MGA ALITUNTUNIN KAGAWARAN, KAWANIHAN AT TANGGAPAN AT MGA KAUTUSANG PAMPANGASIWAAN
[DEPARTMENT, BUREAU AND OFFICE ADMINISTRATIVE ORDERS AND REGULATIONS]

Department of Science and Technology

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DOST ADMINISTRATIVE ORDER No. 006
Series of 2018

SUBJECT : PRESCRIBED CALIBRATION FEES FOR ITDI, MIRDC, PAGASA AND THE REGIONAL METROLOGY LABORATORIES (RMLS)

I. Rationale

This Administrative Order is issued to update the existing fees of ITDI-NML, MIRDC, PAGASA and RMLs calibration services in compliance to Malacañan Administrative Order No. 31 s. 2012 which authorizes government agencies to increase their existing fees.

II. Scope

The updating of fees shall cover the calibration services of the ITDI-NML, MIRDC, PAGASA and RMLs.

III. Definition of Terms

- Personal Services (PS) — cost of services rendered by the technical and support staff involved in the delivery of calibration services consisting of salaries, incentives and other monetary benefits.
- Maintenance and Other Operating Expenses (MOOE) — cost of supplies/materials, utilities, calibration, maintenance and depreciation of equipment and facilities used for services.

IV. Bases of Computation

The fee shall be the sum of the following components:

A. Personnel Services (PS)

The rates for Personal Services shall be computed based on the man hours spent for the activity and hourly rates.

Hourly rates are based on 1,980 work hours per year (12 months per year, 22 days per month and 7.5 hours per day).

B. Maintenance and Other Operating Expenses (MOOE)

This component is computed as follows:

MOOE = Supplies and Materials + Utilities + Equipment Maintenance, Calibration and Depreciation

- Supplies and Materials = Cost per unit x Actual Usage
- Utilities = Water + Electricity

  Water = Consumption x 60 Php/cu.m

  Electricity = Wattage of equipment x No. of hours used x 12 Php/ kWH
- Equipment = Maintenance Cost + Depreciation Cost + Calibration Cost

  Maintenance Cost = Acquisition Cost Php x 0.05 x (Hrs of Use/1,980 Hrs)

  Depreciation Cost = (Acquisition Cost Php/ Useful Life in Years) x (Hrs of Use/ 1,980 Hrs)

  Calibration Cost = (Calibration Cost/1,980) x Hrs of use

V. Matrix of Recommended Fees

The prescribed fees for the Calibration Fees of ITDI-NML, MIRDC, PAGASA and RMLs are presented as Annex A.

VI. Effectivity

This Order shall take effect fifteen (15) days after publication.

