NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
First Regular Session)

Senate
Office of the Secretary

'22 OCT 17 P5 :51

RECEIVED BY:

S E N A T E

S. No. 1394

Introduced by SENATOR RAMON BONG REVILLA, JR.

AN ACT
MODERNIZING THE NATIONAL MEASUREMENT SYSTEM (NMS) OF THE PHILIPPINES, APPROPRIATING FUNDS THEREFOR AND FOR OTHER PURPOSES

EXPLANATORY NOTE

In 2003, Republic Act 9236, also known as the "*National Metrology Act of 2003*", established the National Measurement Infrastructure System (NMIS). The National Metrology Division (NMD) of the Industrial Technology Development Institute (ITDI) is the one tasked to develop, maintain, and disseminate measurement standards in the country. However, coping with the rapid technological changes have become more difficult due to its limited funds, personnel and facilities. Metrology affects standards, technical regulation and conformity assessment. It plays a crucial role in the development of society, trade, and consumer protection.

Despite their efforts, our metrology institute lagged behind its counterparts in Southeast Asia mainly due to lack of government investments, clear legal framework and updated policy for a national metrology infrastructure. Compared to our regional neighbors, the Philippines had the lowest annual budget for its metrology institute, lowest number of technical and support staff, lowest number of Calibration and Measurement Capabilities (CMCs), and lowest number of accredited calibration laboratories[1].

[1] Proposed Strategy for the National Metrology Infrastructure of the Philippines. http://nml.gov.ph/wp-content/uploads/downloads/2015/11/STRATFINAL.pdf

With its wide-ranging importance in ensuring economic competitiveness, public health, consumer welfare, commuter safety, environmental protection, and energy efficiency, among others, there is a clear need to modernize and enhance the capacities of our measurement system.

This bill aims to upgrade the physical resources and operational techniques of the system through acquisition and development of state-of-the-art instruments and facilities to ensure the reliability and integrity of measurements in the country, and to strengthen and harmonize the country's measurement system, in accordance with international best practices to support confidence in measurements for regulation, trade and manufacturing.

This measure is part of the priority legislative agenda of the Department of Science and Technology (DOST), which "seeks to provide capacity building programs through competency training" and "foster a metrology culture that will instill a keen appreciation of the importance of metrology." Thus, Filipinos will no longer have to settle with measurements which are "medyo tama", "pwede na yan" or "sakto na".

Hence, the passage of this bill is hereby earnestly sought.

RAMON BONG REVILLA, JR.

Senate
Office of the Secretary

NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
First Regular Session)

'22 OCT 17 P5 51

RECEIVED BY:

S E N A T E

S. No. 1394

Introduced by SENATOR RAMON BONG REVILLA, JR.

AN ACT
MODERNIZING THE NATIONAL MEASUREMENT SYSTEM (NMS) OF THE PHILIPPINES, APPROPRIATING FUNDS THEREFOR AND FOR OTHER PURPOSES

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

Section 1. *Short Title.* - This Act shall be known as the *"Modernized National Measurement System Act of 2022".*

Sec. 2. *Declaration of Policy.* – It is hereby declared the policy of the State to facilitate the development of scientific and technical knowledge and progress in the national economy by providing a modernized National Measurement System (NMS) that will ensure the integrity of measurements in the country, meet regional and international requirements, and provide support for the competitiveness of Philippine products and services. The State shall also support the undertaking of necessary activities to promote metrology, develop appropriate infrastructure, support research in metrology and protect the health, safety and interest of every citizen and his environment against possible abuse related to measurements.

The State shall support the harmonization of national requirements, including technical regulations, document standards and conformity assessment procedures, with international requirements as envisioned in the ASEAN Economic Community (AEC), World Trade Organization (WTO) and other international agreements and

covenants resulting to free flow of goods and services, and a predictable trading environment.

The State shall provide support to metrology research and development for the purpose of continuously improving the national measurement standards and their measurement uncertainties, developing novel measurement techniques and technologies aiming at Philippine Industry take-up to stimulate industrial innovation; coming-up with solutions for societal challenges focusing on contributions for energy efficiency, food security, environment protection, and citizen's health, security and economic well-being; and address the measurement needs of society and industry at the local level.

