











BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE **Profiles**

EXECUTIVE SUMMARY

The Department of Trade and Industry – Bureau of Philippine Standards (DTI-BPS), as the National Standards Body of the Republic of the Philippines, is committed to its mandate to develop Philippine National Standards (PNS) that will protect the consumers, facilitate a dynamic local trade, and create a liberated access to international market towards globally competitive Philippine products and services.

The Standards Development Division of BPS is mandated to facilitate standardization activities in the country. Through the expertise and knowledge of the stakeholders or the so-called experts forming the Technical Committees, sound and realistic standards are developed. As such, these stakeholders, who voluntarily offer their time and expertise, must be commended for their unwavering and unconditional efforts.

The DTI-BPS has developed and promulgated more than 10,000 PNS as of September 2020. This was made possible through the standardization efforts of the stakeholders and through collaboration with the Department of Agriculture (DA), Department of Health (DOH) and other partner agencies in developing standards.

To ensure that the standards development process is effective and efficient, the DTI-BPS established the procedures of standards development, through the BPS Directives, a document patterned to ISO/ IEC Directives. Pursuant to the BPS Directives, standards are developed using two (2) methods: Technical Committee Method and the Fast Track Method. Both methods require the participation of stake-holders as their positions and interests are vital in the standards development process.

The development of standards is a tedious and rigorous process as it demands cost-effectiveness, discipline and consensus among all members involved in the standardization activities.

The principle of cost-effectiveness takes into account the total cost of the operation. The concept of "total cost" includes direct expenditure by national bodies, travel costs and the value of the time spent by experts in working groups and committees, at both national and international level.

BPS needs to ensure discipline in the development of standards in order to adhere to agreed work programs, deadlines, and timetables. Similarly, to avoid re-discussion of matters, Technical Committee members have the responsibility of ensuring that their technical standpoint is established taking into account the interest of the sector they represent, and that this standpoint is made clear at an early stage of the work.

Consensus requires the resolution of substantial objections. Although it is necessary for the technical work to progress speedily, sufficient time is required before the approval stage for the discussion, negotiation and resolution of significant technical disagreements.

In order to achieve the purpose of standardization, a Technical Committee shall, as much as possible, compose of representatives from the following sectors: academe, trade and industry, consumers or users, professional associations, research institutions, government agencies, and testing institutions.

This BPS Technical Committee Profiles introduces all active BPS Technical Committees, their respective standardization activities and members. This also features the Sub-committees and Working Groups of the Technical Committees.

This document aims to promote and popularize standards, the development process, and the people behind the standardization initiatives. This also aims to acknowledge the efforts and contributions of the stakeholders and experts to the standardization activities.

LIST OF BPS TECHNICAL COMMITTEES

Active Technical Committees:

#	TC/ SC/WG No.	Title
1	1	Electric Wires and Cables
2	2	Fire Protection and Fire Fighting Equipment
3	3	Cement and Lime
4	4	Lamps and Related Equipment
5	5	Concrete, Reinforced Concrete and Pre-Stressed Concrete
6	6	Gas Cylinders
7	10	Electrical Wiring Devices
	TC 10/WG 2	Circuit breakers
	TC 10/WG 6	Switches
8	11	Steel for Long Products
	TC 11/SC 3	Wires and wire products
9	12	Petroleum Products and Additives (DOE) (TCPPA)
10	16	Rubber and Rubber Products
11	21	Paper, Board and Pulps
	TC 21/SC 1	Handmade Paper
12	23/30	Cooking and Heating Appliances (BPS/TC30) Household Appliances (BPS/TC23)
13	24	Plastic Pipes and Fittings
14	25	Paints and Varnishes
15	28	Glass and Glass Products
16	29	Ceramics and Ceramic Products
17	34	Doors and Windows
18	35	Wood Based Panel (Plywood)
19	37	School and Office Supplies
20	40	Packaging and Packaging Materials
	TC 40/SC1	Glass containers
	TC 40/SC2	Paper packaging
21	41	Furniture
22	43	Handicrafts
23	44	Road Vehicles
	TC 44 /SC 29	Public Utility Vehicles and Emerging Technologies on PUVs
24	50	Fireworks
25	51	Adhesives and Allied Products
26	54	Jewellery
27	56	Personal Safety - Protective Clothing and Equipment
28	59	Audio, Video and Multimedia Systems and Equipment
29	60	Information Technology
	TC 60 / SC 1	Information Security, Cybersecurity and Privacy Protection
	TC 60 / SC 2	IT for learning, education and training
	TC 60 / SC 3	Software and system engineering and IT Service management and IT Governance
30	61	Ferrous Pipes and Fittings
31	66	Pallets for Unit Load Method of Materials Handling
32	67	Footwear
33	68	Petroleum Processes and Facilities (DOE)
34	69	Power Transformer
35	74	Electromagnetic Compatibility (EMC)
36	76	Bamboo and Rattan
37	77	Electrical Installations and Protection against Electric Shock Mirror to IEC/TC 64
38	78	Forest and Forest Products
39	79	Business Process Management

LIST OF BPS TECHNICAL COMMITTEES

Active Technical Committees:

#	TC/ SC/WG No.	Title
40	81	Consumer Policy
41	82	Sustainable Cities and Communities
42	83	Cleanrooms
43	84	Logistics
	TC 84/ WG 1	Sea Freight Transport
44	85	Nanotechnologies
	SC1	Measurement and Characterization
	SC2	Health, Safety, and Environmental Aspects of Nanotechnologies
	SC3	Material Specifications
45	86	Ships and Marine Technology
46	87	Non-food Coconut Products for Industrial Purposes
47	88	Additive Manufacturing
48	89	Electrically Propelled Vehicles

LIST OF BPS TECHNICAL COMMITTEES

Inactive Technical Committees:

#	TC/ SC/WG No.	Title
1	7	Surface Active Agents
2	8	Safety Matches and Lighters
3	9	Batteries and Cells
	TC 10/WG 1	Plugs and Socket- Outlet
	TC 10/WG 3	Lighting Protection
	TC 10/WG 4	Programmable Logic Control
	TC 10/WG 5	Switch Gears
	TC 10/WG 7	Solar Photovoltaic Energy systems
	TC 11/SC 1	Deformed Bars
	TC 11/SC 2	Structural Steel
4	14	Chemistry
5	15	Fertilizers and Soil Conditioners (FPA)
	TC 16/SC 1	Tires
6	17	Sizing System and Designation of Clothes
7	18	Textiles
8	20	Agricultural and Other Food Products (DA, BAFPS, DOH, BFAD)
9	22	Timber and Timber Products
10	26	Safety of Toys and Children's Playthings (DOH-BHDT)
11	27	Leather and Leathergoods
12	31	Pesticides (FPA)
13	32	Coal (DOE)
14	33	Metal Casting
15	34	Doors and Windows
16	38	Hygienic Products
17	39	Copper, Lead and Zinc Ores and Concentrates
18	42	Tool and Die
	44/WG 2	Public Utility Vehicle Modernization
19	45	Plastics and Plastic Products
20	46	Water Pumps
21	47	Home Textiles
22	48	Infant Care Products
23	49	Graphic Technology
24	52	Quality Management and Quality Assurance
25	53	Optics and Optical Instruments (CDRRHR)
26	55	Environmental Management
27	57	Industrial Fans and Blowers
	TC61/SC 1	Steel Pipes and Fittings
28	58	Rotating Machinery
	TC61/SC 2	Cast Iron Pipes, Fittings and their Joints
29	62	Technical Systems & Aids for Disabled or Handicapped Person
30	63	Power Supply Units, Small Power Transformers, Reactors and Power Electronics
31	64	Steel for Flat Products
32	65	Compressed Natural Gas (CNG) (DOE)
33	69	Power Transformers
34	70	Equipment for Electrical Energy Measurement and Load Control (ERC)
35	71	Government Quality Management Program
36	72	Halal Food
37	73	Philippine Working Group on Social Responsibility
38	75	Societal Security
39	80	Health Informatics Mirror

DEPARTMENT OF TRADE AND INDUSTRY BUREAU OF PHILIPPINE STANDARDS EXECUTIVE COMMITTEE



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ENGR. JACQUELINE T. AGARPAO BPS/TC 6 BPS/TC 44 BPS/TC 44/SC 29 BPS/TC 89



ENGR. JOHAYNA W. ALSHIEK BPS/TC 5 BPS/TC 11 BPS/TC 35 BPS/TC 41 BPS/TC 78



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RATIONALE

The Philippine National Standards on electric wires and cables standards provides benefits to stakeholders involved in development, material supply, manufacturing, sales, installation, testing and usage of electric cables. Considering the requirements indicated in the Philippine Electrical Code (PEC) which is based on the US National Electrical Code (NEC), the development of standards for wires and cables makes use mainly of reference standards such as the Underwriters Laboratory (UL) and American Society of Testing and Materials (ASTM). International Electrotechnical Commission (IEC) standards were also considered in terms of applicable test methods.

The BPS/TC 1 is mirrored and a participating member to IEC/TC 20 – Electric cables.

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards for the design, testing and end use recommendations (including current ratings) for insulated electrical wires and cables, power and control cables, their accessories and cable systems, for use in building wiring and in power generation, distribution and transmission.

NOTABLE PUBLISHED STANDARDS

In accordance with the requirements indicated in the Philippine Electrical Code (PEC), BPS/TC 1 has developed homegrown standards for electric wires and cables. These standards were mainly referenced to UL and ASTM standards, since PEC is based on the US National Electrical Code (NEC). IEC standards were also considered in terms of applicable test methods.

The following standards for electric wires and cable are commonly used by electrical designers and practitioners in specifying wires and cable to be used in building installation. These standards meet the requirements as indicated in the Philippine Electrical Code (PEC).

1. Flexible Cords (PVC) PNS 163:2018 Electric wires and cables – Polyvinyl chloride insulated flexible cords and fixture wires – Specification

This standard specifies requirements for thermoplastic insulated flexible cords and fixture wires rated up to 600 volts.

2. PNS 35-1:2004 Electric wires and cabels – Thermoplastic-insulated copper wires and cables rated 600 volts – Part 1: General specifications

This standard meets the requirements indicated in PEC for TW, THW & THHN/THWN building wiring installations rated up to 600 volts.

$01_{\text{composition}}^{\text{technical committee on electric wires and cables}$



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RATIONALE

The Technical Committee on Fire Protection and Fire Fighting Equipment or BPS/TC 02 is the Technical Committee that develops, review, and propose for standards related to fire protection and fire fighting.

The BPS/TC 02 develops and review fire protection and fire fighting standards that will be used by stakeholders, namely:

- industry of fire protection, fire fighting, fire prevention, and fire detection
- government agencies related to fire fighting (e.g. Bureau of Fire Protection)
- testing institutions involved in the tests for fire fighting equipment like fire extinguishers, fire dampers, controllers, etc.
- consumers that benefit (both passive and active) from fire protection and fire fighting equipment and devices (including FDAS or Fire Detection and Alarm System, Smoke Management Systems)

The BPS/TC 02 is a mirror technical committee to the ISO Technical Committee 21 (ISO/TC 21) - Equipment for fire protection and fire fighting.

SCOPE AND LIMITATIONS

The BPS/TC 02 is committed to doing standardization works in the field of all fire protection and fire fighting apparatus and equipment including extinguishing media as well as the personal equipment of the fire fighter, and related work on terminology, classification and symbols.

The following items are excluded in the Scope of BPS/TC 02:

Standardization related to protective clothing and PPEs (Personal Protective Equipment).

NOTABLE PUBLISHED STANDARDS

FDAS standards:

a. PNS ISO 7240-1:2017 (Fire detection and alarm systems - Part 1: General and definitions)b. PNS ISO 7240-2:2017 (Fire detection and alarm systems - Part 2: Control and indicating equipment)

c. PNS ISO 7240-3:2017 (Fire detection and alarm systems - Part 3: Audible alarm devices)

• PNS 2129:2017 (Fire protection and fire fighting equipment - Classification of fires)

The classification for fires is mostly prevalent in use for fire protection and fire fighting industries. The research for equipment on fire fighting also uses classification of fires. Safety organizations and providers of safety courses also make use of the standard for classification of fires.

The standards on FDAS are generally used by manufacturers, designers and installers of FDAS equipment and the research sector associated to each of those FDAS equipment manufacturers.

$02^{\text{TECHNICAL}}_{\text{COMPOSITION}}$ committee on fire protection and fire equipment



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03 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON CEMENT AND LIME

RATIONALE

The cement industry, as one of the most energy-intensive industries in the Philippines, is looking to reduce its contribution to the greenhouse gas emissions, which would be possible through the production and use of low-clinker cement. This low-clinker cement allows the use of significantly lower amounts of portland clinker per unit mass of the cement product, thus also reducing the amount of fuel (usually coal) used in cement kiln, as well as the volume of greenhouse gases emitted to the atmosphere during pyroprocessing.

At the time prior to the reactivation of the Bureau of Philippine Standards Technical Committee on Cement and Lime (BPS/TC 3), ASTM C150-17 *Standard Specification for Portland Cement* and ASTM C595 -18 *Standard Specification for Blended Hydraulic Cements* have provisions related to possible production of cements with lower clinker composition, as compared with what the then-active versions of Philippine National Standards on cement were requiring. This information has motivated the Cement Manufacturers Association of the Philippines Inc. (CeMAP) to coordinate with the Bureau of Philippine Standards to update the cement standards being used by the Philippine cement industry.

With its priority being to promulgate Philippine National Standards that deliver the best for the stakeholders in the consumer and industry sectors including the welfare of the environment, the Bureau of Philippine Standards (BPS) acted upon the request of the industry and reactivated BPS/TC 3 on 26 April 2018.

SCOPE AND LIMITATIONS

The task of BPS/TC 3 is to develop Philippine National Standards on specifications, test methods, classifications, guides, practices, and terminology for various types of cement and lime used in building construction and engineering, either for binding together the construction materials or as a constituent part of all kinds of paste, mortar, and concrete.

Types of cement cover hydraulic cements and other inorganic cements, including their ingredients and combinations during manufacture. On the other hand, types of lime include but are not limited to quick-lime, hydrated lime, hydraulic lime, associated calcareous materials, and its derivative limestone, used for industrial, environmental, chemical, construction, and agricultural applications.

The BPS/TC 3 also covers cement packaging for storage, handling, and transport.

Standardization of concrete (aggregates, premixed concrete, precast concrete, etc.), masonry (mortars, grouts, and masonry units), and other related construction materials are covered under BPS Technical Committee on Concrete, Reinforced Concrete and Pre-stressed Concrete (BPS/TC 5).

NOTABLE PUBLISHED STANDARDS

The BPS/TC 3 has developed Philippine National Standards that are referred in the BPS List of Products under Mandatory Certification for cement as a construction material. These are PNS 07:2018 *Portland Cement – Specification* and PNS 63:2019 *Blended Hydraulic Cements – Specification*.

PNS 07:2018 covers ten types of portland cement produced by pulverizing clinker, consisting essentially of crystalline hydraulic calcium silicates, and usually containing one or more of the following – water, calcium sulfate, limestone of not more that 5 % by mass, and processing additions. The provisions of this standard are primarily based on those of ASTM C150/C150M-18 *Standard Specification for Portland Cement*.

PNS 63:2019, on the other hand, pertains to five types of blended hydraulic cements for both general and special applications, using slag, pozzolan, limestone, or some combination of these, with portland cement or portland cement clinker. This standard was developed using ASTM C595/C595M-19 *Standard Specification for Blended Hydraulic Cements* as main reference.

Also part of the published standards by BPS/TC 3 is PNS ASTM C91/C91M:2019 *Standard Specification for Masonry Cement*, which specifies three types of masonry cement for use where mortar for masonry is required. This particular standard is an adoption of ASTM C91/C91M-18 with modifications to bag markings to emphasize its non-use in structural concrete applications.

$03^{\text{technical committee on cement and lime}}_{\text{composition}}$

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$03^{\text{technical committee on cement and lime}}_{\text{composition}}$

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$03^{\text{technical committee on cement and lime}}_{\text{composition}}$

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04 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON LAMPS AND RELATED EQUIPMENT

RATIONALE

The Philippine National Standards on lamps benefits the manufacturers, certification and testing bodies, designers, end users, architects, retailers, consumers and government organizations. The lighting industry has relied on standards and the products with the scope of these standards. Mechanical and electrical fit systems, lamp sizes and shapes, temperature limitations, control gear specifications, and luminaire requirements are some of elements in the standards for performance and safety of lighting products. The development of standards for lighting products makes use mainly of reference standards from International Electrotechnical Commission (IEC).

BPS/TC 4 is mirrored and a participating member to IEC/TC 34 – Lighting and to its subcommittee IEC/SC 34A – Electric light sources.

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards for lamps (including LEDs), glow starters, lamp caps, lamp holders, lamp control gear, luminaries and miscellaneous related equipment not covered by other TC.

NOTABLE PUBLISHED STANDARDS

The following standards are commonly used by electrical designers, practitioners and architects to specify safety requirements of lighting products.

- **PNS IEC 61347-2-8:2017** Lamp controlgear Part 2-8: Particular requirements for ballasts for fluorescent lamps
- **PNS IEC 61347-2-3:2017** Lamp controlgear Part 2-3: Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent lamps
- **PNS IEC 60968:2017** Self-ballasted fluorescent lamps for general lighting services Safety requirements
- PNS IEC 62560:2012 Self-ballasted LED-lamps for general lighting services by voltage >50V Safety specifications
- **PNS 189:2000** Lighting sets using miniature and subminiature lamps for decorative purposes for indoor use Specification
- **PNS IEC 61195:2017** Double-capped fluorescent lamps Safety specifications
- **PNS IEC 61199:2019** Single-capped fluorescent lamps Safety specifications
- **PNS IEC 60432-1:2019** Safety specifications for incandescent lamps Part 1: Tungsten filament lamps for domestic and similar general lighting purposes
- PNS IEC 60238:2017 Edison screw lampholders
- **PNS IEC 60400:2017** Lampholders for tubular fluorescent lamps and starterholders

04 technical committee on lamps and related equipment composition



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04 technical committee on lamps and related equipment composition

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04 technical committee on lamps and related equipment composition

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05 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE

RATIONALE

The BPS Technical Committee on Concrete, Reinforced Concrete and Prestressed, and (BPS/TC 5) is tasked to develop Philippine National Standards for specifications, test methods, and practices for concrete, its constituents (except cement), and its products.

Concrete, together with cement, is a vital component in the building and maintenance of civil infrastructure and systems. As the most widely used man-made product in the world, standardization for concrete contributes to the safety and well-being of the public through procedures and specifications that effect to structural safety, reliability, serviceability, and resiliency. It also aims to facilitate trade and promotes the use of quality materials and the conduct of standard methodologies.

The Standardization work of this TC also contributes to the United Nations Sustainable Goals 8 Decent Work and Economic Growth, 9: Industry, Innovation, and Infrastructure and 12: Responsible Consumption and Production and 15: Life on Land.

SCOPE AND LIMITATIONS

BPS/TC 5 adopts and develops standards for specifications, test methods, mixture proportions, curing and other properties and technologies of concrete, reinforced concrete, and pre-stressed concrete. The work scope includes concrete constituent materials such as aggregates, mortars and grouts for concrete masonry, and concrete products such as manufactured masonry units.

The scope does not include the field of design and construction of concrete structures except for construction methods for concrete units available as over-the-counter materials.

Its work scope excludes standards being developed by the following respective BPS Technical Committees:

BPS/TC 3 Cement and Lime BPS/TC 11 Long Steel Products BPS/TC 35 Wood-Based Panels BPS/TC 29 Ceramics and Ceramic Products BPS/TC 40 Adhesives and Allied Products

NOTABLE PUBLISHED STANDARDS

In 2019, the following Philippine National Standards were referred to in the BPS Draft Department Administrative Order on the New Technical Regulation concerning the Mandatory Product Certification of Concrete Masonry for public comments:

- PNS ASTM C90:2019 with Amendment 1:2019 Standard Specification for Loadbearing Concrete Masonry Units
- PNS ASTM C129:2019 Amendment 1:2019 Standard Specification for Nonloadbearing Concrete Masonry Units
- PNS ASTM C140/C140M:2019 Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units

The scope of the Draft DAO also includes Autoclaved Aerated Concrete (AAC) blocks based on PNS ASTM C1660:2019 Standard Specification for Thin-bed Mortar for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1691:2019 Standard Specification for Unreinforced Autoclaved Aerated Concrete (AAC) Masonry Units, PNS ASTM C1692:2019 Standard Practice for Construction and Testing of Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS ASTM C1693:2019 Standard Specification for Autoclaved Aerated Concrete (AAC) Masonry, PNS

$05\,{}^{\rm Technical}$ committee on concrete, reinforce concrete and pre-stressed concrete composition



ENGR. EDWIN C. MACARAEG *Chairman, BPS/TC 5* Philippine Chapter - Technical Director American Concrete Institute



ENGR. DOLORES N. DOLLAGA Vice Chairwoman, BPS/TC 5 President, Philippine Concrete Industry Association

Members:



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ENGR. BOY ALEXIS E. MIÑANO Engineer III Department of Public Works and Highways Bureau of Research and Standards

$05\,{}^{\rm Technical}$ committee on concrete, reinforce concrete and pre-stressed concrete composition

Members:



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DR. FERNANDO J. GERMAR Building Research Service University of the Philippines Los Banos



MR. JOHN HENRY O. DEE President Philippine Concrete Industry Association



MR. FERNANDO C. OBIS Omnico Consortium, Inc.

$05\,{}^{\rm Technical}$ committee on concrete, reinforce concrete and pre-stressed concrete composition

Members:



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ENGR. JOHN S. JUAN* Senior Trade-Industry Development Specialist Construction Manpower Development Foundation Construction Authority of the Philippines



ENGR. IGMIDIO J. AQUINO, JR.* Senior Trade-Industry Development Specialist Construction Manpower Development Foundation Construction Authority of the Philippines



MS. CHERILYN R. MADUCDOC* ACS Manufacturing Corporation



MR. MARK ANGELO MALLANAO Makati Development Corporation ConQrete Incorporated



MR. JAIME P. DOMINGO JR.* Makati Development Corporation ConQrete Incorporated



ENGR. FELIPE BASILAN* Makati Development Corporation ConQrete Incorporated



DR. LESSANDRO ESTELITO O. GARCIANO* Association of Structural Engineers of the Philippines

06 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON GAS CYLINDERS

RATIONALE

The Bureau of Philippine Standards (BPS) Technical Committee 6 (BPS/TC 6) was reactivated in 2017 following the proposal of liquefied petroleum gas (LPG) stakeholders composed of cylinder manufacturers, refillers, importers, and sellers.

Through BPS/TC 6, the Philippines is registered as an observing member (O-member) to the ISO/TC 58 wherein the TC obtained its name and scope. Created in 1947, ISO/TC 58 is involved in the development of standards for pressure receptacles, including gas cylinders, their fittings and characteristics relating to their manufacture and use. The scope includes all types of transportable pressure receptacles for gas, provided they are not cryogenic containers (covered by ISO/TC 220, Cryogenic vessels) or aerosol containers. [1]

BPS/TC 06 continuously responds to the need of the local industry through the development and conduct of periodic review of homegrown Philippine National Standards (PNS) on terminology, components, design and construction, compatibility, safety specifications, periodic inspection and testing, marking and labeling for use in household, motor vehicles, refillable and non-refillable, and high pressure gas cylinders. These PNS were developed with full cognizance of World Trade Organization Technical Barriers to Trade Agreement (WTO TBT). Likewise, the TC acknowledges the importance of international standards in the global economy by adopting international standards as PNS.

BPS/TC 06 is also actively involved in the development and review of relevant policies by collaborating with various government agencies and participating as experts in working groups and committees.

SCOPE AND LIMITATIONS

Standardization of gas cylinders and other pressure receptacles, their fittings and requirements relating to their manufacture and use. Excluded are cryogenic vessels (ISO/TC 220) and aerosol containers.

NOTE: Pressure receptacles, cryogenic receptacles and aerosols are defined in the international regulations for the transport of dangerous goods by sea, air, road and rail and in the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations (ST/SG/AC.10/1 as amended from time to time).

