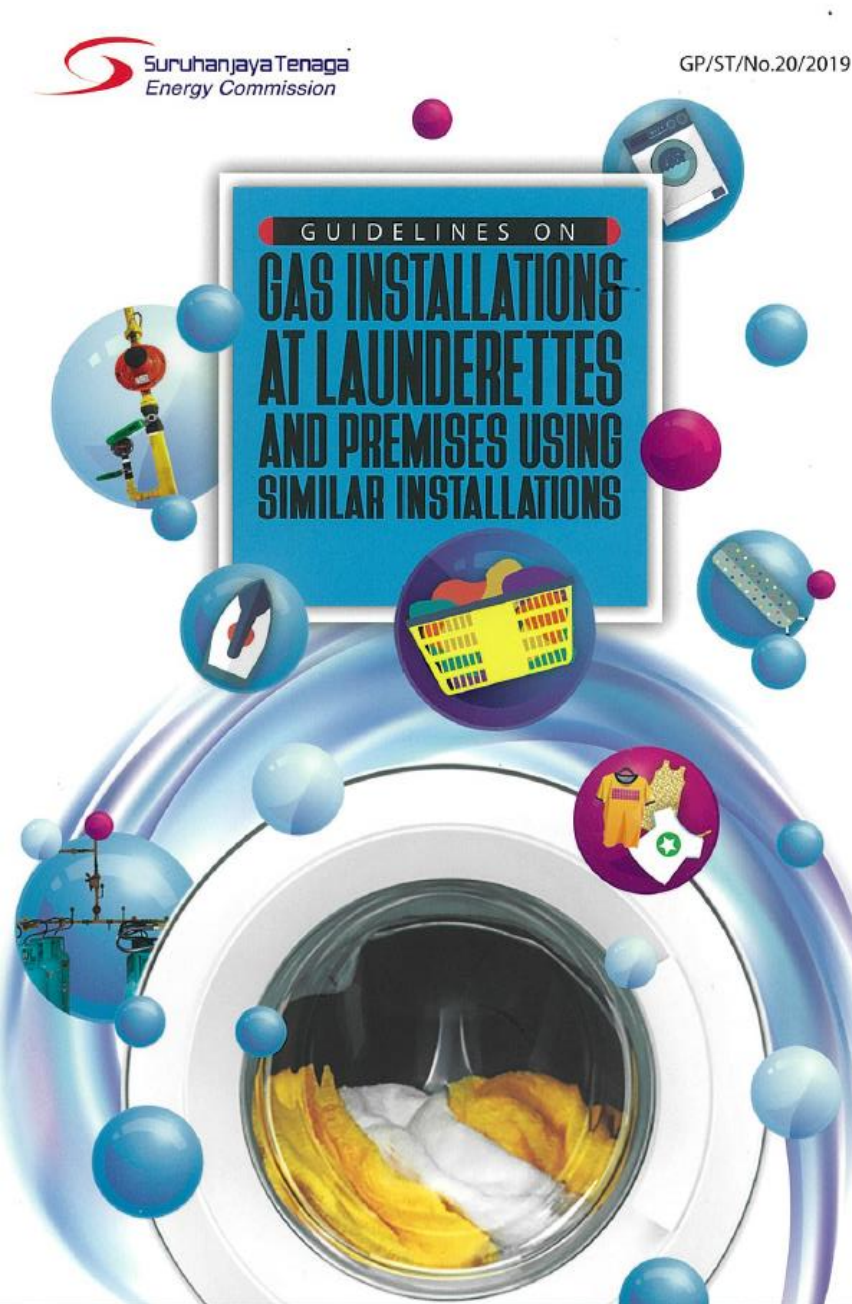
