Note: When any ambiguity of interpretation is found in this provisional translation, the Japanese text shall prevail.

<Appendix>

Measurement Act (extract)

Regulations under the Patent Act Article 3

Where any quantity of the state of physical phenomena prescribed in Act 2 Paragraph 1 of the Measurements Standards Law (Law No. 51, 1992) is to be stated in a document submitted, it shall be stated in accordance with the provisions of Article 8 of the Act as well as Act 3, 4, 5, 6 and 8 (1) and (3) of the Supplementary Provisions of the Law.

Extract from the Measurement Act (Act No. 51 of 1992)

Article 2

The term "measurement" as used in this Act shall mean to measure the following items hereinafter referred to as the "quantity of the state of physical (phenomena" and the term "measurement units" shall mean the standards for) measurement: (i) Length, mass, time, electric current, temperature, amount of substance, luminous intensity, angle, solid angle, area, volume, angular velocity, angular acceleration, velocity, acceleration, frequency, rotational frequency, wave number, density, force, moment of force, pressure, stress, viscosity, kinematic viscosity, work, power, mass flow rate, flow rate, quantity of heat, thermal conductivity, specific heat capacity, entropy, quantity of electricity, electric field strength, voltage, electromotive force, capacitance, magnetic field strength, magnetomotive force, magnetic flux density, magnetic flux, inductance, electric resistance, electric conductance, impedance, active power, reactive power, apparent power, active energy, reactive energy, apparent energy, attenuation of electromagnetic wave, electric power density of electromagnetic wave, radiant intensity, luminous flux, luminance, illuminance, sound power, sound pressure level, oscillating acceleration level, concentration, neutron emission rate, radioactivity, absorbed dose, absorbed dose rate, kerma, kerma rate, exposure, exposure rate, dose equivalent or dose equivalent rate. (ii) Fineness, specific gravity and others prescribed by Cabinet Order.

Article 3

The measurement units of the quantities of the state of physical phenomena listed in the left column of appended table 1 among the quantities of the state of the physical phenomena listed in paragraph 1, item 1 of the preceding Article shall be those listed in the right column of the same table and the definition of each of those units shall be prescribed by Cabinet Order in accordance with resolutions of the General Conference on Weights and Measures and other international decisions and practices with regard to measurement units.

Article 4

(1) In addition to the measurement units prescribed in the preceding Article, the measurement units of the quantities of the state of the physical phenomena listed in the left column of appended table 2 shall be those listed in the right column of

the same table and the definition of each of those measurement units shall be prescribed by Cabinet Order.

(2) In addition to the measurement units prescribed in the preceding Article, the measurement units of the quantities of the state of the physical phenomena listed in the left column of appended table 3 shall be those listed in the right column of the same table and the definition of each of those measurement units shall be prescribed by Cabinet Order.

Article 5

(1) In addition to the measurement units prescribed in Article 3 and Article 4, measurement units of their decimal-multiples and sub-multiples and their definitions shall be prescribed by Cabinet Order.

(2) In addition to the measurement units prescribed in Article 3, Article 4 and the preceding paragraph, the measurement units for length measurements at the sea level as well as the measurement units of length, mass, angle, area, volume, velocity, acceleration, pressure, and quantity of heat used for special measurements specified by Cabinet Order shall be prescribed by Cabinet Order.

Article 8

Measurement units other than the measurement units prescribed in Article 3 through Article 5 the measurement units prescribed in Article 3 through Article 5 (shall be hereinafter referred to as "statutory measurement units" and all other measurement units shall be hereinafter referred to as "non-statutory measurement units" shall not be used for transactions or certifications pertaining to quantities) of the state of the physical phenomena listed in Article 2, paragraph 1, item 1.

Quantity of State of	Measuring Unit
length	meter
mass	kilogram gram ton
time	second minute bour
	ampere
tomporaturo	Kolvin, Colsius dogroo or dogroo
amount of substance	
	calluela
	radian, degree, second, minute
solid angle	steradian
area	square meter
volume	cubic meter, liter
angular velocity	radian per second
angular acceleration	radian per second squared
velocity	meter per second, meter per hour
acceleration	meter per second squared
frequency	hertz
speed of revolution	per second, per minute, per hour
wave number	per meter
density	kilogram per cubic meter, gram per cubic meter,
-	gram per liter