(Sgd.) FORTUNATO T. DE LA PEÑA
Secretary

ANNEX A

RECOMMENDED NEW FEES FOR DOST CALIBRATION SERVICES
as of _____ 2018

CALIBRATION SERVICES COMMON TO DOST RDIs AND RSTLs

Engineering Dimensional Metrology

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Caliper	Comparative Measurement using Gauge Block Grade 2	150mm and below	750	850.00
2	Caliper	Comparative Measurement using Checkmaster	>150mm - 200mm	850	950.00
			>200mm - 300mm	950	1,225.00
			>300mm - 600mm	1,100	1,400.00
3	Caliper	Comparative Measurement using Gauge Block Gr. 0 / Gr 1	0 - 250mm	1,025	1,225.00
4	Caliper	Comparative Measurement using Precision Checkmaster	>600mm - 1000mm	1,025	1,300.00
5	External Micrometer	Comparative Measurement using Gauge Block Gr. 0 / Gr 1	25mm and below	600	700.00
			>25mm - 100mm	800	800.00
			>100mm - 150mm	1,000	1,000.00
			>150mm - 200mm	1,250	1,250.00
			>200mm - 250mm	1,600	1,600.00
			>250mm - 300mm	1,800	1,800.00
6	Setting Rod per piece	Comparative Measurement using Gauge Block Gr. 0 / Gr 1	>25mm - 150mm	500	550.00
7	Tubular Micrometer (maximum of 10 ext./set)	Comparative Measurement using Gauge Block Gr. 0 / Gr 1	0 - 25mm	1,320	1,500.00
8	Depth Micrometer	Comparative Measurement using Gauge Block Gr. 0 / Gr 1	0 - 25mm	600	750.00
9	Feeler Gauge (per leaf)	Comparative Measurement using Gauge Block Gr. 0 / Gr 1	0.01mm - 5mm	300	300.00
10	Combination Set				
	9.1 Centering Head	Direct Measurement using Laser Interferomter System and Profile Projector	0 - 300mm; 0 ± 90°	2,940	3,050.00
	9.2 Protractor Head		0 - ± 90°	640	700.00
	9.3 Square Head		0 - ± 90°	900	1,000.00
	9.4 Steel Rule		0 - ± 90°	900	1,000.00
11	Dial Gauge and Dial Test Indicator	Comparative Measurement using Calibration Tester	0 - 300mm	500	650.00
12	Dial Thickness Gauge	Comparative Measurement using Calibration Tester	<20 mm	750	850.00
13	Dial/Thickness Gauge with Non-Removable Handle	Comparative Measurement using Gauge Block Gr. 0 / Gr 1 / Gr 2	<20 mm	750	850.00
14	Height Master per column	Comparative Measurement using Gauge Block Gr. 0 and Precision Checkmaster	0 - 50 mm	1,400	1,650.00
15	Height Gauge	Comparative Measurement using Checkmaster	0 - 310mm	2,100	2,700.00
16	Gauge Block		0 - 450mm	840	1,000.00
	15.1 Gauge Block Gr0	Comparative Measurement using Gauge Block Gr.00 and GBCD-100A	0 - 600mm	840	1,000.00
	15.2 Gauge Block Gr1		0.5 - 100mm		
	15.3 Gauge Block Gr2			570	700.00
17	Rectangular Gauge Block	Comparison of central length with reference gauge block using GBCD-250/BF	0.5 - 100mm	460	550.00
	16.1 Grade 0 (Steel)			320	400.00
	16.2 Grade 1 (Steel)				
	16.3 Grade 2 (Steel)			New Service	1,160.00
18	Fixed Gauge (Go - No-Go Gauge)	Comparative Measurement using Gauge Block Gr. 0 / Gr 1		New Service	1,030.00
	16.1 Go Gauge			New Service	1,030.00
	16.2 No-Go Gauge				
	16.3 Pin Gauge		>10mmϕ - 100mmϕ	800	850.00
19	Toolmakers Microscope	Comparative Measurement using Glass Scale, Angle Blocks	>10mmϕ - 100mmϕ	800	850.00
			0.1mmϕ - 10mmϕ	300	300.00
20	Optical Projector	Comparative Measurement using Glass Scale, Angle Blocks	0 - 50mm, 0±90°	2,270	2,800.00
21	Granite Surface Plate (per length of Diagonal)	Direct Measurement using Laser Interferometer System	0 - 50mm, 0±90°	2,270	2,800.00
			up to 354mm	2,760	3,500.00
			>354mm to 566mm	2,800	3,600.00
			>566mm to 891mm	3,150	4,000.00
			>891mm to 1414mm	3,345	4,300.00
			>1414mm to 2236mm	3,535	4,500.00
			>2236mm to 2968mm	3,690	4,700.00

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
22	Machine Tools	Direct Measurement using Laser Interferometer System	0 - 1000mm (x,y,z)		
	20.1 Linear Positioning Error (per axis/meter)			2,840	3,600.00
	20.2 Straightness Error (per axis/meter)			2,840	3,600.00
23	Dimensional Inspection (per sample)	Direct Measurement			
	21.1 Roundness Measurement		up to 100mmϕ	400	500.00
	21.2 Surface Roughness Assessment		up to 100 (Ra,Rv,Rz)	400	500.00
	21.3 Straightness Measurement		up to 600mm	400	500.00
	21.4 Radius Gauge		up to 25mm	400	500.00
	21.5 Impact Specimen		up to 300mm	400	500.00
	21.6 G.I. Pipes		up to 300mmϕ	500	500.00
	21.7 Machine Components /Equipment Parts/ Instruments not included in the list		up to 1500mm	500	500.00
24	Steel Rule (Metal Rule)	Comparative Measurement using Scale Lupe / Universal Measuring Machine	300 mm and below	500	500.00
			>300 mm - 600mm	500	650.00
			>600 mm - 1000mm	700	900.00
			>1000mm - 1500mm	700	900.00
			>1000mm - 1500mm	700	900.00
			>1500mm - 2000mm	700	900.00
25	Steel Rule (Metal Rule)	Direct Measurement using Laser Interferometer System	1000mm and below	New Service	1,100.00
			>1000mm - 1500mm	New Service	2,150.00
			>1500mm - 2000mm	New Service	2,800.00
26	Glass Scale (max of 10 points)	Direct Measurement using Laser Interferometer System	0 - 100 mm	490	600.00
			0 - 200 mm	640	800.00
			0 - 300 mm	720	900.00
			0 - 400 mm	720	900.00
27	Dimensional Measurement using Laser per sample	Direct Measurement using Laser Interferometer System	0 - 300mm	New Service	2,150.00
28	Dimensional Measurement using Coordinate Measuring Machine (CMM) per hr.	Direct Measurement	200mm x 400mm x 400mm	400	500.00
29	Conventional Measurement using Caliper, Dial Gauge, Outside Micrometer, Micro/Digimatic Indicator etc.	Direct Measurement	200mm x 400mm x 400mm	400	500.00
30	Calibration of CMM	Comparative Measurement using Checkmaster	400mm - 600mm (x,y,z axis)		
	28.1 Linear Error/Axis			New Service	4,300.00
	28.2 Straightness of axis			New Service	4,300.00
	28.3 Squareness of axis			New Service	4,300.00
31	Precision Square	Comparative Measurement using Gauge Block Gr0	200x300 mm and smaller	1,200	1,550.00
32	Precision Square Master	Comparative Measurement using Laser Interferometer System	300mm x 500mm	2,300	2,900.00
33	Bevel Protractor	Comparative Measurement using Angle Gauge Blocks	0 - ± 90°	1,100	1,350.00
34	Precision Level per scale	Direct Measurement using Laser Interferometer System	0.002mm/m	930	1,200.00
35	Mu-Checker first setting range	Comparative Measurement using Gauge Block Gr0	0.0001 x ± 5mm	1,400	1,800.00
			per additional range	750	850.00
36	Calibration Tester	Comparative Measurement using Gauge Block Gr0	0 - 25mm	1,800	2,300.00
37	Caliper Checker	Comparative Measurement using Precision Checkmaster	600 mm and below	2,300	2,900.00
38	Precision Check Master	Comparative Measurement using Precision Checkmaster	600 mm and below	2,600	3,300.00
39	Precision Straight Edge	Comparative Measurement using Laser Interferometer System	1000 mm and below	1,180	1,500.00
40	Bore Gauge	Comparative Measurement using Calibration Tester (Micrometer Head)	300 mm and below	1,740	1,900.00
41	Microindicators	Comparative Measurement using Gauge Block Gr0	0.001 x ± 5mm	1,400	1,650.00
42	Vernier Depth Gauge	Comparative Measurement using Checkmaster	0 - 300mm	950	1,200.00

