officers (ISOs) are responsible for ensuring that comprehensive information security programs are in place for installations within their organizations.

k.   EPA Information Managers are responsible for designating sensitivity levels for information, conducting the appropriate security planning and testing activities (including risk analyses), and ensuring that only authorized individuals (Federal personnel and contractors) access Agency information and information systems.

l.   Each EPA Manager and Supervisor is responsible for:

(1) Ensuring his/her employees are knowledgeable of their information security responsibilities.

(2) Ensuring that his/her employees adhere to the organizational information security program established by the applicable Primary Organization Head.

m.   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
            the responsible Information Security Officer
            and the Information Manager. Violations
            involving National Security Information shall
            also be reported to the Director, FMSD, the
            Inspector General, and the Contracting
            Officer.

7.   DEFINITIONS.

    a.   "Application" means an application of information
         technology which is software used in connection
         with Government information, regardless of the
         technology involved. The technology could be
         computers, telecommunications, etc.

    b.   "Applications Security" means the set of controls
         that makes an information system perform
         accurately, reliably, and only those functions it
         was designed to perform. The set of controls
         typically includes the following: programming,
         access, source document, input data, processing
         storage, output, and audit trail.

    c.   "Confidential Business Information" (CBI) includes
         trade secrets, proprietary, commercial, financial,
         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. Examples include TSCA
         and FIFRA information and information from the
         Contracts Payment System.

    d.   "Confidential Agency Information" (CAI) includes
         information used within the Agency that, if not
         afforded protection from disclosure, could result
         in unfair contracting practices, or in some way

may adversely effect Agency personnel or property. Examples include internal budget information that reveals funds available for various contracting services. Disclosure of this information prior to negotiations could result in inflated contract estimates. Information about an upcoming procurement is confidential and of great value to potential bidders. Also included is information regarding projections or recommendations for personnel changes, whether Federal or contractor, that may cause an individual to become disgruntled and act adversely.

e. "Confidentially-sensitive Information" is information that requires protection from unauthorized disclosure under Federal statutes. Specific types of confidentially-sensitive information include:

-   Confidential Business Information (CBI),
-   Confidential Agency Information (CAI),
-   Privacy Act Information,
-   Some Freedom of Information Act-exempt information,
-   Enforcement confidential information, and
-   Budgetary information prior to OMB release.

f. "Information" is any communication or representation of knowledge such as facts, data, or opinions in any medium or form, including automated, textual, numerical, graphic, cartographic, narrative, or audiovisual forms.

g. "Information Security" encompasses three different types of security: application security, installation security, and personnel security. In total, information security involves the precautions taken to protect the confidentiality, integrity, and availability of information.

h. "Information System" means the organized collection, processing, transmission and dissemination of information in accordance with defined procedures, whether automated or manual.

i. "Installation" means the physical location of one or more computer or office automation 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.

j.   "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.

k.   "National Security Information" (NSI) means
        information that is classified as Top Secret,
        Secret, or Confidential under Executive Order
        12958 or predecessor orders, and includes
        "Restricted Data" and "Formerly Restricted Data"
        protected under the provisions of the Atomic
        Energy Act of 1954, as amended, and regulations
        issued under that Act. The specific techniques
        and responsibilities for NSI are beyond the scope
        of this policy.

l.   "Personnel Security" involves the use of various
        techniques, including investigations, to screen
        both Federal and contractor personnel
        participating in the design, development,
        operation, or maintenance of sensitive
        applications as well as those having access to
        sensitive data. The level of screening required
        under OMB Circular A-130 varies from minimal
        checks to full background investigations depending
        on the sensitivity of the information to be
        handled, and the risk and magnitude of loss or
        harm that could be caused by an individual.

m.   "Physical Security" means the procedures and
        controls to provide for the protection of
        personnel, facilities, materials, equipment, and
        documents against any threat other than overt
        military action.

n.   "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.

o. "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 protective techniques can be effectively applied to minimize potential loss. Risk analyses may vary from an informal, quantitative review of a microcomputer installation to a formal, fully quantified review of a major computer center.

p. "Security Violation" means any waste, fraud, abuse, or mismanagement of information resources.

q. "Sensitive Information" All EPA information is sensitive for at 'least one of three reasons: the need for *availability*, the need for *integrity*, and/or *confidentiality*--the need for protection from disclosure. (This last category includes confidentially-sensitive information; see definition.) The level of sensitivity for EPA's information is rated as low, medium, or high as determined by the responsible information manager.

    While EPA does maintain National Security ·Information (see definition), the specific techniques and responsibilities for NSI are beyond the scope of this chapter.

r. "Sensitive Application" - An application that processes sensitive information or an application that requires protection because of the loss or harm that 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's Information Security Program are identified and issued under separate cover in the Information Security Manual. This manual identifies and references, as appropriate, existing procedures in the information security area, such as the Freedom of Information Act Manual, Privacy Act Manual, the Records Management Manual, Confidential Business Information manuals (e.g., the TSCA Security

Manual) and Agency Public Information and
Confidentiality Regulations at 40 CFR part 2.
Additional information regarding security of the
Agency's ADP resources can be found in the National
Data Processing Division's Operational Directives.

9.   PENALTIES FOR UNAUTHORIZED DISCLOSURE OF INFORMATION.

   a.   EPA employees are subject to appropriate penalties
        if they knowingly, willfully, or negligently
        disclose confidential information (including CBI,
        CAI, and National Security Information) to
        unauthorized persons. EPA has legal and
        regulatory requirements to protect confidential
        information such as the requirements for
        protecting CBI at 40 CFR § 2.221. 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
        confidential 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 confidential information to
        unauthorized persons may 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, particulatly
        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 genera-
        tion 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. <u>DEFINITIONS</u>.

   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. <u>PROCEDURES AND GUIDELINES</u>. Procedures and guidelines will be issued under separate cover.

CHAPTER 10 - RECORDS MANAGEMENT

1. PURPOSE. This policy defines the mission and
    principles of the Agency's records management program,
    incorporates applicable Federal requirements into
    standard Agency practices, enumerates basic records
    management program requirements, and sets forth
    responsibilities for records management. Since all
    Agency staff are involved in creating, maintaining, and
    using Agency records, it is imperative that everyone
    understand their records management responsibilities.
    This Agency-wide policy provides the framework for
    specific guidance and detailed operating procedures
    governing records management organization,
    responsibilities, and implementation.

2. SCOPE AND APPLICABILITY. This policy applies to all
    records of the Environmental Protection Agency (EPA),
    as defined under the Federal Records Act (44 U.S.C.
    3101), regardless of medium (including paper,
    microform, electronic, audiovisual, and record copies
    of Agency publications), which are created, collected,
    processed, used, stored, and/or disposed of by EPA
    organizations, employees, and facilities, as well as
    those acting as its agents, such as States, Indian
    tribes, contractors, or grantees.

3. BACKGROUND.

    a. The Federal Records Act of 1950, as amended,
        requires all Federal agencies to make and preserve
        records containing adequate and proper
        documentation of their organization, function,
        policies, decisions, procedures, and essential
        transactions. These records are public property
        and must be managed according to applicable laws
        and regulations.

    b. Records are broadly defined by statute and
        regulation to include all recorded information,
        regardless of medium or format, made or received
        by EPA and its agents under Federal law or in
        connection with the transaction of public

business, and either preserved or appropriate for
preservation because of their administrative,
legal, fiscal, or informational value.

c. Records are a valuable information resource whose
    uses go beyond facilitating immediate operational
    needs. Records serve a number of broader purposes
    including: longer-term administrative and program
    planning needs, evidence of Agency activity, use
    by other Programs in the Agency, protection of the
    legal and financial rights of the Government and
    its citizens, effective oversight by Congress and
    other authorized agencies, and the retention of an
    official record for historical purposes. Records
    serve as the Agency's memory; they are of critical
    importance in ensuring that the organization
    continues to function effectively and efficiently.

d. Not all documentary materials used by EPA and its
    agents are records. Examples of documentary
    materials that are not records include library and
    reference materials, stocks of publications and
    processed documents maintained for distribution,
    extra copies of documents made or acquired only
    for convenience of reference (often called
    technical reference materials), and personal
    papers.

e. Records should be managed as an Agency asset
    throughout their life cycle, which consists of
    three basic stages: creation, active maintenance
    and use, and disposition. The records life cycle
    is initiated by the creation, collection or
    receipt of records in the form of data or
    documents in the course of carrying out EPA's
    administrative and programmatic responsibilities.
    The life cycle continues through the processing
    and active use of the information in the record,
    until the record is determined to be inactive.
    The final step in the life cycle is disposition
    which frequently includes transfer to inactive
    storage, followed by transfer to the National
    Archives or destruction.

f.   As records move through the information life
      cycle, they require management by: "sponsors" who
      create them, or cause them to be created, and who
      are responsible for their continued maintenance
      and disposition; users who have a need for the
      information in the records; and custodians who
      have physical custody of the record at various
      stages in the life cycle.

g.   EPA organizations, staff, and their agents who
      create, utilize, and acquire custody or possession
      of Agency records do not thereby retain a
      proprietary interest in such records. Official
      Agency records are public assets and belong to the
      Government, not to Programs by virtue of their
      possession or to individuals by virtue of their
      position as Agency officials. Penalties for the
      willful and unlawful destruction, removal from
      files and private uses of official records are
      found in 18 U.S.C. 2071.

h.   Records management is defined as planning,
      controlling, directing, organizing, training,
      promoting, and other managerial activities
      involved with respect to records creation, records
      maintenance and use, and records disposition in
      order to achieve adequate and proper documentation
      of the policies and transactions of the Federal
      Government and effective and economical management
      of agency operations.

i.   EPA is required under Federal statute (44 U.S.C.
      31) to establish a records management program,
      defined as a planned, coordinated set of policies,
      procedures, and activities needed to manage an
      agency's recorded information. Essential elements
      include issuing up-to-date records management
      program directives, properly training those
      responsible for implementation, and carefully
      evaluating the results to ensure adequacy,
      effectiveness, and efficiency. Chapter 36 of the
      Code of Federal Regulations (36 CFR 1222.20) and
      OMB Circular A-130, Management of Federal
      Information Resources, require that agencies
      integrate records management into the overall

information resources management (IRM) program.

j.   This policy is intended to be read in the context
      of the entire IRM Policy Manual and the Records
      Management Manual (Directive 2160). It is not
      comprehensive in covering all information
      resources management (IRM) requirements affecting
      records management, and it is not intended to be
      considered in isolation from other EPA IRM
      policies articulated in this manual. Program
      Offices wishing to manage their records
      electronically should carefully review all
      pertinent Federal IRM regulations and Agency
      policies to ensure that the records they create
      will meet all requirements. This is especially
      true for areas such as electronic signatures,
      which have legal and audit implications.

4.   AUTHORITIES.

     a.   5 U.S.C. 552 (The Freedom of Information Act as
           amended).

     b.   5 U.S.C. 552a (The Privacy Act of 1974).

     c.   5 U.S.C. 553 (Administrative Procedures Act).

     d.   5 CFR 1320.16 (Collection of information
           prescribed by another agency).

     e.   5 CFR 1320.17 (Interagency reporting).

     f.   18 U.S.C. 2071 (Destruction of Records).

     g.   18 U.S.C. 2701-2707 (The Electronic Communications
           Privacy Act of 1986).

     h.   31 U.S.C. 1101 et. seq. (Budget and Accounting
           Procedures Act of 1921).

     i.   44 U.S.C. 29 (Records Management by the Archivist
           of the United States and the Administrator of
           General Services).

j.   44 U.S.C. 31 (Records Management by Federal
     Agencies).

k.   44 U.S.C. 33 (Disposal of Records).

l.   44 U.S.C. 35 (Paperwork Reduction Act of 1980, as
     amended).

m.   44 U.S.C. 3504(e) (Paperwork Reduction
     Reauthorization Act of 1995).

n.   36 CFR 1220 to 1238 (Records Management).

o.   41 CFR 201-6 to 201-11 (Records Management).

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

q.   Applicable Federal Information Processing
     Standards (FIPS) publications.

5.   POLICY. It is EPA policy to manage Agency records
     effectively and efficiently throughout their life cycle
     in order to facilitate accomplishment of the Agency's
     programmatic and administrative missions, to preserve
     official Agency records in accordance with applicable
     statutory and regulatory requirements, and to promote
     access to information by EPA staff, Agency partners,
     and the public as appropriate. This is to be
     accomplished through adequate and proper documentation
     of all EPA organizations, their functions, policy
     decisions, procedures, and essential transactions in a
     manner that promotes accountability, establishes a
     historical record, and protects the legal and financial
     rights of the Government and the privacy of
     individuals.

     a.   EPA shall plan and establish a framework for
          managing and overseeing a comprehensive
          Agency-wide records management program.

     b.   This framework shall be integrated into the EPA's
          information resources management program to
          promote effective management, communication,

sharing, and transfer of information regardless of
the medium or format in which it exists.

c.   EPA shall inform its employees and agents of their
     responsibilities to manage the Agency's records,
     and ensure that records management staff receive
     adequate training to carry out their
     responsibilities.

d.   EPA shall manage records throughout their life
     cycle which includes the following components:

     (1) Records creation/collection - An official
          record shall be created to appropriately
          document all Agency functions, policies,
          decisions, procedures and essential
          transactions. Programs shall develop
          recordkeeping requirements for all official
          Agency records for which they are
          responsible.

     (2) Records maintenance and use - Record filing,
          indexing and storage systems shall be
          designed and documented to the extent
          appropriate and necessary, to maximize the
          usefulness of the records and allow retrieval
          throughout their life cycle.

     (3) Records disposition - Records disposition
          schedules for all Agency records shall be
          submitted to and approved by the Archivist of
          the United States. No records may be
          destroyed without an approved disposition.
          Once dispositions are approved, they must be
          carried out in a timely manner.

e.   EPA shall create, maintain, and store records only
     in media and formats that adhere to Federal
     standards (e.g., National Archives and Records
     Administration (NARA) standards for magnetic tape
     storage). Within those parameters, Program
     Offices should select a medium (e.g., paper,
     microform, or optical) based on whether it is
     technically feasible and cost-effective, responds
     to Agency requirements, and allows for efficient

information integration and dissemination where
necessary.

f.   Program Offices are encouraged to develop
      technology applications (such as electronic
      document filing, data base applications, or
      conversion to microfilm or optical disk) to
      improve the management of Agency records. When
      planning all technology applications, EPA shall
      include records management requirements in the
      mission needs and requirements analyses in order
      to determine what impact, if any, the application
      will have on the Agency's ability to document its
      activities. To the extent that the system or
      application impacts the Agency's recordkeeping,
      the following requirements shall be incorporated:

      (1)   Records creation - Applications shall allow
            for the creation and maintenance of records
            sufficient to meet the documentation needs of
            the Agency.

      (2)   Records storage - Records shall be physically
            located and maintained in an economical
            manner which allows for easy retrieval,
            access, and dissemination if appropriate.

