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Economy Report - 2019

[Malaysia]

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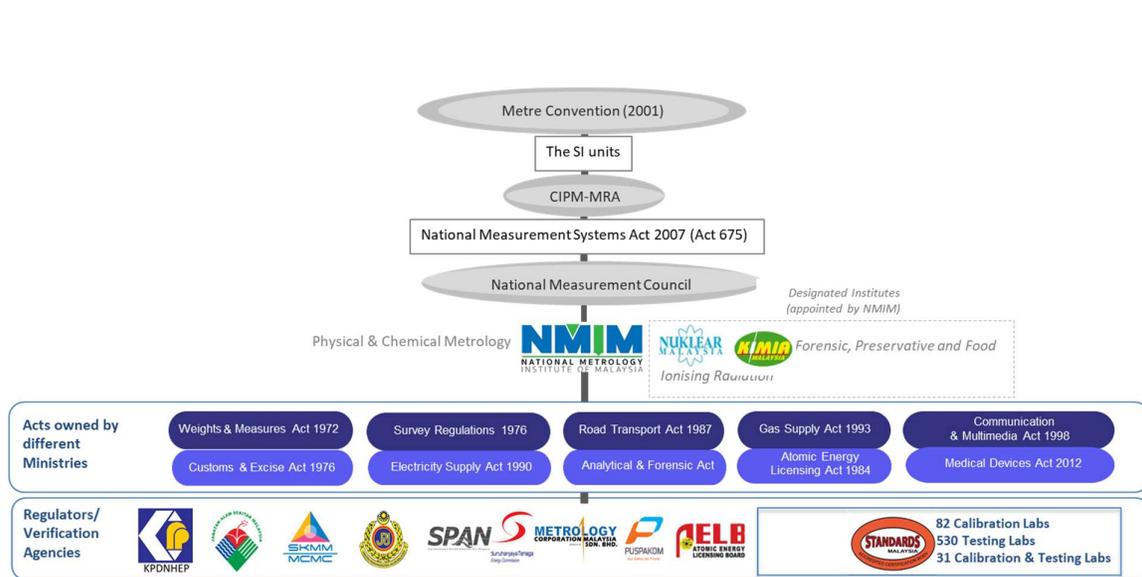
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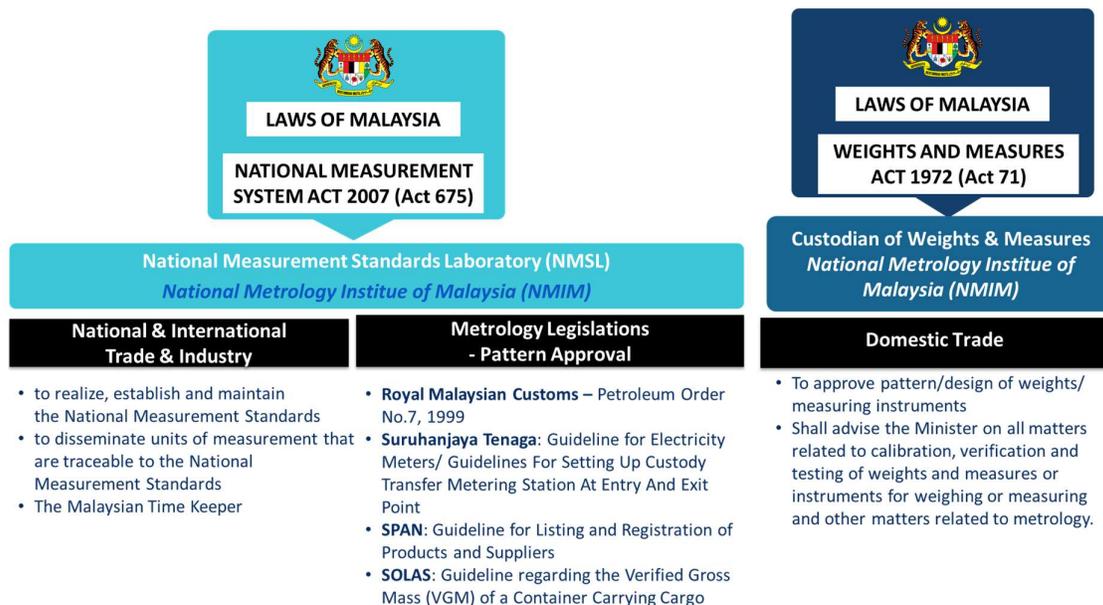
SECTION 1 – Organisation and structure for metrology

Organisation Structures



National Metrology Institute of Malaysia (NMIM) of SIRIM Bhd was established in 1975 as Malaysia’s National Metrology Institute (NMI). It is constituted under Weights and Measures Act 1972 as Custodian of Weights and Measures and acted as National Measurement Standard Laboratory (NMSL) under National Measurement System Act 2007. NMIM is responsible in all related measurements across the Acts enforced by various regulators and agencies. NMIM’s vision is to be the Best Global Partner in Metrology with one of mission is to ensure effective Legal Metrology infrastructure to underpin trade, safety, health, sports, environment and regulations.

Legislative Frameworks



National Metrology Institute of Malaysia (NMIM) plays a role as Custodian Weight Measures as stipulated in Weights Measures Act 1972 (Act 71). NMIM also plays a role as National Measurement Standard Laboratory (NMSL) in National Measurement System Act 2007 (Act 675).