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
44	Digimatic Indicators	Comparative Measurement using Gauge Block Gr2	>20 mm	1,400	1,650.00
			<20 mm	1,400	1,650.00
45	Universal Measuring Machine	Direct Measurement using Laser Interferometer System	0 - 400mm	3,000	3,900.00
46	Precision Square Master	Comparative Measurement using Laser Interferometer System	500mm x 300mm	4,600	4,900.00
47	Snap Gauge	Comparative Measurement using Gauge Block Gr0	0 - 25 mm	1,400	1,700.00
			>25-100 mm	1,800	2,100.00
48	Carpenter Square Squareness	Comparative Measurement using Precision Square and Gauge Block Gr.0	400mm x 700mm	1,200	1,500.00
49	Carpenter Square Linear Scale/leg	Comparative Measurement using Laser Interferometer System	400mm x 700mm	630	800.00
50	De-burring of Gauge Blocks		0.5mm - 100mm	120	150.00
51	De-burring of other Small Tools		0 - 400mm	600	750.00
52	Caliper Type Inside Micrometer	Comparative Measurement using Gauge Block Gr0	0 - 30mm	1,300	1,650.00
53	Depth Micrometer	Comparative Measurement using Gauge Block Gr0	0-25mm	700	700.00
54	Tape Measure	Comparative Measurement using Scale Lupe	up to 10m	700	700.00
			additional fee per meter	70	70.00

III. Electrical Metrology

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	AC Current Source/Standard (first setting range)	Direct Measurement Using Standard DMM and Standard Resistor	up to 50A	2,070	2,650.00
			per succeeding range	600	750.00
2	AC Voltage Source/Standard (first setting range)	Direct Measurement Using Standard DMM	up to 1000V	1,370	1,750.00
			per succeeding range	450	550.00
3	Ammeter	Comparative Measurement Using Standard Calibrator	20A, AC (1 to 2 ranges)	580	750.00
			20A, AC (1 to 5 ranges)	930	1,200.00
			<2A, DC (1 to 2 ranges)	560	700.00
			<2A, DC (1 to 5 ranges)	900	1,150.00
			>2A, DC (1 to 2 ranges)	770	1,000.00
			>2A, DC (1 to 5 ranges)	1,330	1,700.00
4	AC Clampmeter	Comparative Measurement Using Standard Calibrator	up to 500A (first range)	650	800.00
			per succeeding range	260	300.00
5	Current Shunt	Comparative Measurement Using Standard Power Source and Standard Resistor	AC, 10 A	1,000	1,300.00
			AC, 50 A	1,300	1,650.00
			DC, 10 A	1,100	1,400.00
			DC, 50 A	1,320	1,700.00
6	DC Current Source/Standard	Direct Measurements Using Standard DMM and Standard Resistor	up to 50A	1,650	2,100.00
			per succeeding range	700	900.00
7	DC Voltage Source/Standard by Direct Measurement	Direct Measurements Using Standard Digital Multi Meter (DMM)	up to 1000V, (first range)	1,100	1,400.00
			per succeeding range	500	650.00
8	DC Voltage Source/Standard by Transfer Method	Comparative Measurement Using Standard Digital Multi Meter (DMM)	up to 1000V (first range)	2,110	2,600.00
			per succeeding range	850	1,100.00
9	DC Clampmeter	Comparative Measurement Using Standard Calibrator	up to 500A (first range)	720	900.00
			per succeeding range	300	350.00
10	Decade Resistance Box (per dial)	Direct Measurements Using Standard DMM and Current Source	0 Ω to 100 MΩ	880	1,100.00
11	Double Bridge	Comparative Measurement Using Standard Resistor	Yokogawa 2752	1,420	1,800.00
			Yokogawa2769	860	1,100.00
12	Earth Tester	Comparative Measurement Using Decade Resistance Box	Up to 100 MΩ	1,100	1,350.00
			per succeeding range	310	400.00
13	Electronic Load (Direct Current)	Direct Measurement using Standard DMM	up to 20A (first range)	950	1,200.00
			per succeeding range	630	800.00
14	Groundstrap Tester/Checker	Comparative Measurement Using Decade Resistance Box	up to 100MΩ	450	550.00