NOTABLE PUBLISHED STANDARDS

The following PNS are referred to in the BPS Mandatory Product Certification Schemes:

- PNS 03-1:2000 Steel cylinders for liquefied petroleum gas (LPG) -Part 1: Specification
- PNS 03-2:2000 Steel cylinders for liquefied petroleum gas (LPG) Part 2: Method of requalification
- **PNS 03-3:2000** Petroleum gas (LPG) Part 3: Requirements for repair
- PNS 04:1983 Gas cylinders for automotive LPG for use in motor vehicles Steel cylinders Specifications
- PNS 1132:1993 Storage and handling of liquefied petroleum gas (LPG) Safety code

The following are other notable published standards of BPS/TC 6:

- PNS 1132:1993 Storage and handling of liquefied petroleum gas (LPG) Safety code
- PNS 1967:2001 Periodic inspection and testing of seamless steel gas cylinders
- PNS ISO 11118:2014 Gas cylinders Non-refillable metallic gas cylinders Specification and test methods
- **PNS ISO 11120:2014** Gas cylinders Refillable seamless steel tubes for compressed gas transport, of water capacity between 150 I and 3000 I Design construction and testing
- **PNS ISO 7866:2014** Gas cylinders Refillable seamless aluminum alloy gas cylinders Design, construction and testing
- **PNS ISO 9809-1:2014** Gas cylinders Refillable seamless steel gas cylinders Design, construction and testing Part 1: Quenched and tempered steel cylinders with tensile strength less than 1 100 Mpa
- **PNS ISO 9809-2:2014** Gas cylinders Refillable seamless steel gas cylinders Design, construction and testing Part 2: Quenched and tempered steel cylinders with tensile strength greater than or equal 1 100 Mpa
- **PNS ISO 9809-3:2014** Gas cylinders Refillable seamless steel gas cylinders Design, construction and testing Part 3: Normalized steel cylinders

$06 \stackrel{\text{technical committee on gas cylinders}}{\text{composition}}$



MR. RAMON CUISON *Chairman, BPS/TC 6* President, General Manager, Red Clover Consultants, Inc. President, Philippine LPG Association

> MR. ZOSIMO BUGARIN Vice Chairman, BPS/TC 6 AVP – Plant Operations Ferrotech Steel Corporation



Members:



MS. MERCEDITA PASTRANA Executive Director LPG Industry Association Inc.



MR. CEZAR DELA CRUZ Director Philippine Institute of Chemical Engineers



MR. FLORANTE CATALAN Chief, Physical Laboratories Section Metals Industry Research and Development Center



MR. EULOGIO REYES Member – Emeritus Safety Organization of the Philippines, Inc.



ENGR. LORENZO DE GUIA Division Chief Bureau of Fire Protection

*Alternate Members

$06 \stackrel{\text{technical committee on gas cylinders}}{\text{composition}}$

Members:



MR. RENANTE SEVILLA Chief Science Research Specialist Oil Industry Management Bureau Department of Energy



MS. MAIDA DELA CUEVA Faculty Member Adamson University



MR. LITO POJAS Plant Manager Asephil Manufacturing Corporation



MR. JOHN GLENN MACOY Isla LPG Corporation



MS. CORAZON MAGPANTAY Industrial Technology Development Institute Department of Science and Technology







MR. ARIEL GOMEZ FSC Metal Corporation



ENGR. MELANIE BANAYOS, PME Supervising Labor and Employment Officer Bureau of Working Conditions Department of Labor and Employment

$06 \stackrel{\text{technical committee on gas cylinders}}{\text{composition}}$

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MR. RAYMAN T. GEMARINO LPG Technical Services Coordinator Petron Corporation



MS. TERESITA BALBA* Philippine Institute of Chemical Engineers (PIChE)



MR. EDWARD MALIT* Science Research Specialist II Metals Industry Research and Development Center Department of Science and Technology



CINSP. GERARD VENEZUELA* Bureau of Fire Protection



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MR. ERICSON C. ROQUE * Adamson University



MR. EDGAR BAIT-IT* Plant Manager Asephil Manufacturing Corporation



MR. GILBERT MARQUEZ* Labor and Employment Officer III Bureau of Working Conditions Department of Labor and Employment

RATIONALE

Electrical wiring devices are widely used either in electrical installations or systems including appliances and machineries in dwellings, commercial or public buildings where people are uninstructed. These devices are normally installed or mounted by skilled people and are used by ordinary persons having no knowledge about danger of electricity. For these reasons a special attention to safety linked to predictable risks relating to ordinary persons is taken into consideration.

The development of standards for electrical wiring devices makes use mainly of reference standards from the International Electrotechnical Commission (IEC) and other regional standards such as Underwriters Laboratory (UL), American National Standards Institute (ANSI), Japanese Industrial Standards Committee (JISC).

BPS/TC 10 is mirrored to IEC/TC 23 – Electrical accessories and a participating member to its subcommittees IEC/SC 23B - Plugs, socket-outlets and switches and IEC/SC 23E - Circuit-breakers and similar equipment for household use.

BPS/TC 10 has established various Working Groups as follows:

- Working Group 1 Plugs and Sockets
- Working Group 2 Circuit breakers
- Working Group 3 Low-voltage surge protective devices
- Working Group 4 Programmable Logic Controls (PLC)
- Working Group 5 Low-voltage switchgear
- Working Group 6 Switches

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards for electrical wiring devices such as switches, circuit breakers, contactors, starters, disconnectors, busbars, switchgear assemblies, plugs and socket-outlets, adaptors, circuit breakers for overcurrent protection, connecting devices, appliance couplers, cord sets, devices for protections against electric shock, enclosures for accessories, conduit systems, cable trunking systems, cable ducting systems and cable support systems which were intended for household, offices, commercial, industrial premises, hospitals and public buildings.

NOTABLE PUBLISHED STANDARDS

The following safety standards for electrical wiring devices are commonly used by electrical designers and practitioners. These devices are incorporated in electrical installations which are intended to be used for a long period of time.

- PNS IEC 60947-2:2020 Low-voltage switchgear and controlgear Part 2: Circuit breakers
- PNS IEC 60669-1:2020 Switches for household and similar fixed electrical installations General requirements
- **PNS 2117:2018** Plugs and socket-outlets for household and similar purpose Configurations and dimensions
- **PNS IEC 60884-1:2016** Plugs and socket-outlets for household and similar purposes Part 1: General requirements

$10_{\rm COMPOSITION}^{\rm TECHNICAL\ COMMITTEE\ ON\ ELECTRICAL\ WIRING\ DEVICES}$



MR. GEM J. TAN *Chairman, BPS/TC 10* Institute of Integrated Electrical Engineers of the Philippines, Inc.

> MR. JIMMY ONG Vice Chairman, BPS/TC 10 Consultant Kopez Manufacturing, Inc.



Members:



ENGR. GIDEON TAN Sales Manager Yu Eng Kao Electrical Supply & Hardware Inc.



ENGR. RONALD VINCENT SANTIAGO Electrical Engineering Program Chair Mapua University, Intramuros, Manila



MR. ELMER S. VILLAMOR Product Technical Manager Firefly Electric and Lighting Corporation



ENGR. REYNALDO Q. DEL MUNDO Consultant Schneider Electric Philippines, Inc.



MR. EDUARDO V. PASCUAL Consultant Edison Electric Integrated, Inc.

$10_{\rm COMPOSITION}^{\rm TECHNICAL\ COMMITTEE\ ON\ ELECTRICAL\ WIRING\ DEVICES}$

Members:



MR. SAMSON CHIONG Eagle Electric of the Philippines



MR. COSELITO A. ODASCO Asea Brown Boveri, Inc.



MS. IMELDA MARQUEZ Bticino Philippines



MR. EDWIN T. RONDILLOS Yatai International Corporation



MR. GENESIS A. RAMOS Department of Energy



MR. EDRIAN NIKKO PLACER Panasonic Manufacturing Philippines Corp.



MR. JESSIE ROBERT MALLONGA Laban Konsyumer Inc.



MS. ANGELI CHRISTIE OLAIVAR TUV Rheinland Philippines, Inc.

$10_{\rm COMPOSITION}^{\rm TECHNICAL\ COMMITTEE\ ON\ ELECTRICAL\ WIRING\ DEVICES}$

Members:



MR. JESUS FEDERICO S. SANTIAGO* Technical Sales Engineer Panasonic Manufacturing Philippines Corporation



ENGR. FERNANDO NUAL JR.* Electronics and Communications Engineer Technical Service Engineer Firefly Electric and Lighting Corporation



MS. RHEA BUÑAO* Schneider Electric Philippines, Inc.



MR. FRITZ P. CAPONONG* Department of Energy



ENGR. CONRADO BINONDO General Manager Elecdes Trading and Technical Services

RATIONALE

The BPS Technical Committee on Long Steel products (BPS/TC 11) is tasked to develop Philippine National Standards for specifications and test methods of long steel products such as deformed bars, structural steel, wire rods, steel wires and wire products.

The development of standards on long steel products are significant to provide guidance to laboratories, product manufacturers, and end-users of steel products for proper processing and application to ensure quality and safe and appropriate use. The standards specify means to classify, evaluate, and specify the material and its properties (physical, chemical, mechanical). Steel products under the scope of the BPS/ TC 11 are primarily used as construction elements and in the production of mechanical components among others.

The Standardization work of this TC 11 contributes to the United Nations Sustainable Goals 9: Industry, Innovation, and Infrastructure and 12: Responsible Consumption and Production.

SCOPE AND LIMITATIONS

BPS/TC 11 adopts and develops standards for specifications and test methods of long steel products such as deformed bars, structural steel, wire rods, steel wires and wire products.

Its work scope excludes standards being developed by the following respective BPS Technical Committees:

- BPS/TC 33 Metal Castings
- BPS/TC 61 Ferrous Pipes and Fittings
- BPS/TC 64 Flat Steel Products

NOTABLE PUBLISHED STANDARDS

The following standards are referred to in the BPS Mandatory Product Certification Schemes:

- PNS 49 Steel bars for concrete reinforcement Specification
- PNS 657:2008 Hot-rolled steel sections Equal-leg angles Specification
- PNS 211:2002 Rerolled steel bars for concrete reinforcement Specification
- PNS 113: 2005 Low carbon steel wires plain, annealed and galvanized Specification
- PNS 136:2000 Steel wire nails Specification

1 TECHNICAL COMMITTEE ON STEEL FOR LONG PRODUCTS COMPOSITION



MR. WELLINGTON Y. TONG *Chairman, BPS/TC 11* President, Philippine Steel Rolling Mills Association

> DR. AGUSTIN M. FUDOLIG Vice Chairman, BPS/TC 11 Deputy Executive Director Research and Development Metals Industry Research and Development Center



Members:



DR. ELIGIA D. CLEMENTE Associate Professor Department of Mining, Metallurgical, and Materials Engineering University of the Philippines



DR. FERNANDO GERMAR Building Research Service University of the Philippines



ENGR. RODELITO J. OCAMPO Philippine Constructors Association



ENGR. LEILANI D.L. DEL PRADO Chief, Trade and Industry Development Specialist Philippine Domestic Construction Board (PDCB) Construction Industry Authority of the Philippines (CIAP)



ENGR. JULIO VICTOR S. ANDOYO Engineer II Bureau of Research and Standards Department of Public Works and Highways
11 TECHNICAL COMMITTEE ON STEELS FOR LONG PRODUCTS COMPOSITION

Members:



ENGR. EFREN H. SISON Association of Structural Engineers of the Philippines



DR. RIO PAGTALUNAN Metals Industry Research and Development Center (MIRDC) Department of Science and Technology (DOST)



MR. ALVIN CHENG Member Association of Philippine Steel Mills, Inc.



ENGR. EMILIO M. MORALES Technical Director Philippine GeoAnalytics, Inc.



MR. FREDRICK C. COBANKIAT Member G.I. Wire Manufacturers Association



ENGR. EDGAR MARQUEZ Quality Assurance Manager Pag-asa Steel Works, Inc.



MR. JOEL T. RONQUILLO Vice President, Technical Affairs Philippine Iron and Steel Institute



MR. RICARDO YU Philippine Nail Manufacturers Association

11 TECHNICAL COMMITTEE ON STEELS FOR LONG PRODUCTS COMPOSITION

Members:



ENGR. RUDOLF MIRANDA Philippine Steelmakers Association



MR. RAMON TAN President Steel Angles, Shapes and Sections Manufacturers Association of the Philippines



ENGR. JAN LOWELL P. BUQUIZ* Assistant Professor Department of Mining, Metallurgical and Materials Engineering University of the Philippines



ENGR. ROGEL TALAGTAG* Building Research Service University of the Philippines



ENGR. NIKI NAJARO* Philippine Domestic Construction Board Construction Industry Authority of the Philippines



ENGR. FLORANTE A. CATALAN* Chief, Physical Laboratories Section Metals Industry Research and Development Center Department of Science and Technology



MR. BERNARDO G. LAO JR. Association of Philippine Steel Mills, Inc.

RATIONALE

The Bureau of Philippine Standards Technical Committee on Rubber and Rubber-Based Products (BPS/ TC 16) is the Technical Committee that develops, reviews, and recommends standards on rubber and rubber-based products.

BPS/TC 16 develops and review standards on rubber that are used as a guide or reference by stakeholders, namely:

- manufacturing industries of rubber-based products
- automotive industries (i.e. for parts and assemblies made of rubber)
- testing sectors involved in the tests for natural rubber, synthetic rubber, and rubber-based products
- downstream rubber industries and consumers
- organizations and agencies that promote the rubber industry thereby increasing exports, providing jobs, and harnessing the rubber potential of the Philippines

The Technical Committee is the National Mirror Committee of ISO Technical Committee on *Rubber and rubber products* (ISO/TC 45).

SCOPE AND LIMITATIONS

BPS/TC 16 is responsible for the standardization in the field of rubber products, which includes standardization of terms and definitions, test methods and specifications for rubber in any form, rubber products (including their dimensional tolerances) and major rubber compounding ingredients.

Items of composite materials in which rubber is the component like: coated fabrics, flexible cellular materials, footwear and hose, whether made of rubber or plastics, are also encompassed in BPS/TC 16.

The following items are excluded in the Scope of BPS/TC 16:

- rubber belting (under Technical Committee for Pulleys and Belts)
- certain speciality products, specifically those dealt with by ISO/TC 20, ISO/TC 22, ISO/TC 121 and ISO/TC 157, as well as the rubber seals dealt with by ISO/TC 131

NOTABLE PUBLISHED STANDARDS

A. PNS for rubber inner tubes:

- PNS 34:2006 (Rubber inner tubes for pneumatic tires Specification)
- PNS 34-1:2019 (Pneumatic tubes for motorcycles Specification)
- PNS ISO 17464:2019 (Pneumatic tubes for automotive vehicles Requirements and test methods)

B. PNS for tires of automotive vehicles:

- PNS 25:1994: (Pneumatic tires Specification)
- PNS UN ECE 30:2010 (Uniform provisions concerning the approval of pneumatic tyres for motor vehicles and their trailers)
- PNS UN ECE 54:2010 (Uniform provisions concerning the approval of pneumatic tyres for commercial vehicles and their trailers)

These standards are reference for the industries of tire manufacturing and to the related stakeholders such as testing consumers that uses automotive vehicles. These standards are also referred to the regulations being implemented by BPS in its Product Certification Scheme.

16 TECHNICAL COMMITTEE ON RUBBER AND RUBBER-BASED PRODUCTS COMPOSITION



MR. ELPIDIO L. CARLOTA, MBA *Chairman, BPS/TC 16* President and CEO, TRACSys Group of Companies Philippine Delegate, ASEAN Consultative Committee on Standards and Quality Rubber-Based Product Working Group Director, Philippine Rubber Industries Association





Members:



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MR. CHRISTOPHER LI Leo Tires Manufacturing Corporation



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ENGR. ADELAIDA SENICA Industrial Technology Development Institute Department of Science and Technology Philippine Expert to ISO/TC 45

$16^{\rm TECHNICAL}$ committee on Rubber and Rubber-based products composition

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Technical Experts/Observers:



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ENGR. NONITO B. GALPA Chairman/Manager Emeritus Q-Tech Testing Laboratory



MS. MARINA B. CHUA General Manager Izumi Tires Manufacturing Co., Incorporated



MR. MANUEL ROSALES Evergreen Rubber Corporation



MS. LORNA NOTORIO Marketing and Administration Staff Evergreen Rubber Corporation

RATIONALE

The BPS Technical Committee on Paper, Board and Pulps (BPS/TC 21) was organized to support and sustain the paper, board and pulps industry in the country. Standards in this field are developed as a guide for the manufacturers to guarantee the good quality of paper, board and pulp products for the benefit of the local industries, ensuring that they and the consumers.

BPS/TC 21 is the National Mirror Committee of ISO Technical Committee on Paper, Board and Pulps (ISO/TC 6). The Philippines, through BPS/TC 21, is an observing member to ISO/TC 6.

SCOPE AND LIMITATIONS

The Technical Committee is responsible for the standardization in the field of paper, board and pulps including terminology, test methods, sampling procedures, quality specifications, and the establishment and maintenance of appropriate calibration systems. This includes all types of paper, pulps and board as well as products thereof containing any portion of recycled material or material intended for recycling.

The Technical Committee is in liaison with the Technical Committee of Office and School Supplies (BPS/ TC 37) and the Technical Committee on Packaging and Packaging Materials (BPS/TC 40).

The Technical Committee has a **Sub-committee on Handmade Paper** (BPS/TC 21/SC 1). The Sub-committee is in charge of developing standards on handmade paper products with export potential.

NOTABLE PUBLISHED STANDARDS

The following are the notable Philippine National Standards developed by the Technical Committee and published by BPS:

PNS Designation	Title
PNS 72:2019	Paper, board and pulps – Facial tissue paper – Specification
PNS 166:2019	Paper, board and pulps – Corrugating medium – Specification
PNS 221:2019	Paper, board and pulps – Machine-finish uncoated book paper – Specification
PNS 222:2019	Paper, board and pulps – Multi-purpose copy paper – Specification
PNS 2039:2019	Handmade paper Specifications for printing and writing
PNS 2051:2019	Handmade paper Specifications for cards
PNS 2052:2019	Handmade paper Specifications for packaging
PNS 70:2018	Paper, board and pulps – Bond paper - White and colored – Specification
PNS 167:2012	Paper, board and pulps – Linerboard – Specification
PNS 216:2012	Writing paper and certain classes of printed matter – Trimmed sizes – A and B series, and indication of machine direction
PNS 1824:2010	Paper, board and pulps – Textbook paper – Specification
PNS 474:2009	Paper, board and pulps – Notebook – Specification
PNS 270:2007	Paper, board and pulps – Multiwall kraft paper sack for cement – Specification
PNS 126:2003	Paper, board and pulps – Newsprint – Specification
PNS 123:2000	Paper, board and pulps – Extensible sack paper – Specification
PNS 473:1997	Paper, board and pulps – Grade school pads – Specification
PNS 265:1990	Paper, board and pulps – Colored ruled paper – Specification

$\mathbf{21}_{\text{composition}}^{\text{technical committee on paper, board and pulps}$



MR. RAY N. GEGANTO *Chairman, BPS/TC 21* Vice President, Technical Association of the Pulp and Paper Industry Executive Director, Philippine Paper Manufacturers Association, Inc.

MS. ADELA S. TORRES Vice Chairwoman, BPS/TC 21 Supervising Research Specialist Department of Science and Technology Forest Products Research and Development Institute



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ENGR. GERONIMA T. DOMINGO Technical Services Manager, retired Noahs Paper Mills, Inc



MS. MARILES N. NERI Technical Expert

$\mathbf{21}_{\text{composition}}^{\text{technical committee on paper, board and pulps}$

Members:



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MR. CEASAR O. AUSTRIA* Senior Research Specialist DOST FPRDI



MS. STEFANIE ANN BENDANA National Bookstore



MR. JC BONDAD* National Bookstore

21TECHNICAL COMMITTEE ON PAPER, BOARD AND PULPS SUB-COMMITTEE 1 (HANDMADE PAPER) COMPOSITION



MS. ADELA S. TORRES *Chairwoman, BPS/TC 21/SC 1* Supervising Research Specialist Department of Science and Technology Forest Products Research and Development Institute

Members:



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ENGR. TEOFISTA EXCONDE Papelipa Arts and Craft



MS. MARILYN MUNIO Design Center of the Philippines



MS. MARILES NERI Technical Expert



MS. ANA MARIE AFABLE Tuys Arts & Designs



MR. LORETO S. APILADO Ortigas Foundation



MR. CEASAR O. AUSTRIA* Department of Science and Technology Forest Products Research and Development Institute

23/30 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON HOUSEHOLD, COOKING AND HEATING APPLIANCES

RATIONALE

The BPS/TC 23/30 aims to develop standards relating to safety of household and similar appliances in a manner that industries can keep pace with modern technology. The standards developed will fulfill the needs of certification bodies, users, manufacturers and national authorities responsible for safety. The use of standards will benefit the consumers, manufacturers of appliances, certification and testing laboratories, retailers and national inspection authorities.

The development of standards for household and similar appliances makes use mainly of reference standards from the International Electrotechnical Commission (IEC).

BPS/TC 23/30 is mirrored to IEC/TC 61 – Safety of household and similar electrical appliances and a participating member to its subcommittee IEC/SC 61D - Appliances for air-conditioning for household and similar purposes.

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards for electrical appliances primarily for household purposes but also for other equipment and appliances in similar fields where there is no other TC exist. It also prepares methods of measurement of characteristics which are of importance to determine the performance of household and similar electrical appliances and are in interest to the consumer.

NOTABLE PUBLISHED STANDARDS

The following safety standards for household and similar appliances are mostly used for certification purposes to obtain or cover market approval requirements locally and internationally.

- **PNS IEC 60335-2-80:2016** Household and similar electrical appliances Safety Part 2-80: Particular requirements for fans
- **PNS IEC 60335-2-3:2018** Household and similar electrical appliances Safety Part 2-3: Particular requirements for electric irons
- **PNS IEC 60335-2-14:2018** Household and similar electrical appliances Safety Part 2-14: Particular requirements for kitchen machines
- **PNS IEC 60335-2-25:2015** Household and similar electrical appliances Safety Part 2-25: Particular requirements for microwave ovens, including combination microwave ovens
- **PNS IEC 60335-2-15:2019** Household and similar electrical appliances Safety Part 2-15: Particular requirements for appliances for heating liquids
- **PNS IEC 60335-2-9:2019** Household and similar electrical appliances Safety Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances
- **PNS IEC 60335-2-7:2019** Household and similar electrical appliances Safety Part 2-7: Particular requirements for washing machines
- **PNS IEC 60335-2-4:2018** Household and similar electrical appliances Safety Part 2-4: Particular requirements for spin extractors
- **PNS IEC 60335-2-24:2018** Household and similar electrical appliances Safety Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers
- **PNS 2133-2-40:2018** Household and similar electrical appliances Safety Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers
- **PNS 396-1:1998** Household appliances Energy efficiency ratio (EER) and labeling requirements Part 1: Non-ducted air conditioners
- **PNS 396-2:1997+AMD1:2000** Household appliances Energy efficiency ratio (EER) and labeling requirements – Part 2: Refrigerators and freezers

23/30 Technical committee on household, cooking and heating appliances composition



MR. JESSIE ROBERT P. MALLONGA

Chairman, BPS/TC 23/30 Laban Konsyumer, Inc. Former Acting President, International Electrotechnical Commission National Committee of the Philippines

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Members:



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Members:



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23/30 technical committee on household, cooking and heating appliances composition

Members:



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MR. DANTE DIVINA JR. Samsung Electronics Philippines Corp.



MR. ISAGANI C. SORIANO Division Chief Lighting and Appliance Testing Laboratory Department of Energy



MR. RONALDO RUIZ Kolin Philippines



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MR. ERWIN CORPUS Quality Control Officer/Technical OIC Kitchen Beauty Marketing Corporation



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MR. HERBERT ORENCIA* Department of Energy



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24 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON PLASTIC PIPES AND FITTINGS

RATIONALE

According to the Board of Investments, the 2012 Philippine Plastics Industry Roadmap aims to innovate processes, develop the industry sustainably mindful of limited resources, and promote/ develop/ strengthen recycling, of the plastics industry. These objectives are placed in order to fully supply the growing and changing demands of the market, create competitive employment status for its workforce, and instill a positive environmental image of the plastics industry to a well-informed public.

The Bureau of Philippine Standards (BPS), on the other hand, holds a role of ensuring the quality of plastics and plastic products, including plastic furniture, plastic piping systems, plastic resins, among others. The Philippine Plastics Industry Roadmap had been in line with the activities of BPS in preparation for the Association of Southeast Asian Nations (ASEAN) Integration in 2015.