One of the functions as the Custodian and NMSL is to approve pattern/design of weight and measuring instruments. This measuring instruments includes the utility meters such as electricity meter, gas meter and water meter. The legal control of utility meters are implemented by regulator. Regulator is responsible to regulate and enforce of the Acts regarding to its scope such as energy, water and telecommunication. Electricity meter and gas meter are regulated by Energy Commission (EC) and the water meter is regulated by National Water Services Commission (SPAN). For weight instruments, the regulator is Ministry of Domestic Trade and Consumer Affairs.

Under the Energy Commission (EC) jurisdiction, NMIM will undertake the pattern approval and validation activities of gas metering system in accordance to Guidelines For Setting Up Custody Transfer Metering Station At Entry And Exit Point and Gas Supply Act 1993 (Act 501). For electricity meter, NMIM will undertake the pattern approval in accordance with Guideline for Electricity Meters and Electricity Supply Act 1990.

Under the National Water Management Commission (NWMC/SPAN) jurisdiction, NMIM will undertake the pattern approval of water meters in accordance to Water Services Industry Act 2006 (Act 655). For Royal Malaysian Customs (RMC) under Petroleum Order No. 7, NMIM was appointed as the competent authority to undertake the determination of accuracy, suitability, calibration and authenticate system or equipment used for measuring volume.

International arrangements and engagement

1. NMIM appointed as trainers and successfully provided the training course on Pattern Approval and Verification of Water Meters under PTB-MEDEA programme from 15 – 18 October 2019 in Nilai Spring Hotel, Malaysia.
2. NMIM appointed by ASEAN Consultative Committee for Standard and Quality (ACCSQ) as working group member on Utility Meters (Gas Meter) from 2019.
3. NMIM appointed as trainer in software testing for measuring instruments in 2019 with training provided by PTB, Germany.
4. Member of Technical Committee for Fluid Flow (TCFF) in Asia Pacific Metrology Programme (APMP).
5. Member of Technical Committee for Electromagnetic (TCEM) in Asia Pacific Metrology Programme (APMP).

SECTION 2 – Key activities of 2018/19

Working with industry

1. Assistance to the Ministry of Domestic Trade and Consumer Affairs (MDTCA) in technical matters related to pattern approval of fuel dispenser and water dispenser.
2. Assistance to the National Water Management Commission (NWMC/SPAN) in technical matters related to pattern approval of water meter.
3. Assistance to the Energy Commission (EC/ST) in technical matters related to pattern approval of gas meter and electricity meter.
4. Assistance to the Royal Malaysian Customs (RMC/KDRM) in technical matters related to pattern approval of hydrocarbon meter.
5. Assistance to electricity, gas and water meter industry to fulfill pattern approval requirements as stated in the tender and procurement as well as requirements from regulators.

Protecting consumers

1. Providing certification programme for certified personnel for metering calibration and validation.
2. Frequent meetings and engagements with the regulators and industry player to raise awareness and to discuss on how to improve the consumer protection especially for legal measuring instruments use for trade.
3. To assist certification body (CB) by provided pattern approval evidence during application of certification by industry.

Major projects - What we did and what we learned

1. Development of accuracy test bench (up to DN50) and endurance test bench (up to DN50) for water meter for pattern approval of water meter purposes.
2. Development of accuracy test bench (up to G4) for calibration and pattern approval of gas meter.

SECTION 3 – Future focus

New initiatives planned (next 1-2 years)

1. Technical review on the planned revision of Pattern Order under Ministry of Domestic Trade and Consumer Affairs (MDTCA).
2. Preparing a framework proposal for National Measurement Infrastructure for custody transfer instruments used in oil and gas industry; a collaboration between oil and gas industry player, government agencies and NMIM under the supervision of Technical Committee on Petroleum and Gas (technical committee under Department of Standards Malaysia).
3. Developing a new module for certification programme on storage tank calibration and verification with Petronas INSTEP. Expected to be launched in 2020.
4. Submitted a concept note to WG3 under ASEAN Consultative Committee for Standard and Quality (ACCSQ) for the development of verification procedure for positive displacement meter used at gantry and depot terminal.
5. To update and strengthen the Guideline for Electricity Meter issued by the Energy Commission (EC) such additional software testing requirement.
6. To establish national guidelines for electricity meter verification with Energy Commission (EC) and related enforcement agencies.

Emerging issues – challenges and opportunities

1. Challenge : The need to certify the personnel who undertake the calibration and verification of custody transfer instruments as there are reports from the end user and regulators that the personnel who performs the task is incompetence.

Opportunity : In order to handle this matter, a proposal to develop a certification programme for the personnel has been proposed. To date, one certification programme has been developed. More certification programme to cater for various scope of custody transfer instrument is in the pipeline.

2. Challenge : There are demand to calibrate the big size gas meter in Malaysia. As of today, there are no facility available in Malaysia to cater for this need.

Opportunity : To develop a gas calibration facility that can at least cater for gas meter used by industrial sector and distribution network (city gate) that operates at 7 bar and below. To calibrate this type of gas meter, a calibration laboratory that uses compressed air is sufficient

as the difference in gas compositions between compressed air and natural gas properties at this pressure is considered similar.

3. Challenge : No complete facility to test electricity meter for pattern approval requirements in NMIM.

Opportunity: To provide low cost testing fee for electricity meter players by conducting test domestically. This will reduce the dependence of overseas test laboratory and increase the competency of NMIM's personnel.