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
15	High Voltage Meter	Comparative Measurement Using Standard Calibrator	Up to 10 Kv (first range)	1,540	2,000.00
			per succeeding range	920	1,150.00
16	Insulation Tester	Comparative Measurement Using Decade Resistance Box	Up to 1000V	840	1,050.00
			per succeeding range	290	350.00
17	Megohmmeter	Comparative Measurement Using Decade Resistance Box	Up to 100MΩ	840	1,090.00
			per succeeding range	290	350.00
18	Kelvin Bridge	Comparative Measurement Using Standard Resistor	up to 1MΩ	1,750	2,100.00
19	Millivolt Potentiometer	Direct Measurement Using Digital Multi Meter (DMM)	up to 100mV, 1st Range	1,430	1,850.00
			per succeeding range	710	900.00
20	Multimeter, Analog	Comparative Measurement Using Standard Calibrator	up to 1000V ac/dc, up to 2A ac/dc,up to 100 MΩ	2,000	2,250.00
21	Multimeter, Digital	Comparative Measurement Using Standard Calibrator	3 ½ digits, up to 1000V ac/dc, up to 2A ac/dc,up to 100 MΩ	2,500	3,250.00
			4 ½ digits, up to 1000V ac/dc, up to 2A ac/dc,up to 100 MΩ	4,500	5,050.00
			5 ½ digits, up to 1000V ac/dc, up to 2A ac/dc,up to 100 MΩ	7,000	7,900.00
			6 ½ digits, up to 1000V ac/dc, up to 2A ac/dc,up to 100 MΩ	9,040	10,150.00
22	Ohmmeter (1st Range)	Comparative Measurement Using Standard Calibrator	100mΩ to 100GΩ	700	900.00
			per succeeding range	260	350.00
23	pH Meter/Simulator	Comparative Measurement Using Standard Calibrator	0 to 14 pH	560	700.00
24	Puncture Tester (1st Range)	Direct Measurement Using Standard High Voltage Meter	Up to 5kV AC/DC; Up to 2A AC/DC; Up to 100 MΩ	760	950.00
			per succeeding range	330	400.00
25	Resistance Box (First 5 points)	Direct Measurement Using Standard DMM	Up to 10 MΩ	430	550.00
			per succeeding range	150	150.00
26	Puncture w/ Insulation Tester	Direct Measurement Using Standard High Voltage Meter and Comparative Measurement Using Decade Resistance Box	Up to 5kV AC/DC; Up to 2A AC/DC; Up to 100 MΩ	1,600	1,950.00
27	Rheostat	Direct Measurement Using Standard DMM	per sample	430	550.00
28	Stopwatch/ Timer	Comparative Measurement Using Standard Stopwatch	15 Minutes (minimum)	650	680.00
29	Standard Resistor (by Direct Measurement)	Direct Measurement Using Standard DMM	1 Ω to 10 MΩ	2,700	3,150.00
30	Standard Resistor (by Ratio)	Direct Measurement Using Standard DMM and Comparative Measurement Using Standard Resistor and Current Sensor	1 Ω to 10 MΩ	4,216	4,250.00
31	Surface Resistance Checker	Comparative Measurement Using Decade Resistance Box	up to 100GΩ	670	850.00
32	Ultrasonic Tester	Comparative Measurement Using Standard Step Gauge	up to 25mm (Horizontal/Vertical)	1,240	1,600.00
33	Variable AC Transformer	Direct Measurement Using Standard DMM	Up to 1000V	550	700.00
34	Voltmeter	Comparative Measurement Using Standard Calibrator	Up to 1000V AC/DC, (first range)	560	700.00
			per succeeding range	280	350.00
35	Wattmeter AC	Comparative Measurement Using Standard Calibrator	Up to 5A; 240V . (first range)	1,550	1,800.00
			per succeeding range	780	900.00
36	Wattmeter DC (1st Range)	Comparative Measurement Using Standard Calibrator	Up to 5A; 240V	1,420	1,845.00
			per succeeding range	670	800.00
37	Resistance Bridge/Wheatstone Bridge	Comparative Measurement Using Standard Resistor	1 Ω to 10 MΩ	2,600	3,350.00