      (3)   Records disposition - The records within the
            information system shall be scheduled and the
            system shall be capable of deleting records
            or transferring them to NARA as required by
            their disposition schedule.

g.   All official records created or collected by EPA
      shall be inventoried at least triennially in order
      to provide a complete and comprehensive accounting
      of the Agency's holdings. Records that are not
      needed on-site for current business should be
      retired to a Federal records center for storage.

h.   Records collected, created, or maintained by the
      Agency shall be safeguarded commensurate with the
      risk and magnitude of the harm that would result
      from the loss, misuse, unauthorized access to or

modification of information. Appropriate
safeguards shall be adopted to ensure
confidentiality and overall security as specified
in the Privacy Act and the Computer Security Act.
(Also see Chapters 8 and 11 of this Manual, EPA
Manual 7700, and applicable program-specific
legislation and manuals.)

i.   Standardized filing systems/structures shall be
     developed where appropriate to provide an
     effective mechanism which facilitates ease of use,
     access, and disposition. Records shall be
     organized and indexed in such a manner as to be
     easily accessible to Agency employees and the
     public, as defined in Federal regulations, and to
     allow for integration across programs and
     information systems.

j.   Program Offices must be able to provide the
     National Archives with a copy of all electronic
     records scheduled for permanent retention in a
     format that conforms to standards found in 36 CFR
     1228.188.

k.   The Agency shall establish a program for vital
     records. The program shall be responsible for
     identifying and appropriately safeguarding records
     defined as crucial to continuing operation of
     essential Agency functions during an emergency,
     and those that are essential to protecting the
     rights and interests of the Agency and the
     individuals directly affected by its activities.

6.   RESPONSIBILITIES.

     a.   The Administrator is responsible for creating and
          preserving records that adequately and properly
          document the organization, functions, policies,
          decisions, procedures, and essential transactions
          of EPA. This responsibility is delegated to the
          Assistant Administrator for Administration and
          Resources Management (who also serves as the
          Designated Senior Official for IRM), and

redelegated to the Office of Information Resources
Management.

b.   The Office of Information Resources Management
      (OIRM) is responsible for leadership, planning,
      overall policy, and general oversight of the
      records management in the Agency, and its
      incorporation into the broader information
      resources management framework. OIRM shall:

      (1)   Incorporate records management requirements
            and policies into the Agency's overall IRM
            policy and planning.

      (2)   Designate an Agency Records Officer
            responsible for:

            -     Leading and managing the Agency-wide
                  national records management program.

            -     Advising OIRM on records management
                  issues and developing Agency-wide
                  records management policies, procedures,
                  guidance and training materials.

            -     Coordinating the approval of the
                  Agency's records disposition schedules
                  and the transfer of records to the
                  National Archives.

            -     Coordinating records management issues
                  with other Federal agencies, including
                  Federal oversight agencies, such as the
                  Office of Management and Budget (OMB),
                  National Archives and Records
                  Administration (NARA), and the General
                  Services Administration (GSA).

            -     Providing technical advice and training
                  to all Agency organizations on
                  establishing and maintaining effective
                  records management programs.

            -     Serving as the Agency Vital Records
                  Officer and coordinating with the

Agency's emergency management program.

(3)   Promulgate and communicate Agency-wide
      policies and guidance that reflect records
      management missions and goals, and
      incorporate Federal requirements.

(4)   Designate a vital records officer and other
      records management contact points required by
      regulations.

(5)   Assign overall responsibility for the records
      management aspects of centrally provided
      information technology infrastructure,
      including national local area network
      applications.

(6)   Ensure that senior Agency staff are aware
      of their records management responsibilities.

(7)   Conduct periodic evaluations of records
      management programs within the Agency as part
      of the Agency's IRM review and oversight
      program.

c.   Assistant Administrators, Associate
     Administrators, Regional Administrators,
     Laboratory Directors, the General Counsel, the
     Inspector General, and Heads of Headquarters Staff
     Offices shall:

(1)   Designate a Records Liaison Officer (RLO)
      accountable to the Senior Information
      Resources Management Official (SIRMO) or
      other official designated to oversee the
      program. The RLO serves as a point of
      contact for the Agency Records Officer and is
      responsible for managing and ensuring the
      implementation of an appropriate records
      management program tailored to the
      organization's requirements.

(2)   Implement a records management program within
      their area of responsibility to accomplish

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the objectives identified in Federal
regulations and Agency policies and
procedures. Program components include
responsibilities for:

-    Identifying recordkeeping requirements
     for major programmatic and
     administrative records series in all
     media.

-    Evaluating the value of records within
     their span of responsibility to serve as
     a basis for assigning records retention
     and disposition instructions and
     implementing the most responsive and
     cost-effective means for managing them.

-    Developing standardized file plans and
     indexing approaches where appropriate to
     simplify the use of, access to, and
     integration of information within the
     organization.

-    Inventorying and scheduling records
     created and maintained by the
     organization.

-    Implementing approved records
     dispositions, while ensuring that no
     records are destroyed without proper
     authorization as specified in the
     Federal Records Act.

-    Systematically reviewing records
     disposition schedules, file plans, and
     procedures on a triennial basis to
     ensure that they are current and
     updating them as necessary.

-    Conducting a program of regular internal
     records management reviews to assist
     programs in implementing appropriate
     records management procedures.

-    Assisting in planning and implementing

information management technology and
reviewing and·approving the purchase of
records management equipment and
services.

- Implementing a vital records program.

- Providing oversight for contractors
  managing official Agency records.

-· Providing records management briefings
   for all managers within their
   organizations.

(3) Develop records management oversight roles
and communication networks with all program
units including field offices and other
facilities to ensure that the records
management program is implemented at all
sites under their program jurisdiction.

(4) Develop and disseminate directives and
operating procedures, as needed, to
supplement Agency-wide policy to meet the
unique records management needs of their
organizations and to support a records
management program within the organization.

d. The General Counsel shall assist in determining
what records are needed to provide adequate and
proper documentation of Agency activities and in
specifying appropriate retentions for Agency
records.

e. The Inspector General shall assist in determining
the retention of Agency records that may be needed
for internal audit purposes.

f. Agency managers are responsible for ensuring that
their programs are properly documented and that
records created by their programs are managed
according to relevant regulations and policies.

g. Information system mangers (program managers) are
responsible for overseeing the creation and use of

electronic records in keeping with federal
regulations and Agency policy. This includes
coordination with the records officer to establish
recordkeeping requirements including a retention
period and to implement authorized disposition
instructions for system information and
documentation. Systems managers also coordinate
with records officers to develop specific
information resource management plans to meet
future system information needs.

h. ADP or Information Technology Managers are
    responsible for managing ADP resources, as well as
    notifying the systems managers and records
    officers of technology changes that would affect
    access, retention, or disposition of system
    records.

i. All Agency staff and agents of EPA shall:

    (1) Conduct work in accordance with Federal
    records management regulations and the Agency's
    records management policy and procedures.

    (2) Create and manage the records necessary to
    document their official activities. This includes
    creating appropriate records documenting meetings,
    conversations, electronic mail messages, telephone
    calls and other forms of communication that affect
    the conduct of official Agency business.

    (3) Only destroy records in accordance with
    approved records disposition schedules and never
    remove records from the Agency without
    authorization.

    (4) File personal papers and nonrecord materials
    separately from official Agency records.

7. DEFINITIONS.

    Definitions are taken from A Federal Records Management
    Glossary (1993), published by the National Archives and
    Records Administration.

a.   "Adequacy of Documentation" is a standard of
     sufficiently and properly recording actions and/or
     decisions.

b.   "Administrative Records," as used in this
     directive, are the records which reflect routine,
     transitory, and internal housekeeping activities
     relating to subjects and functions common to all
     offices. Examples include training, personnel,
     and travel reimbursement files.

c.   "Disposition Schedules" are documents that provide
     continuous authority to dispose of recurring
     series or systems of records, or to transfer them
     to the National Archives and its national network
     of Federal Records Centers.

d.   "File" is an arrangement of records. The term is
     used to denote papers, photographs, photographic
     copies, maps, machine-readable information, or
     other recorded information regardless of physical
     form or characteristics, accumulated or maintained
     in filing equipment, boxes, or machine-readable,
     or on shelves, and occupying office or storage
     space.

e.   "File Plan" is (1) a plan designating the physical
     location(s) at which an Agency's files are to be
     maintained, the specific types of files to be
     maintained there, and the organizational
     element(s) having custodial responsibility; or (2)
     a document containing the identifying number,
     title or description, and disposition of files
     held in an office.

f.   "Filing System" is a set of policies and
     procedures for organizing and identifying files or
     documents to speed their retrieval, use and
     disposition. May be either manual or automated.
     Sometimes called a recordkeeping system.

g.   "Inventory" is a survey of Agency records and
     nonrecord materials conducted primarily to develop
     records schedules and also to identify various
     records management problems, such as improper

applications of recordkeeping technology.

h.   "National Archives and Records Administration"
      (NARA) establishes policies and procedures for
      managing U.S. Government records. NARA assists
      Federal agencies in documenting their activities,
      administering records management programs,
      scheduling records, and retiring noncurrent
      records to Federal records centers, and conducts
      periodic evaluations of Agency programs for
      compliance.

i.   "Nonrecord Materials" are U.S. Government-owned
      informational materials excluded from the legal
      definition of records. Includes extra copies of
      documents kept only for convenience of reference,
      stocks of publications and of processed documents,
      and library or museum materials intended solely
      for reference or exhibition. Also called
      nonrecords.

j.   "Official Agency Records" are the documentation,
      including all background materials, resulting from
      specific transactions, operations or processes
      which are accumulated and maintained in filing
      equipment. Official Agency records include
      information recorded on any medium including
      paper, microform, cards, film, audio tape, optical
      disk, or magnetic media.

k.   "Personal Papers" are nonofficial, or private,
      papers relating solely to an individual's own
      affairs. Must be clearly designated as such and
      kept separate from the agency's records. Also
      called personal files or personal records.

l.   "Programmatic Record" refers to records created,
      received, and maintained by EPA in the conduct of
      its mission functions for which the Agency is
      accountable. The term is used in contrast to
      administrative, housekeeping, or facilitative
      records.

m.   "Recordkeeping Requirements" are statements in
      statutes, regulations, or directives that provide

general and specific information on particular
records to be created and maintained by the
Agency.

n.   "Records" means all books, papers, maps,
     photographs, machine-readable materials, or other
     documentary materials, regardless of physical form
     or characteristics, made or received by an agency
     of the U.S. Government under Federal law or in
     connection with the transaction of public business
     and preserved or appropriate for preservation by
     that agency or its legitimate successor as
     evidence of the organization, functions, policies,
     decisions, procedures, operations, or other
     activities of the Government or because of the
     informational value of the data in them. (44
     U.S.C. 3101, Definition of Records)

o.   "Records Management" means the planning,
     controlling, directing, organizing, training,
     promoting, and other managerial activities
     involved with respect to records creation, records
     maintenance and use, and records disposition in
     order to achieve adequate and proper documentation
     of the policies and transactions of the Federal
     Government and effective and economical management
     of agency operations.

p.   "Records Management Program" refers to the
     planned, coordinated set of policies, procedures,
     and activities needed to manage an agency's
     recorded information. Encompasses the creation,
     maintenance and use, and disposition of records,
     regardless of media. Essential elements include
     issuing up-to-date program directives, properly
     training those responsible for implementation, and
     carefully evaluating the results to ensure
     adequacy, effectiveness, and efficiency.

q.   "Records Series" are file units or documents
     arranged according to a filing system or kept
     together because they relate to a particular
     subject or function, result from the same
     activity, document a specific kind of transaction,
     take a particular form, or have some other

relationship arising out of their creation, receipt, or use, such as restrictions on access and use. Also called a record series.

r. "Vital Records" mean essential Agency records that are needed to meet operational responsibilities under national security emergencies or other emergency or disaster conditions (emergency operating records) or to protect the legal and financial rights of the Government and those affected by Government activities (legal and financial rights records.

s. Vital Records Program" means the policies, plans, and procedures developed and implemented and the resources needed to identify, use, and protect the essential records needed to meet operational responsibilities under national security emergencies or other emergency or disaster conditions or to protect the Government's rights or those of its citizens. This is a program element of the Agency's emergency management program.

8. PROCEDURES AND GUIDELINES. In order to translate the Agency policy requirements into standard practices, OIRM has issued detailed policies in EPA Directive 2160 and the Agency Records Disposition Schedules. In addition, OIRM has developed numerous guidance and procedural documents to communicate best practices for managing and administering EPA's records management program. A current listing of those documents, as well as a listing of records management guidance issued by other Federal agencies such as the Office of Management and Budget and the National Archives and Records Administration is available from the Agency Records Officer.

CHAPTER 11

CHAPTER 11 - PRIVACY

1. <u>PURPOSE</u>. 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. <u>SCOPE AND APPLICABILITY</u>. 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. <u>BACKGROUND</u>. 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. <u>AUTHORITIES</u>.

   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. <u>POLICY</u>.

    a. The Agency will safeguard personal privacy in its
       collection, maintenance, use and dissemination of informa-
       tion 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 State-
       ment 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 responsibile 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 identifyier 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. <u>PROCEDURES AND GUIDELINES</u>. 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. <u>PURPOSE.</u>   This policy establishes principles that govern the
    operation of the EPA library network.

2. <u>SCOPE AND APPLICABILITY.</u>   This policy applies to all EPA
    employees and contractors responsible for providing informa-
    tion/library services.   It also applies to officials who
    contribute to the Headquarters library official collection
    of EPA reports.

3. <u>BACKGROUND.</u>   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. <u>AUTHORITIES.</u>   OMB Circular A-130, Management of Federal
    Information Resources.

5. <u>POLICY.</u>   It is EPA policy that the library network provide
    EPA staff with access to high quality, cost-effective informa-
    tion 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. <u>RESPONSIBILITIES.</u>   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.

CHAPTER 14 - EPA RULEMAKING DOCKET POLICY

1.   PURPOSE. This policy establishes the principles and
      defines the roles and responsibilities that govern the
      management of EPA rulemaking dockets.

2.   SCOPE AND APPLICABILITY. This policy applies to all EPA
      organizations and their employees and to EPA contract
      personnel who are involved in the collection,
      processing, dissemination use, storage and/or
      disposition of EPA rulemaking docket information. It
      applies to automated and manual rulemaking docket data
      in all subject areas, except data restricted by national
      security, Confidential Business Information privileges
      or Privacy Act considerations.

3.   BACKGROUND.

      a.   EPA is an information intensive agency. The
            Agency's extensive reliance on data as a basis for
            decision making stems directly from its mission and
            the requirements of its regulatory and monitoring
            activities.

      b.   Under 44 U.S.C. 3101 the head of each Federal
            agency "shall make and preserve records containing
            adequate and proper documentation of the
            organization, functions, policies, decisions,
            procedures, and essential transactions of the
            Agency..."

      c.   For substantive rulemaking, agencies are required
            to develop a "rulemaking record" or "administrative
            record" that reflects both public participation in
            the rulemaking procedures and support the factual
            conclusions upon which the rule is based (5 U.S.C.
            553, Administrative Procedures Act and Executive
            Order 12,291 on Federal Regulation).

      d.   The information that supports a proposed or final
            rule must be made available to the public
            concurrently with the publication of that rule.

      e.   Several EPA programs are required to maintain a
            rulemaking record by statute, such as the Clean Air

Act, or by regulation. Within EPA such a record is
commonly called a rulemaking docket.
Specific authorities for major dockets are provided
in <u>Access EPA Major EPA Dockets</u>.

f.   EPA strives to provide the public with information
      necessary to make comments for consideration in the
      EPA rulemaking process. EPA programs involved in
      regulatory development may find that establishing a
      rulemaking docket is an effective way to fulfill
      requirements for developing an administrative
      record and providing public access, even if the
      creation of a rulemaking docket is not required by
      a specific statute or regulation.

g.   A rulemaking docket is a set of documents collected
      and maintained specifically to provide EPA
      regulations development staff and the public with
      ready access to copies of the Agency records that
      support the basis for EPA rulemaking actions. EPA
      Program and Regional offices contribute to the
      development and operation of EPA dockets.

h.   EPA has major docket facilities in Headquarters.
      In addition to these major dockets, there are a
      number of smaller dockets located in Headquarters
      and Regional offices.

i.   A well-managed system of dockets is essential to
      the success of the Agency's mission. Operation of
      the dockets should be consistent to the extent
      possible throughout the Docket Network to
      facilitate ease of access for the public.

j.   Dockets represent an important information
      repository, the integrity of which must be
      protected and maintained. File integrity is
      particularly important since incompleteness
      could cause delays in promulgating a final
      rule and possibly result in legal action
      against Agency.

k.   Each rulemaking docket generally includes, but is
     not limited to:

     (1) A copy of each proposed rule, final rule or

other rulemaking notice (e.g., Advance Notice
of Proposed Rulemaking) for a regulatory
action signed by the Administrator (or
Assistant Administrator or his/her designee in
the case of a supplemental notice).