Sec. 3. *Scope*. – This Act shall cover all agencies, institutions, entities involved in metrological activities and processes, both private and public.

Sec. 4. *Objectives*. – In furtherance of the policies enunciated in this Act, the following objectives shall be pursued:

a) Upgrade physical resources and operational techniques through acquisition and development of state-of-the-art instruments, equipment, facilities and systems to enhance current capabilities and ensure that measurements in the country are reliable;

b) Strengthen and harmonize the country's measurement system in accordance with international best practices to support confidence in measurements for regulation, trade and manufacturing;

c) Implement legal metrological controls of measuring instruments in the country in the interest of fair trade, health, safety, law enforcement, and environmental protection;

d) Transform the existing National Metrology Division of the Industrial Technology Development Institute to the National Measurement Institute of the Philippines directly under the Department of Science and Technology (DOST);

e) Designate the National Measurement Institute of the Philippines as the country's national metrology institute;

f) Disseminate knowledge on state-of-the-art calibration techniques and develop competencies on legal metrological controls through capacity building programs; and

g) Foster a metrology culture that will instill a keen appreciation of the metrology as a discipline through the integration of metrology courses in the educational system.

Sec. 5. *Definition of Terms.* – For the purpose of harmonizing with international best practices, the following terms are in reference to the International Vocabulary of Metrology and International Vocabulary of Legal Metrology:

a) *Accreditation* – refers to the process in which an authoritative body formally recognizes the competence, impartiality and capability of an organization to carry out specific activities, such as certification, testing, calibration and inspection.

b) *ASEAN Common Requirements for Prepackaged Products* – refers to a regionally-agreed document specifying the labelling requirements and allowed quantity deficiency in prepackaged products for ASEAN Member States namely Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

c) *Asia Pacific Legal Metrology Forum (APLMF)* – refers to a grouping of legal metrology authorities from the Asia Pacific Economic Cooperation Member economies and other economies in the Pacific Rim for the development of legal metrology and promotion of free and open trade in the Asia Pacific region through harmonization and removal of technical or administrative barriers to trade in the field of legal metrology.

d) *Asia Pacific Metrology Program (APMP)* – refers to a grouping of national metrology institutes from the Asia-Pacific region for the promotion and support of a measurement infrastructure in the Asia Pacific region that facilitates international trade, improves industrial efficiency and competitiveness, ensures equity in the marketplace, and enhances the quality of life and the environment through reliable measurements.

e) *Calibration* – refers to an operation that, under specified conditions, in a first step, establishes a relation between the quantity values with

measurement uncertainties provided by measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication.

f) *Calibration laboratories* – refer to public or private entities that perform tests and/or calibrations in a permanent, temporary, or remote location.

g) *Certification* – refers to a procedure where a third party provides written attestation that a product, process or service meets specified requirements.

h) *Conformity assessment* – refers to a set of processes that shows a product, service or system meets specified requirements. The main forms of conformity assessment are testing, certification, and inspection.

i) *Designated Institutes* – refer to organizations or entities appointed by a country's national metrology institute to hold specific measurement standards or services that are not covered by the national metrology institute.

j) *Inspection* – refers to the examination of a measuring instrument to ascertain all or some of the following: verification mark and/or certificate is valid, no sealing marks are damaged, after verification the instrument suffered no obvious modification, its errors do not exceed the maximum permissible in service errors. The inspection of a measuring instrument may be done only after verification.

k) *International System of Units or Système International d'Unités (SI), in French* – refers to a modern metric system establishing seven base units for base quantities namely metre for length, kilogram for mass, second for time, ampere for electric current, kelvin for thermodynamic temperature, mole for amount of substance and candela for luminous intensity. The derived units of the SI (e.g. metre per second, watt, newton, etc.) are then formed as products of powers of the base units, according to the algebraic relations that define the corresponding derived quantities in terms of the base quantities.

l) *Legal metrological controls* – refer to a series of evaluations and periodic checks performed on regulated measuring instruments throughout their

lifetime to monitor if they are still suitable for their intended use. For prepackaged products, they refer to the checking of the quantities contained in the package with reference to the quantity indicated in the label.