III. Force Calibration

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Electronic Balance	Direct measurement using standard mass	500g capacity and below	1,140	1,350.00
			above 500g capacity	1,330	1,550.00
2	Gram Gauge	Direct measurement using standard mass	Up to 100kg	800	900.00
3	Push-Pull Gauge	Direct measurement using standard mass	Up to 100kg	1,000	1,100.00
4	Rockwell Hardness Tester	Comparative Measurement using Standardized Test Blocks	Up to 100 Rockwell Hardness	1,840	2,350.00
5	Testing Machines (1st Setting Range)	Direct measurement using standard mass/Load Cell/Proving ring	0 - 2000 kN	2,850	3,700.00
			per succeeding Setting Range	1,190	1,545.00
6	6.1 Torque Meter (single direction)	comparative measurement using standard mass and torque wheel	0 N.m to 25 N.m	1,500	1,950.00
	6.1 Torque Meter (Dual direction)			2,500	3,250.00
7	Torque Wrench (single direction)	direct measurement using standard torque meter	0 N.m to 25 N.m	1,000	1,300.00
	Torque Wrench (dual direction)			1,500	1,950.00
8	Triple Beam Balance	direct measurement using standard mass	Up to 100kg	1,140	1,450.00

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
9	Non-Automatic Weighting Instruments Electronic Type Only	direct measurement using standard mass	up to 60 kg	1,200	1,550.00
10	Non-Automatic Weighting Instruments Electronic Type Only	direct measurement using standard mass	>60 kg to 100 kg	1,200	1,550.00
11	Performance Testing of Non-Automatic Weighting Instruments Mechanical Types	direct measurement using standard mass	up to 1 tonne	1,200	1,550.00
12	Performance Testing of Non-Automatic Weighting Instruments Electronic Types + additional fee in excess1 tonne	direct measurement using standard mass	up to 1 tonne	1,200	1,550.00
				70	70.00

IV. Thermometry Calibration

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Clinical Thermometer	Comparative Measurement using Standard Platinum Resistance Thermometer (SPRT)	-20°C to +80°C	1,700	1,700.00
2	Digital Thermometer, T/C	Comparative Measurement using Calibrator	-200°C to +1800°C, 1st range	1,700	1,800.00
			per succeeding range	400	500.00
3	Digital Thermometer, Additional Probe	Comparative Measurement using Standard Platinum Resistance Thermometer (SPRT)	-30°C to +250°C	1,700	1,800.00
4	Digital Thermometer, RTD	Comparative Measurement using Calibrator	-200°C to +1800°C, 1st range	1,700	1,800.00
			per succeeding range	400	500.00
5	Glass/Filled/Bimetallic Thermometer	Comparative Measurement using Standard Platinum Resistance Thermometer (SPRT)	-30 to +120°C , 1st five points	1,700	1,750.00
			per additional test points	400	500.00
			0 to +100°C , 1st five points	1,700	1,700.00
			per additional test points	400	500.00
			0°C to +200°C ,1st five points	1,700	1,700.00
			per additional test points	400	500.00
			0 to 350°C , 1st five points	1,700	1,750.00
			per additional test points	400	500.00
			50 °C to 600 °C, 1st five points	1,700	1,700.00
			per additional test points	400	500.00
6	Furnace	Direct Measurement Using Standard Thermocouple Wires and Temperature Recorder	50 to 500°C, single test point	2,100	2,100.00
			per additional test points	500	500.00
			>500 to 1000°C, single test point	2,100	2,700.00
			per additional test points	500	650.00
7	Oven/Freezer	Direct Measurement Using Standard Thermocouple Wires and Temperature Recorder	-30 to +300°C, single test point	2,100	2,100.00
			per additional test points	500	500.00