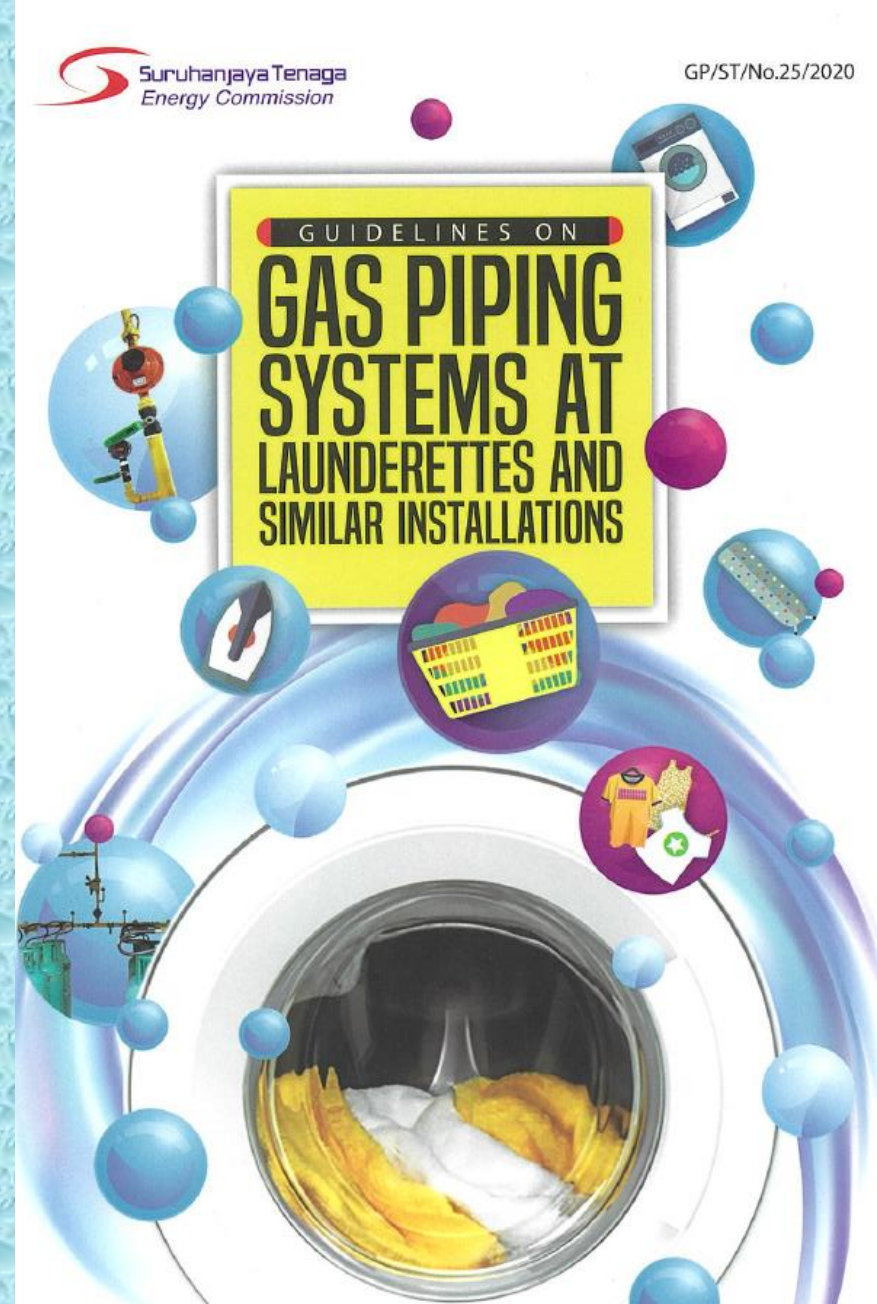


