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Policies and Procedures

Title: ARS Metric Conversion

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This P&P establishes policies and assigns responsibilities for implementing the metric system of measurements within ARS as required by the Metric Conversion Act, as amended by section 5164 of the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100-418) and the Savings in Construction Act of 1996 (Public Law 104-289).

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1. Background

Section 5164 of the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100-418) directed Federal procurement, grant, and other business-related activities to be metric by September 1992, to the extent economically feasible. This mandate was reinforced by Executive Order 12770, Metric Usage in Federal Government Programs, signed on July 25, 1991.

The Savings in Construction Act of 1996 (Public Law 104-289) specifically prohibits Federal construction contract documents issued after January 10, 1997, from solely specifying hard metric concrete masonry and recessed lighting fixtures unless analyses show that the total installed costs of these products are no higher than the installed costs of similar inch-pound products. This Act also required each agency that awards construction contracts to designate a senior agency official to serve as a construction metrication ombudsman.

2. Metric Policy

It is ARS policy to implement, to the extent economically feasible, the metric system in ARS procurement, research grants, and construction, in a manner and on schedule consistent with Section 5164 of Public Law 100-418, Public Law 104-289, Executive Order 12770 (July 1991), and the U.S. Department of Agriculture Regulation 1020-38 (May 1992).

- The metric system shall be used when developing solicitations and contracts for the procurement of equipment, supplies, and services.
- The metric system shall be used when preparing research grants and agreement proposals.
- The metric system shall be used in ARS construction:
 - All new construction projects shall be designed and built in metric. Measurements in drawings, plans, specifications, and cost estimates shall be stated exclusively in metric. Building construction products made to hard metric sizes, dimensions, or characteristics shall be specified, purchased, and used to the maximum extent practicable. Refer to the GSA Metric Design Guide for general listing and information on hard metric product availability.
 - All designs for repair and maintenance, renovation, and alteration work, including any addition/extension to an existing building, shall be done with the measurement system in which the existing facility, system, or equipment is originally designed.

- All specifications for the acquisition of structures or systems of “concrete masonry” or “recessed lighting fixtures” shall be expressed in a manner that allows contractors the option of selecting either version of the product (inch-pound or metric) on the basis of lowest total installed cost.

3. Metric Guide

The current edition of the “Metric Guide for Federal Construction” (published by the National Institute of Building Sciences) and the “GSA Metric Design Guide” (published by the Public Building Services of the General Services Administration) shall be used as guidance in the design of metric construction projects for ARS. Copies of these guides may be obtained from the National Institute of Building Sciences, Publications Department, 1090 Vermont Avenue N.W., Suite 700, Washington, D.C. 20005 (Phone: 202-289-7800).

4. Exception/Waivers

The metric system shall be used in all new construction projects. Waivers or partial waivers to this requirement shall be submitted and approved by the Chief of the Facilities Engineering Branch (FEB), Facilities Division (FD), Administrative and Financial Management (AFM). Waiver requests will not be considered without the submission of documentation demonstrating the economic or technical infeasibility of metrication for a specific project. The evaluation criteria shall include such issues as initial life-cycle costs, availability and minimum order quantity requirement for hard metric products, loss of markets to U.S. firms, and significant effect on time and budget for completing the project.

5. Agency Ombudsman

ARS has designated the Chief of FEB, FD, AFM, as the ARS Construction Metrication Ombudsman who shall be responsible for resolving metric-related problems associated with Agency actions, activities or programs undertaken to comply with Section 5164 of the Public Law 100-418, Public Law 104-289, and Executive Order 12770.

6. Reporting

Public Law 100-418 requires progress reports on metric implementation to be submitted to Congress by Federal agencies. ARS Headquarters and Area offices, through FD, are expected to submit their reports in a format and on a schedule requested by the Department to meet its reporting obligations.

7. Summary of Responsibilities

Agency Ombudsman

- Ensure that ARS is not implementing metric system of measurement in a manner that is either impractical or likely to cause significant inefficiencies or loss of markets to U.S. firms.
- Review and respond to complaints from prospective bidders, subcontractors, or suppliers related to ARS metric construction implementation.
- Approve or disapprove requests for waivers or exemptions on the use of metric system of measurement in ARS construction projects.

FD, AFM

- Implement the metric system of measurement in ARS construction program activity. Ensure all new building construction design contracts awarded after October 1, 2001, are developed exclusively in metric.
- Coordinate preparation of Agency's metric report.
- Assure training in metric practices and usage for appropriate personnel whose duties require such knowledge or where training will facilitate productivity.

Procurement and Property Division (PPD), AFM

- Incorporate the metric system when developing solicitations and contracts for equipment, supplies, and services, as appropriate.
- Assure training in metric practices and usage for appropriate personnel whose duties require such knowledge or where training will facilitate productivity.

Extramural Agreements Division (EAD), AFM

- Incorporate the metric system in developing research grants and agreement proposals, as appropriate.
- Assure training in metric practices and usage for appropriate personnel whose duties require such knowledge or where training will facilitate productivity.

Area Administrative Offices (AAO)

- Incorporate the metric system in developing Area solicitations and contracts for equipment, supplies, services, and construction, as appropriate.
- Ensure all new building construction design contracts awarded after October 1, 2001, are developed exclusively in metric.
- Assure training in metric practices and usage for appropriate personnel whose duties require such knowledge or where training will facilitate productivity.

8. Glossary

English (Inch-Pound). A system of measurement based upon the yard and pound, commonly used in the United States, and defined by the National Institute of Standards and Technology. The term "inch-pound" (I-P) includes other customary English units, such as degree Fahrenheit, used extensively in the United States at present.

Hard Metric. Means a measurement, design, and manufacture using the metric system of measurement.

Hard Metric Products. Building products manufactured to metric dimensions (i.e., the physical dimensions of the product are "hard-converted" to fit into the internationally recognized building module of 100 millimeters) or have an industry recognized metric designation.

Metric Construction Project. The use of metric measurements only in drawings, plans, specifications, and cost estimates. Project uses hard metric products when commercially available. When there are no metric standards for a particular product, the physical dimensions of the product need only be "soft converted" for use in a metric construction project.

Metric (SI) System. The International System of Units (Le Systeme International d'Unites [SI]) of the International Bureau of Weights and Measures. The SI units are listed in Federal Standard 376B, Preferred Metric Units for General Use by the Federal Government.

Soft Metric. The process of changing measurement language from inch-pound measurement units to equivalent metric units without changing the actual physical size or configuration of the item.

Soft-Converted Metric Products. The physical dimensions of an inch-pound product are unchanged while the measurement units used to describe and specify the product are changed to metric units.

Total Installed Price. The price of purchasing a product or material, trimming or otherwise altering some or all of the product or material, if necessary, to fit with other building components, and then installing that product or material into a Federal facility.

/s/

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