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
8	RTD Calibrator/Simulator	Direct Measurement Using Standard Calibrator and Standard DMM	1st range	1,700	2,100.00
			per succeeding range	500	650.00
9	RTD Probe/Wire, Industrial	Comparative Measurement using Standard Platinum Resistance Thermometer (SPRT)	-30 to +500°C, 1st five points	1,500	1,950.00
			per additional test points	580	750.00
10	RTD Probe/Wire, Standard	Comparative Measurement using Standard Platinum Resistance Thermometer (SPRT)	-30 to +500°C, 1st ten points	3,000	3,700.00
			per additional test points	770	900.00
11	Surface Temperature Probe	Direct Measurement Using Standard Surface Calibrator	50 to 300 C	1,100	1,400.00
12	Temperature Controller	Comparative Measurement Using Standard Calibrator	RTD, T/C, 1st range	1,400	1,800.00
13	Temperature Indicator	Comparative Measurement Using Standard Calibrator	RTD, T/C, 1st range	1,400	1,800.00
14	Temperature Recorder	Comparative Measurement Using Standard Calibrator	RTD,T/C single-point,1st range	1,400	1,800.00
			per succeeding range	350	450.00
			RTD, T/C multi-point 1st Range	2,500	2,900.00
			per succeeding range	500	650.00
15	Thermocouple Calibrator/Simulator (first range)	Direct Measurement Using Standard Calibrator and Standard Digital Multi Meter (DMM)	1st range	1,700	2,200.00
			per succeeding range	500	650.00
16	Thermocouple Probe/Wire (first 5 points)	Comparative Measurement using Standard Platinum Resistance Thermometer (SPRT)	-30 to +100°C, 1st five points	1,350	1,750.00
			per additional test points	385	500.00
			0 to 100°C, 1st five points	970	1,250.00
			per additional test points	385	500.00
			0 to 200°C, 1st five points	1,150	1,450.00
			per additional test points	385	500.00
			0 to 300°C , 1st five points	1,350	1,750.00
			per additional test points	385	500.00
			0 to 500°C , 1st five points	1,450	1,850.00
			per additional test points	385	500.00
			50 to 1000°C, 1st five points	1,560	2,000.00
			per additional test points	385	500.00
17	Thermohygrograph	Comparative Measurement using Standard Thermohygrometer	0-100% RH, 0-100°C, ambient room condition only	1,140	1,450.00
18	Electronic/Dial Thermohygrometer	Comparative Measurement using Standard Thermohygrometer / Standard Psychrometer	0-100% RH, 0-100°C, ambient room condition only	1,210	1,550.00
19	Hygrograph	Comparative Measurement using Calibration Chamber & Standard Hygrometer/Psychrometer	35%-98% RH, regular 6 test points	510	650.00
20	Electronic/Dial type hygrometer	Comparative Measurement using Calibration Chamber & Standard Hygrometer/Psychrometer	35%-98% RH, regular 6 test points	540	700.00
21	Thermometers (Room, Max & Min, Liquid, Thermograph, Dial type & Electronics)	Comparative Measurement using Calibration Chamber & Standard Thermometer	0 - 45°C, regular 6 test points	670	850.00
22	Thermostat	Comparative Measurement using SPRT			
23	Water Bath (first temp. setting)	Direct Measurement Using Standard Thermocouple Wires and Temperature Recorder	-30 to + 50°C, 1st range	580	750.00
			-30 to +500°C, single test . point	2,100	2,100.00
			per additional test points	500	550.00