As one of the existing BPS Technical Committees involved in the said roadmap, the Bureau of Philippine Standards Technical Committee on Plastic Pipes and Fittings (BPS/TC 24) was reactivated on 16 September 2015 in order to work on updating the existing and developing new Philippine National Standards related to plastic piping systems. The priority of BPS/TC 24 is to take into thorough consideration the concerns of the consumer, industry, and environment sectors as stakeholders of the Philippine National Standards Standards that would be promulgated under the BPS/TC 24.

Another motivation in the reactivation of BPS/TC 24 is to extend the harmonization of Philippine National Standards with international standards, to the plastic pipes industry and to the construction sector, as the BPS commits to the World Trade Organization Technical Barriers to (WTO-TBT) Trade Agreement.

SCOPE AND LIMITATIONS

The task of BPS/TC 24 is to develop Philippine National Standards on pipes, fittings, valves, and auxiliary equipment intended for the transport of fluids and made from all types of plastic materials, including all types of reinforced plastics. Metal fittings used with plastics pipes are also included. Standardization of these products includes dimensions and their tolerances; requirements for chemical, mechanical and physical properties and appropriate test methods; requirements and test methods for other properties relevant to particular applications; temperature and pressure ratings.

The BPS/TC 24 also covers plastic pipes, fittings, valves, and auxiliary equipment for use as electrical and communication conduits, and other similar applications.

NOTABLE PUBLISHED STANDARDS

The products covered by the BPS/TC 24 has been regarded as critical products that needs to be ensured of quality to deliver the purpose they are intended for, especially in the construction industry. All five types of plastic pipes standard specifications developed by the BPS/TC 24 are referred in the BPS List of Products under Mandatory Certification.

The following unplasticized polyvinyl chloride (PVC-U) pipe standard specifications are intended for different applications as indicated:

- For potable water supply: PNS 65:2018 Unplasticized Poly(vinyl chloride) (PVC-U) Pipes for Potable Water Supply Specification;
- For drain, waste, and vent: PNS 1950:2010 Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings Unplasticized poly(vinyl chloride) (PVC-U);
- For use as electrical conduits: PNS 14:2019 Unplasticized Polyvinyl Chloride (PVC-U) Electrical Conduit – Specification.

On the other hand, PNS ISO 4427:2002 *Polyethylene (PE) pipes for water supply – Specifications* provides for required properties of pipes made from polyethylene (PE) for use in buried water mains and services and for water supply above ground both inside and outside building. Another material considered is polybutylene, which is used to manufacture pipes for potable water supply conforming to PNS 152:1987 *Polybutylene (PB) pipes for potable water supply – Specification.*

Other Philippine National Standards developed by the BPS/TC 24 involves test methods, definitions, standard tables of pipe measurements, guides for installation, among others.

$24 \, {}^{\text{Technical committee on plastic pipes and fittings}$



ENGR. EMILIANA P. DELA CRUZ

Vice Chairman, BPS/TC 24 ASEAN Engineer Scribe and Fellow Member, College of Fellows Philippine Society of Sanitary Engineers, Inc.

Members:



ENGR. NONITO GALPA Q-Tech Testing Laboratory



MR. ANTHONY SY PVC Pipes Industries Association, Inc.



MR. ANTONIO G. LEE PVC Pipe Manufacturers and Dealers Association



MR. REYNALDO MALLARI Local Water Utilities Administration



KENNETH TRIA Industrial Technology Development Institute Department of Science and Technology



AR. ROSSANA CHEN National Secretary National Master Plumbers Association of the Philippines, Inc.

$24^{\rm TECHNICAL} \, {\rm committee} \, {\rm on} \, {\rm plastic} \, {\rm pipes} \, {\rm and} \, {\rm fittings} \,$

Members:



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MS. ANNIE ANDAYA Moldex Products, Inc.

$24^{\rm TECHNICAL}$ committee on plastic pipes and fittings composition

Observing Members:



MR. BENEDICT BALISBIS Tanay Industries Corporation



MS. KRISTEL GAYLE RAQUIZA FRANCO Marketing Officer Philippine Resins Industries, Inc.



MR. RYAN BARRERA Emerald Vinyl Corporation



MR. ANTONIO SENADOR, JR. JG Summit Petrochemical Corporation



MR. MARLON YABUT Emerald Vinyl Corporation



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$24^{\rm TECHNICAL} \, {\rm committee} \, {\rm on} \, {\rm plastic} \, {\rm pipes} \, {\rm and} \, {\rm fittings} \,$

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MR. DERRICK VILLANUEVA Crown Asia



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25 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON PAINTS AND VARNISHES

RATIONALE

The development and promotion of industry clusters are identified as a major strategy under the Philippine Development Plan 2011-2016 in helping achieve its vision of a globally- competitive and innovative industry and services sector that contributes significantly to inclusive growth and employment generation.

Through the Philippine Development Plan 2011 – 2016, DTI has identified Eight (8) Priority Clusters. One of the Priority Clusters that were identified was the Chemical Industry Cluster. This initiative paved the way for the government (through the DTI – Board of Investments) and the paints and varnish industries to work in cooperation. The paints and varnish industry, through the Philippine Association of Paint Manufacturers (PAPM) conducted an initial meeting with the DTI – BOI and DTI – Bureau of Philippine Standards during the 2nd quarter of year 2014. The purpose of the meeting was to support the paints and varnishes industries through standardization. Thus henceforth, the BPS Technical Committee on Paints and Varnishes (BPS/TC 25) conducted its reactivation meeting on July 2014. From which, standardization work plan was clearly discussed and deliberated on priority work items for the BPS/TC 25. One of the outcomes of the conducted July 2014 meeting was to prioritize first the paints for architectural usages, then followed by metal primer paints.

BPS/TC 25 develops and review the following paints and varnishes standards that will be used by stakeholders:

- industry of paints and varnishes
- construction industry (including architects, contractors and real-state developers)
- transportation sector
- government sector (e.g. DPWH on traffic paints)
- furniture industry (i.e. coatings for furniture surfaces)
- toys industry (i.e. toy enamel paints)
- testing institutions
- ordinary consumers and end-users (i.e. DIY consumers)
- other end-users that has coating / coating protection needs

The BPS/TC 25 is a mirror technical committee to the ISO Technical Committee 35 (ISO/TC 35) – *Paints and varnishes.*

SCOPE AND LIMITATIONS

The BPS/TC 25 is committed to doing standardization works in the field of paints, varnishes and related products, including raw materials.

The following items are excluded in the Scope of BPS/TC 25:

- office and school supplies (e.g. printer inks, ballpen inks, correction fluid)
- specialized inks for bottling labels
- specialized inks for drinking glass

NOTABLE PUBLISHED STANDARDS

Architectural usage / primers

- PNS 463:2015 (Paints and varnishes Semi-gloss latex Specification)
- PNS 2116:2016 (Paints and varnishes Elastomeric paints Specification)
- PNS 612:2016 (Paints and varnishes Water-based gloss roof paint Specification)
- PNS 462:2015 (Paints and varnishes Gloss latex paint Specification)
- PNS 366:2016 (Paints and varnishes Alkyd-based metal primer Specification)
- PNS 139:2015 (Paints and varnishes Flat latex paint)
- PNS 226:2015 (Paints and varnishes Alkyd-based gloss enamel paints Specification)
- PNS 2118:2016 (Paints and varnishes Epoxy enamel, white and coloured Specification)
- PNS 227:2016 (Paints and varnishes Alkyd-based flatwall enamel paint (white and light tints for exterior and interior use) Specification
- PNS 225:2016 (Paints and varnishes Alkyd-Based Semi-gloss Enamel paint (white and light tints for exterior and interior use) Specification)
- PNS 2113:2015 (Paints and varnishes Epoxy metal primer Specification)

25 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON PAINTS AND VARNISHES

NOTABLE PUBLISHED STANDARDS

Road / Traffic paints

• PNS 461:2016 (Paints and varnishes - Reflectorizing traffic paints – Specification)

Lacquers

- PNS 367:2016 (Paints and varnishes Lacquer sanding sealer Specification)
- PNS 368:2016 (Paints and varnishes Clear gloss lacquer Specification)

Paints for maritime vehicles (for ships, yacht, barge, et. al.)

• PNS 2124:2018 (Paints and varnishes - Marine enamel paint – Specification)

The architectural usage paint standards, including the lacquer standards are usually referenced by the organizations on the construction industry, contractors and real-state architects. Conversely, these type of standards are of big support to the manufacturing and trading industries for paints and varnishes.

The PNS 461:2016 reflects BPS inputs in ensuring that the road paints are of exquisite and consistent quality. This standard also is BPS input for DPWH in updating of their "Blue Book" (i.e. The DPWH – Bureau of Research and Standards manages and updates volumes of "Blue Book", compendium of standards used by the DPWH).

The PNS 2124:2018 reflects BPS inputs in ensuring that the paints used in maritime vehicles (ships, yacht, barge, et. al.) are exquisitely manufactured, of consistent quality, and assured to provide protection against organo-tins (e.g. Tributyl Tin or TBT). This standard also, is a BPS input for DOTr – MARINA for their regulations and/or technical recommendations.

$25^{\rm TECHNICAL}$ committee on paints and varnishes composition



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> MS. EILEEN JOY B. DELA CRUZ, Ch Vice Chairwoman, BPS/TC 24 Vice President for Research and Development Davies Paints Philippines, Inc.



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ENGR. CEZAR S. DELA CRUZ, MFSM ASEAN Engineer, FPIChE Vice-Chairman, PIChE College of Fellows Past President, PIChE



MR. ERISON C. ROQUE Chairperson and Associate Professor Chemical Engineering Department Adamson University



ENGR. MARIANITO T. MARGARITO Senior Science Research Specialist Industrial Technology Development Institute Department of Science and Technology

$25_{\text{composition}}^{\text{technical committee on paints and varnishes}}$

Members:



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ENGR. AVELINO P. GO Treasure Island Industrial Corp./PAPM



ENGR. EDWIN NAVALUNA Division Chief Chemical Management Section DENR - Environmental Management Bureau

RATIONALE

The Bureau of Philippine Standards Technical Committee on Glass and Glass Products (BPS/TC 28) was established by the Bureau of Philippine Standards to develop standards for architectural glass, automotive glass, and other glass products. The standards developed by the BPS/TC 28 affects the industries involved in manufacturing, importing, processing, and installing glass.

SCOPE AND LIMITATIONS

The BPS/TC 28 is responsible for the development of Philippine National Standards in the field of glass and glass products, including terminology, performance requirements and methods of calculation and test, design and construction rules, classification, and specification of materials, including dimensional properties.

Excluded from the scope are the standards for glass intended for packaging.

NOTABLE PUBLISHED STANDARDS

The following published standard specifications are commonly used by glass manufacturers, importers and processors:

- PNS 193 Flat glass Specification;
- PNS ASTM C1048 Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass;
- PNS ISO 12543-2 Glass in building Laminated glass and laminated safety glass Part 2: Laminated safety glass; and
- PNS ISO 12543-3 Glass in building Laminated glass and laminated safety glass Part 3: Laminated glass.

$28^{\text{TECHNICAL COMMITTEE ON GLASS AND GLASS PRODUCTS}_{\text{COMPOSITION}}$



ENGR. NONITO B. GALPA *Chairman, BPS/TC 28* Pioneer Float Glass Manufacturing, Inc. (PFGMI)



MS. ANNA SOPHIA B. MIRASOL Vice Chairwoman, BPS/TC 28 Universal Glass Co., Inc.

Members:



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MS. MA. THERESA P. AGUILAR Construction Industry Authority of the Philippines (CIAP)



MR. JERRY A. ANZURES Philippine Chamber of Glass and Aluminum Industries, Inc.



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MS. CLARIZA C. EMALADA Flat Glass Association of the Philippines

$28^{\mbox{\scriptsize Technical committee on glass and glass products}$

Members:



MR. MINEO M. ESCOREAL Asahi Glass Corporation Asia Pacific Pte. Ltd.



MS. STEPHANIE JOY L. GALPA Q-Tech Testing Laboratory



MS. MA. JEANNIE C. MANDAP Accurate and Precise Inspection and Testing Laboratory, Inc.



MR. JOHN THOMSON ONG Tempco Glass Corp.



MR. VALENTINE R. GARCIA Glasstemp Industries Corp.

Observing Members:

MR. CRIS BORROMEO Q-Tech Testing Laboratory

MR. PATRICK AARON UY Q-Tech Testing Laboratory

RATIONALE

The Bureau of Philippine Standards Technical Committee on Ceramics and Ceramic Products (BPS/TC 29) was reorganized in 22 May 2018 to give opportunity for the stakeholders to review existing standards and develop new standards that are responsive to the needs of the industry and consumers, as far as the safety and quality of the products are concerned.

The standards developed by BPS/TC 29 affects the industries of ceramic tiles, ceramic whitewares, sanitary wares such as ceramic plumbing fixtures, and refractories.

In support to international standardization, the BPS/TC 29 Ceramics and ceramic products acts as the National Mirror Committee of the Philippines to ISO/TC 189 Ceramic tiles.

SCOPE AND LIMITATIONS

The BPS/TC 29 is responsible for the development of Philippine National Standards in the stimulation of research and the formulation of definitions, methods of tests, and specifications pertaining to ceramics and ceramic products.

NOTABLE PUBLISHED STANDARDS

The following standards published by BPS/TC 29 are commonly used by the manufacturers and importers in the industry of structural ceramics:

- PNS ISO 13006 Ceramic tiles Definitions, classification, characteristics and marking; and
- PNS 156 Ceramic plumbing fixtures.

$29\,^{\text{TECHNICAL}}_{\text{COMPOSITION}}$ composition



MR. VIRGILIO ANTONIO *Chairman, BPS/TC 29* Consultant Formosa Ceramic Tiles Manufacturing Corp.

> MR. JUNE C. VASQUEZ Vice Chairman, BPS/TC 29 Quality Assurance Manager/ Laboratory Manager Mariwasa Siam Ceramics, Inc.



Members:



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*Alternate Members

$29 \, {\rm Technical} \, {\rm committee} \, {\rm on} \, {\rm ceramics} \, {\rm and} \, {\rm ceramic} \, {\rm products} \,$

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Philippine Constructors Association, Inc./Cebu Overseas Hardware

MR. JOSE P. PEPITO

Nationwide Association of Consumers, Inc.

34 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON DOORS AND WINDOWS

RATIONALE

Recognizing the Chapter 12 (Building Safe and Secure Communities) of the PDP 2017-2022, the Duterte Administration has mobilized infrastructure programs and initiatives to boost the construction industry. One of the responses and inputs of the Bureau of the Philippine Standards for the said programs is the reactivation of BPS Technical Committees related to building construction respect; and hence, the reactivation of the BPS/TC 34, the BPS Technical Committee for Doors and Windows. The reactivation meeting was conducted on the 14th of June 2017.

The BPS/TC 34 Technical Committee aims to convey a clearer understanding of the technical and acceptable work terms and descriptions for doors and windows by developing standards applicable to local and international arena, thereby participating in competitive markets.

The BPS/TC 34 develops and review doors and windows standards that will be used by stakeholders, namely:

- industry of doors and windows (local fabricators and assemblers)
- construction industry (including architects, contractors and real-state developers)
- interior design stakeholders
- exporters of doors and windows
- testing institutions
- ordinary consumers and end-users (i.e. DIY consumers)
- government agencies related to housing and urban development (NHA / DHSUD or the Department of Human Settlements and Urban Development)
- Non-governmental organizations (NGOs)

The BPS/TC 34 is a mirror technical committee to the ISO Technical Committee 35 (ISO/TC 162) – *Doors, windows and curtain walling.*

SCOPE AND LIMITATIONS

The BPS/TC 34 is committed to doing standardization works in the field of doors, doorsets, windows, and curtain wall including hardware, manufactured from any suitable material covering the specific performance requirements, terminology, manufacturing sizes and dimensions, and methods of test.

For standardization works related to dimensional coordination with other parts of buildings and general performance requirements derived from buildings as a whole, the Technical Committee on *Buildings and civil engineering works* is the one that encompass such.

NOTABLE PUBLISHED STANDARDS

- PNS 249:1989 (Coordinating sizes for doorsets for residential and commercial buildings) (currently for circulation to stakeholders as DPNS 249:2020)
- PNS 651:1988 (Dimensions for structural window openings for low-cost housing application)
- PNS 655:1990 (Door leaves Method for measurement of height, width, thickness and squareness) (currently for circulation to stakeholders as DPNS ISO 6443:2020)
- PNS 933:1997 (Doors Terminology) (currently for circulation to stakeholders as DPNS 933:2020)

The PNS 249 and PNS 655 are integral standards suggested to manufacturers of doors in the country, for precision in dimensions of doors. These standards are intended to be used for many purposes like in apartments, townhouses, condominiums, bungalows, offices, hospitals, etc.

The PNS 933 is noted by relevant stakeholders in the building construction industry, as it is a guide for definitions and all parts of a door, and serves as a compendium and a handy glossary for stakeholders that put interest in doors.

The PNS 651 is a standard that serves as a guide or reference by the National Housing Authority (NHA), especially by its Technical Research Department (that does the deliberation and recommendations). This standard is an input to the NHA. It was identified by the technical committee as included in the array of future work items.

$34_{\rm COMPOSITION}^{\rm TECHNICAL COMMITTEE ON DOORS AND WINDOWS}$



AR. MA. CYNTHIA S. NAVAL *Chairwoman, BPS/TC 34* Vice Chancellor, Philippine Institute of Architects, Inc. Faculty, University of Santo Tomas

> ENGR. NONITO B. GALPA Vice Chairman, BPS/TC 34 Chairman/Manager-Emeritus Q-Tech Testing Laboratory



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ENGR. IGMIDIO J. AQUINO JR. Senior Trade and Industry Development Specialist Construction Industry Authority of the Philippines Construction Manpower Development Foundation



ENGR. FLORENCIO E. TUTOR Engineer V Bureau of Research and Standards

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ENGR. ALBERT O. PAREJA Science Research Specialist II Forest Products Research and Development Institute Department of Science and Technology



AR. MAUNDELITO FLORENDO Vice-President – Professional Practice Philippine Institute of Architects, Inc.

$34_{\rm COMPOSITION}^{\rm TECHNICAL COMMITTEE ON DOORS AND WINDOWS$

Members:



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MS. AIDA J. CEROS Department of Human Settlements and Urban Development



MS. MILDRED M. GALLARDO University of the Philippines Diliman College of Interior Design



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ENGR. DOMINIC F. LACSON* Engineer III, BRS Standards Development Division Department of Public Works and Highway

$34_{\rm COMPOSITION}^{\rm TECHNICAL COMMITTEE ON DOORS AND WINDOWS$

Members:



MS. LUISITA MAY L. MONJE*

Department of Human Settlements and Urban Development



MR. MARLON J. YABUT JR.* Emerald Vinyl Corporation

35 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON WOOD-BASED PANELS

RATIONALE

The BPS Technical Committee on Wood-Based Panels (BPS/TC 35) is tasked to develop Philippine National Standards (PNS) for wood-based panels focused primarily on test methods, definitions, classifications, and specifications. Wood-based panels such as fibreboards, particle boards, and plywood are mainly used in the building sector and furniture making industry.

BPS/TC 35 is also responsible for the review and adoption of International Standards for wood-based panels under ISO/TC 89 in which the Philippines is an Observing Member Body.

In the adoption of international standards, the TC takes into account, as much as possible, its suitability to local climatic conditions and influences, and environmental considerations while ensuring the country's compliance with its obligation to the World Trade Organization Technical Barriers to Trade (WTO TBT) Agreement.

Currently, BPS/TC 35 has already adopted 96% of ISO/TC 89 Standards as PNS.

The Standardization work of this TC also contributes to the United Nations Sustainable Goals 8 Decent Work and Economic Growth, 9: Industry, Innovation, and Infrastructure and 12: Responsible Consumption and Production.

SCOPE AND LIMITATIONS

The BPS/TC 35 standardization is in the field of panels such as fibreboards, particle boards and plywood based on lignocellulosic materials (derived from wood or other materials) including terminology, classification, dimensions, test methods and quality requirements.

Its work scope excludes standards being developed by the following respective BPS Technical Committees:

- BPS/TC 22 Lumber and Timber Products
- BPS/TC 41 Furniture
- BPS/TC 76 Bamboo and Rattan
- BPS/TC 78 Forest and Forest Products

NOTABLE PUBLISHED STANDARDS

In 2019, **PNS ISO 12465:2017 Plywood — Specifications** was referred to in the BPS Draft Department Administrative Order on the New Technical Regulation concerning the Mandatory Product Certification of Plywood for public comments.¹ Research and Testing Facilities such as FPRDI-DOST and Manufacturers with the Philippine Wood Producers Association are now gearing up to comply with the specifications of this standard and the Draft Technical Regulation.

Notwithstanding its deletion in the list of products under mandatory certification through DTI Department Administrative Order 15-01 Series of 2015, **PNS 196 Plywood – Specification** is still used voluntarily by most plywood manufacturers and consumers as a reference for minimum specifications.

$35_{\text{composition}}^{\text{technical committee on wood-based panels}}$



DR. RICO J. CABANGON *Chairman, BPS/TC 35* Forest Products Research and Development Institute Department of Science and Technology

FOR. MAILA R. VASQUEZ Vice Chairwoman, BPS/TC 35 Executive Director Philippine Wood Producers Association



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$35_{\rm composition}^{\rm technical\ committee\ on\ wood-based\ panels}$

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ENGR. FORTUNATO C. ILAYA Vice President, Chief Commercial Officer Coating Resins Business RI Chemical Corporation



MR. LUISITO F. CHAO Marketing Officer San Manuel Wood Products, Inc.



MS. NESLEY FRANCISCO SAYSAY, MTM Technical and Product Development Manager James Hardie Philippines, Inc.



ENGR. CARMEN TUTANES* Principal Engineer C National Housing Authority



ENGR. KENNETH V. CASTAÑEDA* Laboratory Analyst/Inspector SGS Philippines, Inc.
In the Philippines, the School and Office supplies industry comprises revenues brought about by the retailing or selling of the said products in small retail stores and sales from large retailers wherein they purchase their stock specifically from manufacturers.

Items in the school and office supply market include but not limited to paper, pencils and pens, business forms, stationery, storage containers and other forms of school and office equipment. Also included in this market are wholesalers offering paper, stationery, and office supplies for purchase.

Standards play an important role in stimulating and increasing competitiveness among the relevant stakeholders, as well as protecting ordinary consumers by ensuring the quality and safety of School and Office Supplies

Having these benefits in consideration, the Bureau of Philippine Standards as the National Standards Boy of the Philippines established its Technical Committee 37 – School and Office Supplies.

SCOPE AND LIMITATIONS

BPS/TC 37 handles the standardization of products for school and office use which includes the development of requirements, specification and test methods related to the said products. Example of these products are pens, pencils stapler, chalk, eraser and other products of similar nature.

School and Office products such as notebooks, copy and bond paper which are made of paper will be covered by BPS/TC 21– Paper, board and pulps.

On the other hand, Office equipment such as chairs and cabinets will be covered by BPS/TC 41 – Furniture.

NOTABLE PUBLISHED STANDARDS

As the Technical Committee responsible for the standardization of School and Office supplies, BPS/TC 37 developed series homegrown standards which provides requirements, specification and test methods relative to its quality and safety. Some examples of these standards are as follows:

- PNS 712:2019 Pressure sensitive adhesive masking tapes specification
- PNS 2041:2019 Pressure sensitive adhesive filmic and packaging tapes specification
- PNS 1122:2009 Writing chalk specification
- PNS 1413 Wood-cased black lead pencils specification
- PNS 1831:2010 Paper clips- specifications
- PNS 1987:2012 Puncher- specification
- PNS 1224:2006 Crayons- specification
- PNS 2032:2004 Pencil sharpeners: specification

$\mathbf{37}_{\text{composition}}^{\text{technical committee on school and office supplies}$



MR. CHARLES JEFFERSON SY Chairman, BPS/TC 37 President, Cosmos Bazar Inc.

> ENGR. ELISA J. CAPEDING-ARRIOLA Vice Chairwoman, BPS/TC 37 Quality Manager Pencil and Stationery Products Manfacturers Inc.



Members:



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ENGR. ERISON C. ROQUE Chairperson, Chemical Engineering Department Adamson University



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ENGR. ELIZABETH O. SANTOS Department of Science and Technology

$\mathbf{37}_{\text{composition}}^{\text{technical committee on school and office supplies}$

Members:



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MS. STEPHANIE M. BENDANA National Bookstore



Times Trading Inc.



