

GENERAL SERVICES ADMINISTRATION
Washington, DC 20405

January 2, 1992

FIRMR BULLETIN C-31

TO: Heads of Federal agencies
SUBJECT: Use of metric measures in FIP acquisitions.

1. Purpose. This bulletin provides guidance regarding the use of the metric system in the acquisition of FIP resources.
2. Expiration Date. This bulletin will remain in effect until canceled.

3. Contents.

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4. Related material.
 - ANMC's "Guidelines for Metric Transition of Software"
 - DOC's "Metric Conversion Policy for Federal Agencies"
 - FAR 10.002 Policy
 - Fed. Std. 376A "Preferred Metric Units For General Use By The Federal Government"
 - NIST Special Publication 811 "Guide for the Use of the International System of Units"
 - NTIS's "Metric Handbook for Federal Officials"

5. Information and assistance.

For general information about the content of this bulletin, contact:

General Services Administration
Information Resources Management Service
Regulations Analysis Division (KMR)
18th and F Streets, NW
Washington DC 20405
Telephone: (202) 501-3194 or FTS 241-3194 (v) or
(202) 501-0657 or FTS 241-0657 (tdd)

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FEDERAL INFORMATION RESOURCES MANAGEMENT REGULATION
APPENDIX B

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For information about GSA metric training courses, contact:
General Services Training Center
P.O. Box 15608
Arlington, VA 22215-0608
Telephone: (703) 557-0986 (v)

For general information about metric conversion, contact:
American National Metric Council
1620 Eye Street, NW
Suite 220
Washington, DC 20006
Telephone: (202) 857-0474 (v)

ANMC's guidelines and NTIS's handbook are available from:
Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone (703) 487-4650 (v)

Fed. Std. 376A is available from:
GSA Specifications Section, Room 6654
7th and D Streets, SW
Washington DC 20407
Telephone (202) 708-7140 (v)

6. Definitions.

"Dual Systems" means the use of both inch-pound and metric systems. For example, an item is designed, produced and described in inch-pound values with soft metric values also shown for information comparison purposes.

"Hard metric" means the use of metric (SI) measurements in specifications, supplies, standards, and services.

"Hybrid Systems" means the use of both inch-pound and hard metric values in specifications, standards, supplies and services.

"Metric System" means the International System of Units (Le Systeme International d'Unites) established by the General Conference of Weights and Measures in 1960. The units are listed in Federal Standard 376A, Preferred Metric Units for General Use by the Federal Government.

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"Soft metric" means the result of mathematical conversion of inch-pound measurements to metric equivalents in specifications, standards, supplies and services. The physical dimensions are not changed.

7. Acronyms.

ANMC	American National Metric Council
DOC	Department of Commerce
FAR	Federal Acquisition Regulation
Fed. Std.	Federal Standard
FIP	Federal information processing
NIST	National Institute of Standards and Technology
NTIS	National Technical Information Service
Pub. L.	Public Law
SI	International System of Units

8. General.

a. Conversion to the metric system of measurement has long been recognized as important to the economic well being of the United States, which is the only industrially developed nation in the world that has not converted to the metric system. World trade is increasingly based on the use of metric measurement. American industry is often at a competitive disadvantage because of its use of nonstandard measurement systems. That disadvantage will grow when the European Community forms a single common market by 1992, using the metric system as its standard unit of measurement.

b. Congress first recognized the importance of using the metric system when it passed the Metric Conversion Act of 1975 (Pub. L. 94-168). This Act made it the policy of the United States to coordinate and plan for the increasing use of the metric system but allowed conversion to the metric system on a voluntary basis.

c. More stringent requirements regarding metric usage are mandated by section 5164 of the Omnibus Trade and Competitiveness Act of 1988 (Pub. L. 100-418), which amended Pub. L. 94-168. This Act designates the metric system of measurement as the preferred system of weights and measures for U.S. trade and commerce. It also requires Federal agencies to use the metric system in procurements, grants, and other business-related activities by a date certain and, to the extent economically feasible, by the end of fiscal year 1992. The statute states

that the metric system should be used unless such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms. The statute also requires Federal agencies to establish guidelines and plans to implement fully the metric system of measurement.

d. Additional evidence of the Federal Government's commitment to the use of the metric system is found in Executive Order 12770 on Metric Usage in Federal Government Programs, dated July 25, 1991. This Order requires executive agencies to use the metric system of measurement in procurements, grants, and other business-related activities by September 30, 1992, or by such other date or dates established by the agency in consultation with the Secretary of Commerce. This Order also establishes specific steps executive agencies must follow in converting to metric, providing training on understanding metric measurement, and requiring policy level review of proposed exceptions to metric usage.

9. Guidelines for the use of metric measures.

a. The designated senior official should ensure that all documents related to the acquisition of FIP resources (e.g., requirements analyses, solicitations, purchase descriptions, Commerce Business Daily synopses) express requirements and specifications solely in metric units of measurement whenever feasible. This may be done by using either hard metrics, if an item is designed using SI, or soft metrics, if an item is designed or normally described in inch-pound values. Documents already in existence need not be converted. Any exceptions to this procedure should be made in accordance with established agency procedures.

b. When use of metric units of measurement is not feasible, agencies may use soft metric, dual or hybrid systems in acquisition-related documents. Dual systems are used when an item is designed, produced, and described in inch-pound values. Both the inch-pound and soft metric values are shown for informational purposes. Hybrid systems are those with some elements of a component expressed in inch-pound values and other elements expressed in metric values. Hybrid systems are used when the agency determines it is not feasible to convert all elements to metric values.

c. Agencies should follow the "Guidelines for Metric Transition of Software" issued by the American National Metric Council. ANMC is a private, non-profit organization dedicated to

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assisting industry to convert to the metric system. Its software guide helps project managers understand the effect of metric usage in software programs containing measurement-sensitive data fields and provides guidance on how to effect the change to metrics. The guidelines are available either in paper or microfiche form from NTIS.

d. Agencies should follow Fed. Std. 376A in preparing specifications for engineered products developed for use by the Federal Government. This standard lists preferred metric units (SI units and units accepted for use with SI) recommended for use by Federal agencies. Agencies should use all available means to encourage industry to design products in SI.

e. Agencies should ensure that all personnel involved with the acquisition of FIP resources are adequately trained in the use of metric measurements. GSA offers a correspondence class in metric conversion and a four hour orientation classroom instruction course on metrics that may be of value to agencies in this regard. See paragraph 5 for a point of contact.

Thomas J. Buckholtz
Commissioner
Information Resources
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