W. Masses

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Test Weights, OIML Class F1/F2	OIML R 111	1 mg to 1kg	600	600.00
2	Test Weights, OIML Class F1/F2		> 1kg to 10 kg	600	600.00
3	Test Weights, OIML Class F1/F2		> 10 kgto 20 kg	800	800.00
4	Test Weights, OIML Class F1/F2		> 20 kg to 50 kg	1,000	1,000.00
5	Test Weights, OIML Class M1/M2/M3		1 mg to 1kg	450	450.00
6	Test Weights, OIML Class M1/M2/M3		> 1kg to 10 kg	450	450.00
7	Test Weights, OIML Class M1/M2/M3		> 10 kg to 20 kg	600	600.00
8	Test Weights, OIML Class M1/M2/M3		> 20 kg to 50 kg	700	700.00
9	Test Weights, OIML Class E2	OIML R 111	1 mg to 50 g	840	1,090.00
10	Test Weights, OIML Class E2		>50 g to 500g	1,140	1,480.00
11	Test Weights, OIML Class E2		> 500g to 10kg	New Service	1,660.00
12	Test Weights, OIML Class E2		>10kg to 50 kg	New Service	1,990.00
13	Test Weights, OIML Class F1/F2		1 mg to 50 g	600	600.00
14	Test Weights, OIML Class F1/F2		>50 g to 500g	510	650.00
15	Test Weights, OIML Class F1/F2		> 500g to 10kg	760	950.00
16	Test Weights, OIML Class F1/F2		>10kg to 50 kg	840	1,050.00
17	Test Weights, OIML Class F1/F2		>50 kg to 200 kg	New Service	2,100.00
18	Test Weights, OIML Class M1/M2/M3		1 mg to 500 g	450	450.00
19	Test Weights, OIML Class M1/M2/M3		> 500g to 10kg	600	600.00
20	Test Weights, OIML Class M1/M2/M3		>10kg to 50 kg	700	700.00
21	Test Weights, OIML Class M1/M2/M3		>50 kg to 200 kg	New Service	1,500.00
22	Test Weights, OIML Class M1/M2/M3		>200 kg to 500 kg	New Service	2,100.00
23	Test Weights, Free Nominal (Stainless Steel)	OIML R 111	1 mg to 50 g	600	600.00
24	Test Weights, Free Nominal (Stainless Steel)		>50 g to 500g	510	650.00
25	Test Weights, Free Nominal (Stainless Steel)		> 500g to 10kg	760	950.00
26	Test Weights, Free Nominal (Stainless Steel)		>10kg to 50 kg	840	1,050.00
27	Test Weights, Free Nominal (Stainless Steel)		>50 kg to 200 kg	New Service	2,100.00
28	Test Weights, Free Nominal (Other Materials)		1 mg to 500 g	450	450.00
29	Test Weights, Free Nominal (Other Materials)		> 500g to 10kg	600	600.00
30	Test Weights, Free Nominal (Other Materials)		>10kg to 50 kg	700	700.00
31	Test Weights, Free Nominal (Other Materials)		>50 kg to 200 kg	New Service	1,500.00
32	Test Weights, Free Nominal (Other Materials)		>200 kg to 500 kg	New Service	2,100.00
	Calibration of Non-Automatic Weighing Instruments (NAWI)				
33	NAWI, Electronic Type Only (On-site Calibration)	EURAMET CG 18	up to 2 kg (using OIML Class E2)	New Service	2,000.00
34	NAWI, Electronic Type Only (On-site Calibration)		up to 60 kg (using OIML Class F1)	1,180	1,530.00
35	NAWI, Electronic Type Only (On-site Calibration)		up to 200 kg (using OIML Class F2)	1,180	1,530.00
36	NAWI, Electronic Type Only (On-site Calibration)		up to 300 kg (using OIML Class M1)	1,180	1,530.00
37	NAWI, Electronic and Mechanical Types (Base Laboratory or On-site Calibration)	OIML R 76	High Accuracy II (using OIML Class F2)	930	1,200.00
38	NAWI, Electronic and Mechanical Types (Base Laboratory or On-site Calibration)		Medium Accuracy III & Ordinary IIII (using OIML Class M1 and substitution material) '+ Additional fee for every tonne thereafter in excess of 1 tonne	840	1,080.00 20

VI. Pressure Calibration

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Current to Pressure (I/P) Transducer	direct measurement using test gauge/pressure calibrator	0.1 MPa to100 MPa	1,100	1,400.00
2	Pressure to Current (P/I) Transducer	direct measurement using test gauge/pressure calibrator	0.1 MPa to100 MPa	1,100	1,400.00
3	Differential Transmitter (D/P Cell) Electronic	direct measurement using test gauge/pressure calibrator	0.1 MPa to100 MPa	1,100	1,400.00
4	Differential Transmitter (D/P Cell) Pneumatic	direct measurement using test gauge/pressure calibrator	0.1 MPa to100 MPa	1,000	1,300.00
5	Hydraulic/Pneumatic Pressure Gauges	direct measurement using test gauge/pressure calibrator	0.1 MPa to100 MPa	750	900.00
6	Hydraulic/Pnuematic Pressure Test Gauge	direct measurement using deadweight pressure balance	0.1MPa; 1.25MPa to 101.1MPa	1,800	2,300.00
7	Pneumatic Deadweight Pressure Tester	comparative measurement using digimatic caliper, electronic balance and deadweight pressure balance	0 to 1000 bar	2,950	2,950.00
8	Measurement of Piston Diameter	direct measurement using digimatic caliper	per sample	550	700.00
9	Weighing of Deadweight per piece	direct measurement using electronic balance	per sample	200	250.00
10	Hydraulic Deadweight Pressure Tester	comparative measurement using digimatic caliper, electronic balance and deadweight pressure balance	0 to 1000 bar	2,200	2,850.00
11	Pneumatic Pressure Calibrator (1st Range)	direct measurement using deadweight pressure balance	0 to 40 bar, 1st range	1,800	2,300.00
			per succeeding range	1,000	1,300.00
12	Pneumatic Controller	direct measurement using test gauge/pressure calibrator	0 to 40 bar	800	1,000.00
13	Pneumatic Indicator	direct measurement using test gauge/pressure calibrator	0 to 40 bar	700	900.00
14	Pneumatic Recorder	direct measurement using test gauge/pressure calibrator	0 to 40 bar	800	1,000.00
15	Pneumatic Pressure Switch	direct measurement using test gauge/pressure calibrator	0 to 40 bar	700	900.00
16	Pressure Industrial Gauge	direct measurement using test gauge/pressure calibrator	0 to 1000 bar	750	900.00
17	Pressure Measuring Instrument (Barometer, Barograph, Electronics) (regular 6 test points)	Comparative Measurement using Calibration Equipment & Standard Barometer	700hPa - 1040hPa	550	700.00
			per succeeding test points	New Service	250.00
18	Mercurial Barometer (regular 6 test points)	Comparative Measurement using Calibration Equipment & Standard Barometer	700hPa - 1040hPa	660	850.00
			per succeeding test points	New Service	300.00
No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
19	Surveying Altimeter Instruments (regular 6 test points pressure measurements)	Comparative Measurement using Calibration Equipment & Standard Barometer	700hPa - 1040hPa	550	700.00
			per succeeding test points	300	300.00

