BZS 23: 2012

BELIZE NATIONAL STANDARD BZS 23: 2012

BELIZE NATIONAL STANDARD SPECIFICATION FOR FILLING, HANDLING, STORAGE, TRANSPORTATION AND LOCATION OF PORTABLE, CYLINDERS FOR LIQUEFIED PETROLEUM GASES – (LPG)

(BZS 23: 2012)

BBS

BELIZE BUREAU OF STANDARDS

Ministry of Works Compound Power Lane Belmopan City, Belize CENTRAL AMERICA

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SPECIFICATION FOR FILLING, HANDLING, STORAGE, TRANSPORTATION AND LOCATION OF PORTABLE CYLINDERS FOR LIQUEFIED PETROLEUM GASES – (LPG)

Committee Representation

The preparation of this standard for the Standards Advisory Council established under the Standards Act 1992 (Revised Edition 2000), was carried out under the supervision of the Bureau's Technical Committee for LIQUEFIED Petroleum Gas (LPG), which at the time comprised the following members:

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BELIZE NATIONAL STANDARD

SPECIFICATION FOR FILLING, HANDLING, STORAGE, TRANSPORTATION AND LOCATION OF PORTABLE, CYLINDERS FOR LIQUEFIED PETROLEUM GASES – (LPG)

0 FOREWORD

- 0.1 This Standard is the first in a series of standards that will specify basic safety and other requirements for portable containers of liquefied petroleum gases, (LPG).
- 0.2 Liquefied Petroleum Gases have now become the main source of fuel used in Belize for domestic, commercial or industrial heating purposes. Liquefied petroleum gases, however, present considerable risks and hazards to human health and safety. The fuel is extremely volatile and LPG fires burn twice as hot as gasoline fires. LPG vapour is slightly anesthetic, can lead to suffocation (at sufficiently high concentrations) and causes severe frost burns if brought into contact with the skin. Vapour/air mixtures of LPG are flammable and potentially explosive. The hazards are accentuated when the vapour/air mixtures occur indoors.
- 0.3 These risks and hazards can be significantly reduced if adequate precautions are observed. This standard, therefore, was prepared as a means of ensuring and enhancing safety in the filling, handling, storage, transportation, location and installation of portable cylinders of LPG intended for domestic, commercial and industrial purposes.
- 0.4 This standard takes cognizance of the fact that reference to National Metrology Act Chapter 23 of the Laws of Belize. the Imperial System of Weights and Measures is still widely used in Belize although it is the process of transition to the International System of Units, (SI). Therefore, the appropriate units of both systems are accommodated where necessary within this standard.
- 0.5 In drafting this standard, considerable assistance was derived from SLNS 43: 2006, Specification for Filling, Handling, Storage, Transportation and Location of Portable Cylinders of Liquefied Petroleum Gases (LPG), Saint Lucia Bureau of Standards.
- 0.5 In preparing this standard assistance was derived from:

BNS 126 (Part 4): 1980	Specification for the Filling, Handling, Storage, Transportation and Location of Portable Containers for Liquefied Petroleum Gases
ISO 10463: 1993	Cylinders for permanent gases – Inspection at time of filling.
ISO 11625: 1998	Gas cylinders – Safe handling.
ISO 10691: 2004	Gas cylinders - Refillable welded steel cylinders for

Liquefied Petroleum gas (LPG) - Procedures for checking before, during and after filling.

IFC 2009 International Fire Code 2009 Edition Chapter 38

1 SCOPE

- 1.1 This standard covers basic safety requirements for the filling, handling and storage of portable cylinders of Liquefied Petroleum Gases (LPG) at the cylinder filling plants and the positioning of cylinders at the premises of the consumers. Where the word "cylinder" is used, the reference is to "portable cylinders".
- 1.2 This standard does not cover safety installation requirements beyond the first stage regulator except for the use of flexible hose.
- 1.3 The requirements of this standard are not intended to preclude the use of alternative materials, designs and methods where these provide equivalent and approved standards of safety.
- 1.4 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use.

2 DEFINITIONS

For the purpose of this standard the following definitions apply.