(2) All documents cited in <u>Federal Register</u>
     notices of rulemaking activities.

(3) Information considered by the Agency in
     drafting a proposed or final rule. This
     includes data, analyses, reports, and minutes;
     summaries and transcripts of public meetings
     and hearings; records of ax parte
     communications including telephone calls,
     memoranda and letters; and public statements
     made by EPA employees in their official
     capacities.

(4) Public comments received by the Agency
     in response to <u>Federal Register</u> notices of
     proposed rulemaking in which the Agency has
     requested written comments.

(5) Comments from government agencies.

(6) Written comments received by the Office of
     Management and Budget (OMB) from outside
     parties on Agency rulemaking actions.
     Procedures have been established with OMB
     to ensure that such comments are provided
     to EPA through the Office of General Counsel
     and forwarded to the Program Office for
     inclusion in the rulemaking dockets.

(7) Written summaries of communications between
     EPA staff and OMB or other persons outside EPA
     regarding significant new factual data or
     information affecting a rulemaking (including
     meetings with interest groups).

4. <u>AUTHORITIES</u>.

    a. Executive Order 12,291

    b. The Paperwork Reduction Act of 1980 (P.L. 96-511),
        as amended.

    c.   5 U.S.C. 552, Freedom of Information Act as amended.

    d.   5 U.S.C. 553, Rulemaking

    e.   44 U.S.C. 3101, Records management by agency heads; general duties

    f.   40 CFR 2, Public Information

5. <u>POLICY</u>. It is EPA policy that:

    a.   Rulemaking dockets shall provide complete and accurate documentation of rulemaking activity. This is most important since the information in the docket is used by the public to comment on proposed rules.

    b.   Rulemaking dockets shall contain duplicate copies of the original files. The original files are retained and managed by the responsible Program Office.

    c.   Docket materials shall be safeguarded and adequately protected to ensure file integrity.

    d.   Information contained in EPA dockets shall be organized and indexed in a manner that facilitates ready access and retrieval.

    e.   Information protected by Confidential Business Information (CBI) considerations, national security or the Privacy Act cannot be physically placed in the rulemaking docket but should be incorporated by reference within the docket files.

    f.   Docket records shall be managed in the most efficient and cost-effective manner, utilizing sound records management principles and practices.

    g.   Requests for information shall be handled in a responsive, timely manner.

    h.   The docket should not be made available to the public earlier than on the date the Administrator signs the proposed rule.

    i.   Agency docket facilities shall operate during
normal business hours and shall be situated in
locations that are easily accessible to the public.

    j.   Agency docket facilities shall follow a uniform fee
schedule as is prescribed in 40 CFR Part 2.120,
Fees; Payment; Waiver.

6. <u>RESPONSIBILITIES</u>.

    a.   The Office of Information Resources Management
shall:

        (1) Provide effective leadership in developing and
promoting docket management policies and
coordinating activities of the EPA Docket
Network, (e.g., produce annually docket
directory, ACCESS EPA Major EPA Dockets).

        (2) Develop standards and provide advice, guidance
and technical assistance for managing the
Agency's rulemaking dockets.

        (3) Evaluate the effectiveness of the Agency's
dockets by conducting periodic surveys and
studies as needed.

        (4) Issue records management policy, directives
and instructional materials governing the
organization, maintenance and disposition of
all records in Agency dockets.

        (5) Develop standards and provide technical
assistance for conversion of manual, paper-
based docket systems to microform or
electronic media.

        (6) Provide advice in developing a uniform
indexing system for Agency dockets and
maintaining docket integrity.

        (7) Coordinate issues relating to the location of
Agency rulemaking dockets.

        (8) Establish uniform procedures to guide the
operation of Agency rulemaking dockets.

b.   The Office of General Counsel shall provide legal guidance for all Agency regulatory activities and ensure that the legal requirements for Agency rulemaking dockets are met.

c.   Assistant, Associate and Regional Administrators, the General Counsel; the Inspector General; and Heads of Staff Offices to the Administrator shall:

   (1) Ensure that the rulemaking dockets within their organizations conform to Agency standards and policy.

   (2) Furnish the docket program managed by their organizations with complete and accurate rulemaking information on a timely basis.

   (3) Ensure that each docket program within their organization has a Rulemaking Docket Manager who has overall responsibility for:

      (a) Ensuring the information in their docket is organized in accordance with EPA's Uniform Rulemaking Docket Manual

      (b) Ensuring that the information in their dockets is complete, legible, well-organized and readily available for access and dissemination.

      (c) Ensuring that docket materials are stored in a secure manner and that adequate measures are taken to maintain and verify the integrity and completeness of the file.

      (d) Coordinating with Program or Regional staff to ensure the docket is current, accurate, and complete and that all inactive material is removed in accordance with the Agency's records management disposition schedules.

      (e) Ensuring that clients are able to obtain copies of materials.

7. <u>DEFINITIONS</u>.

    a. The "Rulemaking Docket" is a collection of
        documents that is the basis for EPA rulemaking
        actions. Some statutes refer to a "rulemaking
        record or a docket," and others refer to the
        "record." Those same terms are often used to
        describe the collection of documents available to
        the public which reflect the Agency's consideration
        and promulgation of a rule, or "public docket."
        Since and "administrative record" is not usually
        formally identified until a challenge to an Agency
        rule, the "public docket" and the "record" will not
        necessarily be the same.

    b. The "Administrative Record" is a set of documents
        that is the basis for any Federal agency
        administrative action, including, but not limited
        to, rulemaking.

        Under the Administrative Procedures Act (APA), any
        judicial review of a final agency action is based
        on the administrative record. Administrative
        actions that are not rules may include denials of
        citizens' petitions, individual permit decisions,
        and exemption decisions. These actions are
        typically based in an administrative record.

8. <u>PROCEDURES and GUIDELINES</u>.

    a. Guidelines for docket management are found in
        EPA's "Uniform Rulemaking Docket Manual."
        Copies are available from the EPA Distribution
        Center, PM 215.

    b. Procedures for processing Freedom of
        Information Act (FOIA) requests are found in
        the EPA's "Freedom of Information Manual."
        Copies are available through the EPA
        Distribution Center, PM-215.

    c. Procedures governing records management are
        found in the "EPA Records Management Manual."
        Copies of this manual are available from the

Agency's Distribution Center, PM-215. Agency
Record Control Schedules are available from
the Office of Information Resources
Management's Information Management and
Services Division, PM-211D.

d.   Procedures for informal, and formal rulemaking
      can be found in the "Administrative Procedure
      Act".

Chapter 15

CHAPTER 15 - ELECTRONIC OFFICE EQUIPMENT ACCESS FOR THE DISABLED

1. **PURPOSE**. This policy outlines objectives and assigns organizational responsibilities, in compliance with Federal laws and regulations, so that EPA may provide disabled employees access to electronic office equipment and telecommunications devices equivalent to that which is provided for non-disabled employees.

2. **SCOPE AND APPLICABILITY**. This policy applies to all EPA organizations and their employees.

3. **BACKGROUND**.

   a. The Federal Information Resources Management Regulation (FIRMR) includes an accessibility policy implementing Section 508 of the Rehabilitation Act Amendments of 1986. Federal agencies have a responsibility to establish information environments that are accessible to individuals with disabilities. These responsibilities include assessing, planning for, and meeting accessibility requirements of individuals with disabilities when procuring electronic office equipment.

   b. Computer accommodation has become an integral aspect of information resources management within the Federal Government. Computer accommodation is the acquisition and modification of end user computing equipment to minimize the functional limitations of employees to promote productivity and ensure access to electronic office equipment.

   c. The goal of accessibility is to provide equivalent access to information resources by non-disabled and disabled individuals. This includes access to data bases, applications programs, and communications capabilities.

d.   Technological advances for non-disabled individuals
     also offer great long-term improvements in
     telecommunications accessibility for individuals with
     hearing and speech impairments. Such advances include
     electronic mail; facsimile; teleconferencing; LAN-based
     video imaging; text-based information services and
     messaging; digital speaker phone; telecommunication
     device for the deaf (TDD); special modified computer
     keyboards; messaging beepers with full LCD display; and
     remote, real-time transcription/translation
     capabilities. Many of these services are available to
     agencies through FTS2000, GSA's long-distance
     telecommunications service. The flexibility inherent
     in these new telecommunications capabilities makes it
     possible to accommodate the special requirements of
     speech and hearing impaired individuals.

e.   GSA is the lead Federal oversight agency providing
     advisory services and technical assistance to help
     Federal managers and employees with problems related to
     extending office automation technologies for productive
     use by individuals with disabilities. The GSA has
     established a Clearinghouse on Computer Accommodation
     (COCA) in the Office of GSA Information Resources
     Management to provide this type of assistance to
     agencies.

f.   EPA's Washington Information Center (WIC) and its
     Regional counterparts work closely with Agency managers
     and the Office of Human Resources Management to ensure
     that disabled employees in need of specialized computer
     or telecommunications equipment are accommodated. The
     WIC and its Regional counterparts have also been
     instrumental in helping client organizations obtain and
     install appropriate computer accommodation products to
     assist persons with disabilities.

4.   AUTHORITIES.

a.   Section 508 of the Rehabilitation Act Amendments of
     1986.

b.   FIRMR, Section 201.20.103-7 "Accessibility Requirements
     for Individuals with Disabilities."

c.   FIRMR, Section 201-18 "Planning and Budgeting."

d.   FIRMR Bulletin - C-8 "Information Accessibility for
     Employees with Disabilities," January 30, 1991.

e. FIRMR Bulletin - C-10 "Telecommunications Accessibility for Hearing and Speech Impaired Individuals," January 30, 1991.

f. 40 CFR Part 12 "Enforcement of Non-Discrimination on the Basis of Handicap in the Environmental Protection Agency," August 16, 1987.

g. 29 CFR 1614.203(c) "Reasonable Accommodation."

h. Public Law 100-542, The Telecommunications Accessibility Enhancement Act of 1988.

i. FIRMR Amendment on Electronic Office Equipment Accessibility for Handicapped Employees (P.L. 99-506, Section 508).

5. POLICY.

a. No EPA employee shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity conducted by the Agency.

b. EPA shall provide disabled and non-disabled employees equivalent access to electronic office and telecommunications equipment to the extent such needs are determined by the Agency in accordance with Federal regulations and to the extent the required accessibility can be provided by industry. In providing equivalent access, EPA shall make reasonable accommodation to provide:

    (1) access to and use of the same data bases and application programs by disabled and non-disabled employees;

    (2) enhancement capabilities for manipulating data (i.e., special peripherals) to attain equivalent end-results by disabled and non-disabled employees; and

    (3) access to and use of equivalent telecommunications equipment by disabled and non-disabled employees.

c. EPA shall consider electronic office equipment and telecommunications accessibility for disabled employees when conducting determinations of need and requirements analyses for FIP resources.

d.   EPA management and technical personnel shall work
     closely with contracting officials when contracting for
     new or additional FIP resources to ensure accessibility
     to FIP resources by individuals with disabilities.

e.   In accordance with FIRMR 201-17.001, EPA shall acquire
     FIP resources for individuals with disabilities that
     result in the most advantageous alternative to the
     Government after consideration of sharing and reuse of
     existing FIP resources and use of GSA services when
     appropriate.

f.   EPA shall provide training and education on electronic
     office equipment and telecommunication devices for
     disabled individuals, including services and features
     of the GSA relay service.

g.   EPA shall publish access numbers for Telecommunication
     Device for the Deaf (TDD) and TDD-related devices in
     Agency telephone directories and provide such numbers
     to GSA for inclusion in the Federal TDD Directory.

h.   EPA shall display in its facilities the standard logo
     specified by GSA for indicating the presence of TDD or
     TDD-related equipment.

6. RESPONSIBILITIES.

    a.   The Assistant Administrator for Administration and
         Resources Management is the Designated Senior Official
         (DSO) for IRM and is responsible for:

         (1)   Ensuring EPA compliance with Federal regulations
               governing accessibility of electronic office
               equipment and telecommunication devices to
               disabled employees.

         (2)   Ensuring that all disabled employees are provided
               reasonable accommodation for access to electronic
               office equipment and telecommunication technology.

         (3)   Ensuring that all Agency officials and employees
               are informed of their responsibilities and rights
               addressed in EPA's policy on accessibility to
               electronic office equipment.

         (4)   Ensuring that contracts for new and additional FIP
               resources provide provisions to facilitate access
               to FIP resources by disabled individuals.

         (5)   Monitoring Agency progress toward achieving
               accessibility goals.

b.   The Director, Office of Human Resources Management is responsible for:

   (1) Consulting with disabled employees on an individual basis to identify their needs and inform them of Agency and Federal resources.

   (2) Referring disabled employees to the WIC, its Regional counterparts, or National Data Processing Division for technical services when necessary.

   (3) Incorporating awareness training on the technology needs of disabled employees into EPA's general management training curriculum.

c.   The Director, Office of Information Resources Management is responsible for:

   (1) Developing Agency policy which reflects Federal requirements governing accessibility to information technology by disabled employees.

   (2) Reviewing progress made toward achieving information technology accessibility for EPA disabled end-users.

   (3) Incorporating accessibility issues into the Agency Five Year Information Technology Plan.

d.   The Director, National Data Processing Division is responsible for:

   (1) Appointing a representative to serve as EPA's liaison with GSA's COCA and as the Agency's lead technical advisor on accessibility issues.

   (2) Obtaining information on successful EPA applications of computer and telecommunications support for disabled EPA employees, and providing that information to the GSA COCA for sharing government-wide.

   (3) Providing technical advice to Agency managers and disabled employees on the use of computers and telecommunication devices to support the job performance of disabled employees.

   (4) Reviewing and approving all telecommunication changes and procurements subject to FIRMR review.

(5) Providing telecommunications assistance to all field locations.

(6) Ensuring that TDD and TDD-related device telephone numbers are included in EPA telephone directories and ensuring that these numbers are provided to GSA for inclusion in the Federal TDD Directory.

e. The Director, Office of Civil Rights is responsible for:

(1) Coordinating the development and implementation of civil rights policies and supporting program offices to ensure that no qualified EPA employee shall, on the basis of a disability that is subject to reasonable accommodation, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under, any program or activity conducted by the Agency.

f. The Director, Office of Acquisition and Management is responsible for:

(1) Ensuring that Agency solicitation documents and contracts address the needs of disabled employees by incorporating functional specifications addressing input, output and documentation issues.

(2) Ensuring that prospective vendors can demonstrate the ability to provide EPA with equivalent or better access to proposed replacement FIP resources than to accommodation hardware or software currently in place.