SPH International Corp.

Under the Philippine Development Plan 2017-2022 and DTI Prosperity Plan for All: Plan 2022, packaging is identified as one of the components in their strategies to achieve not only their set goals but also to assist our MSMEs in boosting their progress. In fact, packaging is used not only to protect the product from any kind of damage but also used as an effective tool in branding or product promotion to attract consumers.

Based on the presentation of Packaging Institute of the Philippines (PIP) on Packaging Trend and Opportunities for the Philippine National Standards on Packaging Seminar held in July 2019 at Central Philippine University, the packaging industry in the Philippines has grown at the rate of 6.93 in 2018. The growth rate was credited on the development of the packaging industry in the 12 business sectors such as automotive, electronics, aerospace, chemicals, iron and steel, garments, textiles, furniture, shipbuilding, construction, transport and logistics. Moreover, 19 industry clusters such as Banana, Coconut/Coir, Coffee, Dairy, Gifts, Decors and House wares, Health and Wellness equipment, ICT devices, Mango, Milkfish, Mining, Palm Oil, Poultry, Rubber, Seaweeds, Tuna, Wearables and Homestyle, and Wood are being heavily dependent on packaging.

Likewise, in the 6th Asia Packaging Network (APN) meeting on October 22-23, 2019, it was discussed that vast loss in food and agribusiness around the world was caused by spoilage of fresh produce before reaching its destination. With that, several studies was conducted to prevent this from happening and it was noted that specific packaging design for particular fresh produce can aid in efficient distribution and affect the life span of perishable products to avoid wastage.

Truly, packaging plays a vital role in our economy and in supporting the growth of other products which heavily rely in packaging. To support the continual improvement of the packaging industry and to level the playing field in global competition, BPS Technical Committee on Packaging and Packaging Materials (BPS/TC 40) and its **Sub-committees on Glass Containers (SC 1)** and **Paper Packaging (SC 2)** develop Philippine National Standards (PNS) which aims to improve the packaging design for accessibility and to address relevant issues on sustainability, safety, health and environmental concerns.

To further strengthen the participation of the Philippines in the international level, BPS has reinstated its Participating membership (P-member) to ISO/TC 122 on 30 April 2019, where United States of America, United Kingdom and Germany, to name a few, are members of the said ISO Technical Committee.

SCOPE AND LIMITATIONS

BPS/TC 40

Standardization in the field of packaging with regard to terminology and definitions, characteristics, performance requirements and tests, and utilization of related technologies on packaging. Excluded are matters falling within the scopes of particular committees, e.g. TC 21 - Paper board and pulps, TC 45 - Plastics and plastic products.

BPS/TC 40/SC 1

Standardization of glass containers made from molded glass used as a means of packaging.

BPS/TC 40/SC 2

Standardization in the field of paper packaging with regard to terminology and definitions, packaging dimensions, performance requirements and tests. Excluded are matters falling within the scopes of particular committees (e.g. TC 21 - Paper board and pulps, TC 37 - School and office supplies).

NOTABLE PUBLISHED STANDARDS

Notable standards developed or adopted by TC 40, SC 1 and SC 2 are the following:

BPS/TC 40

- PNS ISO 780:2016, Packaging Pictorial marking for handling goods (ISO published 2015)
- PNS ISO 17480:2016, Packaging -- Accessible design -- Ease of opening (ISO published 2015)
- PNS ISO 21067-2:2016, Packaging and the environment -- General requirements for the use of ISO standards in the field of packaging and the environment (ISO published 2013)
- PNS ISO 18601:2016, Packaging and the environment General requirements for the use of ISO standards in the field of packaging and the environment (ISO published 2013)
- PNS ISO 18602:2016, Packaging and the environment Optimization of the packaging system (ISO published 2013)
- PNS ISO 18603:2016, Packaging and the environment Reuse (ISO published 2013)
- PNS ISO 18604:2016, Packaging and the environment Material recycling (ISO published 2013)
- PNS ISO 18605:2016, Packaging and the environment Energy recovery (ISO published 2013)
- PNS ISO 18606:2015, Packaging and the environment Organic recycling (ISO published 2013)

BPS/TC 40/SC 1

- PNS ISO 7458:2015, Glass containers Internal pressure resistance Test methods (ISO published 2004)
- PNS ISO 7459:2015, Glass containers Thermal shock resistance and thermal shock endurance – Test methods (ISO published 2004)
- PNS ISO 8106:2018, Glass containers Determination of capacity by gravimetric method Test method (ISO published 2004)
- PNS ISO 9058:2018 with Addendum 01:2018, Glass containers Standard tolerances for bottles (ISO published 2008, reconfirmed in 2017)
- PNS ISO 8113:2015, Glass containers Resistance to vertical load Test method (ISO published 2004, reconfirmed in 2013)
- gPNS ASTM C148-14:2017, Standard Test Methods for Polariscopic Examination of Glass Containers

BPS/TC 40/SC 2

• PNS 2121:2018, Paper Packaging - Corrugated Carton Box- Regular Slotted Container (RSC) - Specification

$40^{\text{technical committee on packaging and packaging materials}$



MR. ANTHONY B. SAN MATEO *Chairman, BPS/TC 40* San Miguel Yamamura Packaging, Corp.



MR. HENRY G. LAW *Vice Chairman, BPS/TC 40* Polystyrene Packaging Council of the Philippines

Members:



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MR. STEFANO PAULO BUÑAG Packaging Institute of the Philippines



MS. ROCHELLE H. PANGARAN Food and Drug Administration Department of Health

*Alternate Members

$40^{\rm technical}$ committee on packaging and packaging materials

Members:



MS. MARIA THERESA CERBOLLES* Food and Drug Administration Department of Health



MS. MAUREEN GRACE LEBRIA Philippine Center for Environmental Protection and Sustainable Development, Inc.

$40^{\rm technical \ committee \ on \ packaginga \ and \ packaging \ materials}_{\rm SUB-committee \ 1 \ composition}$



MR. JOHNSON ARCEGA Convenor San Miguel Yamamura Asia Corporation SMY Glass Plant

Members:



MR. ROBERT BAUTISTA Arcya Glass



MS. EDERLINA D. CRUZ QA Manager Anglo Watsons Glass Inc.



MR. RUSSEL MARC PEPITO* Anglo Watsons Glass Inc.



MR. ALVIN JOSEPH DE ASAS Asia Brewery Inc.

$40^{\rm technical \ committee \ on \ packaginga \ and \ packaging \ materials}_{\rm SUB-committee \ 2 \ composition}$



MR. HENRY L. GAW *Convenor* Packaging Institute of the Philippines

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MS. MARILES NERI Technical Expert



MR. JOSE ALFREDO ALMORO Technical Expert

41 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON FURNITURE

RATIONALE

The BPS Technical Committee on Furniture (BPS/TC 41) is tasked to develop Philippine National Standards in the field of furniture including terms and definitions, safety, performance, and dimensional requirements, and test methods.

Standardization on furniture has an important role in all stages from product development, design, production, quality control, and most importantly, consumer use. It provides a baseline for quality control and assessment to assure safety and uniformity of test methods above all else. Other important considerations addressed through standardization are suitability, performance, ergonomic, and environmental requirements. In a larger scale, it aims to facilitates technical development and market efficiency of the Philippine Furniture Industry.

In fact, establishing quality standards has been identified by the DTI Board of Investments as one of the means to achieve the Philippine Furniture Industry goal to be the global design innovator hub for products using sustainable materials 2030.

In support of the Philippine Furniture Industry, the DTI Regional Operations Group provides the support to industries and companies in the regions through product development and design form the Design Center of the Philippines, workshop offerings on prototyping and digital fabrication services at the Bohol Island State University Fabrication Laboratory, Shared Service Facilities, Marketing linkage and promotion, and raw materials manipulations.

The Bureau of Philippine Standards is an Observing Member Body to the ISO/TC 136. As a National Mirror Committee to ISO/TC 136 Furniture, BPS/TC 41 is also responsible for the review and adoption of International Standards for furniture. BPS/TC 41 has adopted 100% of ISO/TC 136 Standards as Philippine National Standards.

BPS/TC 41 also adopts standards from the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), and American Society for Testing and Materials (ASTM) International.

Through adopting International standards and developing Philippine National Standards aligned to International standards, the work of BPS/TC 41 facilitates promotion of open markets throughout the world, thus removing technical barriers to trade.

The Standardization work of this TC also contributes to the United Nations Sustainable Goals 3: Good Health and Well-Being, 8 Decent Work and Economic Growth, 9: Industry, Innovation, and Infrastructure and 12: Responsible Consumption and Production.

SCOPE AND LIMITATIONS

The BPS/TC 41 standardization is in the field of furniture including terms and definitions; safety, quality, and performance requirements; and test methods. Its work scope excludes standards being developed by the following respective BPS Technical Committees: BPS/TC 18 Textiles; BPS/TC 35 Wood-based Panels; BPS/TC 43 Handicrafts; BPS/TC 76 Bamboo and Rattan; BPS/TC 78 Forest and Forest Products.

NOTABLE PUBLISHED STANDARDS

PNS 1478-1:2018 Furniture – Monobloc chairs and stools – Part 1: Specification for indoor use PNS 1478-2:2018 Furniture – Monobloc chairs and stools – Part 2: Specification for outdoor use

41 TECHNICAL COMMITTEE ON FURNITURE COMPOSITION



MR. VICTOR REVILLEZA *Chairman, BPS/TC 41* Supervising Research Specialist Forest Products Research and Development Institute Department of Science and Technology

> MR. RONALD ALLAN CALAYAG Vice Chairman, BPS/TC 41 Quality Assurance Department Head Polyfoam - RGC International Corporation (Uratex)



Members:



MR. EULOGIO REYES Safety and Security Head/Professor Don Bosco Technical College



MS. FLERIDA ARIAS Nationwide Association of Consumer, Inc.



MS. ROWE REQUEJO Design Center of the Philippines



ENGR. ALVIN VARDALEON Science Research Specialist II Forest Products Research and Development Institute Department of Science and Technology



MR. JOEL T. HERNANDEZ Product Specialist SGS Philippines, Inc.

41 TECHNICAL COMMITTEE ON FURNITURE COMPOSITION

Members:



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MS. CARLA MAE D. LEONOR SOFA Design Institute



ENGR. KENNETH V. CASTANEDA* Laboratory Analyst/Inspector SGS Philippines, Inc,



MR. ROGELIO HULIPAS* Uratex Philippines

43 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON HANDICRAFTS

RATIONALE

Initiatives to further enhance the country's gifts, decorations and accessories are finally paying off as the Philippines continues to provide a niche in the international market as the preferred source of global competitive, innovative and quality GDH products.

The country's continued growth in the GDH sector is further fueled by efforts of government and private sector partnerships to further push industry competitiveness through various initiatives such as industrial policy interference, product development, strengthening of supply chains and promotional activities.

Having these said, standardization activities of BPS/TC 43 will support the economic advantage in this area by improving the performance, safety and dimensional requirements of handicrafts. Allowing for clear unambiguous technical specifications leading to safe and quality products, and contributing to the possible removal of technical barriers to trade.

SCOPE AND LIMITATIONS

Standardization in the field of Handicrafts including:

- terms and definitions;
- performance, safety and dimensional requirements;
- requirements for specific components (such as hardware); and
- test methods;

Handicraft is sometimes more precisely expressed as artisanal handicraft or handmade, is any of a wide variety of types of work where useful and decorative objects are made completely by hand or by using only simple tools, such as baskets, hampers, holiday decors, table tops, fashion accessories, bags and etc.

Excluded are such units with corresponding functions that are dealt with by other BPS Technical Committees.

NOTABLE PUBLISHED STANDARDS

As the Technical Committee responsible for the standardization of handicrafts, BPS/TC 43 developed homegrown standard on Handicrafts – Manufacture of Baskets – Recommendation (PNS/R 275) which provides recommendation for the manufacture of baskets for general use.

$43^{\rm TECHNICAL\ COMMITTEE\ ON\ HANDICRAFTS}_{\rm COMPOSITION}$



MR. ROMEO BALDERRAMA JR. *Chairman, BPS/TC 43* Philippine Homestyle and Holiday Decor Association

> MR. LUIS JOSE MANALANG Vice Chairman, BPS/TC 43 Officer-in-Charge, Design Division Design Center of the Philippines



Members:



MR. VOLTAIRE PEREZ Community Crafts Association of the Philippines



MS. PURITA TUASON Export Marketing Bureau Department of Trade and Industry



FOR. JENNIFER M. CONDA Science Research Specialist II Forest Products Research and Development Institute Department of Science and Technology



MS. DELIA A. CLASARA Supervising Fiber Development Officer Fiber Utilization and Technology Division Philippine Fiber Industry Development Authority



MS. MATILDA LUCERO Nationwide Association of Consumers, Inc,

$43_{\rm COMPOSITION}^{\rm TECHNICAL\ COMMITTEE\ ON\ HANDICRAFTS}$

Members:



MS. ANN R. MALHOTRA Bureau of Domestic Trade Promotion Department of Trade and Industry



MS. JENNY DILAG Board of Investments



MS. EDELIZA CORALES Product Specialist SGS Philippines, Inc,



MR. RANDY RUBIA Laboratory Supervisor Intertek Philippines



MR. VICTORIO DELA CRUZ Philippine Fiber Industry Development Authority

The BPS/TC 44 provides technical expertise in the development and review of existing Philippine National Standards (PNS) on road vehicles. Through BPS/TC 44, the Philippines is an observing member body (O -member) to ISO/TC on Road Vehicles (ISO/TC 22) from which the TC obtained its name and scope.

Since its reactivation in 2017, the BPS/TC 44 has provided essential support to various government agencies in fulfilling their mandates and implement their programs and policies.

- Department of Transportation (DOTr) Public Utility Vehicle Modernization Program (PUVMP)
- DTI-Board of Investments (DTI-BOI) Comprehensive Automotive Resurgence Strategy (CARS) Program
- DOTr Land Transportation Office (LTO) Memorandum Circular on Guidelines on inspection and apprehension relative to motorcycle top boxes and saddle bags
- Metals Industry Research and Development Center (MIRDC)
- Department of Environment and Natural Resources (DENR)

BPS/TC 44 also aligns its effort to the initiatives of ASEAN Consultative Committee on Standards and Quality – Automotive Product Working Group (ACCSQ-APWG). The ACCSQ-APWG aims to harmonize standards, technical regulations, and conformity assessment procedures (STRACAP) for automotive products.

To respond to the requirements of its stakeholders in a more coordinated and timely manner, BPS/TC 44 established relevant Subcommittees (SC) and Working Groups (WG), and recommended to transform a SC into a new technical committee.

- 1. BPS/TC 89 Electrically Propelled Vehicles (formerly BPS/TC 44/SC 21)
- 2. BPS/TC 44/SC 29 Public Utility Vehicles and Emerging technology for PUVs
- 3. BPS/TC 44/WG 1 Motorcycle Top-box and Side Case
- 4. BPS/TC 44/WG 3 Accessibility on Public Utility Vehicles

Moreover, the BPS/TC 44 had developed various standards on automotive products which are referred to in the BPS Mandatory Product Certification Schemes such as PNS for Safety belts (Seat belts), Speed Limiter, and Helmets and their visors. Other automotive products that are also included in the BPS Mandatory Product Certification Schemes are Safety glass for automotive, Tires for automotive vehicles, Inner tubes for tires, Lead-Acid Batteries, LPG cylinders for motor vehicles and Brake fluid which are developed by their respective technical committees.

SCOPE AND LIMITATIONS

Standardization concerning compatibility, interchangeability and safety, with particular reference to terminology and test procedures (including the characteristics of instrumentation) for evaluating the performance of the following types of road vehicles and their equipment as defined in the relevant items of Article 1 of the convention on Road Traffic, Vienna in 1968 concluded under the auspices of the United Nations:

- mopeds (item m);
- motor cycles (item n);
- motor vehicles (item p);
- trailers (item q);
- semi-trailers (item r);
- light trailers (item s);
- combination vehicles (item t);
- articulated vehicles (item u).

NOTABLE PUBLISHED STANDARDS

These standards are the main reference documents for the Certificate of Compliance (CoC) in DoTr's Public Utility Vehicle (PUV) Modernization Program:

- PNS 2126:2017 Public Utility Vehicles Class 2 and Class 3 Dimensions
- PNS 2131:2018 Public Utility Vehicles Class 1 Dimensions

The following are used as benchmark standards in the Senate Bill No. 1447 or the "Child Safety in motor vehicles Act of 2017:

- PNS UN R 44:2018 Child Restraint Systems
- PNS UN R 129:2018 Enhanced Child Restraint Systems

The following standards are referred to in the BPS Mandatory Product Certification Schemes were developed by BPS/TC 44:

- **PNS UNR 89: 2016** Uniform provisions concerning the approval of \Box III. Speed limitation devices (SLD)
- **PNS UNR 89: 2016** Uniform provisions concerning the approval of \Box III. Speed limitation devices (SLD)
- **PNS/UN ECE 22:2007** Uniform provisions concerning the approval of protective helmets and their visors for drivers and passengers of motor cycles and mopeds

The following are other notable standards developed by BPS/TC 44:

• **PNS 2125:2018** Road Vehicles – Motorcycle top-box and side case – Specifications and guide for installation

•This standard was developed as response to LTO's request for reference standards in their Guidelines on inspection and apprehension relative to motorcycle top-boxes and saddle bags.

 PNS 2144:2019 Road vehicles – Accessibility on Public Utility Vehicle (Buses and Jeepneys) – Specification

•This standard aims to facilitate the integration of persons with disability and passengers with reduced mobility into the society through accessible public transport. This conforms to the provisions for Public Utility Vehicles stated in the Batas Pambansa Blg. 344 or the "Accessibility Law".

• **PNS 05:2019** Code of practice for the use of liquefied petroleum gas (LPG) system in internal combustion engine

•This code is intended for the guidance of parties interested in the use of LPG as an internal combustion engine fuel.



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Members:



MR. JUN BIOCO Truck Manufacturers Association/Universal Motors Corporation



MR. RICARDO GUEVARA Trustee, Chairman, Marketing and Membership Committees Automobile Association of the Philippines



MR. JOSE BIENVENIDO MANUEL BIONA Executive Director Electric Vehicle Association of the Philippines



ENGR. VITALIANO F. MAMAWAL III, FPSME Technical Consultant Chairman of PSME Automotive Technical Division Toyota Motor Philippines Philippine Society of Mechanical Engineers



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Observers:



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MR. JOSELITO TURANO Hyundai Asia Resources, Inc. The Association of Vehicle Importers and Distributors

$44_{\text{SUB-COMMITTEE 29 COMPOSITION}}^{\text{TECHNICAL COMMITTEE 0N ROAD VEHICLES}}$



ENGR. ROBERTO CRUZ Chairman, BPS/TC 44/SC 29 Head – Business Development Centro Manufacturing Corporation Automotive Body Manufacturers Association of the Philippines

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MR. KENT AVESTRUZ Program manager Department of Transportation Public Utility Vehicle Modernization Program Project Management Office



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ENGR. GUALBERTO BANDAY Technical Committee Vice Chairman Hino Motors Philippines/Truck Manufacturers Association

$44_{\text{SUB-COMMITTEE 29 COMPOSITION}}^{\text{TECHNICAL COMMITTEE 0N ROAD VEHICLES}}$

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The organization of the Bureau of Philippine Standards Technical Committee on Fireworks (BPS/TC 50) was directed by the former President Fidel V. Ramos in 1994 with the task to develop and regulate the Philippine fireworks industry to ensure that the risks of injury to users, spectators and the public in general, and of damage to property are minimized.

The Philippine National Standards developed in 1994 were deemed to be obsolete as highlighted during the Fireworks Summit that was organized by the Philippine National Police held on 26-27 June 2017. The purpose of the Fireworks Summit was to craft the implementing rules and regulations (IRR) of the Executive Order No. 28 (EO 28) "Providing for the Regulation and Control of the Use of Firecrackers and Other Pyrotechnic Devices", Series of 2017, which states that the use of firecrackers shall be confined to 'community fireworks display'.

The Bureau of Philippine Standards (BPS) saw this opportunity to address the growing concerns on the safety of locally manufactured firecrackers and pyrotechnic devices, and consequently help the local fireworks industry in bringing back the trust of the consumers and the general public. BPS then reactivated BPS/TC 50 on 28 July 2017.

SCOPE AND LIMITATIONS

The task of BPS/TC 50 is to develop Philippine National Standards in the field of fireworks, including its terminology, definitions, classification, categorization, labelling, test methods, safety requirements, and quality control. Test methods for the determination of chemical substances used as pyrotechnic composition in firework items are also included.

NOTABLE PUBLISHED STANDARDS

The Philippine National Standard for Fireworks of Categories 1, 2 and 3 (PNS 1220:2019), issued in 2019 in three parts as listed below, marks the accomplishment of BPS/TC 50 in its first reactivation since its establishment in 1994.

- Part 1: Fireworks Categories 1, 2 and 3 Classification
- Part 2: Fireworks Categories 1, 2 and 3 Specification
- Part 3: Fireworks Categories 1, 2 and 3 Test Methods

The revised version of PNS 1220 incorporates several new types of fireworks with corresponding physical descriptions and principal effects, introduces additional requirements for pyrotechnic composition, construction, and performance, and adoption of internationally recognized test methods which the 1994 version of PNS 1220 was lacking. The preparation of PNS 1220:2019 considered the provisions of the series ISO 25947:2017 *Fireworks – Categories 1, 2 and 3* (Parts 1 to 5).

PNS 1220 is referred in the BPS List of Products under Mandatory Certification for fireworks for consumer use. This standard has been since in use by the fireworks industry to ensure the safety and quality of locally manufactured firework products.

$50^{\rm TECHNICAL}_{\rm COMMITTEE} \text{ on Fireworks}$

Experts:



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MS. MA. RACHEL PARCON Senior Science Research Specialist Industrial Technology Development Institute Department of Science and Technology



MR. ISAIAH UBANDO Industrial Technology Development Institute Department of Science and Technology



ENGR. NORLITO L. TIGLAO Supervising Trade & Industry Development Specialist Department of Trade and Industry Regional Office 3



MR. JOVENSON ONG Philippine Fireworks Association Dragon Fireworks, Inc.



MR. JACKSON ONG Philippine Fireworks Association Dragon Fireworks, Inc.



MR. PIO BAGANGAN Philippine National Police Firearms and Explosives Office



MR. SANTOS CANDIDO Philippine National Police Firearms and Explosives Office

$50^{\text{TECHNICAL COMMITTEE ON FIREWORKS}}_{\text{COMPOSITION}}$

Experts:



F/INSP. JEFFERSON G. HIDALGO Chief, Fire Safety Data Management Section Bureau of Fire Protection National Headquarters Fire Safety Enforcement Division



SFO1 CHRISTIAN J. CREHENCIA Building Plan Evaluator and Fire Safety Inspector Pasig City Central Fire Station



MS. MARLENE LEA ALAPIDE Philippine Pyrotechnics Manufacturers and Dealers Association, Inc.



MS. PATRICE GUY Platinum Fireworks, Inc.



MR. JOHN LEE Leegendary Fireworks, Inc.

The Bureau of Philippine Standards Technical Committee on Adhesives and Allied Products (BPS/TC 51) was established by the Bureau of Philippine Standards to develop standards for products that are used for bonding wood, metal, plastic and other materials. Due to the wide range of applications, the standards developed by the BPS/TC 51 affects various industries including, but not limited to, construction, furniture, ceramic tiles, electronics, and packaging.

SCOPE AND LIMITATIONS

The BPS/TC 51 is responsible for the development of Philippine National Standards nomenclature, methods of test, and specifications applicable to materials and products in the field of adhesives, materials used in compounding adhesives, research on adhesives and adhesion, including clarification of the nature of adhesion.

NOTABLE PUBLISHED STANDARDS

The following Philippine National Standards published by BPS/TC 51 are commonly used as reference by industries and testing centers for classifying and evaluating the performance of various types of adhesives:

- PNS ISO 1994 Adhesives for floor and wall applications Resilient vinyl, linoleum and rubber sheet and tiles Interior and exterior use Specification;
- PNS ISO 10365 Adhesives Designation of main failure patterns;
- PNS ISO 19209 Adhesives Classification of thermoplastic wood adhesives for non-structural applications;
- PNS ISO 13007-1 Ceramic tiles Grouts and adhesives Part 1: Terms, definitions and specifications for adhesives;
- PNS ISO 13007-2 Ceramic tiles Grouts and adhesives Part 2: Test methods for adhesives;
- PNS ISO 13007-3 Ceramic tiles Grouts and adhesives Part 3: Terms, definitions and specifications for grouts;
- PNS ISO 13007-4 Ceramic tiles Grouts and adhesives Part 4: Test methods for grouts.