m) *Legal metrology* – refers to the practice and process of applying regulatory structure and enforcement to measurements and measuring instruments to ensure trade and legal decisions are fair, and that the health, safety and interest of every citizen and his environment are protected against possible abuse related to wrong measurements.

n) *Legal units of measurement* – refer to units of measurement required or permitted by regulations.

o) *Measurement standard* – refers to a material measure, measuring instrument, reference material or measuring system intended to define, realize, conserve or reproduce a unit, or one or more values of a quantity to serve as a reference.

p) *Measuring instrument* – refers to a device used for making measurements, alone or in conjunction with one or more supplementary devices. This may be an indicating measuring instrument or a material measure.

q) *Metre Convention* – refers to a diplomatic treaty which established a permanent organizational structure for member governments to act in common accord on all matters relating to metrology.

r) *Metrological traceability* – refers to the property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty.

s) *Metrology* – refers to the science of measurement and its application. It includes all theoretical and practical aspects of measurement.

t) *National accreditation body* – refers to a national organization which attests to the competence and impartiality of conformity assessment bodies (testing and calibration laboratories, certification and inspection bodies), according to internationally accepted standards.

u) *National measurement standards* – refer to measurement standards recognized by national authority to serve as the basis for assigning quantity values to other measurement standards for the kind of quantity concerned in a state or economy.

v) *National Measurement System (NMS)* – refers to the collective infrastructure of national facilities, expertise, knowledge and research, and is also a legal framework for reliable, consistent and internationally recognized measurement. The infrastructure encompasses essential elements of both the public and private sectors.

w) *National metrology institutes* – refer to bodies with the responsibility of maintaining the national measurement standards and disseminating the SI Units nationally (i.e. they provide metrological traceability).

x) *International Organization for Legal Metrology or Organisation Internationale de Métrologie Légale (OIML), in French* – refers to an intergovernmental organization comprising of one hundred twenty-four (124) governments that establishes the coordination and harmonization at the international level the administrative and technical regulations applied to measurements and measuring instruments passed by different governments.

y) *OIML Recommendations* – refer to model regulations that establish the metrological characteristics required of certain measuring instruments and which specify methods and equipment for checking their conformity. These model regulations are concerned with the acceptable tolerances referred to as maximum permissible errors, within which regulated measurements and measuring instruments should operate despite variations in temperature and humidity, power supply and electromagnetic interference.

z) *Prepackaged products* – refer to commodities that are enclosed in a container or wrapped in any manner, and for which their quantities have been determined and indicated on their labels prior to being offered for sale. The quantity contained cannot be changed without the prepackaged product being opened or doing a perceptible modification.

aa) *Proficiency testing* – refers to a comparison activity that determines the continuous performance of individual laboratories for specific tests or measurements for regular monitoring.

bb) *Regional Metrology Laboratory* – refers to a body under the DOST Regional Offices tasked to provide calibration and measurement services to stakeholders in the regions.

cc) *Working measurement standard* – refers to a measurement standard that is used routinely to calibrate or verify measuring instruments or measuring systems

Sec. 6. *National Measurement Institute of the Philippines.* – The National Metrology Division (NMD), a division under Industrial Technology Development Institute responsible for establishing and maintaining the national measurement standards in physical quantities, is hereby transformed to the National Measurement Institute of the Philippines (NMIPhil). Thereafter, all powers, functions, duties, records, files, and assets including plantilla positions of the NMD shall be transferred to the NMIPhil. There shall be no diminution of rank and salaries, allowances and benefits of transferred employees. New employees of NMIPhil shall be entitled to the same allowances and benefits as those of the transferred employees.

The NMIPhil shall be designated as the country's national metrology institute. It shall be an attached agency of the DOST for policy, program coordination and administrative supervision.

The NMIPhil shall be headed by an Executive Director. The Executive Director shall be appointed by the President upon recommendation by the Secretary of the DOST and shall receive the benefits, privileges and emoluments equivalent to the rank of Undersecretary.

As the chief executive officer of the NMIPhil, the Executive Director shall exercise general supervision and control to its technical and administrative personnel and shall be assisted by three (3) Deputy Directors for Scientific and Industrial Metrology, Legal Metrology and Quality Management System, Finance and Administration, to be appointed by the President.