GUIDELINES ON
**GAS INSTALLATIONS
AT LAUNDERETTES
AND PREMISES USING
SIMILAR INSTALLATIONS**



THINK **SAFETY**, THINK **ST**

GUIDELINES ON
**GAS PIPING
SYSTEMS AT
LAUNDERETTES AND
SIMILAR INSTALLATIONS**



Be Energy
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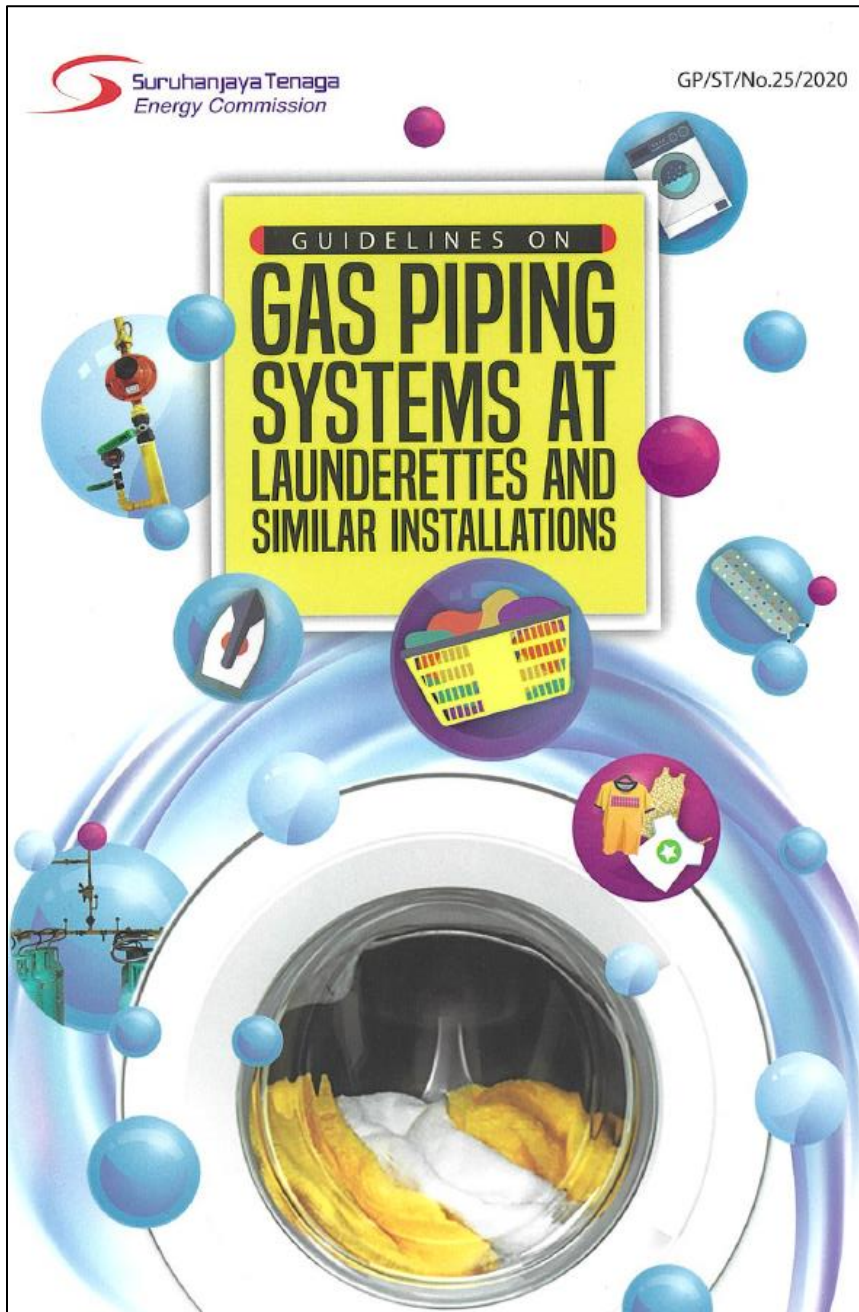
Ir. SHAMSUDDIN ARSHAD
Deputy Director
Gas Installation & Equipment Unit
SAFETY REGULATION DEPARTMENT
ENERGY COMMISSION, MALAYSIA.



