Appendix D

Metric Conversion Factors

Data in the Energy Information Administration publications are expressed in units, such as Britishthermal units, barrels, cubic feet, and short tons, that historically have been used in the United States. However, because U.S. activities involve foreign nations, most of which use metric units of measure, the United States is committed to making the transition to the metric system. The metric conversion factors presented in Table D1 can be used to calculate the metric-unit equivalents of values expressed in U.S. units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short tons=453.6 metric tons).

Table D1. Metric Conversion Factors

Type of Unit	U.S. Unit		Conversion Factor	Metric Unit
Mass	Short Tons	X	0.907 1847	= Metric Tons (t)
	Short Tons Uranium Oxide (U_3O_8)	X	0.769	= Metric Tons Uranium (U)
	Short Tons Uranium Fluoride (UF_6)	X	0.613	= Metric Tons Uranium (U)
	Long Tons	X	1.016	= Metric Tons(t)
	Pounds(lb)	X	0.453 592 37[a]	= Kilograms(kg)
	Pounds Uranium Oxide(lb U_3O_8)	X	0.384 645[b]	= Kilograms (Kg)
	Ounces, Avoirdupois(oz)	X	28. 349 52	= Grams(g)
	Barrels of Oil(bbl)	X	0.158 987 3	= Cubic Meters (m^3)
Volume	Cubic Yards(yd^3)	X	0.765 555	= Cubic Meters (m^3)
	Cubic Feet(ft^3)	X	0.028 316 85	= Cubic Meters (m^3)
	U.S. Gallons(gal)	X	3.785 412	= Liter (L)
	Ounces, Fluid(fl oz)	X	29.573 53	= Milliliters (ml)
	Cubic Inches(in^3)	X	16.387 06	= Milliliters (ml)
Length	Miles (mi)	X	1,609 344[a]	= Kilometers (km)
	Yards (yd)	X	0.914 4[a]	= Meters (m)
	Feet (ft)	X	0.304 8[a]	= Meters (m)
	Inches (in)	X	2.54[a]	= Centimeters (cm)
Area	Acres	X	0.404 69	= Hectares (ha)
	Square Miles (mi^2)	X	2,589 988	= Square Kilometers (km^2)
	Square Yards (yd^2)	X	0.836 127 4	= Square Meters (m^2)
	Square Feet (ft^2)	X	0.092 903 04[a]	= Square Meters (m^2)
	Square Inches (in^2)	X	6.4561 6[a]	= Square Centimeters (cm^2)
Temperature	Degrees Fahrenheit[c] (^oF)	X	5/9 (after subtracting 32)[a]	= Degrees Celsius (^oc)
Energy	British thermal units (Btu)	X	1,055.056	= Joules (J)
	Calories (cal)	X	4.186 8	= Joules (J)
	Kilowatthours (kWh)	X	3.6	= Megajoules (MJ)

[a]Exact Conversion.

[b]Calculated by the Energy Information Administration.

[c]To convert degrees Celsius (^oC) to degrees Fahrenheit (^oF) multiply by 9/5, then add 32.

Sources: ●General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9-11, 13, and 16. ●National Institute of Standards and Technology, *Special Publications* 330, 811, and 814. ●American National Standards Institute/Institute of Electrical and Electronic Engineers, ANS/EEE Std.268-1982, pp 28 and 29. ●Energy Information Administration, *Monthly Energy Review August 1993*, Appendix B, p 161.