The NMIPhil, in coordination with the Department of Budget and Management (DBM) and the Civil Service Commission (CSC), shall determine the appropriate

administrative and technical support complement necessary for the effective and efficient operations of the Institute, which includes but not limited to the following Divisions:

a) Mass and Related Quantities Division;
b) Metrology-In-Chemistry and Biometrology Division;
c) Photometry and Radiometry Division;
d) Thermometry and Hygrometry Division;
e) Length and Dimensional Metrology Division;
f) Electricity and Magnetism Division;
g) Time and Frequency Division;
h) Metrological Controls and Registration Division;
i) National Regulators and Laboratories Liaison Division;
j) Policy and Legislation Division;
k) National Metrology Training and Proficiency Testing Division;
l) Finance and Administrative Division;
m) Planning, Information Technology, and Quality Management Division; and
n) Public Information and External Affairs Division.

Sec. 7. *Modernization of Physical Resources and Operational Techniques.* – This shall entail the acquisition and/or upgrade of state-of-the-art instruments, equipment, facilities and systems. It also includes the creation of a Human Resource Development Program that will ensure that the country's measurement system is in accordance with international best practices to support confidence in measurements for regulation, trade and manufacturing.

Sec. 8. *Functions, Duties, and Responsibilities of the National Measurement Institute of the Philippines.* – The NMIPhil shall have the following functions:

a) maintain and continuously update the national measurement standards in all relevant fields for the Philippines; as such the NMIPhil shall guarantee that all meteorological laboratories, infrastructure, equipment, instruments, artifacts, reference standards and other similar articles are in good condition, internationally compliant, reliant and other qualities that may be required in the future;

b) provide metrological traceability to the realization of the International System of Units (SI) for measurements done in the country;

c) facilitate international harmonization and comparability of measurements including participation in related international meteorological activities, e.g. proficiency testing, peer review, research and development;

d) carry out the type evaluation/approval activities of measuring instruments, or provide support to bodies designated for this function;

e) appoint competent laboratories as "Designated Institutes" for specific measurement fields of national interest not covered by the national metrology institute e.g. ionizing radiation and time of the day among others;

f) offer the necessary advice and technical support to the government, industry, commerce and the public in measurement related issues;

g) engage and/or coordinate research and development work in metrology;

h) strengthen the collaboration with calibration laboratories in the areas of capacity building and harmonization of measurement procedures;

i) disseminate knowledge and competencies in metrology through education and capacity building programs to relevant regulatory bodies and other entities responsible for the implementation of this Act;

j) coordinate with other local institutes/bodies having metrological responsibilities;

k) represent the Philippines' interest in international and regional metrology organizations, consultative committee meetings and working groups;

l) strengthen and develop a continuing human resource development program; *Provided*, That capability building activities needed to upgrade capacities of technical personnel that may require travel abroad bonds them to equivalent return of service as determined by existing laws. Otherwise, the NMIPhil may invite foreign experts to conduct trainings, render technical services such as repair, calibration and the like, which shall be charged to its funds; and,

m) provide support to Quality Infrastructure-related institutes, especially standardization and accreditation in aspects related to metrology.

Sec. 9. *National Measurement Standards.* – The NMIPhil shall periodically undertake meteorological activities, calibration, re-calibration and other related activities to effectively undertake its functions, duties and responsibilities, and comply with international standards.

Any equipment, instrument, artifact, and/or other National Measurement Standards used by NMIPhil that shall be subject to such activities, including proficiency testing, comparison measurements, preventive maintenance and repair, requiring foreign technical services; such processes shall be exempt from any taxes, dues, and other impositions by the Bureau of Customs, Bureau of Internal Revenue or by the Secretary of Finance. The implementing mechanism shall be included in the Implementing Rules and Regulations of this Act.

Sec. 10. *Linkages and Affiliations.* – The NMIPhil shall lead the country towards becoming globally competitive through the following memberships:

a) Signatory to the Metre Convention;
b) Signatory of the International Organization for Legal Metrology (OIML) Convention;
c) Full Member of the Asia Pacific Metrology Programme (APMP); and
d) Full Member of the Asia Pacific Legal Metrology Forum (APLMF).

The NMIPhil shall continue to collaborate with other international, regional metrology organizations, and establish local and international linkages and/or affiliations, associations other than those mentioned, that will greatly contribute to the country's national measurement system.