$51_{\text{composition}}^{\text{technical committee on adhesives and allied products}$



MR. FRANCISCO LINGAD *Chairman, BPS/TC 51* CEO, Executive Chair Woodcaretech Marketing Philippines, Inc./ Cebu AN Corp.



ENGR. AURELIO L. TABORNAL Vice Chairman, BPS/TC 51 Plant Manager Puyat Flooring Products, Inc.

Members:



ENGR. ELISA J. CAPEDING-ARRIOLA Elijca Trading Inc.



MS. MILDRED M. FIDEL Forest Products Research and Development Institute (DOST-FPRDI)



MR. ROLANDO GARVIDA CASCO Adhesives



MR. JETHRO P. RAMIREZ Bostik Philippines, Inc.



ENGR. ADELAIDA G. SENICA Industrial Technology Development Institute (DOST-ITDI)

*Alternate Members

$51_{\text{composition}}^{\text{technical committee on adhesives and allied products}$

Members:



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Fine Jewellery making in the Philippines has been around for years. This industry started from offering their products to friends, until the industry players opened their arena for export.

With the visible improvement in the jewelry industry, the Government has seen its potential in helping the Philippines' economic development and employment. Hence, the Republic Act (RA) No. 8502, otherwise known as the 1998 Jewelry Development Industry was created to further promote and encourage the growth and development of the Jewelry Industry.

To support the continual improvement of the jewellery industry and to level the playing field in global competition, BPS Technical Committee on Jewellery (BPS/TC 54) develops Philippine National Standards (PNS) on terminologies, specifications, performance and testing requirements for jewellery.

BPS/TC 54 also is the National Mirror Committee of ISO Technical Committee on Jewellery and Precious Metals (ISO/TC 174) and mirrors the work of ISO/TC 174 in developing guidance and standards on jewellery.

SCOPE AND LIMITATIONS

BPS/TC 54 handles standardization in the field of jewellery (e.g. numbering system, sizes of rings, precious metals colours and coatings, diamonds) and precious metals (e.g. analyses, sampling, impurities).

NOTABLE PUBLISHED STANDARDS

As the Technical Committee responsible for the standardization of jewellery, BPS/TC 54 developed several homegrown standards on terminologies for Natural, Cultured and Imitation Pearls – Terminology and Classification (PNS 2107), Quality of sawn wood used for the construction of pallets (PNS 2101), Diamonds (PNS 2108), Gemstones (PNS 2109), Corals (PNS 2108), and Jewellery – Terms and definition (PNS 2053).

The Committee also developed standards on hallmarking, these are 1996 Jewellery – Gold jewellery including gold articles –Marking requirements (PNS 1314), 1996 Jewellery – Silver jewellery including silver articles – Marking requirements (PNS 1315), and Jewellery – Platinum jewellery – Marking requirements (PNS 1321). Furthermore, they developed as well the standard on Jewellery – Gold, silver and platinum for jewellery – Methods of alloying (PNS 1308).

As the National Mirror Committee of ISO/TC 174, the Technical Committee has adopted several test method standards for materials and performance of which can be searched in the DTI e-library.

$54_{\text{composition}}^{\text{technical committee on jewellery}}$



MS. CECILIA RAMOS Chairman, BPS/TC 54 Chairperson, Philippine Jewelry Ce

Chairperson, Philippine Jewelry Center Meycauayan Jewelry Industry Association, Inc

> ENGR. GINA A. CATALAN Vice Chairman, BPS/TC 54 Chief, Analytical Laboratories Section Metals Industry Research and Development Center Department of Science and Technology

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MS. AGNES ROXAS Board of Investments



MS. MA. CORAZON DE GUZMAN Export Marketing Bureau Department of Trade and Industry



MR. EDWIN C. MAGLALANG Technical Education and Skills Development Authority



MR. SAMUEL CALLADO JR.* Technical Education and Skills Development Authority



MR. TIMOTHY JOSEPH TOMAS Bangko Sentral ng Pilipinas



Personal Protective Equipment (PPE) is intended to be worn or held by a person for protection against one or more risk for his or her health/safety that is placed on the market separately or combined with personal non-protective equipment. There are different kinds of PPEs such as head protection, foot protection, personal equipment for protection against falls, eye and face protection, protective clothing, firefighters personal equipment and respiratory protective devices.

The main objective of this technical committee is to ensure the availability of Philippine National Standards that can be used to protect the workers on the different hazards in the workplace as well as to ensure the safety and health of the end-users of the PPEs. This will also provide guidance on selection, care, use and maintenance of PPE used in different environments. The concerned stakeholders such as the general public/users, workers, PPE manufacturers and suppliers, academe, R&D organizations, regulatory, testing and accreditation bodies are expected to benefit from the standardization work of this technical committee.

BPS/TC 56 was organized sometime in 2006 and was reactivated last 04 March 2015.

BPS/TC 56 is the National Mirror Committee of ISO/TC 94 Personal safety – Personal protective equipment. Currently, the Philippines through the Bureau of Philippine Standards is a Participating Member (P-Member) to ISO/TC 94.

SCOPE AND LIMITATIONS

Standardization on the performance of personal protective equipment designed to safeguard wearers against all known possible hazards.

NOTABLE PUBLISHED STANDARDS

The adoption of the following ASTM Standards as Philippine National Standards was prioritized to update the reference standards used by the Department of Labor and Employment - Occupational Health and Safety Center (DOLE-OSHC) in testing safety shoes and rubber insulating gloves:

- PNS ASTM D120:2016, Standard Specification for Rubber Insulating Gloves (ASTM Published 2014a)
- PNS ASTM F2412:2016, Standard Test Methods for Foot Protection (ASTM Published 2011)
- PNS ASTM F2413:2016, Standard Specification for Performance Requirements for Protective (Safety) Toe Cap Footwear (ASTM Published 2011)
- PNS ÁSTM D297:2016, Standard Test Methods for Rubber Products—Chemical Analysis (ASTM Published 2015)
- PNS ASTM D412:2016, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension,(ASTM Published 2015a)
- PNS ASTM D573:2016, Standard Test Method for Rubber—Deterioration in an Air Oven (ASTM Published 2015)
- PNS ASTM D624:2016, Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers (ASTM Published 2012)
- PNS ASTM D1415:2016, Standard Test Method for Rubber Property—International Hardness (ASTM Published 2012)
- PNS ASTM D2240:2016, Standard Test Method for Rubber Property—Durometer Hardness (ASTM Published 2015)
- PNS ASTM F819:2016, Standard Terminology Relating to Electrical Protective Equipment for Workers (ASTM Published 2015)

The need to adopt International Standards on Personal flotation devices (PFDs) was seen by BPS/TC 56 in 2016. Hence, BPS/TC 56 considered the published ISO Standards by ISO/TC 188 Small craft/SC 1 Personal safety equipment. The committee also consulted experts from MARINA, Philippine Coast Guard, Philippine Army, Maynilad, NDRRMC and Philippine Navy.

$56^{\rm TECHNICAL}$ committee on personal protective equipment composition



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$56_{\text{composition}}^{\text{technical committee on personal protective equipment}}$

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ENGR. NARDITO M. CORNELIO JR. CEM, CFSP* Chairman, PSME Fire Protection Technical Division Philippine Society of Mechanical Engineers

$56^{\rm TECHNICAL}$ committee on personal protective equipment composition

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The The BPS/TC 58 aims to develop standards relating to safety of rotating electrical machines. Electricity worldwide is generated by rotating electrical machines and half of it is converted back into mechanical energy by electrical motors and because of this, there is a continuously high market demand for both electric motors and generators. The use of standards will benefit the power utility sectors, consumers, manufacturers and testing laboratories.

The development of standards for rotating electrical machines makes use mainly of reference standards from the International Electrotechnical Commission (IEC).

BPS/TC 58 is mirrored and a participating member to IEC/TC 2 – Rotating machinery.

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards for rotating electrical machines such as motors and generators without limitations of voltage, output or dimensions.

NOTABLE PUBLISHED STANDARDS

The following safety standards for rotating electrical machines are adopted in support to the Minimum Efficiency Performance Standards (MEPS) by the Department of Energy (DOE) that will mandate the efficiency class of motors in the industries.

- **PNS IEC 60034-1:2018** Rotating electrical machines Part 1: Rating and performance
- **PNS IEC 60034-2-1:2017** Rotating electrical machines Part 2-1: Standard methods for determining losses and efficiency from tests (excluding machines for traction vehicles)
- PNS IEC 60034-30-1:2017 Rotating electrical machines Part 30-1: Efficiency classes of line operated AC motors (IE code)
- **PNS IEC TS 60034-2-3:2016** Rotating electrical machines Part 2-3: Specific test methods for determining losses and efficiency of converter-fed AC induction motors
- PNS IEC 60034-12:2017 Rotating electrical machines Part 12: Starting performance of singlespeed three-phase cage induction motors
- **PNS IEC 60034-26:2018** Rotating electrical machines Part 26: Effects of unbalance voltages on the performance of three-phase cage induction motors
$\mathbf{58}$ technical committee on rotating machinery composition



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ENGR. KRISTIAN CARLO B. VICTORIO Registered Electrical Engineer Science Research Specialist Department of Energy



MR. GO KEIN KOC Federation of Electrical & Electronics Suppliers & Manufacturers of the Philippines Inc.



MR. ROLAND VASQUEZ RPV Electrotech Power Systems, Inc.



MR. RAMON AGUILOS Philippine Society of Ventilating, Air Conditioning & Refrigerating Engineers

59 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON AUDIO, VIDEO MULTIMEDIA SYSTEMS AND EQUIPMENT

RATIONALE

With the introduction of new emerging technologies and different combinations and uses of existing technology such as with 3D printing, wearable smart devices and wireless power transfer, the field of audio/ video (AV) and information/communication technology (ICT) is evolving at an increasing speed. The types of products covered by the scope of BPS/TC 59 are widely used in the world. BPS/TC 59 ensures the availability of Philippine National Standards (PNS) necessary for manufacturers and the safety of users of AV/ICT equipment, national authorities responsible for such equipment safety and bodies responsible for certifying such equipment as well as to address new uses of existing technologies related to AV/ICT. BPS/ TC 59 has endorsed its first developed Philippine National Standard sometime in 1990.

The concerned stakeholders such as industry manufacturers/suppliers, companies at all levels in the supply chain, from components to full systems, BPS Electrotechnical Committees, the general public/users of electronic/electrical products, academe, research and development (R & D) organizations, regulatory, testing and accreditation bodies are expected to benefit from the standardization work of this technical committee.

BPS/TC 59 is the National Mirror Committee of IEC/TC 108 Safety of electronic equipment within the field of audio/video, information technology and communication technology. Currently, the Philippines through the Bureau of Philippine Standards is a Participating Member (P-Member) to IEC/TC 108.

SCOPE AND LIMITATIONS

Standardization in the field of safety for audio/video and similar technology, information technology and communication technology equipment.

NOTABLE PUBLISHED STANDARDS

BPS/TC 59 prioritized the review and adoption of IEC 62361-1 as Philippine National Standard. IEC 62368 -1 which has been developed by IEC/TC 108 using hazard based principles is expected to replace IEC 60065 and IEC 60950 series over the next few years. IEC 62368-1 includes in its scope those products included in the scopes of the IEC 60065 and IEC 60950 series and will therefore cover a wide variety of products in the Audio/Video, Information and Communication Technology market. This standard is expected to be used extensively with an overall expected acceptance equal to or greater than the IEC 60065 and IEC 60950 series.

- PNS IEC 62368-1:2017, Audio/video, information and communication technology equipment Part 1: Safety requirements (IEC Published 2014 with Corrigendum 1:2015)
- PNS IEC/TR 62368-2:2017, Audio/video, information and communication technology equipment Part 2: Explanatory information related to IEC 62368-1 (IEC Published 2015)

The 2013 version of PNS IEC 60065 was updated by BPS/TC 59. This standard has been and still among the most widely used of all IEC standards. It forms a basis for many national and regional standards around the world and, as a minimum, are used and referenced by most countries of the world. As a matter of fact, PNS IEC 60065 is a mandatory standard in the Philippines.

BPS/TC 59 also considered the safety of portable batteries like power banks, hence the committee prioritized the adoption of IEC 62133-2:2017 as Philippine National Standard. This standard can also be considered by regulatory agency for mandatory implementation.

- PNS IEC 60065:2019, Audio, video and similar electronic apparatus Safety requirements (IEC published 2014 with Corrigendum 1:2015, Corrigendum 2: 2016 and Corrigendum 3:2018)
- PNS IEC 62133-2:2019, Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems (IEC published 2017)



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RATIONALE

Information technology (IT) as defined by the International Organization for Standardization (ISO) is the resources used to acquire, process, store, and disseminate information. Also, it is the technology concerned with the transmission, emission and reception of signs, signals, writing, images and sounds by cable, radio, optical or other electromagnetic systems.

Information Technology consists of the specification, design and development of systems and tools dealing with the capture, representation, processing, security, transfer, interchange, presentation, management, organization, storage and retrieval of information.

The applications of information technology cover wide industries of the modern global economy. There are great opportunities for information technology in the country considering that government agencies and business enterprises are spending on ICT infrastructure, cloud, and cyber solutions. The Philippine IT-producing industries have experienced tremendous growth, which is even expected to accelerate as electronic commerce gains widespread acceptance.

In view of this, different policies and guidelines related to information technology are being formulated by the relevant government agencies such as the Department of Information and Communications Technology (DICT) and the National Privacy Commission (NPC). For the development/adoption of International IT related standards, these agencies are closely working with the Department of Trade and Industry. Different ISO/IEC Standards are being considered to be adopted as Philippine National Standards (PNS) and experts are considering the active participation in the different international standardization activities.

Through the establishment of the Department of Information and Communications Technology (DICT) and its attached agency, the National Privacy Commission (NPC), the need to actively participate in the International meetings of International Organization for Standardization/International Electrotechnical Commission Joint Technical Committee Subcommittee on Information security, cybersecurity and privacy protection ISO/IEC JTC 1/SC 27 and its working group on Identity management and privacy technologies (WG 5) has been identified. DICT supports the standardization work of BPS/TC 60 and its subcommittees by hosting the committee meetings. Currently, there is an ongoing negotiation for the DICT to become one of the Standards Development Organizations (SDOs) of BPS.

BPS/TC 60 was reactivated last 20 February 2017. The standardization activities of BPS/TC 60 can contribute to the UN Sustainable Development Goals: [9] Industry, Innovation and Infrastructure and [11] Sustainable cities and communities.

BPS/TC 60 has established **three (3) subcommittees** (SCs) namely, SC 1 IT Security techniques, SC 2 Information technology for learning, education and training and SC 3 - Software and systems engineering last 30 March 2017.

BPS/TC 60 is the National Mirror Committee of ISO/IEC JTC 1 Information Technology. Currently, the Philippines through the Bureau of Philippine Standards is an Observing Member (O-Member) to ISO/IEC JTC 1. BPS has also signified Participating (P) Membership in the development of International Standards for Information Technology – Information security, cybersecurity and privacy protection under the ISO/IEC Joint Technical Committee on Information Technology (ISO/IEC JTC 1 SC 27) and its working group on identity management and privacy technologies (WG 5) last 08 February 2017.

BPS/TC 60/SC 1 is the National Mirror Committee of ISO/IEC JTC 1 Information Technology/SC 27 Information Security, Cybersecurity and Privacy Protection. Currently, the Philippines through the Bureau of Philippine Standards is a Participating Member (P-Member) to ISO/IEC JTC 1/SC 27. The National Privacy Commission has been actively participating in the standardization work of ISO/IEC JTC 1/SC 27 and its Working Group 5 Identity management and privacy technologies since 2017.

BPS/TC 60/SC 2 is the National Mirror Committee of ISO/IEC JTC 1/SC 36 IT for learning, education and training. Currently, the Philippines through the Bureau of Philippine Standards is an Observing Member (O -Member) to ISO/IEC JTC 1/SC 36.

BPS/TC 60/SC 3 is the National Mirror Committee of ISO/IEC JTC 1 Information Technology/SC 7 Software and systems engineering & ISO/IEC JTC 1/SC 40 IT Service Management and IT Governance. Currently, the Philippines through the Bureau of Philippine Standards is an Observing Member (O-Member) to ISO/IEC JTC 1/SC 7.

SCOPE AND LIMITATIONS

BPS/TC 60 - Standardization in the field of information technology;

BPS/TC 60/SC 1 - The development of standards for the protection of information and ICT. This includes generic methods, techniques and guidelines to address both security and privacy aspects, such as:

- Security requirements capture methodology;
- Management of information and ICT security; in particular information security management systems, security processes, and security controls and services;
- Cryptographic and other security mechanisms, including but not limited to mechanisms for protecting the accountability, availability, integrity and confidentiality of information;
- Security management support documentation including terminology, guidelines as well as procedures for the registration of security components;
- Security aspects of identity management, biometrics and privacy;
- Conformance assessment, accreditation and auditing requirements in the area of information security management systems;
- Security evaluation criteria and methodology.

BPS/TC 60/SC 2 - Standardization in the field of information technologies for learning, education, and training to support individuals, groups, or organizations, and to enable interoperability and reusability of resources and tool.

Excluded from this scope are:

- standards or technical reports that define educational standards (competencies), cultural conventions, learning objectives, or specific learning content.
- work done by other ISO or IEC TCs, SCs, or WGs with respect to their component, specialty, or domain. Instead, when appropriate, normative or informative references to other standards shall be included. Examples include documents on special topics such as multimedia, web content, cultural adaptation, and security.

BPS/TC 60/SC 3 - Standardization in the area of software and systems engineering that meet market and professional requirements. These standards convers the processes, supporting tools and supporting technologies for the engineering of software products and systems.

Standardization of IT Service Management and IT Governance to develop standards, tools, frameworks, best practices and related documents for IT Service Management and IT Governance, including areas of IT activity such as audit, digital forensics, governance, risk management, outsourcing, service operations and service maintenance. The work will initially cover:

- Governance of IT, including the development of the ISO/IEC 38500 series standards and related documents.
- Operational aspects of Governance of IT, including ISO/IEC 30121 Information Technology Governance of digital forensic risk framework, and interfaces with the management of IT as well as the role of governance in the area of business innovation.
- All aspects relating to IT service management, including the development of the ISO/IEC 20000 series standards and related documents.
- All aspects relating to IT-Enabled Services Business Process Outsourcing, including the development of the ISO/IEC 30105 series standards and related documents.

NOTABLE PUBLISHED STANDARDS

The following Philippine National Standards (PNS) have been used by the NPC as references in creating guidelines and policies issued to multiple sectors for privacy risk management and implementation of data protection controls & policies:

- PNS ISO/IEC 27001:2018, Information technology Security techniques Information security management systems – Requirements (ISO/IEC published 2013 with Corrigendum 1:2014 and Corrigendum 2:2015)
- PNS ISO/IEC 27002:2018, Information technology Security techniques Code of practice for information security controls (ISO/IEC published 2013 with Corrigendum 1:2014 and Corrigendum 2:2015)
- PNS ISO/IEC 27035-2:2018, Information technology Security techniques Information security incident management – Part 2: Guidelines to plan and prepare for incident response (ISO/IEC published 2016)
- PNS ISO/IEC 29134:2018, Information technology Security techniques Guidelines for privacy impact assessment (ISO/IEC published 2017)
- PNS ISO/IEC 29151:2018, Information technology Security techniques Code of practice for personally identifiable information protection (ISO/IEC published 2017)
- PNS ISO/IEC 29100:2019, Information technology Security techniques Privacy framework (ISO/IEC published 2011 with Amendment 1:2018)
- PNS ISO/IEC 27000:2020, Information technology Security techniques Information security management systems — Overview and vocabulary (ISO/IEC published 2018)
- PNS ISO/IEC 20889:2020, Privacy enhancing data de-identification terminology and classification of techniques (ISO/IEC published 2018)

BPS TC 60/SC 3 prioritized the adoption of ISO/IEC 20000 series of standards for IT Service Management (ITSM). It describes an integrated set of management process for a service management system in the effective delivery of services to the business and its customers. It also provides best practices in ITSM for appropriate methods that can be applied within an organization.

- PNS ISO/IEC 20000-1:2019, Information technology Service management Part 1: Service management system requirements (ISO/IEC published 2018)
- PNS ISO/IEC 20000-2:2019, Information technology Service management Part 2: Guidance on the application of service management systems (ISO/IEC published 2012)
- PNS ISO/IEC 20000-3:2019, Information technology Service management Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1 (ISO/IEC published 2012)
- PNS ISO/IEC TR 20000-5:2019, Information technology Service management Part 5: Exemplar implementation plan for ISO/IEC 20000-1 (ISO/IEC published 2013)
- PNS ISO/IEC 20000-6:2019, Information technology Service management Part 6: Requirements for bodies providing audit and certification of service management systems (ISO/IEC published 2017)
- PNS ISO/IEC 20000-10:2019, Information technology Service management Part 10: Concepts and vocabulary
- (ISO/IEC published 2018)
- PNS ISO/IEC TR 20000-11:2019, Information technology Service management Part 11: Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: ITIL® (ISO/IEC published 2015)
- PNS ISO/IEC TR 20000-12:2019, Information technology Service management Part 12: Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: CMMI-SVC (ISO/IEC published 2016)

${\scriptstyle 60}_{\scriptstyle \text{composition}}^{\scriptstyle \text{technical committee on information technology}}$



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${\scriptstyle 60}^{\rm technical \ committee \ on \ information \ technology}_{\rm sub-committee \ 1 \ composition}$



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${\scriptstyle 60}_{\scriptstyle \text{sub-committee 2 composition}}^{\scriptstyle \text{technical committee 0n information technology}}$



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PROF. EDMON L. TORRES* University of the East



ENGR. ELMAR FRANCISCO Integrated Research and Training Center



DR. JAIME DL. CARO Chair, Technical Panel for Information technology Education Commission on Higher Education



MR. MONCHITO B. IBRAHIM* Commission on Higher Education

RATIONALE

The Department of Trade and Industry recognizes the Philippine Development Plan 2017 – 2022 (or PDP 2017-2022) as a national directional guide which serves for the policy formulation and implementation of development programs for the six-year term of President Rodrigo Roa Duterte. It is a result of a nation-wide collaboration between the government, the private sector, and civil society.

The PDP 2017-2022 anchors its principles and goals from the *Ambisyon Natin 2040* (a 25-year long term plan that aims for comfortable lives for the Filipino people and secured and strongly-rooted economy).

Recognizing the Chapter 12 (Building Safe and Secure Communities) and Chapter 19 (Accelerating Infrastructure Development) of the PDP 2017-2022, the Duterte Administration has mobilized infrastructure programs and initiatives to boost the construction industry. One of the responses and inputs of the Bureau of the Philippine Standards for the said programs is the reactivation of BPS Technical Committees related to building construction respect; and hence, the reactivation of the BPS/TC 61, the BPS Technical Committee for Ferrous Pipes and Fittings. The reactivation meeting was conducted on the 17th of March 2017.

The reactivation of the BPS/TC 61 was also a response of the BPS from the unified request of the steel pipes industry to update the existing Philippine National Standards on steel pipes and related product standards thereof.

The BPS/TC 61 develops and review standards on Ferrous Pipes and Fittings that will be used by stakeholders, namely:

- industry of Ferrous Pipes and Fittings (manufacturers)
- construction industry
- Conformity Assessment group of BPS
- Other government agencies (e.g. DTI-FTEB, DTI Regional)
- testing institutions
- Plumbers / Master Plumbers
- Sanitation Engineers
- Related government agencies like MWSS and Local Water Utilities Administration (LWUA)

The BPS/TC 61 is a mirror technical committee to the ISO Technical Committee 5 (ISO/TC 5) – *Ferrous metal pipes and metallic fitting.*

SCOPE AND LIMITATIONS

The BPS/TC 61 is committed to doing standardization works in the field of steel tubes, cast iron pipes, flexible metallic tubes and metallic fittings, flanges, pipe supports, pipe threads and gauges, metallic and organic coatings and protections (e.g. galvanization and cathodic protection).