Annexed Table I (Article 3 Related)

moment of forcenewton meterpressurepascal or newton per square, barstresspascal or newton per square meterviscositypascal second or newton second per square meterkinematic viscositysquare meter per secondworkjoule or watt second, watt hourpowerwattmass flow ratekilogram per second, kilogram per minute, kilogramflow ratecubic meter per second, ton per minute, ton perflow ratecubic meter per second, cubic meter per minute,amount of heatjoule or watt second, watt hourthermal conductivitywatt per meter Kelvin or watt per meter degreespecific heat capacityjoule per kilogram Kelvin or joule per kilogramentropyamount of electricityelectric field strengthvoltvolt gevoltvoltvolt	force	newton
pressurepascal or newton per square, barstresspascal or newton per square meterviscositypascal second or newton second per square meterkinematic viscositysquare meter per secondworkjoule or watt second, watt hourpowerwattmass flow ratekilogram per second, kilogram per minute, kilogramper hour, gram per second, gram per minute, gramper hour, ton per second, ton per minute, ton perflow ratecubic meter per second, cubic meter per minute,amount of heatjoule or watt second, watt hourthermal conductivitywatt per meter Kelvin or watt per meter degreespecific heat capacityjoule per kilogram Kelvin or joule per kilogramentropyjoule per Kelvinamount of electricitycoulombelectric field strengthvoltvoltagevoltvoltagevolt	moment of force	newton meter
stresspascal or newton per square meterviscositypascal second or newton second per square meterkinematic viscositysquare meter per secondworkjoule or watt second, watt hourpowerwattmass flow ratekilogram per second, kilogram per minute, kilogramper hour, gram per second, gram per minute, gramper hour, ton per second, ton per minute, ton perflow ratecubic meter per second, cubic meter per minute, liter per hour,amount of heatjoule or watt second, watt hourthermal conductivitywatt per meter Kelvin or watt per meter degreespecific heat capacityjoule per kilogram Kelvin or joule per kilogramentropyamount of electricityelectric field strengthvoltvoltagevolt	pressure	pascal or newton per square, bar
viscosity kinematic viscosity work power mass flow rate flow rate amount of heat thermal conductivity specific heat capacity entropy amount of electricity electric field strength voltage entropy amount of heat total cubic meter per kilogram (cubic meter per minute, cubic meter per second, cubic meter per minute, cubic meter per minute, liter per second, liter per minute, liter per hour, liter per second, liter per minute, liter per hour, liter per meter degree joule per kilogram Kelvin or joule per kilogram degree volt volt per meter volt	stress	pascal or newton per square meter
kinematic viscositysquare meter per secondworkjoule or watt second, watt hourpowerwattmass flow ratekilogram per second, kilogram per minute, kilogramper hour, gram per second, gram per minute, gramper hour, ton per second, ton per minute, gramper hour, ton per second, ton per minute, ton perflow ratecubic meter per second, cubic meter per minute,amount of heatjoule or watt second, watt hourthermal conductivitywatt per meter Kelvin or watt per meter degreespecific heat capacityjoule per kilogram Kelvin or joule per kilogramdegreeioule per Kelvinentropyjoule per Kelvinamount of electricityvolt per metervoltagevolt	viscosity	pascal second or newton second per square meter
work powerjoule or watt second, watt hour wattmass flow ratekilogram per second, kilogram per minute, kilogram per hour, gram per second, gram per minute, gram per hour, ton per second, ton per minute, gram per hour, ton per second, ton per minute, ton per hourflow ratecubic meter per second, cubic meter per minute, cubic meter per hour, liter per hour joule or watt second, watt houramount of heat thermal conductivity specific heat capacityjoule or watt second, watt hour watt per meter Kelvin or watt per meter degree joule per kilogram Kelvin or joule per kilogram degreeentropy amount of electricity electric field strength voltagejoule per meter voltvolt electromotive forcevolt	kinematic viscosity	square meter per second
powerwattmass flow ratekilogram per second, kilogram per minute, kilogramper hour, gram per second, gram per minute, gramper hour, ton per second, ton per minute, ton perflow ratecubic meter per second, cubic meter per minute,amount of heatjoule or watt second, watt hourthermal conductivitywatt per meter Kelvin or watt per meter degreespecific heat capacityjoule per kilogram Kelvin or joule per kilogramentropygoule per Kelvinamount of electricitycoulombvoltagevoltvoltagevolt	work	joule or watt second, watt hour