- 2.1 **Portable Cylinders** means any cylinder of a mass not greater than 45.0 kg (99.0 lb.) of liquefied petroleum gas.
- 2.2 **Flexible hose** means a short (not exceeding 91 cm [39 in.] overall length) component of piping system fabricated of flexible material such as a hose and equipped with suitable connections on both ends. LPG resistant rubber and fabric, or metal, or a combination of them, may be used.
- 2.3 **First Stage Regulator** means the regulator that restricts or allows the flow of gas after the supply tank valve.
- 2.4 **Second Stage Regulator** means the regulator located between the first stage regulator and the appliance. It also restricts and controls the flow of gas by further decreasing the pressure of the gas that flows directly into the appliance.
- 2.5 A Safe Place means an area that does not pose a threat to causing an accident.
- 2.6 **Liquefied petroleum gas** means a by-product from the processing of natural gas or petroleum gas or from petroleum refining, consisting of a mixture of low-boiling hydrocarbons that exists in a liquid state at ambient temperature and includes

commercial butane, commercial propane, commercial butane-propane mixtures and special duty propane blends.

2.7 **Filling by ratio** means the ratio of the mass of gas in introduced into a container to the mass of water at 15 C that would fill the same container fitted ready for use.

3 GENERAL

- 3.1 Facilities and operations associated with cylinder filling plants such as bulk storage, piping, pumps, compressors, etc. should be in accordance with the recommendations of the Belize Bureau of Standards as appropriate, with the following additions:
 - 3.1.1 provisions should be made for mobile equipment or fixed, automatic water spray systems giving suitable and effective fire protection for cylinder filling and cylinder storage areas,
 - 3.1.2 readily ignitable material, such as weeds, long grass, or any combustible material shall not be permitted to remain within 6m (20 ft) of the container filling or container storage areas,
 - 3.1.3 the owner of the facility shall, in addition to the above, maintain a means of escape in case of fire and other measures to protect the safety of persons employed in such facilities in accordance with the relevant provisions and regulations including those of the National Fire Service.
 - 3.1.4 the owner of the facility shall comply with all other laws and regulations relating to the Occupational Health and Safety of persons employed in such a facility.

4 ELECTRICAL

Public Utilities Commission (PUC) regulations and standards shall be followed with particular attention given to the recommendations on portable container filling.

5 CONTAINER FILLING

5.1 **Filling Location**

- 5.1.1 Cylinders shall be filled with LPG, only in buildings designed for that purpose or in the open air. Cylinders shall not be filled in cellars or upper storeys of buildings.
- 5.1.2 Floors may be near ground level or raised to vehicle platform height. If the floor is raised, the space underneath shall be filled in, or if it is left open, it shall be unobstructed and without depressions, to ensure ventilation. The open space beneath the floor shall not be used for any storage purpose and shall be kept clean and free from any combustible material.

- 5.1.3 As far as possible, the floor of these buildings or areas shall be without channels, pits, or other depressions which could accumulate gas. Where channels or pits in buildings are necessary for conveyors or other equipment, they shall be adequately ventilated by ducts to the outside of the building.
- 5.1.4 Filling buildings shall be open-sided, but where climatic or other conditions require a closed building, adequate ventilation shall be provided below or at ground level.
- 5.1.5 If the filling is not carried out within a fenced area, a fence at least 3m (6¹/₂ ft) in height shall be provided to enclose the filling and storage areas. A building or fenced area shall have at least two means of exit. Doors or gates shall open outwards; shall not be self-locking, and shall be capable of being opened readily from the inside.
- 5.1.6 No duct, drain, or blow-off line shall be directed into or discharged near sewer systems or drains, unless designed for such purposes.
- 5.1.7 Water drains from the filling building or areas, where they pass to an outside drainage system, shall be provided with effective seals.
- 5.1.8 Piping, where it passes through a concrete or brick wall, shall be protected by a casing within which it is free to move
- 5.1.9 Access shall be provided for fire-fighting equipment in the manner recommended by the National Fire Service.
- 5.1.10 Adequate lighting shall be provided to illuminate the working and storage areas with approved vapor proof electrical switches, glands, etc.
- 5.1.11 Filled containers shall not be stored in the immediate container filling area.
- 5.1.12 All new cylinders shall be purged prior to filling and placing in service to eliminate undesirable contaminants i.e. air, methanol and water from the cylinder.

5.2 **Safety Distances**

The cylinder filling building or filling area in the open shall be located in relation to bulk storage cylinders in accordance with Table 1, and shall be at least 8m (26ft) from the boundary of the plant.