(3) Specifying in Agency solicitations and contracts that the Agency be permitted to install additional accommodation devices, peripherals, or software that may be acquired from a third party, without voiding the maintenance and warranty agreements of the contract, provided such devices or peripherals conform to the electrical specifications of the system and can be connected through standard expansion slots or peripheral ports.

g. The Director, Facilities Management and Services Division is responsible for:

(1) Ensuring that signs are displayed in EPA facilities using the standard logo specified by GSA for indicating the presence of TDD or TDD-related equipment.

h.   Assistant Administrators, Associate Administrators,
     Regional Administrators, Laboratory Directors,
     Headquarters Staff Directors, General Counsel and the
     Inspector General are responsible for:

     (1) Ensuring that employees within their organizations
          comply with the Federal and Agency regulations and
          policies governing accessibility to electronic
          office equipment and telecommunication devices by
          disabled employees.

     (2) Providing information as requested by GSA or OARM
          on the computer and telecommunication
          accommodations of disabled employees in their
          organization.

i.   Senior IRM Officials are responsible for:

     (1) Providing contracting officials, for inclusion in
          the solicitation, an inventory and description of
          any current accommodation hardware or software
          within the organization they represent along with
          the resources scheduled for replacement or
          modification.

     (2) Ensuring that the accessibility needs of their
          current and future employees are addressed in
          their organization's component of the Agency's
          Five Year Information Technology Plan.

j.   Personal Computer Site Coordinators (PCSCs) are
     responsible for:

     (1) Providing basic technical assistance at the
          workstation to persons with disabilities, and
          obtaining further guidance and assistance from the
          National Data Processing Division, the WIC and/or
          its Regional counterparts as needed.

k.   Each EPA Manager or Supervisor is responsible for:

     (1) Identifying requirements of disabled employees.

     (2) Referring disabled employees to the Agency's
          National Data Processing Division, the WIC, and/or
          its Regional counterparts for technical services
          when necessary.

(3) Ensuring that no current or prospective EPA employee within their organizational unit shall, on the basis of disability, be denied reasonable accommodation or access to electronic office equipment and telecommunication devices.

(4) Working with the Office of Human Resources Management, NDPD, WIC, and/or its Regional counterpart's personnel to ensure the electronic office equipment and telecommunication device needs of disabled employees are met.

7. DEFINITIONS.

a. "Disabled" refers to any person who has a physical or mental impairment, including a hearing or speech impairment, that substantially limits a major life activity, has a record of such impairment, or is regarded as having such an impairment.

b. "Major life activity" includes functions such as caring for oneself, walking, seeing, hearing, speaking, breathing, learning, and working.

c. "Reasonable Accommodation," per 29 CFR 1614.203(c), may include, but shall not be limited to:

   • making facilities readily accessible to and usable by handicapped persons, and

   • job restructuring, part-time or modified work schedules, acquisition or modification of equipment or devices, appropriate adjustment or modification of examinations, the provision of readers and interpreters, and other similar actions.

   In determining reasonable accommodation, factors to consider may include:

   • the overall size of the EPA organization with respect to the number of employees, number and type of facilities and size of budget;

   • the type of Agency operation, including the composition and structure of the Agency's work force; and

   • the nature and the cost of the accommodations.

d.   "Special peripheral" is defined in Section 508 of
     Public Law 99-506 as a special needs aid that provides
     access to electronic equipment that is otherwise
     inaccessible to a disabled individual.

e.   "Telecommunications Device for the Deaf" (TDD) is a
     device that permits people with hearing and/or speech
     impairments to communicate over a standard telephone
     with another TDD user or through a relay operator to
     reach a non-TDD user.

f.   "Senior Information Resources Management Officials
     (SIRMOs)" are EPA officials 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.

8.   **FEDERAL GUIDANCE.**

a.   40 CFR Chapter 1 §12.150 (a)(2) stipulates that an
     Agency must seek to accommodate persons with
     disabilities for use of electronic office equipment,
     but that it is not required to take any action that it
     can demonstrate would result in a fundamental
     alteration in the nature of a program or activity, or
     in an undue financial and administrative burden.

b.   FIRMR Bulletin C-8, "Information Accessibility for
     Employees with Disabilities," (Attachment A) contains a
     detailed explanation of the major areas that need to be
     considered in developing specifications, in conjunction
     with requirements determination, to ensure electronic
     equipment accessibility for disabled employees (i.e.,
     input alternatives, output alternatives and
     documentation).

c.   FIRMR Bulletin C-10 "Telecommunications Accessibility
     for Hearing and Speech Impaired Individuals" includes
     three attachments. Attachment A addresses the Federal
     Information Relay Service (FIRS). Attachment B
     includes the Federal Telecommunications Devices for the
     Deaf (TDD) Directory, and Attachment C provides
     guidance on Agency Telecommunications Accessibility
     Planning.

d.   "Managing End User Computing for Users with
     Disabilities" (GSA KGD-91-1-I) provides guidance to
     agency managers determining accommodation strategies
     for FIP resource accessibility. This handbook stresses
     the importance of consulting with individual users as a
     first step to assessing technology requirements. It is
     available from COCA at the address noted below.

9.   <u>SERVICES OF GSA'S CLEARINGHOUSE ON COMPUTER ACCOMMODATION
     (COCA)</u>.

     a.   Responds to requests for general information on
          frequently used hardware/software and workstation
          furnishings to accommodate individuals with
          disabilities.

     b.   Assists agencies with researching specific hardware,
          software, and communications problems associated with
          an employee's electronic office equipment and
          telecommunication device accommodation requirements.

     c.   Provides on-going consultative/technical assistance to
          agencies during planning, acquisition, and installation
          of individual and agency-wide office automation
          systems.

     d.   Conducts workshops on computer accommodation
          procedures.

     e.   The address and phone number are:

               General Services Administration
               Clearinghouse on Computer Accommodations
               Room 2022
               KGDO
               18th and F Sts., N.W.
               Washington, DC 20405
               (202) 523-1906 (TDD)
               (202) 501-4906 (voice)

E. SUPPLY & PROCUREMENT

CHAPTER 16 - EPA INTERNAL ELECTRONIC SIGNATURES POLICY

1. PURPOSE.

    This policy establishes the criteria for the use and
    validity of electronic signatures associated with internal
    electronic transactions within the Environmental Protection
    Agency. They are intended to ensure that, as Agency
    programs implement this technology, they do so in a manner
    that is both consistent across the Agency and compatible
    with the practices of other government agencies and members
    of the regulated community. A uniform approach encourages
    cost effectiveness and potential for future connectivity and
    integration of enterprise-wide electronic processing
    applications.

2. SCOPE AND APPLICABILITY.

    This policy applies to any electronic transaction originated
    by any employee, contractor, or grantee working for any EPA
    organizational unit that involves providing approval,
    authorization, or certification, via the use of electronic
    signature, for actions or data.

    a.   This policy specifically applies to any such electronic
         transaction that:

         (1) Is being implemented as a replacement for (or
              complement to) a paper form or document originated
              by an employee, contractor, or grantee of an EPA
              organizational unit;

         (2) Involves the use of Agency enterprise-wide data
              processing, data storage and data communications
              facilities;

         (3) Replaces (or complements) documents or forms that
              require originator signature certification; or

         (4) Involves, or implies, procurements, financial
              commitments, obligations, certification of time
              and attendance, or disbursements.

b.   An electronic signature solution should not be
     considered when a requirements analysis indicates
     there is no clearly defined cost or productivity
     advantage to be gained from the application. If the
     requirements analysis demonstrates a clear need for
     encrypted signatures, then the application will conform
     to standards cited in applicable Federal Information
     Processing Standards (FIPS) and Agency policies.

3.   BACKGROUND.

     a.   General

          (1) Innovations in computer technology now allow the
               creation, processing and maintenance of documents
               in electronic form -- without requiring creation
               of corresponding paper media.

          (2) Automated information processing is rapidly
               becoming the preferred mode for management and
               transfer of information in business and
               government. Automation of administrative
               procedures has demonstrated that:

               (a) Information can be processed more quickly;

               (b) Costs of rekeying data are mitigated;

               (c) Data accuracy is increased.

          (3) Many forms and documents used in EPA mission and
               administrative activities require signatures of
               the responsible officials. The uses of electronic
               signatures may include, but are not limited to:

               (a) Certification of the transmission, receipt,
                    and authorization of data;

               (b) Authorization or approval of an official
                    action.

               (c) Certification and validation of the accuracy
                    of Agency databases.

(4) Procedures for the use of electronic signatures in creating and processing documents must provide adequate safeguards for the application, transmission, verification, and security of a signature and any accompanying data or information. If security profiles are modified, the system should be equipped with an audit trail capability to provide the User ID, time and date of the last person who made the modifications.

(5) Pursuant to Par. 4, AUTHORITIES, of this policy, as such information migrates into an electronic environment, it is essential to ensure that all official documents are developed, processed, and maintained consistent with applicable Federal and Agency policies regarding electronic recordkeeping.

b. **Existing Technology Areas As Management Controls for Electronic Signatures**

The following technology areas used individually or in concert as controls can provide effective electronic signature systems:

(1) Signature authentication allows users to verify the approval authority of a transmission. It is usually used in combination with other technologies to provide a complete electronic signature system. Signature authentication methods include:

   (a) Personal identification numbers (PINs)
   (b) passwords
   (c) facsimile signatures
   (d) token card readers
   (e) message authentication coding (MAC)
   (f) MAC incorporating encryption techniques, e.g. through the use of public or private keys.

(2) Message authentication provides the ability to confirm that the message received is exactly the same as the message that was sent. A major concern associated with electronic forms and signatures is an unauthorized user's ability to

change an electronic form after it has been signed.

(a) Message authentication systems use varying procedures to calculate a message authentication code (MAC) based on the contents of the message. Some of these processes may involve cryptographic techniques. For example, message authentication systems may use private key encryption to calculate the MAC, requiring that both the sender and receiver know the key.

(b) If the message changes, the MAC code calculated on the receiver's side will be different from the attached MAC code calculated on the sender's side.

(c) Message authentication may provide two forms of security. It:

(1) Verifies the information has not been altered from the moment the MAC was generated to the time it was checked.

(2) May also assure the receiver of the sender's identity, e.g. through shared knowledge of the secret key used to calculate the MAC.

(3) <u>Data encryption</u> systems conceal message meaning by changing intelligible messages into unintelligible ones to everyone except the transmitter and receiver. Data encryption:

(a) Can be used to safeguard signatures and signature authentication codes from disclosure during transmission and when data files containing signatures are stored.

(b) Requires the use of keys to encrypt and decrypt data.

(c) Can use public key, private key, or secret key encryption algorithms.

(4) <u>Access control</u> systems are designed to limit
     access to computer systems, including operating
     system files, and applications, including
     application programs and data files. Limiting
     access to systems and applications limits the
     population of users that can actually append a
     signature code to a message. Access control
     systems, at a minimum, should provide user
     identification, login control, access
     authorization, and auditing capabilities.

For a more detailed discussion of the above
technologies, please refer to the report entitled,
"Existing Technology Solutions for Electronic
Signatures."[1]

4. <u>AUTHORITIES</u>.

a. <u>Internal Control Systems</u>, OMB Circular A-123, August
    16, 1983

b. The Paperwork Reduction Act of 1980 (P.L. 96-511)

c. United States Code 31-USC-1501

d. The Federal Managers Financial Integrity Act of 1982
    (PL 97-225, approved 9/8/1992)

e. <u>Federal Records Management</u>, National Archives and
    Records Administration (NARA) 36 CFR 1220

f. <u>Review and Evaluation</u>, NARA 41 CFR 201-22

g. The Computer Matching and Privacy Act of 1987,
    5-USC-522a (as amended)

h. <u>Management of Federal Information Resources</u>, OMB
    Circular A-130

i. <u>Computer Security Act of 1987</u>

j. <u>FIPSPUB46-1</u> -- Data Encryption Standard; Jan. 22, 1988

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[1] EPA, OIRM/IMSD, April 1992.

k.   FIPSPUB140A -- General Security Requirements for
     Equipment Using the Data Encryption Standard; April 14,
     1982

l.   EPA 2100 Information Resources Management Policy Manual;
     1987

m.   EPA Directive 2182: EPA System Design and
     Development Guidance, Volumes A&B, plus the supplement:
     Development of Image Processing Systems in the EPA;
     1989/1990

n.   EPA Directive 2195:   EPA Information Security Manual;

5.   POLICY.

EPA is committed to support the implementation of integrated
electronic processing applications which expedite the
workload and reduce duplicative activities, consistent with
applicable Federal and agency policies regarding electronic
recordkeeping and security.

a.   For all EPA internal administrative applications
     involving the use of electronic approval, signature and
     distribution procedures, an electronic signature will
     be deemed as legally binding as a paper signature,
     provided each application is developed, implemented,
     and monitored in accordance with this policy.

b.   When a determination has been made to fully automate a
     paper-based system that employs written signatures, all
     affected Agency offices shall use electronic
     signatures.

c.   Any application involving the use of enterprise-wide
     data processing, storage and communications systems
     will be considered an Agency wide application and will
     conform to the use of electronic signature solutions
     promulgated by the National Data Processing Division
     (NDPD).

d.   For applications not involving the use of enterprise-
     wide data processing, storage, or communications
     systems, no specific electronic signature technical
     solutions are mandated as policy. However, all
     electronic signature applications must provide for

signature and message authentication with the specific
authentication techniques appropriate for the level of
financial and legal risk inherent in the application.
In addition, each solution must conform to applicable
Federal Information Processing Standards (FIPS), as
well as all standards and procedures for the
maintenance of electronic records promulgated by the
National Archives and Records Administration (NARA). A
list of commercially available security packages is
provided in the document entitled "Existing Technology
Solutions for Electronic Signatures" (see Section 9).

e.   When an electronic message containing a signature is
     signed, transmitted, and received, the following
     requirements must be met:

     (1) Signature Authentication:

          (a) The electronic signature must establish
               sender/user authenticity;

          (b) It must be possible to assure with a
               reasonable degree of certainty that the
               sender's signature has not been forged;

          (c) Sufficient audit trails must be provided to
               resolve disputes, with a reasonable degree of
               certainty, involving cases where an
               individual disavows sending a message.

     (2) Message Authentication:

          (a) It must be possible to assure, with a
               reasonable degree of certainty, that a
               document and its signature have not been
               changed after it is signed.

f.   Electronic information and forms processing
     applications involving the use of electronic signatures
     must incorporate signature and message authentication,
     as above, and may incorporate the following additional
     considerations:

     (1) The need for the signature on a document to be
          obscured from disclosure during transmission
          (i.e., data encryption);

(2) The need for only a few individuals to have access
to signing, processing, or viewing capabilities
(i.e., access control).

g. Consistent with the goal of enterprise-wide
compatibility, only digital signature applications are
addressed by this policy. Analog, or facsimile
signatures are not necessarily electronic, may be
forged, and will not be considered valid for
determining signature authenticity.

h. Any application involving the use of electronic
signatures on enterprise-wide data processing, storage
and communications systems will be considered a
"sensitive system" from the perspective of EPA's
Information Security Program.

6. **RESPONSIBILITIES**.

a. The Assistant Administrators, Associate Administrators,
all Heads of Headquarters Staff Offices reporting to
the Administrator, General Counsel, Inspector General,
and Regional Administrators are responsible for:

(1) Reviewing all currently automated systems within
their respective organizations to determine
applicability to this policy and establishing
procedures to ensure current and future systems
comply with the requirements of this policy.
Reviews may be performed by EPA staff or
contractor resources; they must completed in a
timely manner, formally documented, and results
submitted to OIRM.

(2) For all relevant systems, conducting a risk
analysis and vulnerability assessment every three
years to ensure the security of electronic records
systems, consistent with oversight responsibili-
ties specified in FMFIA obligations. Consult the
EPA Information Security Manual and Risk Analysis
Guidelines for assistance.