mass flow ratekilogram per second, kilogram per minute, kilogram per hour, gram per second, gram per minute, gram per hour, ton per second, ton per minute, ton per hourflow ratecubic meter per second, cubic meter per minute, cubic meter per hour, liter per second, liter per minute, liter per hour joule or watt second, watt hour watt per meter Kelvin or watt per meter degree joule per kilogram Kelvin or joule per kilogram degreeentropy amount of electricity electric field strength voltagejoule per Kelvin 	power	watt
flow rate flow rate cubic meter per second, cubic meter per minute, cubic meter per hour, liter per second, liter per minute, liter per hour joule or watt second, watt hour watt per meter Kelvin or watt per meter degree joule per kilogram Kelvin or joule per kilogram degree entropy amount of electricity electric field strength voltage electromotive force flow rate cubic meter per second, cubic meter per minute, cubic meter per second, liter per minute, liter per hour joule or watt second, watt hour watt per meter Kelvin or watt per meter degree joule per kilogram Kelvin or joule per kilogram degree volt per meter volt	mass flow rate	kilogram per second, kilogram per minute, kilogram per hour, gram per second, gram per minute, gram per hour, ton per second, ton per minute, ton per bour
amount of heatjoule or watt second, watt hourthermal conductivitywatt per meter Kelvin or watt per meter degreespecific heat capacityjoule per kilogram Kelvin or joule per kilogramentropyjoule per Kelvinamount of electricitycoulombelectric field strengthvolt per metervoltagevolt	flow rate	cubic meter per second, cubic meter per minute, cubic meter per hour, liter per second, liter per minute liter per hour
annount of neutjouic of wait second, wait nounthermal conductivitywait per meter Kelvin or wait per meter degreespecific heat capacityjoule per kilogram Kelvin or joule per kilogramentropyjoule per Kelvinamount of electricitycoulombelectric field strengthvolt per metervoltagevoltvoltagevolt	amount of heat	ioule or watt second watt hour
specific heat capacity entropy amount of electricity electric field strength voltage electromotive force wait per incler degree joule per kilogram Kelvin or joule per kilogram degree joule per Kelvin coulomb volt per meter volt	thermal conductivity	watt per meter Kelvin or watt per meter degree
specific heat capacityjour per kilogram retwin or jour per kilogramentropyjoule per Kelvinamount of electricitycoulombelectric field strengthvolt per metervoltagevoltelectromotive forcevolt	specific heat capacity	ioule per kilogram Kelvin or joule per kilogram
entropyjoule per Kelvinamount of electricitycoulombelectric field strengthvolt per metervoltagevoltelectromotive forcevolt	specific fleat capacity	dearee
amount of electricity coulomb electric field strength volt per meter voltage volt electromotive force volt	entropy	ioule per Kelvin
electric field strength volt per meter voltage volt electromotive force volt	amount of electricity	coulomb
voltage volt electromotive force volt	electric field strength	volt per meter
electromotive force volt	voltage	volt
	electromotive force	volt
capacitance farad	capacitance	farad
magnetic field strength ampere per meter	magnetic field strength	ampere per meter
magnetomotive force ampere	magnetomotive force	ampere
magnetic flux density tesla or weber per square meter	magnetic flux density	tesla or weber per square meter
magnetic flux weber	magnetic flux	weber
inductance henry	inductance	henry
electric resistance ohm	electric resistance	ohm
electric conductance siemens	electric conductance	siemens
impedance ohm	impedance	ohm
electric power watt	electric power	watt
amount of electric power joule or watt second, watt hour	amount of electric power	joule or watt second, watt hour
electric power density of watt per square meter	electric power density of	watt per square meter
electromagnetic wave	electromagnetic wave	
radiant intensity watt per steradian	radiant intensity	watt per steradian
luminous flux lumen	luminous flux	lumen
luminance candela per square meter	luminance	candela per square meter
	illuminance	lux
acoustic power watt	acoustic power	watt
concentration mole per cubic meter, mole per liter, kilogram per cubic meter, gram per cubic meter, gram per liter	concentration	cubic meter, gram per cubic meter, gram per liter
neutron emission rate per second, per minute	neutron emission rate	per second, per minute
radioactivity becquerel, curie	radioactivity	becquerel, curie
absorbed dose gray, rad	absorbed dose	gray, rad
absorbed dose rate gray per second, gray per minute, gray per hour, rad per second rad per minute, rad per hour	absorbed dose rate	gray per second, gray per minute, gray per hour, rad per second rad per minute, rad per hour
kerma gray	kerma	gray

