

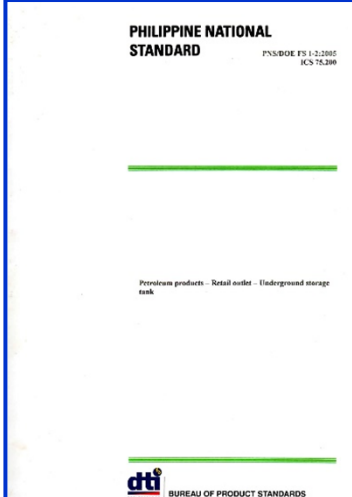





SUMMARY OF APPLICABLE STANDARDS

B. Facility Standards (PNS)

 <p>PHILIPPINE NATIONAL STANDARD PNS/DOE FS 1-1:2005 ICS 55.200</p> <p>Petroleum products – Retail outlet – Health, safety and environment</p> <p>dti BUREAU OF PRODUCT STANDARDS</p>	 <p>Title : PNS/DOE FS 1-1:2005 Petroleum Products Retail Outlet – Health, Safety and Environment</p> <p>Year Promulgated : 2005</p> <p>Scope of the PNS : This standard covers the facilities, clearance and distances therein intended for retail outlet applicable to all kind of lots from mid-block lot, corner lot and passing thru-lot.</p> <p><i>*The PNS serves only as reference or voluntary standard</i></p>
 <p>PHILIPPINE NATIONAL STANDARD PNS/DOE FS 1-2:2005 ICS 55.200</p> <p>Petroleum products – Retail outlet – Underground storage tank</p> <p>dti BUREAU OF PRODUCT STANDARDS</p>	 <p>Title : PNS/DOE FS 1-2:2005 – Petroleum Products Retail Outlet – Underground Storage Tank</p> <p>Year Promulgated : 2005</p> <p>Scope of the PNS : This standard specifies the requirements for the following:</p> <ol style="list-style-type: none">The tank for petroleum products used in Retail Outlet. This refers to gasoline, diesel, and kerosene tanks.Tank design performance and constructionThe installation and location of tanks at retail outletOperations, periodic maintenance and eventual disposal of the underground tankIt does not include tanks for lube oils, aviation fuels, chemical, solvents, asphalt, waste oil, water etc. <p><i>*The PNS serves only as reference or voluntary standard</i></p>
 <p>PHILIPPINE NATIONAL STANDARD PNS/DOE FS 1-3:2005 ICS 55.200</p> <p>Petroleum products – Retail outlet – Piping system</p> <p>dti BUREAU OF PRODUCT STANDARDS</p>	 <p>Title : PNS/DOE FS 1-3:2005 – Petroleum Products Retail Outlet – Piping System</p> <p>Year Promulgated : 2005</p> <p>Scope of the PNS :</p> <ol style="list-style-type: none">This standard is applicable to sites where underground piping system for petroleum products will be used.This standard does not relieve the owner, designer and installer from any or all damages resulting from the failure of the underground petroleum piping system. Due prudence and care must be practiced in the use of this underground system.This standard covers the medium in which petroleum products; gasoline, kerosene and diesel only.Applicable for use with the following petroleum products; gasoline, kerosene, and diesel only.Aboveground piping for petroleum products are not covered by these guidelines <p><i>*The PNS serves only as reference or voluntary standard</i></p>



Title : PNS/DOE FS 1-4:2005 – Petroleum Products Retail Outlet – Dispensing Pumps

Year Promulgated : 2005

Scope of the PNS :

This standard specifies:

- a. The design, installation and commissioning of self-contained dispensing pumps (suction pump) and dispenser (pressurized pump), and the connection of product supply pipework, hoses, nozzles, electrical wiring and communication cables;
- b. The operation, periodic maintenance, decommissioning and eventual disposal of the aboveground dispensing pumps and dispensers; and
- c. The requalification of reconditioned pumps.

**The PNS serves only as reference or voluntary standard*



Title : PNS/DOE FS 2:2018 – LPG Refilling Plant – General Requirements

Year Promulgated : 2018

Scope of the PNS : This standard covers the requirements for the installation of an LPG refilling plant, including the associated bulk storage area and tank farm facility.

NOTE 1 This standard does not cover refrigerated storage facilities.

NOTE 2 Any Auto-LPG dispensing system to be located within an LPG refilling plant shall be separated from the latter by a firewall and shall be provided a separate access.

NOTE 3 The requirement for the installation and conduct of dispensing of LPG for vehicles are covered by a separate standard, PNS for Auto-LPG Dispensing Stations.

**The PNS serves only as reference or voluntary standard*



Title : PNS/DOE FS 3:2006 – Auto-LPG Dispensing Pumps

Year Promulgated : 2006

Scope of the PNS : This standard covers the requirements for the installation of auto-LPG dispensing stations for retail operation and garage-based sites for on vehicle dispensing of LPG for vehicles of any type.