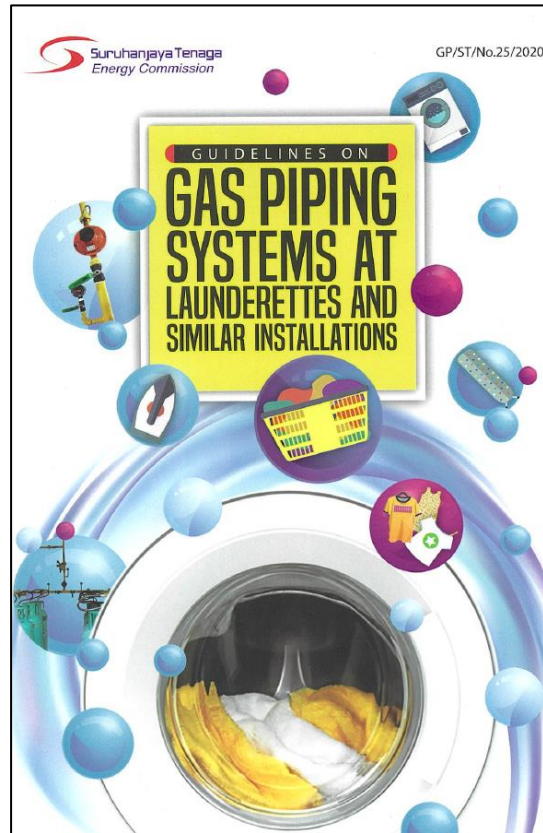
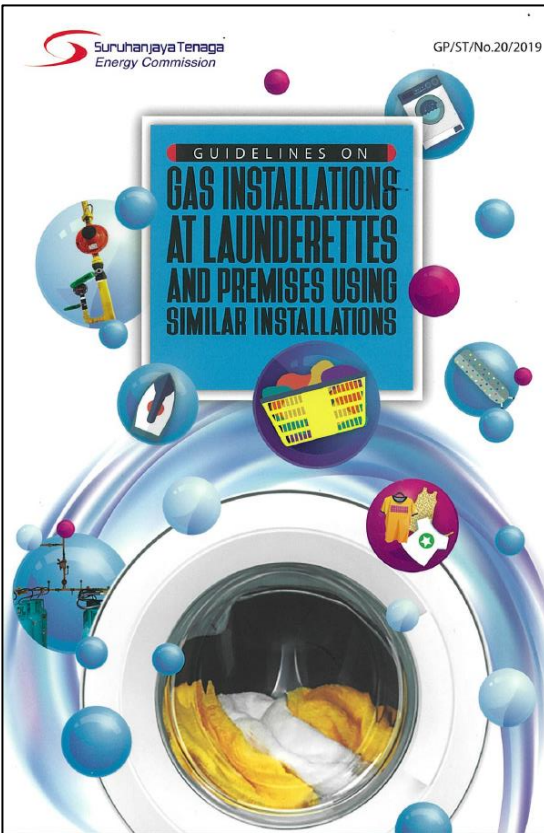
TUESDAY, 12 OCTOBER 2021



**INTRODUCTION TO
THE GUIDELINES**



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Application of these Guidelines

4. These guidelines will address safety aspects of piping systems, LPG storage, electrical installations and other equipment used in the operation and maintenance of gas installations at launderettes and premises using similar installations.

Amendment and Variation

5. The Commission may at any time modify, vary, review or revoke these Guidelines.

Dated : 5 April 2019

(Signature)
Datuk Ir. Ahmad Fauzi Bin Hasan
Chairman
Energy Commission

Garispanduan 1

- GP/ST/No.22/2019
- **5 April 2019**

Application of these Guidelines

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Amendment and Variation

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Dated : 11 February 2020

(Signature)
Abdul Razib Dawood
Chief Executive Officer
Energy Commission

Garispanduan 2 (Pindaan)

- GP/ST/No.25/2020
- **11 Februari 2020**

GUIDELINES ON GAS PIPING SYSTEMS AT LAUNDERETTES AND SIMILAR INSTALLATIONS

In exercise of the power conferred by Section 37C of the Gas Supply Act 1993 [Act 501], the Commission issues the following guidelines.

Citation and Commencement

1. These Guidelines may be cited as the Guidelines on Gas Piping Systems at Launderettes and Similar Installations (“Guidelines”)
2. These Guidelines shall come into operation on the date of its registration.

Purpose of these Guidelines

3. The purpose of these Guidelines is to guide consultants, gas contractors, launderette franchisors, competent persons and owners or management companies of premises in the management and maintenance of gas piping systems and installations in such premises and to ensure that such piping systems and installations are in good condition and safe for public use.

Suruhanjaya Tenaga
Energy Commission

GAS SUPPLY ACT 1993
(Act 501)

GUIDELINES ON GAS PIPING SYSTEMS AT LAUNDERETTES AND SIMILAR INSTALLATIONS

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GPST/No. 25/2020 Guidelines On Gas Piping Systems At Launderettes And Similar Installations


Application of these Guidelines

- These Guidelines will address safety aspects of piping systems, LPG storage, installations and other equipment used in the operation and maintenance of gas installations at laundrettes and premises using similar installations.