(3) Identifying a specific technical approach for all
required technology areas that cost-effectively
addresses the risks of the application.

(4) Determining the level of security required for any
proposed application of electronic signature and
developing, or modifying, the System Security Plan
to incorporate electronic signature issues.

(5) Meeting EPA's requirements under the Federal
Managers' Financial Integrity Act so that controls
are in place, evaluated regularly, and practiced
to ensure that this policy is carried out in their
respective programs, activities, and operations
using electronic signature.

b. The Office of Information Resources Management (OIRM)
is responsible for:

(1) Providing training and awareness about the policy;

(2) Providing guidance and assistance in implementing
this policy;

(3) Ensuring that information security and Privacy Act
issues have been met;

(4) Receiving and responding to waiver requests;

(5) Periodically reviewing electronic signature
applications to ensure that electronic records are
being maintained in accordance with applicable
Federal and Agency policies and procedures.

(6) Re-evaluating/revalidating the policy within 5
years of approval;

c. The Assistant Administrator, Office of Administration
and Resources Management (OARM), is responsible for
addressing any appeals to waiver decisions made by
OIRM.

d. The National Data Processing Division (OARM/RTP) is
responsible for developing and maintaining policies
and procedures for the acceptable use of specific
commercially available electronic signature hardware
components and software packages as requested by OIRM.
Funding will be required for product testing,
documentation and policy development/implementation.

e. The Office of General Counsel is responsible for advising Agency staff on legal issues pertaining to the use of electronic signatures, including, but not limited to:

   (1) Admissibility of electronic signature information in civil or criminal litigation;

   (2) Internal Agency disputes when signature audit trails are questioned;

   (3) Appeals for waiver decisions;

   (4) Information law issues pertaining to the Freedom of Information Act, the Privacy Act, and confidential business information.

f. Senior Information Resources Management Officials (SIRMOs) are responsible for:

   (1) Assuring compliance with this policy and its procedures on distributed systems operated by their staff members;

   (2) Signing and submitting any waiver requests.

h. Owners of electronic signature applications are responsible for compliance with the provisions of this policy.

7. DEFINITIONS.

Access Control - A method of providing security designed to limit access to computer systems and applications. Types of access control include:

o   User Identification Codes
o   Login Control
o   Auditing.

Auditing - The practice of recording specific security-relevant events. By recording these events, it is possible to detect intrusion attempts by unauthorized users, monitor undesirable activity at a site, or general auditing of

various aspects of systems usage. For example, events that
should be audited include:

o   Selected uses of files and hardware devices
o   Logins, logouts, and break-in attempts
o   Activities of specific users
o   Changes to passwords
o   Changes to security profiles.

Automated Information Processing - The electronic creation,
processing, and exchange of information without the creation
of corresponding paper media.

Data Decryption - The process of converting ciphertext (an
encrypted message) into readable form.

Data Encryption - A security method which conceals message
meaning by changing intelligible messages to unintelligible
ones. Encryption is the process in which plaintext messages
are converted into apparently random nonsense, called
ciphertext, using an encryption algorithm and a data
encryption "key".

Data Encryption Key - A bit string that controls a data
encryption algorithm. The data encryption algorithm will
produce a different output depending on the specific key
used.

Electronic Record - Any information that is recorded in a
form that only a computer can process and that satisfies the
definition of a Federal record in 44 USC 3301 (see "Records"
below).

Electronic Reporting - The computer-to-computer exchange of
information in a standard format via either an electronic
(e.g., dial-up telecommunications links, dedicated computer-
to-computer links) or magnetic (e.g., diskettes, tapes)
medium.

Electronic Signature - A data element, entered into a
computer by an authorized person, that is used for noting
the ownership, approval, acceptance, or certification of
another object (e.g., a document or message). Electronic
signatures provide the same validation and authentication
capabilities as hand written signatures.

Encryption Key Management - The generation, distribution, entry, and destruction of encryption keys. While data encryption algorithms are publicly known, depending on the specific key used, a unique output will be produced. Therefore, it is the encryption key that provides the desired security. Two key management systems exist:

o   Private key management
o   Public key management.

Form - For the purpose of this policy, any paper or electronic document with blanks for the insertion of data or information, circulated within EPA, that requires approval involving signature certification (e.g., travel authorization, travel voucher, procurement request/purchase order, etc.).

Internal Reporting - For the purpose of this policy, the distribution or exchange of information within the EPA and between EPA and any entities with which the Agency has a contractual relationship.

Login Control - Specifies the conditions users and programs must meet for gaining access to a system. For example, a user usually requires a valid user ID and password before access to a system is provided. Additional methods used to control login include:

o   Type of computer login (e.g., local, dial-up, remote, network, batch)
o   Type of terminal or remote computer
o   Time of day/day of week.

Message Authentication - A method of detecting changes to a message _after_ it has been signed electronically. After signing a message, the sender calculates a Message Authentication Code (MAC) based on the contents of the message. This code is appended to the message and transmitted. The message recipient performs the same calculations on the received message. If the calculated MAC and the received MAC are the same, the message was not altered after the message was signed.

Message Authentication Code (MAC) - The code used by message
authentication systems to validate transmitted messages.
This code is calculated by performing a series of
mathematical calculations on a signed message.

Private Key - A cryptographic key used with a public key
cryptographic algorithm, uniquely associated with an entity,
and not made public.

Public Key - A cryptographic key used with a public key
cryptographic algorithm, uniquely associated with an entity,
and possibly made public.

Public Key (Asymmetric) Cryptographic Algorithm - A
cryptographic algorithm that uses two related keys, a public
key and a private key; at least one of the two keys is the
cryptographic inverse of the other such that data encrypted
by the one key can be decrypted by the other; further, the
two keys have the property that given the public key it is
computationally infeasible to derive the private key.

Records - (From 44 USC 3301) 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 organizations, made or
received by the agency that evidences organization,
functions, policies, decisions, procedures, operations or
other activities of the Government.

Risk Analysis - The process of methodically and
comprehensively examining a system to identify the areas
that pose a threat of failure to the system.

Secret Key - A cryptographic key used with a secret key
cryptographic algorithm, uniquely associated with one or
more entities, and not made public.

Secret Key (Symmetric) Cryptographic Algorithm - A
cryptographic algorithm that uses a single, secret key for
both encryption and decryption.

Signature Authentication - A code, used to identify the sender, appended to a message before transmission. This code is validated by the message recipient. A variety of user authentication techniques exist, including:

o   Personal identification numbers (PINs)
o   Passwords
o   Facsimile signatures.

User Identification Codes (User ID) - A code used to identify system users to applications, data, devices, or services. If an invalid user ID is used, then access to the system or application is denied.

8.   **WAIVERS**.

Requests for waivers from specified provisions of the policy may be submitted to the Director of the Office of Information Resources Management. Waiver requests must be signed by the relevant Senior IRM Official prior to submission to the Director, OIRM.

a.   Waiver Procedures:

(1)   Agency offices must submit any waiver requests to the Director, OIRM.

(2)   The Director, OIRM has sole authority to grant a waiver. Decisions may be appealed to the Assistant Administrator, OARM.

9.   **GUIDELINES**.

a.   **Existing Technology Solutions for Electronic Signatures**, EPA

b.   **Electronic Forms and Authentication Practices**, General Services Administration.

c.   **Federal Records Management**, National Archives and Records Administration (NARA) 36 CFR 1220

d.   **LAN System Manager Guidance**, EPA

e.   **LAN Security Documents**, EPA

f. **EPA Information Security Manual.**

g. **EPA Information Security Manual for Personal Computers.**

h. **EPA Risk Analysis Guidelines, OIRM.** [Draft]

i. **Data Encryption Standard** -- FIPS Publication 46-1, National Institute of Standards and Technology, January, 1988

j. **Public Key Cryptography,** Special Publication 800-2, National Institute of Standards and Technology, April, 1991

10. **EFFECTIVE DATE:**

a. All existing Agency systems utilizing electronic signatures must be reported to the Director, OIRM, within 120 days of the effective date of this policy.

b. Existing systems already employing electronic signatures will have 3 years from the effective date to comply with the policy.

Chapter 17

OPPTS

CHAPTER 17 - SYSTEM LIFE CYCLE MANAGEMENT

1.   PURPOSE. This policy establishes the life cycle
     requirements of EPA's automated information application
     systems. Roles and responsibilities for implementing these
     requirements are also delineated. Observance of these
     requirements will ensure full value is obtained from Agency
     investments in data and information systems.

2.   SCOPE AND APPLICABILITY. All automated information
     application systems that are developed, produced or
     maintained by or for the EPA are subject to this policy.
     Formal review requirements vary according to system category
     (see Exhibit 17-A). This policy applies to all EPA
     organizational units and their employees. It also .applies
     to agents of the EPA who support the initiation, analysis,
     design, development, operation and retirement of Agency
     information systems.

3.   BACKGROUND.

     a.   The ·Agency depends on information to accomplish its
          mission. EPA's data and information systems are among
          its most valuable assets and are critical to the
          Agency'.s ability to provide the public with access to
          environmental information.

     b.   Development of information systems is difficult, and
          often complex and expensive. Agency system life cycle
          management requirements are designed to meet applicable
          Federal requirements, ensure management involvement at
          key decision points, obtain and sustain corporate
          commitment for information systems, and coordinate
          information systems-related activities.

     c.   System life cycle management promotes involvement by
          users, program managers and information resource
          managers in system development and enhancement efforts.
          It establishes a process by which Agency managers are
          directly accountable for making key decisions about how
          resources are expended for system development and
          enhancement efforts.

     d.   EPA relies frequently upon contractors and other agents
          for assistance in building and operating its
          information systems. System life cycle management
          establishes practices and periodic review requirements
          that mitigate the uncertainties involved in using

extramural support.

e.   EPA is committed to managing its information systems in
     a cost effective manner and ensuring its systems meet
     mission needs. Using guidance provided by oversight
     agencies including the Office of Management and Budget
     (OMB), the General Services Administration (GSA), and
     the General Accounting Office (GAO), the Agency
     conducts periodic reviews to assess how well its
     systems are meeting these key objectives.

4.   AUTHORITIES.

     a.   44 U.S.C. Chapter 35, Paperwork Reduction Act of 1986.

     b.   EPA Hardware and Software Standards.

     c.   Federal Records Act of 1950, as amended (44 U.S.C.
          Chapter 3101-3107, Records Management by Federal
          Agencies).

     d.   OMB Circular No. A-11, Exhibit 43, Data on Acquisition,
          Operation, and Use of Information Technology Systems,
          May 28,1986.

     e.   OMB Circular No. A-130, Management of Federal
          Information Resources, June 25, 1993.

     f.   FIRMR 201-2, Designated Senior Officials.

     g.   FIRMR Subchapter B, Management and Use of Information
          and Records, Part 201-6, Predominant Considerations.

     h.   FIRMR Subchapter C, Management and Use of FIP
          Resources, 201-17, Predominant Considerations.

     i.   FIRMR 201-22, Review and Evaluation.

5.   POLICY.

     a.   All information systems shall support the mission of
          the Agency. Plans for information systems shall be
          included in Agency and organizational budget and
          planning processes as appropriate (see Chapter 2 on
          Mission-Based Planning).

     b.   System life cycle management at EPA is based on a set
          of generic stages in a typical system development or
          enhancement project. EPA does not require use of a

specific system life cycle methodology, as this would
be unduly restrictive when uniformly applied across the
wide range of EPA's varied information systems
development and enhancement projects.

c.   The generic information system life cycle at EPA
     consists of eight major stages:

     (1) Initiation - a request for the development of a
          system to meet a need for information or to solve
          a problem for the individual making the request.

     (2) Requirements analysis - determination of what is
          required to automate the function(s) identified by
          the organization.

     (3) Design - the stage that specifies the automated
          and manual functions and procedures, the computer
          programs, and data storage techniques that meet
          the requirements identified and the security and
          control techniques that assure the integrity of
          the system.

     (4) Programming - coding of the program modules that
          implement the design.

     (5) Testing and quality assurance - ensuring that the
          system works as intended and that it meets
          applicable organization standards of performance,
          reliability, integrity and security.

     (6) Installation and Operation - incorporation and
          continuing use of the new system by the
          organization.

     (7) Maintenance/enhancement - Resolving problems not
          detected during testing, improving the performance
          of the product and modifying the system to meet
          changing requirements. (Full-scale enhancements
          require full life cycle analysis.)

     (8) Retirement - the stage which ends use of the
          system.

     New systems development and enhancement/replacement
     projects must go through these eight major stages noted
     above. Systems may cycle through various stages
     multiple times. Developers of EPA information systems
     shall consult with the intended user community

throughout the systems' life cycle to ensure the system is meeting mission needs.

d.   The way a specific methodology is applied to the generic life cycle must be documented (see section 5.e (2)d).

e.   Appropriate levels of management shall review and approve or disapprove system development or enhancement\replacement projects. These reviews by management shall occur, at a minimum, at the end of each stage of the generic life cycle as implemented for the chosen methodology. These management decisions shall be documented by means of signatures on formal decision papers. For new system development or enhancement projects, the first two decision papers have special characteristics.

   (1)   The System Charter decision paper, which is developed during the initiation stage of a new system development or enhancement project, shall document:

      a)   the information management and mission need(s) to be met;

      b)   the intended user community;

      c)   the sponsoring organization(s);

      d)   the projected time frame for the project;

      e)   the likely system category, based on expected scope and cost (see Exhibit 17-A);

      f)   a preliminary estimate of the range of potential life cycle costs;

      g)   the appropriate management levels for review and approval of decision papers; and

      h)   the manager of the system.

   (2)   The System Management Plan (SMP) decision paper shall be produced at the conclusion of the analysis stage and shall be updated as the project progresses. Exhibit 17-A sets forth required Agency management review levels for SMPs. The SMP shall subsume the System Charter and shall include

at a minimum:

a)   the system's purpose, mission need, and
     goals;

b)   the system's scope, including the system's
     funding organization(s), intended primary and
     secondary user community and any known or
     intended interactions with other systems;

c)   assumptions and constraints influencing the
     system;

d)   the life cycle methodology to be used in
     managing the system's life cycle and its key
     decision points;

e)   the appropriate levels of management review
     and approval;

f)   the projected date to begin operation and an
     estimate of total system life from initiation
     to retirement;

g)   an estimate of total life cycle costs, broken
     out by stages;

h)   an acquisition strategy and alternatives;

i)   a cost-benefit analysis including an analysis
     of technical alternatives;

j)   a description of the system's architectural
     context, technical requirements, anticipated
     security issues, platform and network
     capacity needs; and

k)   the system's data architecture, in
     compliance with Agency and Federal data
     standards.

(3)   Following are the minimum contents required for
      formal decision papers other than those produced
      for the Charter and the System Management Plan:

      a)   the current status of the system;

      b)   an estimate of the cost of the next stage(s)
           for which approval is sought in the decision

paper and an assessment of projected vs. actual costs to date;

c) a description of the work to be accomplished in the next stage(s) of the system development or enhancement project;

d) identification of any programmatic policy or procedural decisions needed to address constraints influencing the success of the next stage(s); and

e) an analysis of appropriate alternatives.

(4) System Management Plans shall link appropriately with Agency and Organizational IRM Strategic and Multi-Year Implementation Plans.

(5) No more than 15% of the estimated cost of the next stage or $250,000, whichever is less, may be expended prior to approval of the formal decision paper.

(6) The SMP shall be updated to reflect actual and planned changes as new system decision papers are approved and a baseline version of the SMP shall be retained for reference.