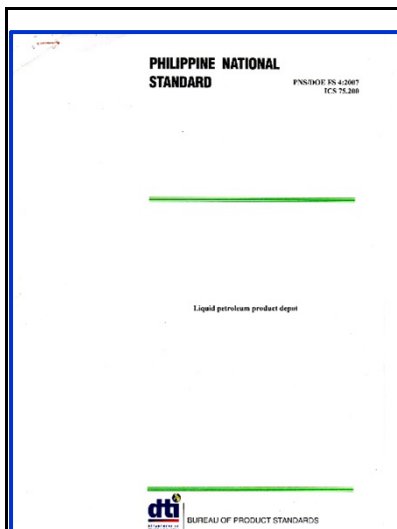
If any dispensing for the general public can occur, the installation becomes a retail station as defined, and specific additional requirements apply. The additional requirements for retail station is to adequately ensure public safety attendant to the nature of operation.

This standard does not apply to forklift cylinder refilling. Only fixed and vehicle-mounted fuel tanks are permitted for filling at dispensing stations.

LPG cylinders for household use shall not be allowed for refill in an auto-LPG dispensing station.

NOTE 1 Since refilling stations may at times be located in commercial or residential areas having sensitive occupancies, certain planning and land use requirements apply.

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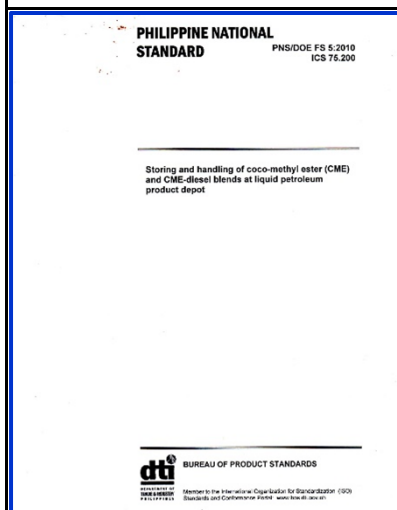


Title : PNS/DOE FS 4:2007 – Liquid Petroleum Product Depot

Year Promulgated : 2007

Scope of the PNS : This standard covers the design and construction of depots and associated facilities involved in marketing/ redistribution of liquid petroleum product. For purposes of this standard, liquid petroleum products shall only refer to gasoline, diesel, kerosene and bunker fuel. Biofuels and biofuel-blended petroleum products shall be covered by a separate standard. Depot, also referred to as terminals or installations consist of tank farms, loading and unloading areas, pipeline manifolds, storage areas, warehouses, docks, garages laboratories, and office buildings. Products may be received, blended, and/or distributed by pipeline, marine facilities (docks, piers, jetties, wharves), or truck. Petroleum depots may also store and distribute petroleum products in package and container quantities.

**The PNS serves only as reference or voluntary standard*

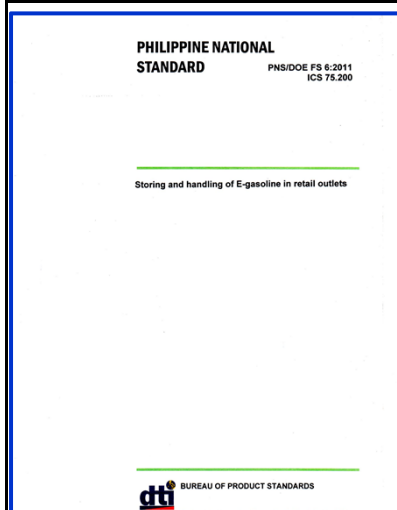


Title : PNS/DOE FS 5:2010 – Storing and Handling of Coco-Methyl Ester (CME) and CME-diesel blends at Liquid Petroleum Product Depot

Year Promulgated : 2010

Scope of the PNS : This standard describes practices and requirements for the storing, handling and fire protection of CME and CME diesel blend at Liquid Petroleum Product Depots. For purposes of this standard Biodiesel is referred to as CME.

**The PNS serves only as reference or voluntary standard*



Title : PNS/DOE FS 6:2011 – Storing and Handling of E-gasoline in Retail Outlets

Year Promulgated : 2011

Scope of the PNS : This standard describes good engineering practices, as well as safety, environmental and fire protection requirements for the storing and handling of E-gasoline in retail outlets. This standard is an additional requirement that complements PNS/DOE FS 1-1 to 1-4:2005 (Retail Outlet –Health, Safety and Environment, Underground Storage Tank, Piping System and Dispensing Pump).