5.3 **Filling Limits**

- 5.3.1 Proper filling procedures shall be in place to ensure that no overfilling can occur.
- 5.3.2 The safe filling quantity for containers is a function of temperature conditions. The maximum quantity of LPG filled into a portable container shall be such that the expansion during transit or service will not cause the contents to occupy more than 85% liquid volume and at highest temperature the volume of the liquid must not exceed 95% of

the total capacity of the container.

5.3.3 For cylinders used only in a specific climatic area, the competent authority (ies) may specify a maximum filling ratio for each mixture for national use.

5.4 **Safe filling mixture composition**

Cylinders shall be filled with the appropriate mixture and composition of LPG. Special care shall be taken to ensure that contaminants that could cause corrosion are not present.

5.5 Accuracy of weighing equipment

Filling and check-weigh scales shall have been checked for accuracy at least once a day and verified by the Belize Bureau of Standards periodically.

5.6 **Inspection Prior to filling**

- 5.6.1 Cylinders suitable for filling
 - 5.6.1.1 Cylinders shall be deemed suitable for filling if the following conditions apply:
 - a) the design code/specification is identifiable;
 - b) the tare mass or tare indication and water capacity marked;
 - c) the product mass and product identification (LPG) are indicated when required;
 - d) the cylinder is within the test date as determined from the marked manufacturer's or periodic inspection dates;
 - e) the symbol of the periodic inspection test station or inspection body is indicated;
 - f) a visual inspection of visible areas shows that the cylinder (including foot ring) and valve are free of defects;
 - g) the cylinder is not leaking;
 - 5.6.1.2 The visual inspection shall also include an examination of the cylinder valve to ensure it is in a satisfactory condition, i.e.
 - is free from contaminants;
 - is easy to operate;

- exhibits undamaged outlet threads and body;
- exhibits undamaged pressure relief device, if required;
- its handwheel, or key-operated spindle, is essentially undamaged and properly fixed; and
 - attaches itself correctly to the filling connector as well as a check on whether the container is due for periodic test.
- 5.6.1.3 Any unsafe container shall be rejected in accordance with Final Draft BZS: 2011: Specification for Inspection, Testing and Requalification of Portable Containers for Liquefied Petroleum Gases.

5.7 **Filling System**

- 5.7.1 Cylinders shall be filled accurately (as per 5.3 above) and checks made to ensure that overfilling or underfilling does not take place.
- 5.7.2 The system shall be designed in such a way that there is minimum leakage when the connection to the cylinder valve is released.
- 5.7.3 Conveniently accessible stop valves shall be fitted to the end of each branch filling line from the header immediately before the filling unit. A means of stopping the supply of LPG shall be provided on the incoming supply line outside the building
- 5.7.4 Relief valves shall be fitted in pipelines where liquid may be trapped between closed valves.

5.8 Venting of Overfilled and Leaking Cylinders

Where the content of an overfilled cylinder is adjusted by venting, a suitable vent shall be used to carry the vented gas from the filling building for dispersal in a safe place. Alternatively, cylinders may be vented in a safe place in the open air.

5.9 **Inspection after Filling**

- 5.9.1 Each cylinder shall be checked to ensure that the maximum mass has not been exceeded, either by check-weighing within the tolerances as determined by the relevant authority or by determination of the ullage space remaining. Where accepted by the competent authority, other systems of checking, such as sample weighing or statistical-data application, may be used when the control of the filling mass is controlled automatically.
- 5.9.2 Cylinders shall be checked prior to dispatch or storage for the correct fitting of valve sealing caps or plugs and valve protection caps/guards.
- 5.9.3 Each container valve and container after filling shall be inspected

and tested to ensure that it is free from leaks and satisfactory for service.

6 PORTABLE CONTAINERS

6.1 **Design and Construction**

Portable cylinders shall be designed, constructed, and tested in accordance with Department of Transport (DOT) and American Society of Mechanical Engineers (ASME) or equivalent standards.

6.2 Marking

Cylinders shall be clearly marked to indicate the nature of their contents, the year of manufacture, and date of the last test.

6.3 **Container Valves**

- 6.3.1 The design, materials and manufacture of valves shall be adequate for the grade of LPG which they are to handle and for the service conditions under which they are to operate.
- 6.3.2 When valve outlet plugs are provided these shall be in place before containers are dispatched to storage or for transport.

6.4 Safety Devices

Fusible plugs and bursting discs shall not be fitted. Instead, a pressure relief valve shall be used.