(7) Throughout the life cycle of the system, management of the system shall be conducted in accordance with the SMP, as updated.

f. EPA personnel shall develop all decision papers to ensure government control over system decisions. EPA staff may use any and all available source material, including contractor-generated material, in the development of formal decision papers.

g. The EPA Executive Steering Committee for Information Resources Management (IRM) and all other EPA managers involved in reviewing system decision papers shall provide decisions within 30 days of receipt of the decision paper.

h. All systems shall be categorized in one of the following four types:

(1) Major Agency Systems,

(2)   Major AAship/Regional Systems,

(3)   Significant Program Office Systems, and

(4)   Local Office or Individual Use Systems.

Each category reflects a combination of factors such as the system's cost and organizational scope. See Exhibit 17-A for the specific thresholds which determine a system's category.

i.   The level of detail for decision papers shall be appropriate to the category of the system. The approving managers may establish more extensive decision point requirements for individual systems than required by this policy.

j.   All information systems shall comply with appropriate Federal and Agency IRM policies, standards, and. procedures throughout their life cycles. Recognizing that legacy systems may not conform completely with current Agency architectures and standards, system enhancement projects shall move into conformance with these architectures and standards, as appropriate, as projects proceed.

k.   To maximize the return on the Agency's investment in its information systems, sufficient documentation is needed at each stage of the life cycle to support effective management of Agency resources and to facilitate the interchange of information among managers, developers, programmers, operators and users.

The following are key documents (in addition to the system charter, system management plan, and decision papers) produced at different stages of the system life cycle:

(1)   needs statement and initiation request
(2)   feasibility study
(3)   risk analysis
(4)   cost/benefit analysis
(5)   functional requirements analysis
(6)   functional security and internal control requirements analysis
(7)   data requirements analysis
(8)   data management plan
(9)   quality assurance plan
(10) system/subsystem, program and database specifications
(11) validation, verification and testing plan and specifications
(12) system acceptance plan
(13) schedules for each phase and records of schedule changes
(14) user manual
(15) operations/maintenance manual
(16) installation conversion plan
(17) test analysis and security evaluation report
(18) software maintenance plan
(19) post implementation review plan
(20) evaluation and assessment of information system obsolescence
(21) change control memos or forms
(22) system security plan
(23) disaster recovery plan

6.   <u>RESPONSIBILITIES</u>.

   a.   The Designated Senior Official (DSO) for IRM is responsible for establishing policies and procedures to implement all Federal IRM mandates including, but not limited to, the Paperwork Reduction Act of 1980 and its amendments (P.L. 96-511), Federal Information Processing Standards (FIPS), Federal IRM Regulations (FIRMR), OMB Circular No. A-130 (Management of Federal Information Resources), OMB Circular No. A-11 (Data on Acquisition, Operation, and Use of Information Technology Systems) and other Federal regulations.

b.   EPA's Executive Steering Committee for IRM is responsible for review and approval/disapproval of System Management Plans for systems which meet <u>any</u> of the following criteria:

(1)   Mission critical for multiple AAships;

(2)   Mission critical for multiple Regions;

(3)   Agency core financial system;

(4)   Estimated costs exceed $25 million over the life of the system;

(5)   Estimated costs exceed $5 million in one year.

c.   The Assistant Administrators, Associate Administrators, Regional Administrators, Laboratory Directors, Headquarters Staff Directors, General Counsel, and the Inspector General are responsible for:

(1)   Ensuring compliance with system life cycle management policies, procedures and standards.

(2)   Managing the system life cycle, process and products within their organizations in compliance with Agency and Federal policy.

(3)   Reviewing and approving/disapproving System Management Plans for systems sponsored by their organization which meet <u>any</u> of the following criteria:

   a)   Mission critical for their AA/ship or a joint mission critical project with another AAship or Region;

   b)   Agency core financial system;

   c)   Estimated to exceed $10 million throughout the lifecycle or $1 million in annual costs.

d.   The Senior IRM Officials (SIRMOs) for the organization(s) funding the project(s) are responsible for:

(1)   Reviewing and approving/disapproving System Management Plans for systems sponsored by their

AAship or Region;

(2) Coordinating all reviews and approvals outside the Office Directorship, such as the Executive Steering Committee for IRM, Assistant or Regional Administrator, and Director of the Office of Information Resources Management (OIRM).

e. The Director, OIRM is responsible for:

(1) Reviewing and approving/disapproving System Management Plans for projects meeting _any_ of the following the criteria before they go to the Executive Steering Committee for IRM:

(a) Mission critical for one or more AAships or Regions;

(b) Agency core financial system;

(c) Estimated to exceed $25 million over the life of the system or $5 million in annual costs.

(2) Conducting, at his/her discretion, additional system life cycle management reviews to complement the reviews required to be conducted periodically by system sponsors.

f. The Director, National Data Processing Division is responsible for providing technical consultation to reviewers of System Management Plans concerning the description of the system's architectural context, technical requirements, anticipated security issues, platform and network capacity needs to ensure conformance with the Agency's technology architecture.

g. System Sponsors are responsible for:

(1) Reviewing and approving/disapproving system decision papers.

(2) Conducting periodic system life cycle management reviews to evaluate costs and efficiency of operation, and ensure the system is continuing to meet mission needs.

h.   System Managers are responsible for:

   (1)   Managing the system's life cycle process and
         products within their program(s) in compliance
         with Agency and Federal policy.

   (2)   Preparing System Management Plans and other
         decision papers.

   (3)   Obtaining review and approval of all decision
         papers.

i.   The Office of Acquisition Management and the Office of
     Grants and Debarment are responsible for ensuring that
     this policy is incorporated, as appropriate, in
     Requests for Proposals, contracts, interagency
     agreements, cooperative agreements, and grants.

j.   Each EPA employee engaged in system life cycle
     management activities is responsible for conforming to
     this policy, and related procedures and standards.

7.   DEFINITIONS.

   a.   "Agents of EPA" refers to anyone who is directed to use
        EPA resources.

   b.   "Applications system" refers to an information system
        composed of one or more units of software supported by
        automated data processing equipment (ADPE) and
        automating the work methods and procedures to collect,
        store, process and disseminate information to support
        specific agency missions.

   c.   "Application systems life cycle management" is the
        process of administering an application system over its
        entire life cycle, from the time span between the
        establishment of a need for a system to the end of its
        operational use. The life cycle is divided into
        discrete phases with formal milestones established as
        points of management controls.

   d.   "Appropriate level of management" is the first level of
        management whose scope of responsibility includes the
        Agency major user and funding organization(s). For
        example, if a system is used or funded by multiple
        AAships and/or Regions, those AAs and RAs sponsoring
        the project and the Executive Steering Committee for

IRM are the appropriate level of management. If its use and funding is restricted to one organization, that organization's manager is the appropriate level of management.

e.   "Decision papers" describe system activities which require management approval. The complexity and formality of the decision papers should be appropriate to the system's category.

f.   "Decision points" refer to specific points in a system's life cycle. The generic decision points in a life cycle are at the junctures between each of the six stages identified in the generic life cycle.

g.   "Decision Threshold" refers to the level of system review and approval authority required for system decisions as determined by the category of information system.

h.   "Guidance" refers to a recommended approach that promotes compliance with policies and procedures. It includes hints, examples, and lessons-learned.

i.   "Information" refers to any communication or reception of knowledge (e.g., facts, data or opinions) in any medium or form, including textual, numerical, graphic, cartographic, narrative or audiovisual forms.

j.   "Information Application System" refers to the organized collection, processing, maintenance, transmission, and dissemination of information in accordance with defined procedures. Models are included in this definition.

k.   "Information resources management activities" refers to planning, budgeting, organizing, directing, training, and administrative control associated with government information resources. The term encompasses both information itself and the related resources, such as personnel, equipment, funds, and information technology.

l.   "Information system category" refers to the manner in which systems are classified according to a combination of factors including the system's type, cost, and organizational scope in terms of use and funding. All systems are categorized in one of the following four categories:

       (1)   Major Agency Systems;

       (2)   Major AAship/Regional Systems;

       (3)   Significant Program Office Systems;

       (4)   Local Office or Individual Use Systems.

       See Exhibit 17-A for the specific thresholds which
       determine a system's category.

m.   "Major information system" refers to a 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 the administration of agency
       programs, finances, property, or other resources.

n.   "Mission critical" refers to a system whose operation
       is essential to the organization's mission.

o.   "Procedures" refer to instructions on how to perform
       work in order to meet the established standards. They
       should explain in detail the method to complete a task
       or job. Forms and work flows are considered
       procedures.

p.   "Standards" refer to the measures by which
       implementation of policy can be determined. They
       provide a basis of comparison, and are objective,
       clear, concise, technical descriptions. They are
       usually determined externally (e.g., Federal
       Information Processing Standards).

q.   "System" refers to an organized set of functions, data,
       procedures, hardware, software, communications and/or
       documentation which enables an organization to solve a
       specific information management problem. A system need
       not be automated, but most instances of life cycle
       management apply to automated systems.

r.   "System Charter" documents the information management
       problem to be resolved, the scope of the problem in
       terms of the user, sponsoring and funding
       organization(s), the time frame, the likely system
       category, the appropriate level of management for
       review and approval, and manager of the system.

s.   "System development or enhancement project" refers to
     the creation of new systems, enhancement of an existing
     system, or perfective, adaptive, corrective maintenance
     of an existing system, for which the estimated cost of
     would exceed $100,000. A system development or
     enhancement project typically encompasses all eight
     stages of the generic information system life cycle.

t.   "System life cycle" refers to 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.
     The stages of the life cycle are as defined in section
     5.c. of this policy. There is obviously variance in
     life cycle periods among systems. To calculate total
     life cycle costs, a defined life cycle period needs to
     be established for each system development/modification
     project. Twelve years is cited in a number of
     references as an average system life cycle period.

u.   "System life cycle costs" refers to sum total of the
     direct, indirect, recurring, nonrecurring, and other
     related costs incurred, or estimated to be incurred, in
     the design, development, production, operation,
     maintenance, and support of a system over its
     anticipated useful life span. Costs include but are
     not limited to equipment, software, personnel (both
     Agency and contractor), timeshare, and
     telecommunications.

v.   "System life cycle methodology" refers to the formal
     documentation of the phases of an information system,
     beginning with the initiation through to the retirement
     phase. The methodology describes the precise
     objectives for each phase and the results required for
     each phase before the next one can commence. It may
     provide specialized forms for the presentation of the
     documentation throughout each phase.

w.   "System Management Plan" (SMP) is the key document
     which provides the overall framework for the management
     of the system. Basic components of the SMP are
     addressed in Section 5.f(2) of this policy.

x.   "System sponsor" refers to the manager of any EPA
     organizational unit which funds an information system.
     Generally, the system sponsor will be the same as the
     appropriate level of management for decision paper
     approval.

s.   "System development or enhancement project" refers to
      the creation of new systems, enhancement of an existing
      system, or perfective, adaptive, corrective maintenance
      of an existing system, for which the estimated cost of
      would exceed $100,000. A system development or
      enhancement project typically encompasses all eight
      stages of the generic information system life cycle.

t.   "System life cycle" refers to 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.
      The stages of the life cycle are as defined in section
      5.c. of this policy. There is obviously variance in
      life cycle periods among systems. To calculate total
      life cycle costs, a defined life cycle period needs to
      be established for each system development/modification
      project. Twelve years is cited in a number of
      references as an average system life cycle period.

u.   "System life cycle costs" refers to sum total of the
      direct, indirect, recurring, nonrecurring, and other
      related costs incurred, or estimated to be incurred, in
      the design, development, production, operation,
      maintenance, and support of a system over its
      anticipated useful life span. Costs include but are
      not limited to equipment, software, personnel (both
      Agency and contractor), timeshare, and
      telecommunications.

v.   "System life cycle methodology" refers to the formal
      documentation of the phases of an information system,
      beginning with the initiation through to the retirement
      phase. The methodology describes the precise
      objectives for each phase and the results required for
      each phase before the next one can commence. It may
      provide specialized forms for the presentation of the
      documentation throughout each phase.

w.   "System Management Plan" (SMP) is the key document
      which provides the overall framework for the management
      of the system. Basic components of the SMP are
      addressed in Section 5.f(2) of this policy.

x.   "System sponsor" refers to the manager of any EPA
      organizational unit which funds an information system.
      Generally, the system sponsor will be the same as the
      appropriate level of management for decision paper
      approval.

8.   PROCEDURES, STANDARDS AND GUIDANCE. The Office of
     Information Resources Management will issue procedures,
     standards and guidance for Agency system life cycle
     management under separate cover. Other relevant Federal and
     Agency guidance documents which should be followed are noted
     below:

     a.   FIPS PUB 38, Guidelines for the Documentation of
          Computer Programs and Automated Data Systems,
          February 15, 1976.

     b.   FIPS PUB 64, Guidelines for Documentation of Computer
          Programs and Automated Data Systems for the Initiation
          Phase, August 1, 1979.

     c.   FIPS PUB 65, Guideline for ADP Risk Analysis, August 1,
          1979.

     d.   FIPS PUB 73, Guidelines for Security of Computer
          Applications, June 30, 1980.

     e.   FIPS PUB 101, Guidelines for Life Cycle Validation,
          Verification and Testing of Computer Software, June 6,
          1983.

     f.   FIPS PUB 102, Guideline for Computer Security
          Certification and Accreditation, Sept. 27, 1983.

     g.   FIPS PUB 105, Guidelines for Software Documentation
          Management, June 6, 1974.

     h.   FIPS PUB 106, Guidelines on Software Maintenance, June
          15, 1984.

     i.   FIPS PUB 124, Guideline on Functional Specifications
          for Database Management Systems , Sept. 30, 1986.

     j.   OMB Circular 94, Guidelines and Discount Rates for
          Benefit-Cost Analysis of Federal Programs, October 29,
          1992.

     k.   OMB Circular 109, Major Systems Acquisitions, April 5,
          1976.

     l.   EPA Information Technology Architecture Road Map.

Exhibit 17-A

SYSTEM CATEGORY	THRESHOLD CRITERIA (System category is determined by the highest threshold reached under either the scope OR cost criteria.)		SYSTEM MANAGEMENT PLAN(SMP) MUST BE REVIEWED BY:
	Scope	Cost	
1. Major Agency System	Mission Critical for Multiple AAships or Regions; or Agency Core Financial System	>$25 million throughout the lifecycle or $5 million annually	Funding Org. AA/RA, Dir. OIRM, Exec. Steering Comm. for IRM.
2. Major AAship or Regional System	Mission Critical for 1 AAship or Regional Office	>$10 million throughout the lifecycle or > $1 million annually	Funding Org. SIRMO(s) & AA/RA
3. Significant Program Office System	Mission Critical in Program Office	>$2 million throughout the lifecycle or >$100,000 annually	Funding Org. SIRMO(s)
4. Local Office or Individual Use System	Systems Below Category 3 Thresholds	<$100,000 annually for one project	SIRMO or official designee

CHAPTER 18 - ACQUISITION OF FEDERAL INFORMATION PROCESSING RESOURCES

1. **PURPOSE.** This policy establishes principles and requirements that govern the acquisition of Agency Federal Information Processing (FIP) resources. It also defines the roles and responsibilities for implementing these principles and requirements to ensure appropriate management accountability.

2. **SCOPE AND APPLICABILITY.** This policy applies to all EPA organizations and their employees. It also applies to personnel who are involved in the acquisition of FIP resources for the Agency.