**The PNS serves only as reference or voluntary standard*

PHILIPPINE NATIONAL
STANDARD

PNS/DOE FS 7-1:2011
ICS 75.200

Storing and handling of B5 in retail outlet –
Health, safety and environment



BUREAU OF PRODUCT STANDARDS

Member to the International Organization for Standardization (ISO)
Standards and Conformity Panel (SPC/ISO/IEC/JTC1)



Title : PNS/DOE FS 7-1:2011 – Storing and Handling of B-5 in Retail Outlet – Health, Safety and Environment

Year Promulgated : 2011

Scope of the PNS : This section covers the facilities, clearances and distances therein intended for retail outlets storing and handling up to B5 and applicable to all kind of locations either with mid-block lot, corner lot and passing-thru lot.

**The PNS serves only as reference or voluntary standard*

PHILIPPINE NATIONAL
STANDARD

PNS/DOE FS 7-2:2011
ICS 75.200

Storing and handling of B5 in retail outlet –
Underground storage tank



BUREAU OF PRODUCT STANDARDS

Member to the International Organization for Standardization (ISO)
Standards and Conformity Panel (SPC/ISO/IEC/JTC1)



Title : PNS/DOE FS 7-2:2011 Storing and Handling of B-5 in Retail Outlet – Underground Storage Tank

Year Promulgated : 2011

Scope of the PNS :

This standard specifies the requirements for the following:

- 1.1 The tank for petroleum products used in retail outlet, refers to gasoline, diesel (up to B5), and kerosene tanks. It does not include tanks for lube oils, aviation fuels, chemicals, solvents, asphalt, waste oil, water etc.
- 1.2 Tank design performance and construction.
- 1.3 The installation and location of tanks at retail outlet.
- 1.4 Operations, periodic maintenance and eventual disposal of the underground tank.

**The PNS serves only as reference or voluntary standard*

PHILIPPINE NATIONAL
STANDARD

PNS/DOE FS 7-3:2011
ICS 75.200

Storing and handling of B5 in retail outlet –
Piping system



BUREAU OF PRODUCT STANDARDS

Member to the International Organization for Standardization (ISO)
Standards and Conformity Panel (SPC/ISO/IEC/JTC1)



Title : PNS/DOE FS 7-3:2011 – Storing and Handling of B-5 in Retail Outlet – Piping System

Year Promulgated : 2011

Scope of the PNS :

- 1.1 These recommended guides and procedures are applicable to sites where underground piping system for petroleum products will be used.
- 1.2 These recommendations do not relieve the owner, designer and installer from any or all damages resulting from the failure of the underground petroleum piping system. Due prudence and care must be practiced in the use of this underground system.
- 1.3 This document covers the medium in which petroleum product shall be conveyed from the point where the product is received on its way to its storage tank, from the storage tank to the final point of connection at the dispensing pump, and tank ventilation.
- 1.4 These guides are applicable for use with the following petroleum products; gasoline, kerosene and diesel only.
- 1.5 Above ground piping for petroleum products are not covered by these guidelines.

**The PNS serves only as reference or voluntary standard*



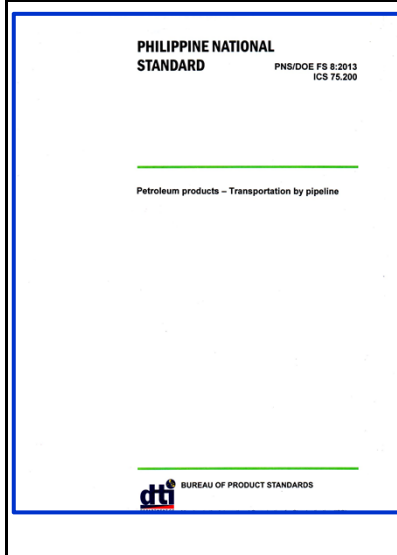
Title : PNS/DOE FS 7-4:2011 – Storing and Handling of B-5 in Retail Outlet – Dispensing Pumps

Year Promulgated : 2011

Scope of the PNS :

- 1.1. This standard shall include the design, installation and commissioning of self contained dispensing pumps (suction pump) and dispenser (pressurized pump), and the connection of product supply pipework, hoses and nozzles, electrical wiring and communication cables.
- 1.2. Operation, periodic maintenance, decommissioning and eventual disposal of the aboveground dispensing pumps and dispensers.
- 1.3. Requalification of reconditioned pumps.

**The PNS serves only as reference or voluntary standard*



Title : PNS/DOE FS 8:2013 Transportation of Petroleum Product by Pipeline

Year Promulgated : 2013

Scope of the PNS : This standard covers operation and maintenance, reporting requirements and other applicable provisions in the on-shore transportation via pipeline (as defined hereafter) of liquid petroleum products for white (such as but not limited to gasoline, diesel, kerosene and jet A-1) and (such as but not limited to) black (bunker fuel) products to ensure the safety of the general public and pipeline workers and the protection of the environment against the risk of petroleum contamination, fire and other similar hazards in areas where the pipeline system operates and/or traverses.

An operator may make arrangements with a third party for the performance of any action required by this standard. However, the operator is not thereby relieved from the responsibility for compliance with any requirement of the same.

**The PNS serves only as reference or voluntary standard*