6.5 **Testing**

All containers shall be tested in accordance with Final Draft BZS: 2011: Specification for Inspection, Testing and Requalification of Portable Containers for Liquefied Petroleum Gases

Specification for Inspection, Testing and Requalification of Portable Cylinders for Liquefied Petroleum Gases.

6.6 Handling and Transportation of Containers

- 6.6.1 When LPG cylinders of a capacity greater than 1 Kg (2.2.lbs) are being transported in vehicles, the following requirements shall apply:
 - 6.6.1.1 They shall be handled carefully and not allowed to fall on each other or to be otherwise subjected to undue shock.
 - 6.6.1.2 They shall be placed in a vertical manner and properly secured to prevent movement or physical damage.
 - 6.6.1.3 They shall be so placed that the safety relief device 12

is always in contact with the vapor space.

- 6.6.1.4 They shall not be transported in unventilated vehicles or components or in vehicles without guardrails.
- 6.6.1.5 No Public transport vehicles shall be used to transport LPG.
- 6.6.1.6 Cylinders of a capacity greater than 1 kg (2.2 lbs.) shall not be carried in passenger compartments.
- 6.6.1.7 At least one 10kg (22lbs) dry chemical ABC fire extinguisher or Carbon Dioxide fire extinguisher shall be carried in a readily accessible position on any vehicle designated for transporting LPG.

6.7 **Storage of Containers not in use**

- 6.7.1 General Requirements Used cylinders shall be located where they will not be subjected to physical damage or a rise in temperature higher than the ambient temperature. They may be stored in the open exposed to solar heat, or in an isolated structure with adequate ventilation at the top and bottom. For storage purposes, the distances specified in Table 1 shall be observed, along with the following:
 - 6.7.1.1 Cylinders shall be at least 1 m (3ft) horizontally away from any opening into a building, which is not used solely for the storage of gas containers.
 - 6.7.1.2 The minimum distance between cylinders and above ground LPG bulk storage cylinders, flammable liquid or fuel oil storages which exceed 250 litres (56 gal) water capacity shall be 3 m (10ft) or the figure shown in column 3 of Table 1, whichever is greater. Where a compound wall encloses flammable liquid, the distance shall be measured from the centerline of the wall.
 - 6.7.1.3 Cylinders may be adjacent to other fuel gas containers, but if in a mixed cylinder shed, they shall be separated from oxygen cylinders by a metal or masonry partition.
 - 6.7.1.4 Cylinders shall not be placed within the bunded area of flammable or combustible liquid storage.
 - 6.7.1.5 Cylinders shall be so placed that the safety relief device is always in direct communication with the vapour space.
 - 6.7.1.6 Cylinders, either empty or full, shall be stored in the same manner, and their valves shall be closed.
 - 6.7.1.7 Cylinders awaiting dispatch may be kept on a filling platform complying with 6.8.1.
 - 6.7.1.8 Cylinders stored in the open or in a structure as in 6.7.1 or

6.7.1.7 shall be located at the distance set out in Table 1.

TABLE 1: LOCATION AND SPACING FOR CONTAINERS FOR INDUSTRIAL COMMERCIAL AND DOMESTIC BULK STORAGE (Imperial Units)

(Imperial Units)								
	MINIMUM SEPARATION BETWEEN LP-GAS							
	CONTAINERS AND BUILDINGS, PUBLIC							
	WAYS OR LOT LIN							
	PROPERTY THAT C	MINIMUM						
LP – GAS	Mounded or		SEPARATION					
CONTAINER	underground LP – gas	Above – ground LP –	BETWEEN LP – GAS					
CAPACITY	containers	gas containers	CONTAINERS					
(Water Gallons)	(feet)	(feet)	(feet)					
Less than 125	10	5	None					
125 to 250	10	10	None					
251 to 500	10	10	3					
501 to 2,000	10	25	3					
2,001 to 30,000	50	50	5					
30,001 to 70,000	50	75	(0.25 of sum of diameters					
70,001 to 90,000	50	100	of adjacent LP – gas					
90,001 to 120,000	50	125	containers)					

6.8 **Location and Spacing**

- 6.8.1 Storage cylinders, above ground or underground shall be installed away from the building and shall be located in relation to the nearest important building and the line of adjoining property, whether built on or not, and shall be spaced in accordance with Table 1.
- 6.8.2 The distances given are minimum requirements and refer to the horizontal distance in plan between the nearest point on the storage cylinder and a specified feature such as an adjacent storage cylinder, building or property line.

