

U.S. Department of Energy

Washington, D.C.



009115 ORDER

DOE 1360.3A

7-11-83

SUBJECT: AUTOMATIC DATA PROCESSING STANDARDS

1. PURPOSE. To establish responsibilities and policies for the implementation of Government-wide automatic data processing (ADP) standards and for the development and implementation of Departmentwide ADP standards.
2. CANCELLATION. DOE 1360.3, AUTOMATIC DATA PROCESSING AND DATA COMMUNICATIONS STANDARDS, of 3-27-79.
3. SCOPE. The provisions of this Order apply to all Departmental Elements, its operating contractors, and to other cost-reimbursement contractors providing ADP services to the Department of Energy (DOE) as provided by law and/or contract and as implemented by the appropriate contracting officer.
4. EXCLUSION. Government-wide ADP standards in Federal Information Processing Standards Publications are not mandatory for DOE operating contractors, as outlined on page 2, paragraph 8F.
5. BACKGROUND. DOE 5300.1A, TELECOMMUNICATIONS, of 11-16-81, is being revised to establish responsibilities and policies for the implementation of data communications standards.
6. REFERENCES.
 - a. Code of Federal Regulation (CFR), title 15, subtitle A, part 6, "Standardization of Data Elements and Representations," of 11-5-73, which identifies responsibilities and provides policies and guidelines for the management of activities in the executive branch relating to the development, implementation, and maintenance of standards for data elements and representations used in automated Federal data systems.
 - b. Federal Property Management Regulation (FPMR) 101-36.13, "Implementation of Federal Information Processing Standards Publications and Federal Telecommunications Standards into Solicitation Documents," which implements Federal Information Processing Standards Publications into solicitation documents of Federal agencies.
 - c. DOE 1300.2, DEPARTMENT OF ENERGY STANDARDS PROGRAM, of 12-18-80, which establishes general policy guidelines, authorities, and responsibilities for DOE standards programs and guidelines for participation in private sector standards organizations.
 - d. DOE 1360.1, ACQUISITION AND MANAGEMENT OF AUTOMATIC DATA PROCESSING EQUIPMENT AND RESOURCES, of 8-9-78, which establishes Departmental policies and procedures for the acquisition and management of ADP equipment and resources.

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All Departmental Elements
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- e. DOE 5300.1A, TELECOMMUNICATIONS, of 11-16-81, which establishes policy and general guidance for the use, review, coordination, and provision of telecommunications services.

7. DEFINITIONS.

- a. Federal Information Processing Standards Publications are Government-wide ADP and data communications standards or guidelines issued by the National Bureau of Standards. The objectives of the Federal Information Processing Standards Publications program are to: (1) facilitate the interchange and sharing of data, programs, and equipment by Federal agencies and the public; (2) improve the performance and quality of ADP products developed or acquired by Federal agencies; and (3) enhance the effective utilization of ADP products and services by Federal agencies. A listing of current Federal Information Processing Standards Publications is provided as Attachment 1.
- b. ADP SERVICES include systems analysis and design, programming, software conversion, ADP facilities management, and ADP equipment operation.

8. POLICY. In order to promote efficiency and economy in the acquisition and use of ADP systems, it is Departmental policy to:

- a. Facilitate the interchange of machine sensible data, computer programs, and computer components and devices within DOE and between DOE and other agencies.
- b. Establish, where applicable, common and uniform DOE-wide standards for ADP systems.
- c. Maximize the productivity of technical personnel.
- d. Maximize current investments in computer programs, data files, and personnel when acquiring new ADP equipment.
- e. Stimulate competition and facilitate the procurement of portions of computer systems from different suppliers.
- f. Encourage DOE operating contractors to comply with the intent of ADP standards in Federal Information Processing Standards Publications when it is in the best interests of the Government to do so. ADP standards in Federal Information Processing Standards Publications are not mandatory for Departmental contractors, unless the very subject matter of the contract (or a severable portion of the contract) is the supplying of ADP services to the Department.