Sec. 11. *National Metrology Board.* – The National Metrology Board (NMB), hereinafter referred to as the Board, shall be chaired by the Secretary of the DOST. It shall be composed of the Secretaries of the following agencies or their duly authorized representative preferably with the rank of Undersecretary, as ex officio members:

a) Department of Environment and Natural Resources (DENR);
b) Department of Health (DOH);
c) Department of Trade and Industry (DTI);
d) Department of Energy (DOE);
e) Union of Local Authorities of the Philippines (ULAP);
f) National Measurement Institute of the Philippines (NMIPhil);

g) One (1) representative each from the:

i. manufacturing industry sector;

ii. local manufacturer of measuring instruments; and

iii. private calibration laboratories / professional metrology association of national membership;

Each member of the Board shall serve with a term of (3) years to be appointed by the Secretary of the DOST.

The Board may call upon the duly authorized representatives of the following departments/agencies and private institutions such as, but not limited to:

a) Department of Agriculture (DA);
b) Department of Justice (DOJ);
c) Department of the Interior and Local Government (DILG);
d) Department of National Defense (DND);
e) Department of Information and Communications Technology (DICT);
f) Department of Public Works and Highways (DPWH);
g) Department of Transportation (DOTr);
h) Local Government Units (LGUs);
i) Bureau of Customs (BOC);
j) Energy Regulatory Commission (ERC);
k) Food and Drug Administration (FDA);
l) Manila International Airport Authority (MIAA);
m) Manila Electric Company (MERALCO);
n) Manila Water Company, Inc.;
o) Maynilad Water Services, Inc.;
p) Metropolitan Manila Development Agency (MMDA);
q) Metropolitan Waterworks and Sewerage System (MWSS);
r) National Food Authority (NFA);
s) National Meat Inspection Service (NMIS);
t) National Telecommunications Commission (NTC);
u) Oil Industry Management Bureau (OIMB);
v) Philippine Drug Enforcement Agency (PDEA);
w) Sugar Regulatory Authority (SRA);

as the Board deems necessary for the effective implementation of this Act.

The Board shall convene at least twice a year. Special meetings may be convened upon the request of the Chair or majority of the Board members. Each member of the Board shall be entitled to incentives and allowances for his/her attendance to regular and special meetings based on prevailing DOST guidelines.

The NMIPhil is hereby mandated to serve as the Board's Secretariat.

Sec. 12. *Functions, Duties, and Responsibilities of the National Metrology Board.* – The Board shall be responsible for legal metrological controls in the country through the coordination with other executive branches of government, and ensuring uniformity of procedures in the same prescribed manner and their implementation.

In the exercise of its functions, duties and responsibilities, the Board shall have the power to delegate authority to public and private entities to ensure that measurements and measuring instruments used in trade, health, safety, law enforcement and environmental protection are subjected to legal metrological controls and are complying with the relevant regulations.

The Board shall likewise perform such other functions for the full implementation of this Act.

Sec. 13. *National Measurement System.* – The National Measurement System (NMS) shall provide and maintain the necessary infrastructure to support confidence in measurements used for regulation, trade, and manufacturing in the country. The NMS shall cover the following:

a) legal units of measurement;
b) national measurement standards;
c) hierarchy of measurement standards and metrological traceability;
d) national legal metrology regulations for measurements and measuring instruments;
e) legal metrological controls;
f) certification system; and
g) accreditation system.

Sec. 14. *Registration of Regulated Measuring Instruments.* – The State shall require the registration of all measuring instruments used in trade, health, safety, law

enforcement and environment protection with the relevant National Regulators and Local Government Units (LGUs).

Those measuring instruments used as working measurement standards by the National Regulators, LGUs and Board-authorized entities in the implementation of legal metrological controls shall be registered with the Board, through the NMB Secretariat.

Sec. 15. *Legal Units of Measurement*. – The International System of Units (SI) and combinations of those units shall be the legal units of measurement mandated to be used in the Philippines, including the following:

a) non-SI units accepted for use with the SI (e.g. minute, hour, and day for time, hectare for area, tonne for mass, bar for pressure, angstrom for length, nautical mile for distance, decibel for sound level); and

b) non-SI units allowed by international agreements (e.g feet for altitude navigation and mmHg for blood pressure).