7 LOCATION OF CONTATINERS IN USE

7.1 General Requirements

- 7.1.1 Cylinders in use, with the exceptions provided in clauses 7.2 to 7.6 inclusive, shall be located in accordance with the distance set out in Table 1. Cylinders in use shall be located outside and at least 1m (3ft) horizontally away from any opening into a building which is below the level of the relief valve.
- 7.1.2 Cylinders may be installed below a window only if there is a minimum distance of 3m (10ft) between the top of the cylinder valve and the bottom of the window opening. Cylinders shall be located at a distance of at least 5m (16ft) from other forms of flammable or combustible liquid storage.

7.1.3 No more than two banks of cylinders, each containing 450Kg (990 lbs.) of LPG shall be permitted in a group, and such groups shall be separated by a minimum distance of 8m (26 ft).

7.2 **Industrial Building**

- 7.2.1 Cylinders in industrial buildings and used for industrial purposes shall not exceed a total of 150 kg (330) LPG capacity. This limit does not apply to cylinders which are manifolded together in banks not exceeding 200kg (440 lbs) LPG capacity and where such banks are separated by a distance of at least 15m (49ft), nor to single cylinders where the total quantity of LPG including manifold cylinders does not exceed 200kg (440 lbs) in every 200 m² (2153 ft₂) of floor space.
- 7.2.2 For large steel fabricating works and similar applications, the authority having jurisdiction may allow variations of these quantities of LPG.

7.3 **Building Construction**

Where LPG is to be used in the construction, repair or improvement of buildings or structures or their fixtures, and portability of equipment is required, cylinders may be used, provided that the action is taken close to the valve and the hose is disconnected when not in use.

7.4 **Demonstration of Display**

Cylinders used for demonstration or display purposes within a building shall be limited to a total of 10 kg (22lbs) LPG capacity. When an authorized person is in constant attendance the LPG capacity may be increased to 20 kg, (44 lbs). Where 20 kg (44 lbs) LPG capacity is insufficient for industrial demonstration, the authority having jurisdiction may approve a larger capacity.

7.5 **Education**

- 7.5.1 Cylinders used for educational purposes within a building such as a school, technical college or university shall be limited to a total capacity of 13.5 kg (30 lbs) provided however, that this capacity may be increased at the discretion of the authority having jurisdiction.
- 7.5.2 Cylinders shall be kept well ventilated, and if located in a cupboard there shall be adequate ventilation openings at the top or bottom.

7.6 **Domestic and Commercial/Institution Buildings**

Containers in domestic and non-industrial buildings shall be limited to a total capacity of 13.5 kg (30 lbs). Where a regulator is fitted for low- pressure supply to an appliance, the following conditions shall be observed.

- (a) The pressure regulator shall be securely and rigidly fitted
- (b) The low-pressure system shall not incorporate a relief valve.

8 INSTALLATION OF LPG CONTAINER SYSTEMS

- 8.1 **General** the following general requirements shall apply to the installation of cylinder systems.
 - 8.1.1 Every cylinder installation shall comply with the requirements of this standard and only authorized persons shall make, repair, alter, or open connections in any LPG cylinder installation, except for the actual connection or disconnection of containers.
 - 8.1.2 Cylinders shall not be installed below ground level except in a compartment or recess, which is used for no other purpose. Cylinders and regulating equipment shall not be in contact with the ground and the compartment or recess shall be drained and ventilated, in a horizontal direction, to the outside air from its lowest level. Such an outlet shall be at least 1m (3ft) away from any opening into a building, which is below the level of such an outlet.
 - 8.1.3 Cylinders shall be installed on a firm foundation of a material not inferior to concrete, protected from direct contact with the soil and shall be secured to prevent accidental dislodgment of the cylinder.
 - 8.1.4 In all cases cylinders shall be installed so that the discharge from the relief valve shall not impinge on cylinders or on adjacent combustible buildings or structures.
 - 8.1.5 An approved flexible connection shall be provided.