9. RESPONSIBILITIES AND AUTHORITIES.

a. Director of Administration.

- (1) Approves or disapproves requests for waivers from the use of mandatory standards included in Federal Information Processing Standards Publications, and, when required, requests approval from the Secretary of Commerce or the Administrator of the General Services Administration.
- (2) Acts as the DOE official point of contact on all ADP standards.
- (3) Approves and issues DOE-wide ADP standards, in coordination with other appropriate DOE organizations.
- (4) Approves or disapproves requests for waivers from the use of mandatory DOE-wide ADP standards.
- (5) Maintains official Departmental liaison with the International Standards Organization, the American National Standards Institute, the National Bureau of Standards, and with other Federal agencies and non-Federal organizations concerned with ADP standards. Assigns specific standards efforts to the appropriate Heads of Departmental Elements.
- (6) Designates representatives from the Office of Administration or other DOE organizations, as appropriate to their area of responsibility, to serve on task forces and committees pertaining to ADP standards.
- (7) Distributes or arranges for the distribution of Federal Information Processing Standards Publications and other documentation concerning ADP standards to Departmental Elements and to contractors.
- (8) Provides overall guidance to DOE and contractor organizations in the application and use of ADP standards and related information included in Federal Information Processing Standards Publications and FPMRs.

b. Director of Procurement and Assistance Management assures that acquisitions of ADP hardware and software conform with the procedures and standards contained in Federal Information Processing Standards Publications, FPMR 101-36.13, or DOE-wide ADP standards, when appropriate.

c. Heads of Departmental Elements.

- (1) Participate in the development and/or review of ADP standards which apply to their area of responsibility.

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- (2) Ensure that DOE personnel are informed of existing standards and that they are implemented and enforced when applicable.
 - (3) Advise the contracting officer which contracts must implement this Order and which specific parts of the Order must be implemented.
 - (4) Submit requests for waivers to the Director of Administration.
 - (5) As appropriate for their areas of responsibility, and in coordination with the Director of Administration, maintain liaison with the International Standards Organization, the American National Standards Institute, the National Bureau of Standards, and with other Federal agencies and non-Federal organizations.
- d. Administrator, Energy Information Administration, in addition to responsibilities on page 3, paragraph 9c:
- (1) Formulates, approves, and issues DOE-wide standards for energy information, in coordination with other appropriate DOE organizations.
 - (2) Approves or disapproves requests for waivers from the use of mandatory DOE-wide standards for energy information.
 - (3) Advises and assists DOE and contractor offices in standardization efforts relating to energy information.
- e. Assistant Secretary for Defense Programs, in addition to responsibilities on page 3, paragraph 9c, establishes personnel security, physical security, and ADP systems security standards for classified information.



WILLIAM S. HEFFELFINGER
Director of Administration

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FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATIONS (FIPS PUBS)