For standardization works related to steel for tubes, aircraft pipes, connections for fluid power systems, tubes and equipment (other than flanges) pipe threads and gauging within the field of work of the petroleum and natural gas industries, other BPS Technical Committees encompass such, as per respective scope of work.

NOTABLE PUBLISHED STANDARDS

- PNS 26:2018 (Steel Black and hot-dipped zinc-coated (galvanized) longitudinally welded steel pipes (for ordinary uses) Specification)
- PNS ASTM F1083:2019 (Standard specification for pipe, steel, hot-dipped zinc-coated (galvanized) welded, for fence structures)
- PNS ISO 2531:2019 (Ductile iron pipes, fittings, accessories and their joints for water applications)
- PNS 33:2019 (Hot-rolled carbon steel strips for pipes and tubes Specification)

The PNS 26:2018 and PNS 33:2019 are integral standards specifically requested by the steel pipes industry in the Philippines. PNS 26:2018 is a specification standard that provides for the general requirements, classification, and markings for black and galvanized steel pipes that are produced through a longitudinal weld, and usually are manufactured through ERW or Electric Resistance Welding. The updated PNS 26 is an input not only to the steel pipes industry but also to the certification arm of the DTI. The PNS 33 is a standard that is normative or an indispensable part of PNS 26, and hence was also updated accordingly through the usual process of BPS Standards Development.

The PNS ASTM F1083:2019 is the response of BPS to the proposal of the BI-GI Pipes Association (steel pipes industry) in formulating a standard for fence tubes. The BPS/TC 61 recognizes the unscrupulous activities with regards to the sale and distribution of steel pipes of PNS 26 profile and fence tubes (which before has no PNS to refer to). The Letter of Request of the BI-GI Association was later on followed-up by a New Work Item Proposal, which later on lead to the deliberation for a more specific PNS for fence tubes of lower unit mass. The said New Work Item Proposal was responded by the drafting of the new draft PNS, DPNS 2145:2020, which bears the title: *"Steel - Black and galvanized longitudinally welded light-weight steel tubes – Specification"*, through Technical Committee meetings of the BPS/TC 61.

The PNS ISO 2531:2019 (Ductile iron pipes, fittings, accessories and their joints for water applications) is a standard that resulted from a request of the manufacturing sector. The BPS/TC 61 members from the MWSS (Metropolitan Waterworks and Sewerage System), deem that standards like PNS ISO 2531:2019 is also a worthwhile project since there are still large underground waterlines in many cities that uses ductile iron pipes.

61 TECHNICAL COMMITTEE ON FERROUS PIPES AND FITTINGS COMPOSITION



ENGR. RICKY F. GACELO Chairman, BPS/TC 61 Head, Quality Assurance Department Philippine Association of BI-GI Pipes and Tubes Manufacturers, Inc.

ENGR. EDUARDO C. SACAY Vice Chairman, BPS/TC 61 Management Team Supreme Steel Pipe Corporation



Members:



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ENGR. GINA A. CATALAN Chief, Analytical Laboratories Section Metals Industry Research and Development Center Department of Science and Technology



ENGR. NONITO B. GALPA Chairman / Manager-Emeritus Q-Tech Testing Laboratory



ENGR. EULOGIO P. REYES Member-Emeritus Safety Organization of the Philippines, Incorporated



ENGR. RUGI VICENTE RUBI Faculty, Adamson University Chemical Engineering Department Adamson University

61 TECHNICAL COMMITTEE ON FERROUS PIPES AND FITTINGS COMPOSITION

Members:



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AR. ROSANNA V. CHEN National Secretary National Master Plumbers Association of the Philippines, Inc.



ENGR. MAT WILSON B. RAMOS President Laguna Water District Aquatech Resources Corporation



ENGR. EVANGELINE B. DACANAY Division Manager Metropolitan Waterworks and Sewerage System



ENGR. EMILIANA P. DELA CRUZ ASEAN Engineer Scribe/Fellow Member, College of Fellows Philippine Society of Sanitary Engineers



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PROF. ERISON C. ROQUE* Chairperson and Associate Professor Chemical Engineering Department Adamson University



ENGR. ERIC M. SALVADORA* National Director Philippine Society of Sanitary Engineers

61 TECHNICAL COMMITTEE ON FERROUS PIPES AND FITTINGS COMPOSITION

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ENGR. REYEL R. VIVO* Governing Board - PSME Luzon PSME Boiler, Pressure Vessel and Piping Technical Division



ENGR. BYRON CARBON* Metropolitan Waterworks and Sewerage System



MR. CRIS BORROMEO* Q-Tech Testing Laboratory

66 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON PALLETS FOR UNIT LOAD METHOD OF MATERIALS HANDLING

RATIONALE

Many manufacturers and shippers of commercial goods make use of pallets. These pallets, which can be made of wood, plastic, or metal, can even be used as a unit of measure, with products made available for order by the pallet, and each pallet containing a set number of units.

The use of pallets as a base for unit loads offers a number of benefits versus unpalletized handling that result from the more efficient handling of goods. These include:

- Faster unloading and loading, resulting in the faster turnaround of delivery vehicle and greater transport equipment efficiency;
- Quicker availability of the trailer door for the next arrival;
- Dramatically reduced labor requirement versus manual handling;
- Reduced risk of temperature abuse for perishable products on unrefrigerated docks;
- Less risk of product damage;
- Reduced risk of worker injury;
- More efficient material handling and storage.
- Standard sized pallets can optimize operations in pallet racks and other warehouse storage solutions.

Having these said, standardization in the field of pallets will provide a positive economic impact throughout the packaging chain by improving the design of pallets operating within sophisticated packaging systems in relation to efficiency and safety performance allowing for clear unambiguous technical specifications leading to lower costs and contributing to the removal of possible technical obstacles to trade by the free exchange of palletized goods.

Hence, as the National Standards Body of the Philippines, the Bureau of Philippine Standards established its Technical Committee 66 – Pallets for Unit Load Methods of Materials Handling.

This Technical Committee serves as a mirror committee of ISO/TC 51.

SCOPE AND LIMITATIONS

BPS/TC 66 handles standardization of pallets in general use in the form of platforms or trays on which goods may be packed to form unit loads for handling by mechanical devices.

NOTABLE PUBLISHED STANDARDS

As the Technical Committee responsible for the standardization of pallets, BPS/TC 66 developed its homegrown standard on the Quality of sawn wood used for the construction of pallets (PNS 2101). This standard provides information on the faults and features which may affect sawn wood used for the construction of pallets, and provides guidance on their effects in relation to the physical and mechanical properties of both components and complete wooden pallets. Furthermore, it also addresses on the Wood species used in the construction of pallets in the Philippines.

As the National Mirror Committee of ISO/TC 51, the Technical Committee has adopted the ISO 8611 suite of standards which provides a comprehensive set of performance requirements for all types of pallet. Manufacturers can (and do) use these as readymade contractual elements when subcontracting work to other factories.

66 TECHNICAL COMMITTEE ON PALLETS FOR UNIT LOAD METHOD OF MATERIALS HANDLING COMPOSITION



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> MS. ELVINA BONDAD Vice Chairwoman, BPS/TC 61 Chief, Physics and Mechanics Section Forest Products Research and Development Institute Department of Science and Technology



Members:



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MR. DAVID LOUIS AVERILLA San Miguel Yamamura Packaging Corporation



MS. REMEDIOS D. MAGSAYSAY Warehouse & Logistics Asst. Manager Kanepackage Philippine, Inc.



MS. SABRINA L. GABAYAN Marketing Director AGM VentureSs Enterprises Inc.

66 TECHNICAL COMMITTEE ON PALLETS FOR UNIT LOAD METHOD OF MATERIALS HANDLING COMPOSITION

Members:



MR. JOSE PEPITO Nationwide Association of Consumers, Inc.



ENGR. ENRICO C. FERRE Water TPD Department of Transportation



MR. MANNY LARDIZIBAL* Water TPD Department of Transportation

67 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON FOOTWEAR

RATIONALE

Manufacturers of footwear in the Philippines are geographically spread throughout the country. Most of the industry players are located in NCR, Central Luzon and CALABARZON, and they are also classified as micro, small and medium enterprises.

The Philippines used to have a significant number of footwear manufacturers which commonly operates inside their homes. But they have been dramatically declining over the years due to the influx of cheap foreign-made footwear products which is highly supported by the buyers.

However, the problem with cheap foreign-made footwear is that their sizes are not in line with the standard, these type of footwear also are often being complain about the speed of its deterioration.

To support the improvement of the footwear industry and to also help the consumer in getting a quality product, BPS has established a Technical Committee on Footwear (BPS/TC 67) which develops Philippine National Standards (PNS) that aims to contribute on fair-trade, strengthen the quality of the production in local and foreign market, and to promote the approach of the total quality system in Footwear Industry.

BPS/TC 67 also is the National Mirror Committee of ISO Technical Committee on Footwear (ISO/TC 216) and mirrors the work of ISO/TC 216 in developing guidance and standards on footwear.

SCOPE AND LIMITATIONS

BPS/TC 67 handles standardization in the field of test methods, terminology and performance requirements for components for footwear; test methods and terminology for whole shoe, and sizing system designation and marking for boots and shoes.

NOTABLE PUBLISHED STANDARDS

As the Technical Committee responsible for the standardization of footwear, BPS/TC 67 developed its homegrown standards on Size designation and marking for shoelast (PNS 215), and on Code for footwear labelling and indication of composition. PNS 215 specifies a system for designating and labeling the sizes of the shoelasts for men, women and children's shoes, while PNS 216 provides standard code for the labeling of footwear for commercial purposes, i.e. sold or offered for sale in the Philippines. It specifies the information to be provided, indicates the terms in which this should be expressed and the means by which it should be conveyed.

As the National Mirror Committee of ISO/TC 216, the Technical Committee has adopted several test method standards for materials and performance of which can be searched in the DTI e-library.

67 technical committee on footwear composition



MS. TERESITA ENDRIGA *Chairwoman, BPS/TC 67* Schuhleisten Asian Co., Inc.

> **MR. NOEL B. BOX** Vice Chairman, BPS/TC 67 Marikina Shoe Industry Development



Members:



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MR. JOSE PEPITO* Nationwide Association of Consumers, Inc.



MS. FENINA BONOAN Export Marketing Bureau Department of Trade and Industry



MS. PURITA TUASON Export Marketing Bureau Department of Trade and Industry



MS. ELIZABETH O. SANTOS Industrial Technology Development Institute Department of Science and Technology

$67_{\text{COMPOSITION}}^{\text{TECHNICAL COMMITTEE ON FOOTWEAR}}$

Members:



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MR. FRANCISCO D.C. CARLOS, JR. Marikina Polytechnic College



MR. ARNOLD D.G. YASAY* Marikina Polytechnic College



MS. RONALEE OCHOA San Roque National High School



MS. GEMMALYN DE LEON* San Roque National High School
RATIONALE

The BPS/TC 69 aims to develop standards related to safety of power transformers. Demand for power transformers is strong across the range of power and voltage, both to accommodate growing demand for electricity and to replace ageing units. The standards developed were used by utilities, consultants and project management companies as the basis for the specification of power transformers. Its main applications were in distribution networks, transmission networks, power stations, HVDC links, wind farms, other renewable generation and railway electrification trackside equipment.

The development of standards for power transformers makes use mainly of reference standards from the International Electrotechnical Commission (IEC).

BPS/TC 69 is mirrored to IEC/TC 14 - Power transformers.

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards for power transformers, tap-changers and reactors for use in power generation, transmission and distribution.

NOTABLE PUBLISHED STANDARDS

The following safety standards for power transformers are adopted to be used as reference by electrical engineering practitioners in specifying power transformers.

• PNS IEC 60076-1:2019 Power transformers – Part 1: General

This standard is applied to three-phase and single-phase power transformers, including autotransformers, with the exception of certain categories of small and special transformers such as instrument transformers, traction transformers mounted on rolling stock, starting transformers, testing transformers, welding transformers, explosion-proof and mining transformers, and transformers for deep water applications.

• **PNS IEC 60076-5:2006** Power transformers – Part 5: Ability to withstand short-circuit

This standard identifies the requirements for power transformers to sustain without damage the effects of overcurrents originated by external short circuits.

$69 \begin{array}{c} {}_{\rm TECHNICAL \ COMMITTEE \ ON \ POWER \ TRANSFORMER \\ {}_{\rm COMPOSITION} \end{array}$



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69 TECHNICAL COMMITTEE ON POWER TRANSFORMER COMPOSITION

Members:



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MR. JOHN MICHAEL BASALO Philippine Rural Electric Cooperatives Association Inc.



MR. PERCY G. ARANAS KVAR Corporation



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ENGR. ALIPIO M. AGATON Manager National Transmission Corporation



MR. EDUARDO DELA TORRE Delta Star Power Manufacturing Corp.

69 TECHNICAL COMMITTEE ON POWER TRANSFORMER COMPOSITION

Members:



MR. HERBERT CAMARA* First Philec

RATIONALE

BPS/TC 74 was created on 21 January 2011 mirroring the work of International Electrotechnical Commission Technical Committee on EMC (IEC TC 77) and Comite International Special des Perturbations Radioelectriques / International special committee on radio interference (CISPR). The technical committee was established in support of the Trade-Related Technical Assistance (TRTA) project of the European Union.

BPS/TC 74 was reactivated on 03 May 2018 to ensure the availability of Philippine National Standards for reliable operation of electronic/electrical equipment despite the presence of electromagnetic disturbance. The concerned stakeholders such as industry manufacturing, BPS Electrotechnical Committees, the general public/users of electronic/electrical products, academe, research and development (R & D) organizations, regulatory, testing and accreditation bodies are expected to benefit from the standardization work of this technical committee.

BPS/TC 74 is the National Mirror Committee of IEC/TC 77 Electromagnetic Compatibility and CISPR International special committee on radio interference. Currently, the Philippines through the Bureau of Philippine Standards is an Observing Member (O-Member) to ISO/TC 77.

SCOPE AND LIMITATIONS

Standardization in the field of electromagnetic compatibility (EMC), with particular emphasis on general application and use by product committees. Electromagnetic compatibility in so far as safety aspects are involved. The scope covers the following aspects of EMC:

- Immunity and related items, over the whole frequency range: basic and generic standards, emission in the low frequency range (f <= 9 kHz, e.g. harmonics and voltage fluctuations): basic, generic and product (family) standards, emission in the high frequency range (f > 9 kHz): disturbances not covered by CISPR 10 (1992), in co-ordination with CISPR (e.g. mains signalling).
- Protection of radio reception in the range 9 kHz to 400 GHz from interference caused by operation of electrical or electronic appliances and systems in the electromagnetic environment.
- Measurement instrumentation, facilities, methods and statistical analysis for the measurement of disturbance.
- Limits for radio disturbances caused by electrical or electronic appliances and systems.
- Requirements for the immunity of electrical appliances, multimedia equipment, information technology equipment and sound and television broadcast receiving installations from interference.
- Liaison with BPS Electrotechnical Committees that maintain basic standards that apply the prescriptions of methods of measurement of such immunity and consider the test levels for such immunity tests set by CISPR in relevant product standards.
- The consideration jointly with other BPS Technical Committees of the emission and immunity requirements for devices and products where their standards cover EMC requirements which do not match to the respective requirements in CISPR standards.
- Taking into account the impact of safety issues on disturbance suppression and immunity of electrical equipment.

NOTABLE PUBLISHED STANDARDS

BPS/TC 74 prioritized these Philippine National Standards for the commitment of the Philippines in the ASEAN Consultative Committee on Standards and Quality (ACCSQ) for the harmonization of national standards within the ASEAN Region.

- PNS IEC CISPR 24:2018, Information technology equipment Immunity characteristics Limits and methods of measurement (IEC published 2010 with Amendment 1:2015)
- PNS IEC CISPR 16-1-1:2019, Specification for radio disturbance and immunity measuring apparatus and methods Part 1-1: Radio disturbance and immunity measuring apparatus Measuring apparatus (IEC published 2015)
- PNS IEC CISPR 16-2-1:2019, Specification for radio disturbance and immunity measuring apparatus and methods Part 2-1: Methods of measurement of disturbances and immunity Conducted disturbance measurements (IEC published 2014 with Amendment 1:2017)
- PNS IEC CISPR 17:2019, Methods of measurement of the suppression characteristics of passive EMC filtering devices (IEC published 2011)
- PNS IEC CISPR 25:2019, Vehicles, boats and internal combustion engines Radio disturbance characteristics – Limits and methods of measurement for the protection of on-board receivers (IEC published 2016)
- PNS IEC CISPR TR 16-4-4:2019, Specification for radio disturbance and immunity measuring apparatus and methods Part 4-4: Uncertainties, statistics and limit modelling Statistics of complaints and a model for the calculation of limits for the protection of radio services (IEC published 2007 with Amendment 1:2017)

The Department of Science and Technology – Electronics Product Development Center, as the country's electronics design facility that provides electronic product testing for EMC, recommended to BPS/TC 74 to prioritize the review and adoption of IEC CISPR 35:2016 as PNS last 03 May 2018.

• PNS IEC CISPR 35:2018, Electromagnetic compatibility of multimedia equipment - Immunity requirements (IEC published 2016)

BPS/TC 74 prioritized the following Philippine National Standards that can be used by testing laboratories as references in testing electromagnetic compatibility.

- PNS IEC 61000-4-8:2019, Electromagnetic compatibility (EMC) Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test (IEC published 2009)
- PNS IEC 61000-4-12:2019, Electromagnetic Compatibility (EMC) Part 4-12: Testing and measurement techniques - Ring wave immunity test (IEC published 2017)
- PNS IEC CISPR TR 16-4-1:2019, Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-1: Uncertainties, statistics and limit modelling - Uncertainties in standardized EMC tests (IEC published 2009)
- PNS IEC CISPR TR 16-4-3:2019, Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-3: Uncertainties, statistics and limit modelling - Statistical considerations in the determination of EMC compliance of mass-produced products (IEC published 2004 with Amendment 1:2006)

$74 \begin{array}{c} {\sf TECHNICAL \ COMMITTEE \ ON \ ELECTROMAGNETIC \ COMPATABILITY} \\ {\sf COMPOSITION} \end{array}$



ENGR. ENRICO CLARO R. DELMORO Chairman, BPS/TC 74 ASEAN Engineer Project Manager, Electronics Product Development Center

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ENGR. REINFELD E. REYES Department of Health Food and Drug Administration



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$74 \begin{array}{c} {\sf TECHNICAL \ COMMITTEE \ ON \ ELECTROMAGNETIC \ COMPATABILITY} \\ {\sf COMPOSITION} \end{array}$

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ENGR. JOHNNY QUINTO Senior Manager OMNI Solid Services, Inc.



MR. LAWRENCE PE* Senior Manager I OMNI Solid Services, Inc.



ENGR. GEM TAN Institute of Integrated Electrical Engineers of the Philippines Inc.



ENGR. LARRY MIRASOL Rodhe & Schwarz Phil. Inc.



ENGR. MICHAEL BOLA Rodhe & Schwarz Phil. Inc.



ENGR. ERIC ORDANIEL Sr. Supervisor, R&D AV Group Sharp Philippines



ENGR. JEFFERSON B. REMUDARO R&D Engineer Sharp Philippines

74 TECHNICAL COMMITTEE ON ELECTROMAGNETIC COMPATABILITY COMPOSITION

Members:



ENGR. GIDEON TAN Sales Manager Yu Eng Kao Electrical Supply & Hardware Inc.



ENGR. ALFIE VIADO Panasonic Manufacturing Philippines Corporation



ENGR. ERICSON AQUINO Principal Engineer Artesyn Embedded Technologies



ENGR. LEAN KARLO S. TOLENTINO Assistant Professor II and Director University Extension Services Office Technological University of the Philippines



ENGR. EDMON O. FERNANDEZ* Department Head, Electronics Engineering Department Technological University of the Philippines - Manila



ENGR. DANTE DIVINA, JR. Philippine Appliance Industry Association, Inc.



ENGR. JUSTIN AARON SY* Member Philippine Appliance Industry Association, Inc.



74 TECHNICAL COMMITTEE ON ELECTROMAGNETIC COMPATABILITY COMPOSITION

Members:



ENGR. GIDEON TAN Sales Manager Yu Eng Kao Electrical Supply & Hardware Inc.



ENGR. ALFIE VIADO Panasonic Manufacturing Philippines Corporation



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$74 \begin{array}{c} {\sf TECHNICAL \ COMMITTEE \ ON \ ELECTROMAGNETIC \ COMPATABILITY} \\ {\sf COMPOSITION} \end{array}$

Members:



MR. MEDARDO VALENZUELA* Laboratory Technician II Equipment Standards Division National Telecommunications Commission



ENGR. ERWIN DELOS SANTOS* Owner Wixiz Trading



ENGR. JESSIE ROBERT MALLONGA* Laban Konsyumer, Inc.



ENGR. MICHAEL DAAN Senior EMC Engineer Lexmark Research and Development Corporation



MS. ARMIN JOY G. CANON* Panasonic Manufacturing Philippines Corporation

76 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON BAMBOO AND RATTAN

RATIONALE

Under the Philippine Development Plan (PDP) 2011-2016, the bamboo industry was identified as one of the DTI's Industry clusters major strategy for development and promotion. Hence, bamboo and rattan are also included in the priority programs for standardization of the Bureau of Philippine Standards (BPS). Moreover, the bamboo industry is still part of the priority sectors under the PDP 2017-2022 and DTI Prosperity Plan for All: Plan 2022 where all development efforts are focused to increase competitiveness, innovativeness and resilience.

The Philippines through BPS is a Participating Member (P-Member) to ISO/TC 296 Bamboo and Rattan since April 2016. The participation of BPS in the ISO/TC 296 is enhancing the involvement of the Philippines in the International standardization work. It also ensures that the Philippine position and the concerns/interests of the Philippine stakeholders for bamboo and rattan are considered in the ISO/TC 296 meetings.

At present, the Philippines has a major role in the standardization work of ISO/TC 296. Dr. Rico J. Cabangon of the Department of Science and Technology - Forest Products Research and Development Institute (DOST-FPRDI) and Atty. Dulce Blanca Punzalan of Filbamboo Exponents, Inc. were appointed as Convenors of ISO/TC 296 Working Group on Bamboo for Furniture (WG 5) and Working Group on Bamboo charcoal (WG 3), respectively.

The established ADHOC Technical Committee on Bamboo and Related Products in 2011 was then converted into BPS/TC 76 on 15 May 2015. BPS/TC 76 is the National Mirror Committee of ISO/TC 296 that will establish a national consensus position on the draft documents of ISO/TC 296.

SCOPE

Standardization on bamboo, rattan, and derived materials for structural and non-structural applications, including terminology, classification, specifications, test methods and quality requirements.

NOTABLE PUBLISHED STANDARDS

PNS 2099:2015 is part of the Department of Trade and Industry's commitment to the Philippine Bamboo Industry Development Council (PBIDC) under the Executive Order (EO) 879 with the objective to promote the Bamboo Industry, the use of bamboo for at least twenty five (25%) percent of the desk and other furniture requirements of public elementary and secondary schools and prioritizing the use of bamboo in furniture, fixtures and other construction requirements of government facilities.

- PNS 2099:2015, Engineered bamboo for general purpose Specification
- PNS ISO 22156:2010, Bamboo Structural design
- PNS ISO 22157-1:2010, Bamboo Determination of physical and mechanical properties Part 1: Requirements
- PNS ISO/TR 22157 2:2010, Bamboo Determination of physical and mechanical properties -Part 2: Laboratory manual

$76_{\rm COMPOSITION}^{\rm TECHNICAL COMMITTEE ON BAMBOO AND RATTAN}$



DR. RICO J. CABANGON *Chairman, BPS/TC 76* Chief, Technology Innovation Division FPRDI Focal Person on Bamboo Industry Concerns Department of Science and Technology

ATTY. DULCE BLANCA T. PUNZALAN Vice Chairwoman, BPS/TC 76 Convenor, Working Group 3 (Bamboo Charcoal) ISO/TC 296 Member, Working Group 1 (Terminology of Bamboo Products)



Members:



ENGR. ELVINA BONDAD

Senior Science Research Specialist Department of Science and Technology – Forest Products Research and Development Institute



ENGR. ALLAN BONDAD Senior Science Research Specialist Department of Science and Technology – Forest Products Research and Development Institute



MS. CARMELITA BERSALONA Executive Director In-Hand Abra Foundation



MS. CARINA BAUTISTA* Marketing Officer In-Hand Abra Foundation

$76 \stackrel{\text{technical committee on bamboo and rattan}}{\text{composition}}$

Members:



MR. ANGELITO B. EXCONDE Chief, Administrative Officer Department of Environment and Natural Resources – Ecosystems Research and Development Bureau



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DR. LEILA C. AMERICA

Director Forestry and Environment Research Division Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development



DR. NIMFA K. TORRETA* Supervising Science Research Specialist Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development



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DR. WILLIE P. ABASOLO* University of the Philippines Los Baños – College of Forestry and Natural Resources ISO/TC 296/WG 1/WG 2/WG 3/WG 4 Expert



ARCHITECT CHRISTIAN S. SALANDANAN* Principal Architect Sangay Architects



MR. FRANCISCO LINGAD CEO/Executive Chair Cebu AN Corporation Woodcaretech Marketing Philippines, Inc.