kerma rate	gray per second, gray per minute, gray per hour
exposure	coulomb per kilogram, roentgen
exposure rate	coulomb per kilogram second, coulomb per
	kilogram minute, coulomb per kilogram hour,
	roentgen per second, roentgen per minute,
	roentgen per hour
dose equivalent	sievert, rem
dose equivalent rate	sievert per second, sievert per minute, sievert per
	hour, rem per second, rem per minute, rem per
	hour

Annexed Table II (Article 4 Related)

Quantity of State of Physical Phenomena	Measuring Unit
reactive electric power apparent electric power reactive electric energy apparent electric energy attenuation of electromagnetic wave acoustic pressure level oscillating acceleration	var voltampere var second, var hour voltampere second, voltampere hour desibel desibel
level	

Annexed Table III (Article 4 Related)

Quantity of State of	Measuring Unit
Physical Phenomena	
speed of revolution	turn per minute, turn per hour
pressure	atmospheric pressure
viscosity	poise
kinematic viscosity	stokes
concentration	mass per cent, mass per mill, mass part per million,
	mass part per billion, volume per cent, volume per
	mill, volume part per million, volume part per billion,
	рН

Supplementary Provisions Article 3

(1) The measurement units listed in the right column of the appended table 1 of the supplementary provisions and their decimal multiples specified by Cabinet Order shall be deemed the statutory measurement units of the quantity of the state of the physical phenomena listed in the left column of the same table set forth in Article 8, paragraph 1 of the revised Measurement Act until September 30, 1995 (such statutory measurement units shall be hereinafter simply referred to as "measurement units"; such revised Measurement Act shall be hereinafter referred to as the "New Act").

(2) The measurement units listed in the right column of the appended table 2 of the supplementary provisions and their decimal multiples specified by Cabinet Order shall be deemed the statutory measurement units of the quantity of the state of the physical phenomena listed in the left column of the same table until September 30,

1997.

(3) The measurement units listed in the right column of the appended table 3 of the supplementary provisions and their decimal multiples specified by Cabinet Order, shall be deemed to be the statutory measurement units of the quantity of the state of the physical phenomena listed in the left column of the same table until September 30, 1999.

(4) The definitions of the measurement units prescribed in the preceding three paragraphs shall be prescribed by Cabinet Order.

Supplementary Provisions Article 4

(1) The measurement units prescribed in paragraphs 1 through 3 of the preceding Article may be deemed to be the statutory measurement units by Cabinet Order even after the date specified in each of these provisions.

(2) In the case of the preceding paragraph, such Cabinet Order shall specify the effective period during which the measurement units are deemed to be the statutory measurement units, the scope of transactions and certifications in which the measurement units may be used as the statutory measurement units, and how to use the measurement units as the statutory measurement units.

Supplementary Provisions Article 5

The measurement units in the yard-pound system and their definitions shall be prescribed by Cabinet Order.

Supplementary Provisions Article 6

(1) The French horse power shall be deemed for the time being to be a measurement unit of power in the case where it is used for transactions or certifications pertaining to an internal combustion engine or other transactions or certifications specified by Cabinet Order.

(2) The definition of the French horse power shall be prescribed by Cabinet Order.

Supplementary Provisions Article 8

(1) An indication using a measurement unit prescribed in the provisions of Article 3, paragraphs 1 through 3 of the supplementary provisions that has been stated on a document or affixed to a commodity or other objects on or before the effective date of the measurement unit prescribed in these provisions may be used for the purposes of transactions or certifications even after such effective date notwithstanding the provision of Article 8, paragraph 1 of the New Act.

(2) (omitted)

(3) An indication of a measurement unit prescribed in Article 4, Article 5, Article 7, Article 8, Article 9, paragraph 1 or Article 10, paragraph 1 of the Old Act for Enforcement that has been stated on a document or affixed to a commodity or other objects on or before the effective date of the measurement unit prescribed in Article 3, Article 6, paragraph 1, or Article 10, paragraph 1 of the Old Act for Enforcement may be used for the purposes of transactions or certifications even after such effective date notwithstanding the provisions of Article 8, paragraph 1 of the New Act.

[Annexed Table 1]

<u> </u>	
Quantity of State of	Measuring Unit
Physical Phenomena	
force	dyne
work	erg
amount of heat	kilogram-force meter, erg
neutron emission rate	neutron per second, neutron per minute
radioactivity	disintegration per second, disintegration per minute

[Annexed Table 2]

<u> </u>	
Quantity of State of	Measuring Unit
Physical Phenomena	
length	micron
frequency	cycle or cycle per second
magnetic field strength	ampere turn per meter, oersted
magnetomotive force	ampere turn
magnetic flux density	gamma, gauss
magnetic flux	Maxwell
acoustic pressure level	phone
concentration	normal

[Annexed Table 3]

Quantity of State of	Measuring Unit
Dhysical Dhanamana	5
Flysical Flienomena	
force	kilogram-force, gram-force, ton-force
moment of force	kilogram-force meter
pressure	kilogram-force per square meter, gram-force per
	square meter, meter of mercury, meter of water
stress	kilogram-force per square meter, gram-force per
	square meter
work	kilogram-force meter
power	kilogram-force meter per second
amount of heat	calorie
thermal conductivity	calorie per second per meter per degree,
	calorie per hour per meter per degree
specific heat capacity	calorie per kilogram per degree