<u>FIPS No.</u>	<u>Title</u>	<u>Date</u>
0	General Description of FIPS Register	11-1-68
1-1 ^{1/}	Code for Information Interchange (ASCII)	12-24-80
2 ^{1/}	Perforated Tape Code for Information Interchange	11-1-68
3-1	Recorded Magnetic Tape for Information Interchange (800 CPI, NRZI)	6-30-73
4	Calendar Date	11-1-68
5-1	States and Outlying Areas of the U.S.	6-15-70
6-3	Counties and County Equivalents of the States of the U.S. and District of Columbia	12-15-79
7 ^{1/}	Implementation of Code for Information Interchange and Related Media Standards	3-7-69
8-4	Standard Metropolitan Statistical Areas (SMSAs)	6-30-74
9	Congressional Districts of the U.S.	11-14-69
10-2	Countries, Dependencies and Areas of Special Sovereignty	3-1-77
11-1	Dictionary for Information Processing	9-30-77
12-2	Federal Information Processing Standards Index	12-1-74
13	Rectangular Holes in 12-Row Punched Cards	10-1-71
14-1	Hollerith Punched Card Code	12-24-80
15 ^{1/}	Subsets of Standard Code for Information Interchange	10-1-71
16-1 ^{1/}	Bit Sequencing of Code for Information Interchange in Serial-By-Bit Data Transmission	9-1-77
17-1 ^{1/}	Character Structure and Character Parity Sense for Serial-By-Bit Data Communication in Code for Information Interchange	9-1-77
18-1 ^{1/}	Character Structure and Character Parity Sense for Parallel-By-Bit Data Communication in Code for Information Interchange	9-1-77
19	Guidelines for Registering Data Codes	2-1-72
20	Guidelines for Describing Information Interchange Formats	3-1-72
21-1	COBOL	12-1-75
22-1 ^{1/}	Synchronous Signaling Rates Between Data Terminal and Data Communication Equipment	9-1-77
23	Objectives and Requirements of the FIPS Program	2-15-73
24	Flowchart Symbols and Their Usage in Information Processing	6-30-73
25	Recorded Magnetic Tape for Information Interchange (1600 CPI, Phase Encoded)	6-30-73

^{1/}FIPS PUBS that either are or include data communication standards.

<u>FIPS No.</u>	<u>Title</u>	<u>Date</u>
26 ^{1/}	One-Inch Perforated Paper Tape for Information Interchange	6-30-73
27 ^{1/}	Take-Up Reels for One-Inch Perforated Tape for Information Interchange	6-30-73
28	Standardization of Data Elements and Representations	12-5-73
29-1	Interpretation Procedures for Federal Information Processing Standard Programming Languages	12-31-81
30	Software Summary for Describing Computer Programs and Automated Data Systems	6-30-74
31	Guidelines for ADP Physical Security and Risk Management	6-74
32-1	Optical Character Recognition Character Sets	6-25-82
33	Character Set for Handprinting	10-1-74
34	Guide for Use of International System of Units (SI) in Federal Information Processing Standards Publications	1-1-75
35	Code Extension Techniques in 7 or 8 Bits	6-1-75
36 ^{1/}	Graphic Representation of Control Characters of ASCII (FIPS 1)	6-1-75
37 ^{1/}	Synchronous High Speed Data Signaling Rates Between Data Terminal Equipment and Data Communications Equipment	6-15-75
38	Guidelines for Documentation of Computer Programs and Automated Data Systems	2-15-76
39	Glossary for Computer Systems Security	2-15-76
40	Guideline for Optical Character Recognition Forms	5-1-76
41	Computer Security Guidelines for Implementing the Privacy Act of 1974	5-30-75
42-1	Guidelines for Benchmarking ADP Systems in the Competitive Procurement Environment	5-15-77
43	Aids for Program COBOL Conversion (FIPS 21 to FIPS 21-1)	12-1-75
44	COBOL Coding Form	9-1-76
45	Guide of the Development, Implementation, and Maintenance of Standards for the Representation of Computer Processed Data Elements	9-30-76
46 ^{1/}	Data Encryption Standard	1-15-77
47	Federal Standard COBOL Pocket Guide	2-1-77
48	Guidelines on Evaluation of Techniques for Automated Personal Identification	4-1-77
49	Guideline on Computer Performance Management: An Introduction	5-1-77
50	Recorded Magnetic Tape for Information Interchange, 6250 cpi (246 cpmm), Group Coded Recording	2-1-78