8.2 **Regulators**

- 8.2.1 Regulators shall be installed in accordance with the following requirements:
 - 8.2.1.1 Regulators and their pressure relief devices shall be rigidly attached to the cylinder valves, cylinders, supporting stands or the building walls or shall be otherwise rigidly secured.
 - 8.2.1.2 Where multi stage regulation is used, the second and/or subsequent regulators may be located inside a building, provided that relief valve(s) and the space above the regulator diaphragm(s) is vented to the outside air. The outlet from such vent(s) shall be at least 1m (3ft) horizontally away from any opening into a building, which is less than 2m (6½ft) below level of such a discharge outlet.
 - 8.2.1.3 Where practicable, all regulators should be outside the building.
 - 8.2.1.4 A single stage regulator or the first stage of multi-stage regulator assembly shall be located at a distance not greater than 600 mm (2ft) from the nearest container.

8.2.1.5 All final stage low pressure regulators, except as in 7.6.1 (b), shall be fitted with a safety pressure relief valve set to discharge at not less than 2, nor more than 3 times, the outlet pressure setting of the regulator.

9 FLEXIBLE HOSE

9.1 General

- 9.1.1 Design flexible hose and hose connections on the outlet side of the regulator or reducing valve shall be designed for a bursting pressure of not less than;
 - (a) 850 kPa (123psi) where operating pressures do not exceed 7kPa (1 psi);
 - (b) 8750 kPa (1269.2 psi) where operating pressures exceed 7kPa (1 psi).
- 9.1.2 All hoses shall be designed specifically for use with LPG.

9.2 Use on Outlet Side of Regulators

- 9.2.1 Hoses may be used on the outlet side of regulators for connections to gas appliances under the following conditions:
 - 9.2.1.1 Appliances which are portable or which require a vibration joint may be connected by a flexible hose. On such installations a positive means of shutting off the gas supply to the inlet of the hose shall be provided.
 - 9.2.1.2 Hoses shall be securely attached at each end by threaded or other metal connection. The use of unclamped push on connections shall be limited to laboratory fittings, operating at no more than 3,5 kPa (0.5 psi) pressure.
 - 9.2.1.3 Where a flexible hose is used to connect a gas appliance to a cylinder not fitted with a manual shut-off valve, such a valve shall be incorporated, integral with the fitting on the cylinder end of the hose.
 - 9.2.1.4 A wall outlet to which an appliance is to be connected with flexible hose shall be so placed as to reduce to a minimum the passing of persons across the hose. Where flexible hose is used it shall be of the minimum length practicable. The extending of the hose from one room to another shall not be permitted. Hoses shall not be run in concealed places such as cupboards.
 - 9.2.1.5 Flexible hose shall not be used where it is likely to be subjected to temperatures above 52° C (125.6° F).

9.2.1.6 No flexible hose, other than those used for the industrial purposes, shall be longer than 3m (10ft).

10 TESTING AND INSTALLATION

All piping installations shall be subjected to a pressure test in accordance with accepted practices before introducing LPG into:

- (a) a new installation.
- (b) an installation having undergone addition, maintenance or repair.

11 FIRE PROTECTION OF CONTAINERS

- 11.1 Storage in Excess of 500kg (1100 lbs) up to 5000 kg (11, 000 lbs) LPG.
 - 11.1.1 For fire protection purposes in areas used for the storage of, or which comprise an installation of, LPG, a garden hose of adequate length, permanently connected to the water supply, and ready for immediate use, shall be provided where the water pressure is adequate, and one approved 10 kg (22 lbs.) dry chemical ABC fire extinguisher shall be installed in a conspicuous and readily accessible location.
 - 11.1.2 Fire extinguishers shall be inspected and maintained in accordance with the advice of the National Fire Service.
- 11.2 Storage of Aggregate Capacity exceeding 5,000 Kg (11,000 lbs).
 - 11.2.1 For fire protection purposes, container storage of aggregate capacity exceeding 5,000Kg (11,000lbs) shall be provided with at least a sprinkler system connected to the water supply and ready for immediate use, and one approved dry chemical ABC fire extinguisher shall be installed in a conspicuous and readily accessible location. An approved system of fire hydrants and hoses shall be installed so that the storage will be covered under any conditions of fire and wind.
 - 11.2.2 Hydrants and hose systems shall be equipped with a sufficient quantity of approved hose and fittings, which shall be housed in weather proof boxes. All hydrants and hoses shall be provided with an adjustable combination fog nozzle. Water supplies shall be provided, where practicable, by the Belize Water Services (BWS). Alternatively, a static water supply and booster pump shall be provided on the premises for fire fighting purposes.
 - 11.2.3 Hydrants and hose systems shall be maintained in accordance with the requirements of the National Fire Service.

END OF DOCUMENT!