$76 \begin{array}{c} \text{TECHNICAL COMMITTEE ON BAMBOO AND RATTAN} \\ \text{COMPOSITION} \end{array}$

Members:



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MR. MOISES P. TALLADEN Secretary General Nationwide Association of Consumers, Inc. ISO/TC 296/WG 1 Expert



MR. JOSE P. PEPITO Chairperson Nationwide Association of Consumers, Inc.



MS. ROWE REQUEJO Senior Industrial Design Specialist Design Center of the Philippines



DR. LESSANDRO ESTELITO O. GARCIANO Director Association of Structural Engineers of the Philippines



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MR. SALVIO VALENZUELA Executive Director Chamber of Furniture Industries of the Philippines, Inc.

$76 \begin{array}{c} {}_{\rm TECHNICAL \ COMMITTEE \ ON \ BAMBOO \ AND \ RATTAN} \\ {}_{\rm COMPOSITION} \end{array}$

Members:



ENGR. GERARDO P. MAGLALANG Division Chief DTI Region 3



AR. JOCELYN RIVERA-LUTAP, FUAP Dean, College of Architecture and Fine Arts Polytechnic University of the Philippines



DR. LUIS MARIA T. BO-OT Professor, College of Architecture University of the Philippines – Diliman Campus



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AR. MARK ROELAND A. DE CASTRO, UAP, PIEP, BERDE CBP President/Co-Founder Rawlands Innovation and Social Enterprise Venture



MR. EARL PATRICK FORLALES Co-founder and CEO CUBO Modular Inc.



MR. LEO MARIO OAPER Industrial Designer/Faculty Member Mapua University



MR. MARK "SULTAN" DAWA GERSAVA Founder & Chief Executive Farmer Bambuhay

77 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON ELECTRICAL INSTALLATIONS AND PROTECTION AGAINST ELECTRIC SHOCK

RATIONALE

The BPS/TC 77 aims to develop Philippine National Standards (PNS) relating to protection against electric shock and low-voltage electrical installations.

The Philippine Electrical Code (PEC) Parts 1 and 2 are the minimum electrical safety standard used by electrical engineering practitioners in design and specifications, installations and operation and maintenance. The PEC was developed base on National Electrical Code (NEC) of the United States to establish uniform levels of safety and provides specific rules on how to design, install and enforce electrical systems installation rules. IEC 60364 was developed as an effort to harmonize electrical installation rules among the European countries to further facilitate trade. While both address basic principle of safety, they were developed for different purpose. Since it is difficult and slim probability to harmonized the two documents, the purpose of BPS TC77 is to study IEC 60364 and evaluate its application link to the PEC to demonstrate a complimentary relationship.

The development of standards for protection against electric shock and low-voltage electrical installations makes use mainly of reference standards from the International Electrotechnical Commission (IEC).

The BPS/TC 77 is mirrored and a participating member to the IEC/TC 64 – Electrical installation and protection against electric shock.

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards for the following:

- a. concerning protection against electric shock arising from equipment, from installations and from systems without limit of voltage;
- b. for design, erection foreseeable correct use and verification of all kind of electrical installations at supply voltage up to 1kV a.c. or 1.5kV d.c.

NOTABLE PUBLISHED STANDARDS

The Technical Committee committed to support the project proposal of the Five (5) Application Guides complying with IEC 60364. The project was endorsed by Philippines to IEC/TC 64 through the National Committee and members from the Technical Committee were nominated as expert to participate in the drafting of Application Guides. These application guides aims to help electrical engineering practitioners understand the use of IEC 60364 in various applications such as Automatic Transfer Switch (ATS), Motor protection, Lighting circuits, Uninterruptible Power Systems (UPS) and Generators. The following guides were circulated by IEC/TC 64 as Document for Comments (DC):

- 64/2420/DC IEC TS 61200-205 ED1 Application guides complying with IEC 60364 Source changeover system
- 64/2419/DC IEC TS 61200-204 ED1 Application guides complying with IEC 60364 Rotating generators
- 64/2418/DC IEC TS 61200-203 ED1 Application guides complying with IEC 60364 Uninterruptible Power Systems
- 64/2417/DC IEC TS 61200-202 ED1 Application guides complying with IEC 60364 Lighting circuits
- 64/2416/DC IEC TS 61200-201 ED1 Application guides complying with IEC 60364 Asynchronous motor starting and protection

$77_{\rm PROTECTION \; AGAINST \; ELECTRIC SHOCK \; COMPOSITION}^{\rm TECHNICAL \; COMMITTEE \; ON \; ELECTRIC \; SHOCK \; COMPOSITION}$



ENGR. CONRADO BINONDO Chairman, BPS/TC 77 General Manager Elecdes Trading & Technical Services

ENGR. JUSTO LOPEZ JR. Vice Chairman, BPS/TC 77 ASEAN Chartered Professional Engineer Institute of Integrated Electrical Engineers of the Philippines, Inc. Fellow



Members:



MR. GEM J. TAN Institute of Integrated Electrical Engineers of the Philippines, Inc.



ENGR. RODOLFO J. RENOLLA General Manager RR Electroplumb, Inc.



ENGR. GIDEON TAN Sales Manager Yu Eng Kao Electrical Supply & Hardware, Inc.



ENGR. REYNALDO DEL MUNDO Consultant Schneider Electric Philippines

$77_{\rm PROTECTION \; AGAINST \; ELECTRIC SHOCK \; COMPOSITION}^{\rm TECHNICAL \; COMMITTEE \; ON \; ELECTRIC \; SHOCK \; COMPOSITION}$

Members:



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ENGR. JOSELITO MARQUEZ Makati Local Government Unit



ENGR. GENSEN CARIÑO Technological University of the Philippines



MR. JESSIE ROBERT P. MALLONGA Laban Konsyumer Inc.



ENGR. GREGORIO Y. GUEVARRA GYG Power Systems Inc.

$77_{\rm PROTECTION \; AGAINST \; ELECTRIC SHOCK \; COMPOSITION}^{\rm TECHNICAL \; COMMITTEE \; ON \; ELECTRIC \; SHOCK \; COMPOSITION}$

Members:



ENGR. NESTOR T. RIVERA* President LMPRESS Development & Construction Corporation



ENGR. ROY REYNALDO GONZALES, M.B.A, P.E.E * Standards Committee, Member Institute of Integrated Electrical Engineers of the Philippines, Inc.



ENGR. ARJUN ANSAY, PhD* Head, Power and Electronics Engineering Department Integrated Research and Training Center (IRTC) Technological University of the Philippines, Manila



ENGR. MIGUELITO PUA* Bureau of Fire Protection

RATIONALE

The BPS Technical Committee on Forest and Forest Products (BPS/TC 78) provides technical expertise in the development of Philippine National Standards on managing forest lands for various purposes including commercial, agricultural and public lands, and for forest products. Standardization in the field of forest management establishes a baseline to address environmental concerns from the source of all forest products and shall also cause positive impact for economic considerations.

Furthermore, the work of the BPS/TC 78 intends to unify and align with the current initiatives to revise the Sustainable Forest Management Bill designed to promote the sustainable use of forestlands by optimal utilization of forestlands and resources. The Bill aims to promote biodiversity enhancement, sustainable production, disaster risk reduction and contribution to tempering climate change.

Sustainable forest management is a global issue, and one that the Philippines with its massive forestry potential, needs to continuously work on addressing. Standardization and product/systems certification are both essential foundational tools, with the participation and execution of the affected industries, for the Philippines to reach its Forestry and Wood industry potential. The work of TC 78 shall impact all other technical committees tasked to develop standards for products derived from forests such as wood, lumber and timer, bamboo, textiles, rubber, etc.

The global demand for forest products, specifically wood products, are shifting. Consumers are more are environmentally conscious and prefer products sourced from sustainably managed forests. In effect, regulators are more meticulous against Illegal and indiscriminate logging (which causes land degradation, soil erosion, increased greenhouse gas emissions, and other negative impacts) emphasizing the need for sustainable forest management.

The Standardization work of this TC also contributes to the United Nations Sustainable Goals 9: Industry, Innovation and Infrastructure, 12: Responsible Consumption and Production, and 15: Life on Land.

The standards currently being developed by the BPS/TC 78 aim to address these issues by providing requirements for Sustainable Forest Management and Chain of Custody for forest-based products. DPNS 2140 aims to address the negative impacts of illegal and indiscriminate logging such as destruction of biodiversity, human rights issues, land degradation and natural hazards, among others, while DPNS 2127 provides requirements for traceability of forest products, paving the way for heightened transparency between the consumers and the producers

SCOPE AND LIMITATIONS

The BPS/TC 78 standardization is in the field of forestry, managing forest lands for various purposes including commercial, agricultural and public lands, and forest products.

Its work scope excludes standards being developed by the following respective BPS Technical Committees:

- BPS/TC 18 Textiles
- BPS/TC 22 Lumber and Timber Products
- BPS/TC 35 Wood-based Panels
- BPS/TC 43 Handicrafts
- BPS/TC 76 Bamboo and Rattan

$78_{\rm COMPOSITION}^{\rm TECHNICAL COMMITTEE ON FOREST AND FOREST PRODUCTS}$



FOR. MAILA R. VASQUEZ *Chairwoman, BPS/TC 78* Executive Director, Philippine Wood and Producers Association

FOR. JUNE M. ALVAREZ Vice Chairman, BPS/TC 78 Executive Director, Philippine Center for Environmental Protection and Sustainable Development, Inc.



Members:



DR. PRISCILA C. DOLOM Director and University Researcher III, Forest Development Center College of Forestry and Natural Resources University of the Philippines Los Baños



ARCH. CHRISTOPHER C. DE LA CRUZ Chief Executive Officer Philippine Green Building Council (PHILGBC)



ENGR. SERRG MARTIN G. CARREON Senior Trade Industry Development Specialist Philippine Accreditation Bureau



FOR. RAUL M. BRIZ Chief, Forest Protection Section, Forest Resources Conservation Division Forest Management Bureau Department of Environmental and Natural Resources



FOR. FE C. OLIVEROS Chief, Forest Policy Section Forest Policy, Planning and Knowledge Management Division Forest Management Bureau Department of Environmental and Natural Resources

$78_{\rm COMPOSITION}^{\rm TECHNICAL COMMITTEE ON FOREST AND FOREST PRODUCTS}$

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MR. SAMUEL G. FUELLAS Vice President Pambansang Kilusan ng mga Samahang Magsasaka

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Members:



MR. IRENEO R. CERILLA LPAD Chair Pambansang Kilusan ng mga Samahang Magsasaka



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ENGR. RAY GEGANTO Executive Director Philippine Paper Manufacturers Association



FOR. HANNA LEEN L. CAPINPIN* University Extension Specialist II, Forest Development Center College of Forestry and Natural Resources University of the Philippines Los Baños



FOR. JEAN C. NICMIC* University Researcher I, Forest Development Center College of Forestry and Natural Resources University of the Philippines Los Baños

<u>RATIONALE</u>

The Philippines has been consistently a top choice in the business process management or outsourcing industry. As one of the country's best performing and job generating sector, the BPM industry needs support in maintaining the good practice. As such, standards are vital in sustaining the industry as it will ensure consistency in high service quality and will build client confidence.

The BPS Technical Committee on Business Process Management (BPS/TC 79) was reorganized in 2018 to support the Business Process Management industry of the Philippines and sustain the good performance of the country for the global level.

Further, the establishment of the Technical Committee will enhance the Philippines' participation in the international standardization activities. Recognizing the high potential of our country's BPM industry, Philippines is anticipated to spearhead the international standardization activities in the near future.

SCOPE AND LIMITATIONS

The Technical Committee is tasked to develop Philippine National Standards and adopt International Standards that focuses on the processes and governance of customer contact center provider and client of the Business Process Management sector. This includes the animation, game developing, in-house center industry, and healthcare information, among others. Business Process Management which involves Information Technology is under the scope of the Technical Committee on Information Technology (BPS/TC 60).

NOTABLE PUBLISHED STANDARDS

PNS ISO 37500:2014 (ISO published 2014)

The International Standard on Guide on Outsourcing was adopted as Philippine National Standard in 2014 (PNS ISO 37500:2014). With the current and emerging environment in which disruptive technologies are affecting the industry, the standard was reviewed by the Technical Committee.

The Technical Committee reviewed the PNS ISO 37500:2014 to update and align the provisions of the standard based on the existing global standards and emerging technology since the outsourcing industry gears towards the fourth industrial revolution. Comments on this version will be forwarded to ISO for consideration.

The Technical Committee's other priority standards are the following:

- ISO 18295-1:2017, Customer Contact Centres Part 1: Requirements for customer contact centres
- ISO 18295-2:2017, Customer Contact Centres Part 2: Requirements for clients using the services
 of customer contact centres

79 Technical committee on business process management composition



MR. ROMMEL O. IGNACIO *Chairman, BPS/TC 79* Quality Manager Information and Technology Business Process Association of the Philippines

ENGR. ALBERTO B. SALVADOR, JR. Vice Chairman, BPS/TC 79 Officer-in Charge, Policy Research and Analysis Division National ICT Planning, Policy and Standards Bureau Department of Information and Communications Technology



Members:



MS. MARIA TERESITA LORING Chief Export Marketing Bureau Department of Trade and Industry



MS. MARIA LUZ MEDIALDIA* Assistant Chief Export Marketing Bureau Department of Trade and Industry



MR. EMILIO Y. SANCHEZ Investment Specialist Board of Investments



MR. JEFFREY WILLIAMS Board of Trustee Member Healthcare Information Management Association of the Philippines



MR. JORGE C. GONZALEZ Part Time Faculty, retired De La Salle – College of Saint Benilde

*Alternate Members

79 Technical committee on business process management composition

Members:



MS. ELAINE KUNKLE Global In-house Center Council Philippines



MR. LUJANN KARLO LAMSIN, CPA* Quality and ISO Manager Global In-house Center Council Philippines



MS. JEMAIN DIAZ DE RIVERA Industry Consultant



MR. SAMUEL CALADO JR. Technical Education and Skills Development Authority



MR. ALLAN TAN Philippine Software Industry Association



MR. DANIEL ENRIQUEZ Animation Council of the Philippines

RATIONALE

The Technical Committee on Consumer Policy (BPS/TC 81) establishes Philippine National Standards which provides guidelines in products and services development. These standards may be used as reference by public authorities in enhancing the development of effective consumer policies

The Technical Committee also addresses broad range of consumer issues by carrying out different activities such as:

- conducting research and analysis, and coordinate to concerned BPS Technical Committee regarding identified matters
- exchanging information on current and emerging issues and trends; and
- examining ways to strengthen policy outcomes, both among governments and with other stakeholders.

BPS/TC 81 is mirrored and a participating member of ISO Committee on Consumer Policy (ISO/ COPOLCO).

SCOPE AND LIMITATIONS

This Technical Committee prepares and develops Philippine National Standards on guidelines in products and services development.

NOTABLE PUBLISHED STANDARDS

BPS/TC 81 actively contributes to the review of the following adopted standards thru participating in the standardization activities of ISO Committee on Consumer Policy (ISO/COPOLCO) and other related ISO Project Committees:

• **PNS ISO/IEC Guide 41**: *Packaging — Recommendations for addressing consumer needs*

This document provides general recommendations to be taken into consideration when determining the most suitable type of packaging for products intended for consumers. The functions that packaging can perform include, but are not limited to, containment, protection, handling, transport, storage, convenience, information and presentation. This document also considers the sustainable use of resources covering optimization, reuse and recovery of packaging.

• **PNS ISO 10393:** Consumer product recall — Guidelines for suppliers.

This provides practical guidance to suppliers on consumer product recalls and other corrective actions after the product has left the manufacturing facility. is intended to apply to consumer products, but might also be applicable to other sectors.

• PNS ISO 10377: Consumer product safety — Guidelines for suppliers

This document provides practical guidance to suppliers on assessing and managing the safety of consumer products, including effective documentation of risk assessment and risk management to meet applicable requirements.

• **PNS ISO 21041:** Guidance on unit pricing

This document gives principles and best practice guidelines for unit pricing displayed by written, printed or electronic means. This document is applicable to any retailer, including supermarkets, hardware stores, pharmacies, convenience stores, automotive parts suppliers and pet product suppliers.

$81_{\rm composition}^{\rm technical \ committee \ on \ consumer \ policy}$



ENGR. CEFERINO V. ARQUIZA *Chairman, BPS/TC 81* Electronics Industries Association of the Philippines, Inc.





Members:



MR. JOSE P. PEPITO Nationwide Association of Consumers, Inc.



ATTY. THEODORE L. ROBILLOS* Nationwide Association of Consumers, Inc.



ATTY. VICTORIO MARIO A. DIMAGIBA Laban Konsyumer, Inc.



ATTY. LUIS ENRICO SALVADOR Philippine Chamber of Food Manufacturers, Inc.



MR. STAREX GUIYAB Federation of Philippine Industry

*Alternate Members

81 TECHNICAL COMMITTEE ON CONSUMER POLICY COMPOSITION

Members:



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MS. EMMA PANOPIO Consumer Protection and Advocacy Bureau Department of Trade and Industry



MR. GERALD CALDERON* Consumer Protection and Advocacy Bureau Department of Trade and Industry



MS. ALPHA M. LANUZA Bureau of Agriculture and Fisheries Standards Department of Agriculture



MS. JOHN GREGORY V. AQUINO* Bureau of Agriculture and Fisheries Standards Department of Agriculture

RATIONALE

According to the United Nation, it was expected that the urban population will be doubled by 2050, while the global population will increase from 7 billion to almost 10 billion. Currently, half of the total population lives in cities.

This accelerated growth of cities and their disproportionate consumption of physical and social resources are unsustainable, as are the traditional systems cities rely upon to deliver resources.

Thus, in its desire to support the aspirations of the National Government and the Local Government to attain a high-trust society having vibrant, culturally diverse, and resilient communities, while also supporting the end-goals of "Philippine Development Plan 2017-2022" and "Ambisyon Natin 2040" for the Filipinos enjoy a strongly rooted, comfortable, and secure life., the Bureau of Philippine Standards (BPS) established the BPS Technical Committee 82 – Sustainable Cities and Communities.

BPS/TC 82 was established on October 2017 through the initiative of Department of Information and Communications Technology (DICT).

This Technical Committee will serve as a mirror committee of ISO/TC 268.

SCOPE AND LIMITATIONS

BPS/TC 82 handles the standardization in the field of Sustainable Cities and Communities which includes the development of requirements, frameworks, guidance and supporting techniques and tools related to the achievement of sustainable development which considers smartness and resilience, to help all Cities and Communities and their interested parties in both rural and urban areas become more sustainable.

NOTABLE PUBLISHED STANDARDS

Some examples of notable published standards of the Technical Committee are the **PNS ISO** 37101:2016 - Sustainable development in communities — Management system for sustainable development — Requirements with guidance for use which provides guidelines to help communities become more resilient, smart and sustainable, through the implementation of strategies, programs, projects, plans and services, and demonstrate and communicate their achievements and **PNS ISO** 37120:2019 - Sustainable cities and communities — Indicators for city services and quality of life which defines and establishes methodologies for a set of indicators to steer and measure the performance of city services and quality of life.

Currently, the Local Government of Makati City is one of the communities who successfully applied the guidelines of the mentioned standards in the implementation of their public service to the people. In 2014-2015, the World Council for City Data (WCCD) as the global leader on standardized metrics among the cities and communities recognized and awarded Platinum Certification Level to Makati City for its compliance to ISO 37120.

$82^{\mbox{technical committee on sustainable cities and communities}}$



ASEC. ALAN A. SILOR

Chairman, BPS/TC 82 Assistance Secretary Resilient Government Emergency Communications Department of Information and Communications Technology

> MR. DEXTER T. PANTE Vice Chairman, BPS/TC 82 Department of Education



Members:



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MS. GRACE P. SAPUAY, ENP President Solid Waste Management Association of the Philippines



ENGR. AVYLMAR M. MANIO Engineer II Bureau of Research and Standards Department of Public Works and Highways



DR. MARIFE M. BALLESTEROS Vice President Philippine Institute for Development Studies



MR. JESSIE L. TODOC Associate Researcher and Assistant CSI Energy Solutions International

*Alternate Members

$82_{\text{composition}}^{\text{technical committee on sustainable cities and communities}$

Members:



MR. KEVIN NICOLE S. VEGA, ENP Economic Development Specialist National Economic Development Authority



MS. JENNIFER GALORPORT Department of Interior and Local Government



MS. EVELYN CASTRO* Department of Interior and Local Government



MS. ANA LIZA MIRADOR Housing and Urban Development Coordinating Council



MS. IBYLOU BANDALA-GOLLA Philippine Institute of Environmental Planners



MR. CHRISTOPHER DELA CRUZ Philippine Green Building Council



MR. MARIO LAWRENCE SUELTO* Philippine Green Building Council

$82^{\rm TECHNICAL}$ committee on sustainable cities and communities composition

Members:



MR. GERALD ABADA Digital-Out-of-Home Philippines



MR. ZENO MARTINEZ Techblade PH



MR. JESSIE TODOC CSI Energy Solution International

83 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON CLEANROOMS AND ASSOCIATED CONTROLLED ENVIRONMENTS

RATIONALE

To establish the participation of the country in the ISO/TC 209 Cleanrooms and Associated Controlled Environments, BPS/TC 83 was organized last 25 April 2018. The active participation of Engr. Jaime Duñgo to the physical meetings of the ISO/TC 209 and its Working Group on Design and Construction (WG 4) supports this initiative of BPS and standardization work of BPS/TC 83.

The standardization work of BPS/TC 83 will benefits those in pharmaceutical industry, healthcare industry including hospital and laboratories, food processing industry, medical devices industry, biotechnology, semiconductor industries and the general public/users.

BPS/TC 83 is the National Mirror Committee of ISO/TC 209 Cleanrooms and Associated Controlled Environments. Currently, the Philippines through the Bureau of Philippine Standards is a Participating Member (P-Member) to ISO/TC 209.

SCOPE AND LIMITATIONS

Standardization for cleanrooms and associated controlled environments for controlling cleanliness, as well as other attributes and characteristics, relating to facilities, sustainability, equipment, processes and operations.

NOTABLE PUBLISHED STANDARDS

These Philippine National Standards were adopted by BPS/TC 83 to increase the quality of health facilities in the country and to establish equal playing field for private and public health facilities. This can also be used by semiconductor industries.

- PNS ISO 14644-1:2019, Cleanrooms and associated controlled environments Part 1: Classification of air cleanliness by particle concentration (ISO published 2015)
- PNS ISO 14644-2:2019, Cleanrooms and associated controlled environments Part 2: Monitoring to provide evidence of cleanroom performance related to air cleanliness by par ticle concentration (ISO published 2015)
- PNS ISO 14644-3:2019, Cleanrooms and associated controlled environments Part 3: Test methods (ISO published 2005)
- PNS ISO 14644-4:2019, Cleanrooms and associated controlled environments Part 4: Design, construction and start-up (ISO published 2001)

$83_{\rm ASSOCIATED}$ committee on cleanrooms and associated controlled environments composition



ENGR. JAIME T. DUÑGO Chairman, BPS/TC 83 President and General Manager Inquar Industries Incorporated

> DR. ARACELI MONSADA Vice Chairwoman, BPS/TC 83 Supervising Research Specialist Materials Science Division Industrial Technology Development Institute Department of Science and Technology



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$83_{\rm ASSOCIATED}$ committee on cleanrooms and associated controlled environments composition

Members:



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83 TECHNICAL COMMITTEE ON CLEANROOMS AND ASSOCIATED CONTROLLED ENVIRONMENTS COMPOSITION

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RATIONALE

The Philippines continues to improve its global ranking with the latest World Bank Logistics Performance Index (LPI) 2018 edition. Ranking 71st spot in 2016, the country leaped to 60th among 160 countries ranked according to its trade logistics performance.