3. **BACKGROUND.**

   a. The Federal Information Resources Management Regulation (FIRMR) is the principal regulation governing the acquisition of FIP resources.

   b. FIP resources include the following major categories: equipment, software, services, support services (including maintenance), and related supplies and systems.

   c. Acquisition, as defined in FIRMR Part 201-20, consists of a series of steps beginning with a requirements analysis and ending with the implementation of the most advantageous alternative to satisfy the requirement. This cyclical set of activities is designed to provide the Government with efficient and effective technology and services to support information needs.

   d. Acquisition, as defined in FIRMR Part 201-20, also includes obtaining FIP resources from sources external to the Agency (e.g., through contracts issued by other Federal agencies), and through in-house sources (e.g., using in-house Agency employees or existing Agency contracts) or development (e.g., re-engineering existing software).

   e. The General Services Administration (GSA), the Federal oversight agency which issues the FIRMR, has primary authority to contract for FIP resources. GSA redelegates this authority to individual agencies through a Delegation of Procurement Authority (DPA) to each agency's Designated Senior Official (DSO) for

Information Resources Management (IRM). An agency's
ability to retain its DPA from GSA depends on how well
it manages this delegation. GSA makes this
determination through its IRM Review Program.

4. AUTHORITIES.

    a. Public Law 89-306, Brooks Act, vests in the
        Administrator of the GSA the authority and
        responsibility to provide for the economic and
        efficient purchase, lease, maintenance, operation and
        utilization of automated data processing (ADP)
        resources by Federal departments and agencies.

    b. Public Law 98-369, Competition in Contracting Act,
        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. The Office of Federal Procurement Policy Act contains
        provisions regarding inherently governmental functions
        and procurement integrity that apply to contractors and
        government officials involved with Federal
        procurements.

    d. 44 U.S.C. Chapter 35, Paperwork Reduction Act of 1986,
        significantly expands the Brooks Act definition of
        automatic data processing equipment (ADPE) to reflect
        the merging of ADP, communications, and related
        technologies.

    e. The Administrator of GSA redelegates the authority to
        contract for FIP resources to agency heads through
        Delegations of Procurement Authority (DPA).

    f. 41 CFR, Chapter 201.20 and 201.39, FIRMR, provides
        Government-wide policies, procedures and guidelines
        pertaining to the acquisition and management of FIP
        resources. Chapter 201-18 addresses the requirement
        for FIP acquisitions to be consistent with agency IRM
        plans.

    g. 48 CFR, Chapter 15, EPA Acquisition Regulation (EPAAR),
        codifies the policies and procedures of EPA which
        implement and supplement the FAR.

h.   Executive Order 12845, issued April 1993, requires
      agencies to purchase energy-efficient computer
      equipment.

i.   Office of Management and Budget (OMB) Circular A-11,
      Section 43, includes a requirement for agencies to
      submit information on acquisition plans for information
      technology, including telecommunication systems.

j.   OMB Circular A-76, Policies for Acquiring Commercial or
      Industrial Products and Services Needed by the
      Government, contains policies and procedures for
      determining whether functions should be performed by
      outside sources (such as contractors) or by Government
      personnel. The Circular also includes requirements for
      performance-based statements of work.

k.   OMB Circular A-109, issued August 1976, in part
      describes the cycle for the ADP Systems Acquisition
      Process.

l.   OMB Circular A-130, Management of Federal Information
      Resources, establishes policy for the management of
      Federal information resources. Among other
      requirements, it addresses the need for agencies to
      conduct IRM planning, with special focus on the
      information lifecycle.

5.   POLICY.

a.   EPA shall plan, budget and acquire all FIP resources in
      a cost-effective manner consistent with the FAR, FIRMR,
      and EPAAR, as well as applicable Executive Orders, and
      other Federal and EPA IRM-related regulations and
      policies. FIP resources shall meet and support the
      documented mission-related needs of EPA Program and
      Regional Offices, and Laboratories, and shall be
      consistent with the Agency's IRM Plans, and technology
      and information architectures.

b.   Delegations of Procurement Authority are redelegated to
      Program and Regional Offices and Laboratories based on
      those organizations' demonstrated competence in IRM.
      Some factors demonstrating competence include an
      organization's compliance with Federal and Agency IRM
      and procurement policies, procedures, standards, and
      conformance with approved IRM Plans. Other factors
      include effective organizational structure, adequate
      resources, well-trained staff, and effective

performance in IRM functional areas as well as
procurement management.

c. EPA organizations shall ensure that, when applicable,
   acquisition of FIP resources complies with the FIRMR
   requirements for Requirements Analysis, Analysis of
   Alternatives, and development of an Implementation
   Plan. These analyses and the planning documents must
   be commensurate with the size and complexity of the FIP
   resources needed.

d. EPA organizations shall acquire FIP resources in a
   manner that minimizes total lifecycle costs and avoids
   duplication of effort and resources.

e. EPA organizations shall ensure that acquisition of
   their computer equipment is compliant with energy
   efficient requirements as stipulated by Executive Order
   12845.

f. EPA organizations shall consider the needs of persons
   with disabilities in the acquisition of FIP resources.
   These persons may include employees, contractor
   personnel and members of the public who may use,
   develop, maintain or operate a proposed system.

g. Appropriate information security requirements will be
   incorporated into specifications for the acquisition of
   FIP resources.

h. EPA organizations shall track FIP resource estimates
   and actual costs according to Federal and Agency
   planning, budgeting and procurement requirements. In
   addition, EPA organizations shall ensure that all
   FIRMR-applicable FIP resource-related contract costs
   are tracked against the specific ceiling established by
   the contract.

6. RESPONSIBILITIES.

a. The Assistant Administrator for Administration and
   Resources Management (OARM) is the Designated Senior.
   Official (DSO) responsible for the conduct of and
   accountability for acquisition of FIP resources made
   under a DPA from GSA. The DSO may redelegate GSA's
   exclusive authorities for FIP resources to qualified
   Agency officials. However, such redelegation does not
   relieve the DSO from responsibility and accountability
   for acquiring FIP resources.

b.   The Director, Office of Information Resources
     Management (OIRM) is responsible for:

     (1) Organizing and managing an Agency-wide IRM
          planning process which integrates FIP resources
          acquisition activities with IRM planning and
          budgeting.

     (2) Providing guidance and direction to client
          organizations involved in procurement of FIP
          resources.

     (3) Negotiating and managing the redelegation process
          of FIP acquisition authority to client
          organizations.

     (4) Reviewing and approving procurement packages for
          FIP equipment, software, services and/or support
          services where this authority for review and
          approval has not been further redelegated.

     (5) Resolving FIRMR applicability issues in
          procurement actions.

     (6) Recommending, when appropriate, alternative
          acquisition methods or sources, and promoting
          coordination with other research, programmatic
          and/or Regional IRM efforts.

     (7) Developing, in consultation with the client
          organization, Implementation Plans for
          acquisitions of FIP resources to ensure
          conformance and compatibility with the Agency's
          technology architecture.

     (8) Reviewing and approving, if appropriate, waiver
          requests to purchase non-energy efficient computer
          equipment and/or non-standard hardware and
          software.

     (9) Approving and forwarding FIP resource acquisition
          Agency Procurement Requests (APRs) to GSA for
          approval when a DPA is required.

     (10) Coordinating and forwarding progress reports to
          GSA, as required in DPAs.

c.   The Office of the Administrator, Assistant
     Administrators, Associate Administrators, Regional

Administrators, General Counsel, and Inspector General
are responsible for providing effective implementation
of this policy within their respective organizations.

d.   Senior IRM Officials are responsible for consulting
     with their Senior Resource Officials and other key
     management and technical personnel to review and
     approve all applicable FIP resource acquisitions and
     associated documents to:

     (1)   Ensure compliance with Federal, EPA and
           Program/Regional Office policies, standards,
           directives, regulations, approved IRM plans, and
           planning and budgeting requirements and processes.

     (2)   Ensure that FIP resource requirements are not
           fragmented into separate procurements in an
           attempt to circumvent the delegated thresholds.

     (3)   Identify, resolve or justify potentially
           duplicative procurement activities, as well as
           opportunities to "share" FIP resources, within
           their organizations and/or with other Agency
           organizations.

e.   Client organization managers and staff who originate
     requirements for acquisition of FIP resources (System
     Managers, Project Officers, etc.) are responsible for:

     (1)   Adhering to the Federal and Agency policies and
           procedures governing the acquisition of FIP
           resources.

     (2)   Documenting the initial determination of FIRMR
           applicability.

     (3)   Determining if a DPA is required for their
           procurement action and developing an APR, if
           needed.

     (4)   Developing the Requirements Analysis, the Analysis
           of Alternatives, and Implementation Plan (if
           appropriate) to ensure that the acquisition is
           cost effective and fully meets their mission
           needs.

     (5)   Verifying the adequacy and soundness of technical
           content, and accuracy and completeness of
           documentation.

(6) Obtaining appropriate review and approval from
     their organization's Senior IRM Official and other
     key officials noted in this policy.

(7) Categorizing and tracking FIP resource estimates
     and actual costs according to Federal and Agency
     planning, budgeting and procurement requirements.

(8) Tracking FIRMR-applicable FIP resource costs in
     contracts to ensure the DPA is not exceeded and to
     allow appropriate budgetary reporting.

(9) Submitting progress reports to OIRM, as required
     by the DPA.

f.   The Office of Acquisition Management (OAM) is
     responsible for:

(1) The acquisition of the Agency's central
     information processing resources, including
     telecommunications (voice, video and data.)

(2) Providing client organizations with technical
     assistance on Federal and Agency procurement laws,
     regulations, and policies.

(3) Performing final quality assurance, review, and
     approval of all Agency FIP resource acquisitions.

(4) Ensuring that the procurement of FIP resources
     includes a well-documented audit trail.

(5) Ensuring that all procurements of FIP resources
     comply with Federal and Agency procurement laws,
     regulations and policies.

7.   DEFINITIONS.

a.   Acquisition, as defined in FIRMR Part 201-20, consists
     of a series of steps beginning with a requirements
     analysis and ending with the implementation of the most
     advantageous alternative to satisfy the requirement
     (e.g., actual award of the contract). Acquisition also
     includes obtaining FIP resources from sources external
     to the Agency, and through in-house sources or
     development.

b.   Acquisition Lifecycle is the period covering all
     acquisition-related activities. The lifecycle begins

when Agency needs are established and ends with the
disposal of the FIP resources.

c.   <u>Agency Procurement Request</u> (APR) is a request to GSA by
     an agency for contracting authority above their
     regulatory or specific agency delegation.

d.   <u>Analysis of Alternatives</u> is the process of identifying,
     analyzing and documenting feasible alternatives that
     satisfy requirements for FIP resources.

e.   <u>Automated Data Processing</u> (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.

f.   <u>Delegation of Procurement Authority</u> (DPA) is the
     authority provided by the GSA to Federal agencies which
     allows them to contract for FIP resources above the
     dollar ceilings found in regulatory or specific agency
     delegations.

g.   <u>Federal Information Processing (FIP) Equipment</u> is any
     equipment or interconnected system or subsystem of
     equipment used in the automatic acquisition, storage,
     manipulation, management, movement, control, display,
     switching, interchange, transmission, or reception of
     data or information.

h.   <u>Federal Information Processing (FIP) Resources</u> include
     equipment, software, services, support services
     (including maintenance), and related supplies and
     systems.

i.   <u>Federal Information Processing (FIP) Software</u> is any
     software, including firmware, specifically designed to
     make use of and extend the capabilities of FIP
     equipment.

j.   <u>Federal Information Processing (FIP) Supplies</u> are any
     consumable item designed specifically for use with FIP
     equipment, software, services, or support services.

k.   Federal Information Processing (FIP) Support Services
        are any commercial, non-personal services, including
        FIP maintenance, used in support of FIP equipment,
        software, or services.

l.   Implementation Plan describes the tasks,
        responsibilities, resources and schedules necessary to
        ensure successful implementation of the FIP
        acquisition.

m.   Information architecture refers to the technologies,
        interfaces, and geographical locations of functions
        involved within an agency's information activities.

n.   Life Cycle Costs refers to the sum total of the direct,
        indirect, recurring, nonrecurring, and other related
        costs incurred, or estimated to be incurred, in the
        design, development, production, operation,
        maintenance, and support of a system over its
        anticipated useful life span. Costs include, but are
        not limited to, equipment software, personnel (both
        agency and contractor), timeshare and
        telecommunications.

o.   Requirements Analysis is the process of determining and
        documenting an agency's requirements for FIP resources.

p.   Technology architecture refers to the configuration of
        the Agency's hardware platforms, software tools and
        data communications that together to form the
        infrastructure within which the Agency's information
        systems operate.

8. PROCEDURES AND GUIDELINES. Procedures and guidelines
    regarding EPA acquisition of FIP resources will be issued
    under separate cover. The GSA publishes an Acquisition
    Guide Series to help promote effective and efficient
    acquisition of FIP resources. These Guides are available
    from the GSA IRM Reference Center, 18th and F Streets, NW,
    Washington, DC 20405; telephone (202) 501-4860. See Chapter
    17 of the EPA IRM Policy Manual for the Agency's policy on
    system life cycle management.

Chapter 19 - INFORMATION AND DATA MANAGEMENT

1.   PURPOSE. The purpose of this chapter of the Environmental
     Protection Agency's (EPA's) IRM Policy Manual is to:

     a.   Assure the utility of EPA's information and data in
          meeting legislative and mission requirements.

     b.   Establish principles for EPA's management of
          information and data.

     c.   Implement those components of Federal information
          management policy relating to information and data
          management as articulated in OMB Circular A-130,
          Management of Federal Information Resources.

     d.   Assign organizational responsibilities for EPA's
          management of information and data.

     e.   Establish the EPA Information and Data Management
          Program to implement this policy and to enable
          integration of information and data across
          environmental programs.

2.   SCOPE AND APPLICABILITY.

     a.   This policy applies to all EPA employees and their
          agents involved in EPA's information and data
          management activities. These activities include
          management of information and data from planning,
          through creation, processing, dissemination, use, and
          storage to disposition. They also include all
          activities related to sharing and integration of
          information and data.

     b.   This policy explicitly applies to the implementation of
          any information or data management related requirement
          in any EPA enabling legislation or regulation.

     c.   This policy explicitly applies to all information or
          data management related activities encountered in the
          preparation of proposed legislation and regulations by
          EPA officials and staff.

     d.   AUTHORITIES.

     e.   The Paperwork Reduction Act of 1980 (44 U.S.C. Chapter
          35) as amended.

    f.   Office of Management and Budget Circular A-130,
         Management of Federal Information Resources.

3.   BACKGROUND.

    a.   The Environmental Protection Agency, like other
         governmental agencies and private organizations working
         to protect the environment worldwide, relies upon the
         availability of accurate information in fulfilling its
         mission. Some information used by EPA is created by
         the Agency itself. Other information, equally critical
         to EPA's mission, is created by State and local
         governments or private industry and submitted to or
         shared with EPA according to agreements.

         Fulfillment of EPA's environmental mission requires the
         active, coordinated efforts of partners within
         government, private industry and the public. Sharing
         of information and data with all organizations and
         individuals working for protection of the environment
         enhances the effectiveness of EPA and its partners in
         fulfilling that mission. EPA information once
         considered of interest to only one media area (such as
         water or air) is now understood to be of importance
         Agencywide. Identification and documentation of Agency
         information requirements will help make integration and
         sharing of information and data feasible, effective and
         efficient.

    b.   The Paperwork Reduction Act established a broad mandate
         for agencies to perform their information management
         activities in an efficient, effective, and economical
         manner. It also assigned the Director of the Office of
         Management and Budget responsibility for maintaining a
         comprehensive set of information resources management
         policies, and for promoting the application of
         information technology to improve the use and
         dissemination of information in the operation of
         Federal programs. To fulfill these responsibilities,
         OMB issued and maintains Circular No. A-130, <u>Management
         of Federal Information Resources</u>.