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<u>FIPS No.</u>	<u>Title</u>	<u>Date</u>
51	Magnetic Tape Cassettes for Information Interchange (3.810 mm [0.150 in] Tape at 32 bps [800 bpi], PE)	2-1-78
52	Recorded Magnetic Tape Cartridge for Information Interchange, 4-Track, 6.30 mm (1/4 in), 63 bps (1600 bpi), Phase Encoded	7-15-78
53	Transmittal Form for Describing Computer Magnetic Tape File Properties	4-1-78
54	Computer Output Microform (COM) Formats and Reduction Ratios, 16 mm and 105 mm	7-15-78
55	Codes for Named Populated Places, Primary County Divisions and Other Locational Entities of the United States	1-4-82
56	Guideline for Managing Multivendor Plug-Compatible ADP Systems	9-15-78
57	Guidelines for the Measurement of Interactive Computer Service Response Time and Turnaround Time	3-1-78
58	Representations of Local Time of the Day for Information Interchange	2-1-79
59	Representation of Universal Time, Local Time Differentials, and United States Time Zone for Information Interchange	2-1-79
60-1	I/O Channel Interface	3-27-79
61-1	Channel Level Power Control Interface	7-13-82
62	Operational Specifications for Magnetic Tape Subsystems	2-16-79
63	Operational Specifications for Rotating Mass Storage Subsystems	8-27-79
64	Guidelines for Documentation of Computer Programs and Automated Data Systems for the Initiation Phase	8-1-79
65	Guideline for Automated Data Processing Risk Analysis	3-1-79
66	Standard Industrial Classification (SIC) Codes	3-15-79
67	Guideline for Selection of Data Entry Equipment	9-30-79
68	Minimal BASIC	9-4-80
69	FORTRAN	9-4-80
70	Representation of Geographic Point Locations for Information Interchange	10-24-80
71 <u>1</u> /	Advanced Data Communication Control Procedures (ADCCP)	5-14-80
72	Guidelines for Measurement of Remote Batch Computer Service	5-1-80

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<u>FIPS No.</u>	<u>Title</u>	<u>Date</u>
73	Guidelines for Security of Computer Applications	6-30-80
74 ^{1/}	Guidelines for Implementing and Using the NBS Data Encryption Standard	4-1-81
75	Guideline on Constructing Benchmarks for ADP System Acquisitions	9-18-80
76	Guideline for Planning and Using a Data Dictionary System	8-20-80
77	Guideline for Planning and Management of Database Applications	9-1-80
78 ^{1/}	Guideline for Implementing Advanced Data Communication Control Procedures (ADCCP)	9-26-80
79	Magnetic Tape Labels and File Structure for Information Interchange	10-17-80
80	Guide for the Implementation of FIPS in Acquisitions and Design of Computer Products and Services	12-19-80
81 ^{1/}	DES Modes of Operation	12-2-80
82	Guideline for Inspection and Quality Control for Alphanumeric Computer-Output Microforms	9-26-80
83	Guideline on User Authentication Techniques for Computer Network Access Control	9-29-80
84	Microfilm Readers	10-31-80
85	Optical Character Recognition (OCR) Inks	11-7-80
86 ^{1/}	Additional Controls for Use with American National Standard Code for Information Interchange (ASCII)	1-29-81
37	Guidelines for ADP Contingency Planning	3-27-81
38	Guideline on Integrity Assurance and Control in Database Administration	8-14-81
39	Optical Character Recognition (OCR) Character Positioning	9-4-81
90	Guideline for Optical Character Recognition (OCR) Print Quality	9-29-81
91	Magnetic Tape Cassettes for Information Interchange, Dual Track Complementary Return-to-Bias (CRB) Four-States Recording on 3.81 mm (0.150 in.) Tape	3-12-82
92	Standard Occupational Classification (SOC) Codes	2-24-83
93	Parallel Recorded Magnetic Tape Cartridge for Information Interchange, 4-Track, 6.30 mm (1/4 in.), 63 bps (1600 bpi), Phase Encoded	6-29-82

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<u>FIPS No.</u>	<u>Title</u>	<u>Date</u>
94	Guideline on Electrical Power for ADP Installations	9-21-82
95	Codes for the Identification of Federal and Federally-Assisted Organizations	12-23-82
96	Guideline for Developing and Implementing a Charging System for Data Processing Services	12-6-82
97	Operational Specifications for Fixed Block Rotating Mass Storage Subsystems	2-4-83
98	Message Format for Computer Based Message Systems	3-1-83