Sec. 16. *Hierarchy of Measurement Standards*. – The NMIPhil and its Designated Institutes shall maintain the national measurement standards for the legal units having the highest accuracy for the country, and provide calibrations at appropriate levels of accuracy for the calibration laboratories, National Regulators and Board-authorized public or private entities to disseminate the SI units. The national measurement standards shall in all cases be those assumed to be the most accurate measurement standards of the country.

Private and public calibration laboratories, including the Regional Metrology Laboratories under the DOST Regional Offices, shall in turn use working measurement standards that have been calibrated by the NMIPhil to provide accurate calibrations and measurements to the industry and community. Similarly, National Regulators, LGUs and entities authorized by the Board shall use working measurement standards calibrated by the NMIPhil and Regional Metrology Laboratories to provide legal metrological controls of measuring instruments and measurements, on the premise that their working measurement standards are of the same accuracy level as those of the calibration laboratories.

Sec. 17. *Metrological Traceability*. – Measurements in both the regulated and non-regulated areas shall be traceable to the realization of the SI through the national

measurement standards maintained by the NMIPhil and its Designated Institutes to ensure international compatibility and acceptance of measurement results.

For traceability not provided through the NMIPhil and its Designated Institutes, the State shall recognize measurement standards of other national metrology institutes; *Provided,* That they are internationally accepted by the global metrology community.

Sec. 18. *Legal Metrological Controls.* – Measuring instruments used in trade, health, safety, law enforcement and environment protection shall be evaluated by the National Regulators, LGUs and other Board-authorized public and private entities based on the relevant OIML Recommendations, ASEAN Guidelines and/or Board-authorized document standards.

Compliance with quantity and labelling requirements of prepackaged products shall be checked by the National Regulators, Board-authorized public and private entities in accordance with the ASEAN Common Requirements of Prepackaged Products, relevant OIML Recommendations, ASEAN Guidelines and/or Board-authorized document standards.

Sec. 19. *Right of Access.* – The National Regulators, LGUs and Board-authorized public or private entities, upon presentation of their credentials and in the performance of their duties, shall have the right of access to every establishment or commercial premise, where regulated measuring instruments are, or may be installed, kept or used.

In the same manner, they shall also have the right of access to every premise or facility where prepackaged products are manufactured, or may be filled, packed, labeled, kept or offered for sale.

Any officer or agent of the establishments, commercial premises or other facilities who shall refuse the inspection as referred to herein, shall be liable to the penalties imposed under Section 26 of this Act.

Sec. 20. *Certification System.* – The DTI shall establish a certification system to ensure that legal metrological controls are carried-out only by competent personnel.

Sec. 21. *Accreditation System.* – The DTI shall maintain an accreditation system to ensure the technical competence of calibration and testing laboratories in the

performance of their services under the terms of ISO/IEC 17025 or the *"General Requirements for the Competence of Testing and Calibration Laboratories."*

The Philippine Accreditation Bureau (PAB), as the national accreditation body of the Philippines under the DTI, shall be responsible to accredit inspection, testing and certifying bodies, and other bodies offering conformity assessment services.

Sec. 22. *Prohibited Acts*. – The following shall constitute prohibited acts of any person or juridical person and are hereby declared unlawful:

a) to sell, offer, or expose for sale goods or products with a quantity less than the quantity represented;
b) to represent the quantity in any other manner or intending to mislead or in any way deceive another person;
c) failure to register regulated measuring instruments;
d) use of unregistered regulated measuring instruments;
e) hinder or obstruct any National Regulators, LGUs and Board-authorized entities in the performance of their duties;
f) impersonate a National Regulator, LGUs and Board-authorized public and private entity;
g) affix fake or undue conformity marking or verification marks;
h) use of units other than the legal units of measurement in trade, commercial transactions, documentation and advertisements for products and services, publications, or trainings;
i) use of regulated measuring instruments which have not been submitted to legal metrological control;
j) use of regulated measuring instruments which have failed the legal metrological control and are giving false/wrong measurements;
k) affix false conformity markings or affix conformity markings illegally on measuring instruments;
l) falsification of documents relative to legal metrological control;
m) remove or tamper any tag, seal, or mark from any weight or measure or measuring instrument without being duly authorized by the proper authority; and

n) manipulate software and/or hardware of measuring instruments to give false measurements.