         Circular A-130 requires agency heads to develop and
         implement internal agency information policies that
         conform to the policies set forth in the Circular.
         These Circular A-130 policies address the twofold
         definition of information resources management as
         stated in the Circular (i.e., information itself and
         the resources associated with information). These

policies are further titled "Information Management" -
the management of Federal information; and "Information
Systems and Information Technology Management" - the
planning, acquisition, operation, and management of
Federal information systems and technology.

Further, Circular A-130 assigns to the Department of
Commerce responsibility for the development and
issuance of Federal Information Processing Standards
and guidelines necessary to ensure the efficient and
effective management and use of information technology.
Those standards and guidelines are published by the
National Institute of Standards and Technology.

This chapter of the IRM Policy Manual addresses
information and data management aspects of EPA's
internal management practices for information,
information activities, information systems, and
information technology as specified in Circular A-130.
It is responsive to the following broad objectives:

(1) managing information as a valuable strategic
     resource, as important as financial and personnel
     resources;

(2) enhancing the value of data by assuring its
     accuracy, integrity and availability;

(3) performing information and data management
     activities in an integrated, efficient, effective,
     and economical manner;

(4) maximizing the usefulness of information and data,
     improving service delivery to the public, reducing
     information collection burden on the public, and
     lowering the cost of program administration; and

(5) recognizing changes in the technical, legal and
     operational environment EPA faces when managing
     information technology.

c.   This policy is intended to be read in the context of
     the entire IRM Policy Manual. It is not comprehensive
     in covering the requirements of Circular A-130, and it
     is not intended to be considered in isolation from
     other EPA IRM policies articulated in this manual.

4.   POLICY.

a.   *EPA information and data resources will support Agency missions and programs as agreed upon in Agency strategic plans.* EPA shall collect or create only that information and data necessary for the proper performance of agency functions and which has practical utility. Practical utility is understood to include such qualities of information as accuracy, adequacy, and reliability.

b.   *EPA information and data resources will be treated as Agency resources and managed in a reasonable, efficient, effective, and economical manner.* EPA will plan in an integrated manner for managing information and data throughout its life cycle. Agency information and data management plans will consider the creation, collection, processing, dissemination, use, storage, and disposition of information and data resources.

c.   *EPA information and data requirements will be identified, defined, and documented.* Agency information and data requirements, including appropriate security requirements, will be identified and defined in the routine course of system development, re-engineering, or enhancement. The information requirements that each information system is intended to meet will be documented.

d.   *Information and data collected and stored by EPA will be identified, defined and documented.* EPA will maintain an inventory of the information and data in Agency information systems.

e.   *Documentation of EPA information and data requirements and collections will be shared.* To the extent permitted by the confidentiality requirements of Federal law, regulation, and policy, EPA will share Agency metadata in order to improve the compatibility and efficiency of Agency information systems and improve access to Agency information and data resources for all potential users, including the public.

f.   *Documentation of EPA information and data requirements and collections will address the quality of the data.* To enable the fullest use of EPA information and data resources, all necessary steps will be taken to ensure that data are of known and specified quality. Quality is understood to include such characteristics as

accuracy, adequacy, and reliability.

g.   **EPA will promote information and data exchange and
      sharing.**   To the extent permitted by the
      confidentiality requirements of Federal law,
      regulation, and policy, the Agency will support
      efficient use and effective stewardship of information
      and data resources by exchanging and sharing
      information and data both within and outside the
      Agency.

h.   **EPA will use Agency-wide standards to establish
      essential information and data resources management
      controls.**   The Agency will adopt applicable
      international, national and Federal Information
      Processing Standards for data where appropriate or
      required.   When needed, Agency-specific standards will
      be developed.   All preparation of legislation and
      regulations as well as information system designs,
      developments, redesigns, modernizations,
      implementations, and life cycle management will comply
      or ensure compliance with Agency data standards.

i.   **EPA employees will be adequately trained to effectively
      manage and use information and data resources.**
      Decentralization of information technology has placed
      the management of information and information
      technology directly in the hands of nearly all EPA
      personnel.   The Agency will ensure that EPA employees
      who work with EPA information and data resources have
      appropriate knowledge of how to manage and use
      information and data.

5.   <u>RESPONSIBILITIES</u>.

      a.   The EPA Designated Senior Official for IRM shall:

           (1)   Ensure that the Agency Strategic Plan addresses
                 information management, including information and
                 data sharing, and includes high-level information
                 requirements.

           (2)   Organize and lead the ongoing development of an
                 Agencywide information architecture identifying
                 the information and data required to support
                 Agency missions.

           (3)   Lead the compilation and ensure the availability
                 of an inventory of information and data in Agency

information systems.

(4)   Lead the development and promulgation of Agency-
      wide standards to establish essential management
      controls for information and data.

(5)   Implement this policy by establishing and
      supporting an EPA Information and Data Management
      Program and appoint an Information and Data
      Management Officer for EPA who shall be
      responsible for administration of the Program.

(6)   Ensure the coordination required for development
      of training responsive to the specific needs of
      the EPA Information and Data Management Program.

b.   The Information and Data Management Officer shall:

(1)   Administer the Information and Data Management
      Program.

(2)   Participate in the IRM strategic planning and
      budgeting process and work to see that sufficient
      funds are allocated for information and data
      management activities through the budget process.

(3)   Develop and promulgate Agencywide standards and
      management controls for data resources, working
      with the National Institute of Standards and
      Technology, other Federal agencies, and non-
      Federal organizations, as appropriate, in the
      development of data standards.

(4)   Direct efforts to develop those components of an
      information architecture focusing on data.

(5)   Develop and oversee centralized coordination of
      mission-related data standardization efforts
      Agencywide.

(6)   Create a repository to manage and control
      essential Agency metadata resources and make these
      resources easily accessible within and outside the
      Agency.

c.   Each EPA Primary Organization Head (see definition)
     shall:

(1)   Ensure active and appropriate participation of the

Primary Organization in development of the Agency
IRM Strategic Plan.

(2)   Ensure that the Primary Organization Strategic
      Plan addresses information management, including
      information and data sharing, and includes high-
      level, Primary Organization information
      requirements.

(3)   Sponsor and support the ongoing development of a
      Primary Organization information architecture
      identifying the information and data required to
      support Primary Organization missions.

(4)   Implement the EPA Information and Data Management
      Program within the Primary Organization and ensure
      that information and data management activities
      performed for the Primary Organization by
      contractors adhere to Agency information and data
      management policy and program requirements.

(5)   Contribute to the development of standards by
      directing appropriate Primary Organization
      management and staff to actively participate in
      such development efforts.

(6)   Share documentation of information and data
      requirements and collections of the Primary
      Organization with other EPA Primary Organizations.

(7)   Ensure that documentation of EPA information and
      data requirements and collections addresses the
      quality of the data.

(8)   Ensure that Primary Organization employees are
      appropriately trained to effectively manage and
      use information and data resources.

6.   DEFINITIONS. All definitions are taken from Office of
     Management and Budget's Circular A-130 or the National
     Institute of Standards and Technology's Special Publication
     500-208 (March 1993) unless otherwise noted.

     a.   Data. Facts or figures from which a conclusion can be
          drawn. Representation of facts, concepts, or
          instructions in a formalized manner suitable for
          communication, interpretation, or processing by humans
          or by automatic means. Any representations such as
          characters or analog quantities to which meaning is, or

might be, assigned.

b. **Data (Resources) Management.** The responsibilities for
    planning and controlling the data resources and
    functions of an organization which relate to
    collecting, cataloging, processing, storing,
    communicating, and disposing of data consistent with
    the overall goals and objectives of an enterprise.

c. **Data Requirement.** A documented need, determined
    through analysis, for data resources to meet an
    agency's information requirements. (Adapted from "A
    Guide for Requirements Analysis and Analysis of
    Alternatives," Information Resources Management
    Service, U.S. General Services Administration, January
    1990)

d. **Data Resources.** All data created manually or by
    automated means that an enterprise treats as a resource
    for information used in decision making and problem
    solving. (Adapted)

e. **Designated Senior Official for IRM.** An agency official
    with broad responsibility and accountability for
    information resources management as defined by the
    Office of Management and Budget in Circular A-130.
    Within EPA, that official is the Assistant
    Administrator for Administration and Resources
    Management. (EPA Delegations Manual, Chapter 1-84.
    Information Resources Management, 1200 TN 343,
    11/29/93.)

f. **Information.** Any communication or representation of
    knowledge such as facts, data, or opinions in any
    medium or form, including textual, numerical, graphic,
    cartographic, narrative, or audiovisual forms.

g. **Information Architecture.** A collection of logical
    constructs used to define and control the integration
    of information systems.

h. **Information Life Cycle.** The stages through which
    information passes, typically characterized as creation
    or collection, processing, dissemination, use, storage,
    and disposition.

i. **Information Management.** The application of general
    management principles including planning, budgeting,
    directing, and controlling the processing, the

handling, and the uses of an organization's information.

j. **Information Requirement.** A documented need, determined through analysis, for information resources to perform an agency's mission. (Adapted from "A Guide for Requirements Analysis and Analysis of Alternatives," Information Resources Management Service, U.S. General Services Administration, January 1990)

k. **Information Resources.** All information created manually or by automated means that an enterprise treats as a resource for decision making and problem solving.

l. **Information System.** The organized collection, processing, maintenance, transmission, and dissemination of information in accordance with defined procedures, whether automated or manual.

m. **Metadata.** Information about an organization's information and data activities. This includes the characteristics, resources, usage, activities, systems, and holdings of data.

n. **Primary Organization.** A component of EPA managed by a Primary Organization Head (namely, the EPA Deputy Administrator, Assistant Administrator, Regional Administrator, the Inspector General and the General Counsel.) (Derived from EPA Order 1000.24)

o. **Primary Organization Head.** The EPA Deputy Administrator, Assistant Administrators, Regional Administrators, the Inspector General and the General Counsel. (Derived from EPA Order 1000.24)

8. STANDARDS AND PROCEDURES: EPA data standards and procedures implementing this policy will be issued under separate cover.

APPENDIX A

APPENDIX A - GLOSSARY

1. <u>Administrative Records</u> - The records which reflect routine, transitory, internal housekeeping activities relating to subjects and functions common to all offices.

2. <u>Agency Records Management Officer</u> - The title of the designated staff official whose responsibility is 'to plan, develop and coordinate the agency records management program.

3. <u>Application Security</u> - 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. <u>Application Software</u> - Software specifically produced for the functional use of a computer system, e.g., payroll, inventory control, environmental monitoring and scientific modeling.

5. <u>Artificial Intelligence, Expert, or Knowledge-based Systems</u> - 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. <u>Automatic Data Processing</u> - 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. <u>Automatic Data Processing Equipment</u> - 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. <u>Central Processing Unit (CPU)</u> - 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. <u>Data Communications</u> - Computer-to-computer, computer-to-device and device-to-computer communications and other communications such as a record, tele-processing and telemetry.

19. <u>Data Element</u> - A unit of information used to describe data, data characteristics and attributes, e.g., eyes - blue or BL.

20. <u>Data Standards</u> - 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. <u>Designated Senior Official</u> - 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. <u>Distributed Processing</u> - 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. <u>Distributed Network</u> - 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. <u>Documentation</u> - 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. <u>Electronic Digital Image Storage and Retrieval Systems</u> - The technology that converts and stores images and information in digital form.

26. <u>Electronic Mail</u> - 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. <u>End-Users</u> - The ultimate customers or recipients of computer services.

28. <u>Essential Elements of Information (EEIs)</u> - 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. <u>Federal Records Centers</u> - 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. <u>Filing Equipment</u> - Any equipment used to provide storage for information, e.g., lateral, vertical, mechanized and ADP.

31. <u>Filing Supplies</u> - Items such as folders, guides, cross-reference sheets and charge-out cards.

32. <u>Fourth Generation (4GL) Programming Language</u> - 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. <u>Geographic Information System</u> (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. <u>Hardware</u> - 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 jeapardize 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
     mathmetically 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. <u>IRM Steering Committee</u> - 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. <u>Information Security</u> - 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. <u>Information System</u> - The organized collection, processing,
transmission and dissemination of information in accordance
with defined procedures, whether automated or manual.

45. <u>Information Systems Inventory (ISI)</u> - 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. <u>Information Technology</u> - The hardware and software used in
connection with government information, regardless of the
technology involved, whether computers, telecommunications,
micrographics or others.

47. <u>Installation</u> - The physical location of one or more information
systems, whether automated or manual. An automated installa-
tion 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. <u>Installation Security</u> - 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. <u>Life Cycle</u> 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. <u>Life Cycle Costs</u> - 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. <u>Mainframe</u> - This term connotes a large computer.

52. <u>Maintenance of Records</u> - This term refers to the grouping, filing, storing and safeguarding of business records.

53. <u>Major Information System</u> - 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. <u>Management Information System (MIS)</u> - A computer-based or manual information system having applications in support of management activities.

55. <u>Microcomputer</u> - 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 organiza-
     tions. 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. <u>Official Record File</u> - 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. <u>Operating System</u> - 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. <u>Permanent Records</u> - 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. <u>Personal Computer</u> - Microcomputer used by individuals for various personal uses in the home or office.

69. <u>Procedural or High Order Language</u> - See definition for Third Generation Language (3GL).

70. <u>Program</u> - Step-by-step set of instructions that directs the computer to perform certain operations.

71. <u>Program Records</u> - 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. <u>Proprietary</u> - Any item, usually commercial software or a specialized data base, for which the Government or public does not have unlimited rights.

73. <u>Privacy</u> - The right of an individual to control the collection, storage and dissemination of information about himself/herself to avoid the potential for substantial harm, embarassment, 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 charac-
    teristics, 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. <u>Sensitive Application Systems</u> - 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. <u>Sensitive Information</u> - 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. <u>Service Level Agreement</u> - 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. <u>Software</u> - Computer programs, procedures, rules and associated documentation pertaining to the operation of a computer system.

85. <u>Software Engineering</u> - This term refers to the discipline of applying software tools, techniques and methodologies to promote software quality and productivity.

86. <u>Software Life Cycle</u> - 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. <u>Software Maintenance</u> - 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. Telecommuncations 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. <u>Threshold</u> - 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 <u>Timeshare</u> - 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. <u>Triennial Review</u> - 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. <u>Vital Records</u> - 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. <u>Voice Communications</u> - 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. <u>Word Processing</u> - Computer-based system for inputting, editing, storing and printing of documents.

APPENDIX B - PRIMARY FEDERAL IRM STATUTES AND REGULATIONS

1. **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 develop-
   ment 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. <u>Competition in Contracting Act of 1984, Public Law 98-369</u>

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
    reponsible 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 neces-
sary, and to issue a decision on the protest within 45 working
days after the protest is filed.

7. <u>OMB Circular A-130, Management of Federal Information Resources</u>

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 informa-
    tion 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 informa-
    tion 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. <u>OMB Circular A-127, Financial Management Systems</u>

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, compara-
bility, 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 trans-
ferred 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. <u>Federal Information Processing Standards (FIPS) (Dept. of
Commerce</u>

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. <u>Federal Information Resource Management Regulations (FIRMR)</u>
<u>(GSA), 41 CFR Chapter 201</u>

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. <u>National Archives and Records Administration Regulation</u>
<u>36 CFR 1220 and 41 CFR 201-22</u>

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