VII.Volume Big

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Proving Tanks (Volumetric)	Comparative Measurement	100L to 400L	1,500	1,500.00
2	Proving Tanks (Volumetric)	Comparative Measurement	>400L to 2000 L	3,000	3,000.00
3	Proving Tanks (Volumetric)	Comparative Measurement	>2000 L to 5000 L	4,500	4,500.00
4	Road Tankers (Volume capacity determination)	Comparative Measurement	up to 5000 L	1,000	1,000.00
5	Road Tankers (Volume capacity determination)	Comparative Measurement	>5000 L to 10000 L	1,500	1,500.00
6	Road Tankers (Volume capacity determination)	Comparative Measurement	>10000 L to 15000 L	2,000	2,000.00

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
7	Road Tankers (Volume capacity determination)	Comparative Measurement	>15000 L to 20000 L	2,500	2,500.00
8	Road Tankers (Volume capacity determination)	Comparative Measurement	>20000 L to 25000 L	3,000	3,000.00
9	Road Tankers (Volume capacity determination)	Comparative Measurement	>25000 L to 30000 L	3,500	3,500.00
10	Road Tankers (Volume capacity determination)	Comparative Measurement	>30000 L to 35000 L	4,000	4,000.00
11	Road Tankers (Volume capacity determination)	Comparative Measurement	>35000 L to 40000 L	4,500	4,500.00
12	Road Tankers (Volume capacity determination)	Comparative Measurement	>40000 L to 45000 L	5,000	5,000.00
13	Road Tankers (Volume capacity determination)	Comparative Measurement	>45000 L to 50000 L	5,500	5,500.00
14	Test Measure (Volume determination) (Gravimetric)	Comparative Measurement	10 L	1,800	1,800.00
15	Test Measure (Volume determination) (Gravimetric)	Comparative Measurement	20 L	2,000	2,000.00
16	Test Measure (Volume determination) (Volumetric)	Comparative Measurement	10 L	500	500.00
17	Test Measure (Volume determination) (Volumetric)	Comparative Measurement	20 L	600	600.00
18	Fuel Dispensing Pump per Nozzle	Comparative Measurement	per sample	700	700.00
19	Measuring Pipette	Comparative Measurement	per sample	600	600.00
20	Volumetric Pipiette	Comparative Measurement	per sample	600	600.00
21	Volumetric Flask	Comparative Measurement	per sample	600	600.00
22	Graduated Cylinder	Comparative Measurement	per sample	600	600.00
23	Burette	Calculation system	per sample	1,500	1,500.00
24	Pipettor	Comparative Measurement	per sample	1,500	1,500.00

VIII. Rain Gauge

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Tipping Bucket (regular 4 test points)	Comparative Measurement & Calculation system	10 - 300 mm/hr	620	800.00
2	per succeeding test points			New Service	300.00
3	Cylindrical (graduated cylinder or dip stick) thru measurement and computation	Comparative Measurement & Calculation system	per sample	620	800.00

IX. Wind Speed Instrument

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Anemometer (analog/digital) (regular 6 test points)	Comparative Measurement using wind tunnel & Standard wind flow calculation system	0- 75 m/s	1,040	1,350.00
			per succeeding test points	New Service	500.00

X. Solar Radiation Instrument

No.	Type of Equipment / Device	Method	Range or Capacity	Existing Fee	Recommended New Fees
1	Pyranometer (other solar radiation instruments)	Comparative Measurement using Standard Pyranometer	Starting at 700W/m^2	2,500	3,000.00

XI. In-plant Calibration Charge

1	Within 50 Km radius from Base laboratory per day per team			3,000	2,000.00
2	More than 50 Km radius from Base laboratory per day per team			5,500	3,000.00