Sec. 23. *National Metrology Training Center*. – There shall be established a National Metrology Training Center under the supervision of the NMIPhil to undertake training on metrology for building the competence and capabilities of metrology-related entities and implementing legal metrological controls in the country.

Sec. 24. *Public Information/Advocacy*. – The NMIPhil, in collaboration with other concerned government agencies and stakeholders, shall engage in information campaigns and advocacy programs to increase the public's awareness on metrology and instill greater appreciation of metrology by the public.

Sec. 25. *Education.* – The NMIPhil, Department of Education (DepEd), Commission on Higher Education (CHED), and other concerned government agencies shall formulate the design and details of a curriculum on metrology and its inclusion in all levels of the Philippines' education system.

Sec. 26. *Penalties*. – Any person who violates any provision of this Act shall be penalized by imprisonment of not less than six (6) months but not more than five (5) years or fine of not less than Fifty thousand pesos (Php 50,000.00) but not more than Five hundred thousand pesos (Php 500,000.00) or both, upon the discretion of the court: *Provided*, however, That if the violator is a corporation, firm, partnership or association, the penalty shall be imposed upon the president or manager or any officer thereof who knows or ought to have known the commission of the offense. *Provided*, finally, That in case the offender is an alien engaged in business in the country, his license shall be revoked and shall be *ipso facto* deported after service of sentence without need of further proceedings.

Sec. 27. *Transitory Provisions*. - The transfer of functions, assets, funds, equipment, properties, transactions, and personnel of the affected agency, and the formulation of the internal organic structure, staffing pattern, operating system, and revised budget of NMIPhil, shall be completed within six (6) months from the effectivity of this Act, during which time, the existing personnel shall continue to assume their posts in holdover capacities until new appointments are issued: *Provided*, further, That there shall be no diminution of rank and salaries, allowances and benefits of

transferred employees. New employees of NMI shall be entitled to the same allowances and benefits as those of the transferred employees.

Provided, finally, That after the transformation of the National Metrology Division as specified in Section 6 of this Act, the DOST, in coordination with the DBM, shall determine and create new positions.

Sec. 28. *Appropriations.* – The amount necessary to carry out the provisions of this Act shall be initially charged against the current fiscal year appropriations of the DOST-Industrial Technology Development Institute (ITDI). Thereafter, the amount needed for the continued implementation of this Act shall be included in the General Appropriations Act.

In addition to the GAA, eighty percent (80%) of the fees and charges collected by the NMIPhil and the DOST Regional Offices from metrology-related works including, but not limited to, calibration and measurement services, technical trainings, and proficiency testing services shall be retained and correspondingly used by the NMIPhil and DOST Regional Offices in the upkeep and modernization of measurement standards and facilities, purchase of measurement standards and equipment, promotion of metrology culture, awareness raising programs and advocacy campaigns, among others. The remaining amount shall be remitted to the National Treasury.

Sec. 29. *Implementing Rules and Regulations.* – The DOST, in coordination with other concerned government departments, agencies and representatives mentioned in Section 11 hereof, shall 3 from the effectivity of this Act issue the necessary implementing rules and regulations of this Act.

Sec. 30. *Progress Report.* – The Executive Director of the NMIPhil shall prepare an annual report on the status of the implementation of the Modernization Program of the NMIPhil which shall be submitted, through the Secretary of the DOST, to the President and to the Chairpersons of the Committees on Science and Technology of the Senate and the House of Representatives not later than June 30 of the succeeding year.

Sec. 31. *Separability Clause.* – If any provision or part hereof is held invalid or unconstitutional, the remainder of the law or the provision or part not otherwise affected shall remain in full force and effect.

Sec. 32. *Repealing Clause.* – Any law, presidential decree or issuance, executive order, letter of instruction, administrative order, rule, or regulation contrary to or inconsistent with the provisions of this Act are hereby repealed, modified, or amended accordingly.

Sec. 33. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in the *Official Gazette* or in two (2) newspapers of general circulation.

Approved,