The Transport and Logistics sector is one of the 12 industry priorities under the Inclusive Innovation-led Industrial Strategy (I3S) of DTI. Hence, the Bureau of Philippine Standards organized the Technical Committee on Logistics (BPS/TC 84) on 08 August 2018, through the initiative of the Competitiveness Bureau. The organization of the Technical Committee aims to support the National Logistics Masterplan Program (NLMP) and to improve and increase the overall logistics performance of the Philippines.

The significant need for improvement to increase overall logistics reliability and efficiency, including cost and energy efficiency, is hoped to be resolved through systematic solutions. One of the effective solutions is the development of standards that will set parameters to promote high quality of logistic services and resources.

SCOPE AND LIMITATIONS

The Technical Committee is tasked to develop Philippine National Standards (PNS) that will promote quality assurance for the logistics industry. The standards to be developed by the Technical Committee will support the logistics industry by setting best practices, guidance and recommendations to the stake-holders, by defining efficiency concerning the various sectors of logistics, e.g. road freight, sea freight, air freight, warehousing, etc., and by promoting green logistics across all individual players as an approach to improve overall efficiency.

In 2019, the Technical Committee established its **Working Group on Sea Freight Transport** (BPS/TC 84/WG 1). The Working Group is particularly tasked to develop Philippine National Standards for domestic and international sea freight transport. The standards to be develop by the Working Group only cover the movement of containers and goods, and not of the transportation of people.

NOTABLE PUBLISHED STANDARDS

In 2018, the Technical Committee developed the Philippine National Standard on Road Freight Transport (PNS 2135:2018). The standard provides guidelines and recommendations to fleet operators and/or freight forwarders for reliable, safe, cost-efficient and environmentally sustainable road freight transport. In the process of developing this standard, the Technical Committee made referenced to SIRIM 10:2017, Green Logistics – Road freight transport – Recommended best practices and ISO 16091:2018, Space System – Integrated Logistic Support, which was also adopted as a Philippine National Standard.

After the promulgation of PNS 2135:2018, the Technical Committee identified the sea freight sector as priority of the group for its standardization activity. BPS/TC 84 established the Working Group on Sea Freight Transport (WG 1) to focus on the development of PNS on Sea Freight Transport particularly on International Shipping.

The draft standard on Sea Freight Transport – International Shipping (DPNS 2142) is currently being deliberated by the members of the group.

84 technical committee on logistics composition



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> MR. PEPITO P. DINO Vice Chairman, BPS/TC 84 Director Confederation of Truckers Association of the Philippines



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MS. EVANGELINE SALONGA* Land Transportation Office



MS. RONA GATDULA Philippine Liner Shipping Association



MS. MA. CONCEPCION ARBOLARIO Maritime Industry Authority



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84 technical committee on logistics working group on sea freight transport composition



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85 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON NANOTECHNOLOGIES

RATIONALE

The Bureau of Philippine Standards Technical Committee on Nanotechnologies (BPS/TC 85) was organized on 26 October 2018 through the initiative of the Department of Science and Technology — Industrial Technology Development Institute (DOST-ITDI). This initiative aims to promote cooperation and build a network among the regulatory government agencies, academe, industry, and research institutions for the familiarization on the existing regulations, guidelines, standards, and protocols related to the safe use of nanotechnologies in the occupational and environmental setting.

This collaborative effort is rooted on the project headed by DOST-ITDI, titled "Environmental, Health and Safety Research on the Risk Assessment of Nanomaterials." The primary objective of the project is to establish the capability of the local laboratories on the assessment of nanomaterials in terms of safety and efficiency through conduct of environmental, health, and safety research in the risk assessment of nanomaterials in the Philippines.

With one of the specific objectives of the project being to review and assess the testing manuals based on existing international standards, BPS structured the BPS/TC 85 to be the Philippine National Mirror Committee (NMC) to the International Organization for Standardization Technical Committee on Nanotechnologies (ISO/TC 229). BPS/TC 85, as the NMC for nanotechnologies, reviews and approves ISO and IEC standards as Philippine National Standards.

Moreover, the Philippines holds a participating membership (P-member) to ISO/TC 229, which allows BPS/ TC 85 to influence the committee decisions and gives it the opportunity to submit its own proposal for development of a particular standard. Members of BPS/TC 85 participate in the ISO/TC 229 regular meetings, as well as share their expertise with the BPS in preparation of the national position of the Philippines with regard to ISO and IEC ballot voting.

BPS/TC 85 is subdivided into three Subcommittees to further designate its pool of experts to specific areas of standardization in the field of nanotechnologies, namely:

- Subcommittee on Measurement and Characterization (BPS/TC 85/SC 1)
- Subcommittee on Health, Safety and Environmental Aspects of Nanotechnologies (BPS/TC 85/SC 2)
- Subcommittee on Material Specifications (BPS/TC 85/SC 3)

SCOPE AND LIMITATIONS

The task of BPS/TC 85 is to develop Philippine National Standards in the field of nanotechnologies, including but not limited to standards for: terminology and nomenclature; metrology and instrumentation, including specifications for reference materials; test methodologies; modelling and simulations; and science-based health, safety, and environmental practices. Nanotechnologies tackle either or both of the following — (1) understanding and control of matter and processes at the nanoscale, typically, but not exclusively, below 100 nanometers in one or more dimensions where the onset of size-dependent phenomena usually enables novel applications, and (2) utilizing the properties of nanoscale materials that differ from the properties of individual atoms, molecules, and bulk matter, to create improved materials, devices, and systems that exploit these new properties.

BPS/TC 85 oversees the work of the three Subcommittees, defined as follows:

• Subcommittee on Measurement and Characterization (BPS/TC 85/SC 1)

BPS/TC 85/SC 1 works on the development of Philippine National Standards for measurement, characterization, and test methods for different nanotechnologies, taking into consideration the need for nanometrology and research and development of reference materials.

Subcommittee on Health, Safety and Environmental Aspects of Nanotechnologies (BPS/TC 85/SC 2)

BPS/TC 85/SC 2 develops research-based Philippine National Standards in the areas of health, safety, and environmental aspects of nanotechnologies. These standards are primarily applicable to research and testing laboratories and to the workplace in general.

• Subcommittee on Material Specifications (BPS/TC 85/SC 3)

BPS/TC 85/SC 3 is responsible for the development of Philippine National Standards for specification of relevant compositions, properties, and characteristics of engineered nanoscale materials for use in generic and/or specific applications, e.g. nano-enabled and nano-enhanced products and applications.

NOTABLE PUBLISHED STANDARDS

Since it has been formally organized, BPS/TC 85 and its three Subcommittees has developed a total of 19 Philippine National Standards. Nine of these, which were developed under direct supervision of BPS/TC 85, provides definitions to nanotechnology terminologies. These standards serve as the very foundation of the understanding by the stakeholders of the complex concepts of nanotechnology.

- PNS ISO/TR 11360:2010, Nanotechnologies Methodology for the classification and categorization of nanomaterials
- PNS ISO/TR 12802:2010, Nanotechnologies Model taxonomic framework for use in developing vocabularies Core concepts
- PNS ISO/TR 14786:2014, Nanotechnologies Considerations for the development of chemical nomenclature for selected nano-objects
- PNS ISO/TR 17302:2015, Nanotechnologies Framework for identifying vocabulary development for nanotechnology applications in human healthcare
- PNS ISO/TR 18401:2017, Nanotechnologies Plain language explanation of selected terms from the ISO/IEC 80004 series
- PNS ISO/TS 20477:2017, Nanotechnologies Standard terms and their definition for cellulose nanomaterial
- PNS IEC/TS 80004-9:2017, Nanotechnologies Vocabulary Part 9: Nano-enabled electrotechnical products and systems
- PNS ISO/TS 80004-11:2017, Nanotechnologies Vocabulary Part 11: Nanolayer, nanocoating, nanofilm, and related terms
- PNS ISO/TS 80004-13:2017, Nanotechnologies Vocabulary Part 13: Graphene and related two-dimensional (2D) materials

A. Subcommittee on Measurement and Characterization (BPS/TC 85/SC 1)

Listed below are the Philippine National Standards developed by the BPS/TC 85/SC 1. These include the first batch of standards that will help in the characterization of carbon nanotubes, one of the most widely used and most reliable materials used in nanoscale applications. BPS/TC 85/SC 1 is also in charge of the standards for measurement of nanomaterials with respect to specific parameters, applications, methods of measurement, among others.

- PNS ISO/TS 10797:2012, Nanotechnologies Characterization of single-wall carbon nanotubes using transmission electron microscopy
- PNS ISO/TS 10798:2011, Nanotechnologies Characterization of single-wall carbon nanotubes using scanning electron microscopy and energy dispersive X-ray spectrometry analysis
- PNS ISO/TS 12025:2012, Nanomaterials Quantification of nano-object release from powders by generation of aerosols
- PNS ISO/TS 13830:2013, Nanotechnologies Guidance on voluntary labelling for consumer products containing manufactured nano-objects
- PNS ISO/TR 10929:2010, Nanotechnologies Characterization of multiwall carbon nanotube (MWCNT) samples
- PNS ISO/TS 11888:2017, Nanotechnologies Characterization of multiwall carbon nanotubes Mesoscopic shape factors

85 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON NANOTECHNOLOGIES

B. Subcommittee on Health, Safety and Environmental Aspects of Nanotechnologies (BPS/TC 85/SC 2)

The Philippine National Standards developed by BPS/TC 85/SC 2 provide guidelines for nanoparticle inhalation toxicity testing. Inhalation of nanoparticles is a major concern with regard to safety and health of personnel working with nanomaterials. Additionally, other standards developed accounts for the occupational safety and the preparation of MSDS applied to nanomaterials.

- PNS ISO 10801:2010, Nanotechnologies Generation of metal nanoparticles for inhalation toxicity testing using the evaporation/condensation method
- PNS ISO 10808:2010, Nanotechnologies Characterization of nanoparticles in inhalation exposure chambers for inhalation toxicity testing
- PNS ISO/TR 12885:2018, Nanotechnologies Health and safety practices in occupational settings
- PNS ISO/TS 12901-1:2012, Nanotechnologies Occupational risk management applied to engineered nanomaterials Part 1: Principles and approaches
- PNS ISO/TS 12901-2:2014, Nanotechnologies Occupational risk management applied to engineered nanomaterials Part 2: Use of the control banding approach
- PNS ISO/TR 13329:2012, Nanomaterials Preparation of material safety data sheet (MSDS)

C. Subcommittee on Material Specifications (BPS/TC 85/SC 3)

The Philippine National Standards developed by BPS/TC 85/SC 3 basically provides specifications for nanomaterials or guidelines to how newly developed materials should be specified. The forms at which the nanomaterials exist are significant in the characterization and measurement of such materials.

- PNS ISO/TS 11931:2012, Nanotechnologies Nanoscale calcium carbonate in powder form Characteristics and measurement
- PNS ISO/TS 11937:2012, Nanotechnologies Nanoscale titanium dioxide in powder form Characteristics and measurement
- PNS ISO/TS 12805:2011, Nanotechnologies Materials specifications Guidance on specifying nano-objects
- PNS ISO/TS 17200:2013, Nanotechnology Nanoparticles in powder form Characteristics and measurements

The progress made by the BPS/TC 85, so far, is an essential step towards supporting the stakeholders involved with nanotechnologies, such as the research and testing laboratories, the industry, the academic and professional groups, the government, and the public (consumers, workers, etc.) in general.

$85 \, {\rm Technical} \, {\rm committee} \, {\rm on} \, {\rm nanotechnologies} \, {\rm composition}$



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RATIONALE

The Technical Committee on Ships and Marine Technology (BPS/TC 86) was organized to develop Philippine National Standards (PNS) on ship building and ship repair (SBSR).

Through the initiative of Maritime Industry Authority (MARINA), BPS/TC 86 was officially organized on 20 March 2019. MARINA is an agency of the Philippine government under the Department of Transportation responsible for the development, promotion, regulation and rationalization of the maritime industry in the Philippines.

The accelerated implementation of the nautical highway program by the present administration under the "Build, Build, Build" policy is expected to increase demand for passenger and passenger/cargo vessels in the next 5-10 years.

The BPS/TC 86 aims to support the effort to enhance the competitiveness of the ship building and ship repair (SBSR) industry in the country through standardization. According to the figures provided by The Philippine Maritime Industry Development Plan 2019-2028, the Philippines is the 4th largest shipbuilding nation in the world with 2,161 manufactured sea vessels in 2017 that constitutes 1,381 passenger ships, 529 fishing vessels, 177 cargo vessels, and 74 tugs/dredger, tanker, and miscellaneous/special purpose ships.

The BPS/TC 86 provides technical expertise in the development and review of existing Philippine National Standards (PNS) on road vehicles. Through BPS/TC 44, the Philippines is an observing member body (O-member) to ISO/TC on Road Vehicles (ISO/TC 22) from which the TC obtained its name and scope.

SCOPE AND LIMITATIONS

BPS/TC 86 adopts the scope of work of ISO/TC 8 with some revisions to include standards on equipment and construction details of recreational craft and other small craft (not being lifeboats and lifesaving equipment) less than 24 metres in overall length (ISO/TC 188 Small Craft).

The scope of ISO/TC 8 is specified as standardization of design, construction, training, structural elements, outfitting parts, equipment, methods and technology, and marine environmental matters, used in shipbuilding, comprising sea-going ships, vessels for inland navigation, offshore structures, ship-to-shore interface, the operation of ships, marine structures subject to IMO requirements, and the observation and exploration of the sea.

The following are not included in the scope of work:

•electrical and electronic equipment on board ships and marine structures (IEC/TC 18 and IEC/TC 80);

•internal combustion engines (ISO/TC 70);

•offshore structures for petroleum and natural gas industries, including procedures for assessment of the site-specific application of mobile offshore drilling and accommodation units for the petroleum and natural gas industry (ISO/TC 67/SC 7);

•steel and aluminum structures (ISO/TC 167);

flotation devices (ISO/TC 188/SC 1 Personal Safety Equipment)

seabed mining;

equipment which is not specific for use on board ships and marine structures (e.g. pipes, steel wire ropes, etc.) and falling within the scope of particular ISO technical committees with which a regular mutual liaison must be maintained.

86 technical committee on ships and marine technology composition



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RATIONALE

The Technical Committee on Non-Food Coconut Products (BPS/TC 87) was established to develop Philippine National Standards (PNS) for products derived from coconut such as activated carbon, briquettes, coco net, coco twine, among others. Primary works on standards development for non-food coconut products was formerly handled by a Technical Working Group (TWG) created by Department of Agriculture (DA) through Special Orders No. 640, Series of 2017 and No. 856, Series of 2017. However, in 2018 the work of the TWG was transferred to the Philippine Coconut Authority (PCA) as a measure to address matters on mandate.

Acknowledging the thrust of the Bureau of Philippine Standards (BPS) as the National Standards Body (NSB) mandated to coordinate *standardization activities* in the country, PCA proposed to BPS to establish a Technical Committee (TC) to carry on the standardization works of the TWG. Through combined efforts, BPS/TC 87 conducted its organizational meeting on 18 October 2019.

To streamline the transfer of work and sustain technical expertise, BPS/TC 87 assumed the members of the TWG which is composed of representatives from the industry and industry associations, National Irrigation Administration (NIA), Department of Public Works and Highways – Bureau of Research and Standards (DPWH-BRS), Department of Environment and Natural Resources – Mines and Geosciences Bureau (DENR-MGB), DTI – Region 4A, DTI – CARAGA, DTI – Export Management Bureau (DTI-EMB), DA – Bureau of Agriculture and Fisheries Standards (DA-BAFS) and PCA. Currently, the TC has also members from Department of Science and Technology – Industrial Technology Development Institute (DOST-ITDI) and Mapua University.

The Technical Committee has the following (3) Sub-committees: SC 1— Coconut shell products, SC 2— Bio-engineering materials, and SC 3—Coconut wood. These SCs were created to share specific tasks that is within the scope of work of the BPS/TC 87.

SCOPE AND LIMITATIONS OF BPS/TC 87

The Technical Committee is in charge of the standardization on non-food coconut products except products covered by BPS/TC 22 Lumber and Timber Products.

The Technical Committee on Non-Food Coconut Products - Sub-committee on Coconut Shell Products (BPS/TC 87/SC 1) was established to develop Philippine National Standards (PNS) for products derived from coconut shell such as charcoal, activated carbon, briquettes, and shisha.

The Technical Committee on Non-Food Coconut Products - Sub-committee on Bio-engineering materials (BPS/TC 87/SC 2) was established to develop Philippine National Standards (PNS) co-conut bio-engineering materials such as coco net, coir log, coco twine, coco peat, coco chips, coir.

$87 \stackrel{\text{Technical committee on non-food coconut products}}{\text{composition}}$



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87 technical committee on Non-Food coconut products sub-committee 1 composition



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RATIONALE

The Department of Science and Technology – Industrial Technology Development Institute (DOST-ITDI) has initiated the establishment of the Technical Committee on Additive Manufacturing. The Advanced Additive Manufacturing R&D Program of the Department of Science and Technology has included the adoption of International Standards for Additive Manufacturing as one of the activities of this program. The DOST-ITDI has on-going two (2) projects under this program namely Development of Multiple Materials Platform for Additive Manufacturing (MATDEV) and Research on Advanced Prototyping and Product Innovation and Development using Additive Manufacturing Technologies (RAPPID-ADMATEC).

The standardization work of BPS/TC 88 will potentially benefit the supplier of medical devices and implants, Original Equipment Manufacturers (OEMs) in Aerospace, Automotive and High-Tech Equipment, Universities and Research and Development (R&D) Organizations, Additive Manufacturing equipment and material supplier as well as the fabrication laboratories (Fablab).

BPS/TC 88 was organized last 09 March 2020.

BPS/TC 88 is the National Mirror Committee of ISO/TC 261 Additive manufacturing.

<u>SCOPE</u>

The Technical Committee is in charge of the standardization in the field of Additive Manufacturing (AM) concerning their processes, terms and definitions, process chains (Hard- and Software), test procedures, quality parameters, supply agreements and all kind of fundamentals.

$88^{\rm Technical}$ committee on additive manufacturing composition



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88 TECHNICAL COMMITTEE ON ADDITIVE MANUFACTURING COMPOSITION

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RATIONALE

The BPS/TC 89 is the National Mirror Committee (NMC) of the ISO/TC 22/SC 37 Electrically propelled vehicles. ISO/TC22/SC37 covers standardization aspects for electric vehicles aiming to provide environmental friendly and sustainable mobility. The existing PNS for electrical safety are continuously maintained to adopt the newest technological findings. SC37 is furthermore working on projects for requirements on the rechargeable energy storage systems, for energy consumption measurement as well as on requirements for the E/ESystems and components of the high voltage system.[1]

The BPS/TC 89, then BPS/TC 44/SC 21 Subcommittee on Electric Road Vehicles, was previously part of the BPS/TC 44 Road vehicles. The decision to convert SC21 into a Technical committee was recommended by the Standards Management Board of the International Electrotechnical Commission - National Committee of the Philippines (IEC-NCP) during its meeting last January 31, 2020.

At present, the BPS/TC 89 develops and adopts standards based on the International Organization for Standardization (ISO) as well as from the International Electrotechnical Commission (IEC). The BPS/TC 89 also liaise with BPS/TC 44 for coordination in automotive product standardization.

To date, BPS/TC 89 has adopted International Standards on Electric Vehicle terminology, safety specifications, operation, component, compatibility, charging systems, battery packs, and battery swapping system, connectors and energy consumption. The BPS/TC 89 continuously work in ensuring availability of PNS in support of the following policies:

1. Senate Bills related to Electric Vehicles and EV Charging Stations

Following the ratification of the Senate of the Philippines to the Paris Agreement, the Philippines made one of the most determined declarations among all countries to substantially reduce greenhouse gas emissions by 70% in the year 2030. The Senate Committee on Energy introduced senate Bill No. 1382, otherwise known as the Electric Vehicles and Charging Stations Act, for the great potential of EVs in reducing Philippine greenhouse gas emissions, fostering greater energy independence for our country, and providing economic savings for industry and households.

The Electric Vehicles and Charging Stations Act seeks to establish a national policy framework to mainstream the use of EVs in the private and public sectors. This legislation outlines policies to spur demand generation for and industry development of EVs.

2. DTI's Green Economic Development Project (GEDP)

The objective of GEDP is for MSMEs and government institutions with relevance for economic development to implement environmentally friendly, climate-sensitive and inclusive strategies and measures. [3] These strategies can address the negative impacts of climate change on MSMEs, enhance competitiveness and ensure their sustainability and survival. Automotive parts is one of the selected industry roadmaps to integrate green measures and elements, which will shape the DTI's programmes and projects over the next 10 years.

- 3. BOI Policies
- a. IPP 2014-2016

The establishment of charging stations for electric vehicles is among the preferred activities listed in the IPP. The charging stations could refer to a 'service station' designed to simultaneously fast charge multiple vehicles similar to gasoline/diesel stations or a network of at least 5 charging stands.

b. EO 488, s. 2006.

Executive Order 488 modified the rates of import duty on components, parts and accessories for the assembly of hybrid, electric, flexible fuel and compressed natural gas motor vehicles to zero rate.

89 BUREAU OF PHILIPPINE STANDARDS TECHNICAL COMMITTEE ON ELECTRICALLY PROPELLED VEHICLES

4. 2- and 3- Wheeler Electric Vehicle Roadmap

The Department of Trade and Industry, together with Clean Air Asia, UN Environment and International Climate Initiative (IKI), is working on the development of a two- and three-wheeler electric vehicle (EV) roadmap for the Philippines. This is related to the global project being implemented by the UN Environment in Asia and Africa, which supports various developing and transitioning countries move from internal combustion engines to 2- and/or 3-wheelers EV as a step towards the wider uptake of electric mobility.

The Electric Vehicles Association of the Philippines (EVAP), an active member of the TC 89, together with other ASEAN member country association are also integrating their directives for centralized standards and regulations for 2-3 wheel vehicles through ASEAN Federation of Electric Vehicles Association (AFEVA).

5. DOTr UNDP – Promotion on Low Carbon Urban Transport System

The Department of Transportation (DOTr) through its project in partnership with the United Nations Development Programme: The Promotion of Low Carbon Urban Transport Systems in the Philippines is initiating to promote and create an enabling environment for the commercialization of low carbon urban mass transportation in the Philippines among relevant stakeholders in the country. One of its key objectives is to introduce supportive policy framework and regulations related to low carbon transport systems.

6. LTO's Administrative Order on the "Consolidated Guidelines in the classification, registration, or recording and operation of all types of electric motor vehicles"

Electric vehicle technology has significantly advanced such that other types of electric vehicles are manufactured and made available in the market. The LTO provided the abovementioned document in response to the increasing number of electric mobility vehicles deployed in the roads. In order to cope with the advancements of EV Technology, this document is done to govern recording, registration and operation of EVs for the compliance, information and guidance of all concerned.

SCOPE AND LIMITATIONS

Specific aspects of electrically propelled road vehicles, electric propulsion systems, related components and their vehicle integration.

Liaisons to other standardization committees shall ensure that the projects will meet the demands of industry and standards are developed according the market needs. ISO TC22/SC37 is therefore i.e. in liaison with ISO/TC197 for (hydrogen) Fuel Cells and IEC/TC69 for the connection for charging electrical vehicles from the electrical power grid.

NOTABLE PUBLISHED STANDARDS

The following standards are commonly used as reference to the following documents:

- **PNS ISO 8713:2012** Electrically propelled road vehicles Vocabulary
- **PNS ISO 6469-1:2012** Electrically propelled road vehicles Safety specifications Part 1: Onboard rechargeable energy storage system
- **PNS ISO 12405-1:2012** Electrically propelled road vehicles Test specification for lithium-ion traction battery packs and systems Part 1: High-power applications (Used as reference in various Senate Bills under Committee on Energy)
- **PNS 1891:2018** Classification and Definition of Power-Driven Vehicles and Trailers This standard served as reference document in drafting the LTO's Administrative Order on the "Consolidated Guidelines in the classification, registration, or recording and operation of all types o f electric motor vehicles"

89 technical committee on electrically propelled vehicles composition



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