Amendment and Variation

- The Commission may at any time modify, vary, review or revoke these Guidelines.

Dated : 11 February 2020


Abdul Razib Dawood
 Chief Executive Officer
 Energy Commission

Suruhanjaya Tenaga
 Energy Commission

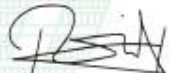
Application of these Guidelines

- These Guidelines will address safety aspects of piping systems, LPG storage, installations and other equipment used in the operation and maintenance of gas installations at laundrettes and premises using similar installations.

Amendment and Variation

- The Commission may at any time modify, vary, review or revoke these Guidelines.

Dated : 11 February 2020


Abdul Razib Dawood
 Chief Executive Officer
 Energy Commission

GP/ST/No. 25/2020 • Guidelines On Gas Piping Systems At Laundrettes And Similar Installations •

ENERGY COMMISSION

▶ 4

ENERGY COMMISSION

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ENERGY COMMISSION

GPST/No. 25/2020 Guidelines On Gas Piping Systems At Launderettes And Similar Installations

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1.0 OBJECTIVES

1.0 OBJECTIVES


- 1.1 These Guidelines are developed by the Commission with the following objectives:
- (a) to ensure that gas installations at launderettes and at premises using similar installations comply with the requirements stipulated in the Act and all subsidiary legislations made thereunder and Malaysian Standards MS 830:2013 and MS 930:2017; and
 - (b) to mitigate the risks associated with gas installations at launderettes and at premises using similar installations.



2.0 SCOPE

2.0 SCOPE

- 2.1 These Guidelines shall apply to owners, tenants and operators of gas installations and at premises using such installations and any of their personnel or a personnel of their contractors or sub-contractors working on the installation.
- 2.2 These Guidelines may also assist local authorities in carrying out their duties insofar as it involve gas installations at laundrettes or at premises using similar installations.
- 2.3 These Guidelines are not intended in any way to circumvent the application of and obligations or requirements under any other written law or standards. Parties relying on these Guidelines are advised to obtain independent advice on the applicability of the same to their installations.



**4.0 LPG
CHARACTERISTICS**

4.0 LPG CHARACTERISTICS

The following illustrates typical characteristics of LPG:

Typical LPG Characteristics		
i	Specific Gravity	0.55@15°C; water =1
ii	Gross Calorific Value, (kcal/Sm ³)	28,058
iii	Burning Velocity, (m/s)	0.46
iv	Upper Flammability Limit, (%)	9.0
v	Lower Flammability Limit, (%)	1.8
vi	Auto-ignition Temperature, (°C)	>410
vii	Theoretical Air Requirement, (m ³ /m ³)	28.81

The background is an abstract composition of numerous bubbles of varying sizes, some large and some tiny. The bubbles are set against a color gradient that transitions from a soft purple on the left to a deep blue on the right. The bubbles themselves contain reflections of the surrounding colors, creating a shimmering, textured effect. The overall aesthetic is clean and modern, typical of a professional presentation slide.

5.0 REGULATORY REQUIREMENTS

5.0 Regulatory Requirements / Keperluan Perundangan

1. Kerja pemasangan hanya boleh dilakukan oleh Kontraktor Gas yang sah berdaftar dengan ST *[Peraturan 103, PPBG 1997]*.
2. Kerja-kerja pemasangan dilakukan oleh orang kompeten atau dibawah seliaan orang kompeten dari syarikat kontraktor gas tersebut. *[Peraturan 21, PPBG 1997]*.
3. Kelulusan Untuk Memasang (ATI) - Sebelum kerja-kerja pemasangan dimulakan *[Peraturan 15, PPBG 1997]*.
4. Kelulusan Untuk Mengendali (ATO) - Setelah sistem paip gas siap dipasang. *[Peraturan 16, PPBG 1997]* ATO tersebut hendaklah dipamer di kawasan yang mudah dilihat dan sesuai.
5. Lesen Gas atau Lesen Gas Persendirian (PGL) - Untuk menggunakan gas melalui talian paip gas. *[Seksyen 11, Akta Bekalan Gas 1993]*. Lesen tersebut hendaklah dipamer di kawasan yang mudah dilihat dan sesuai.



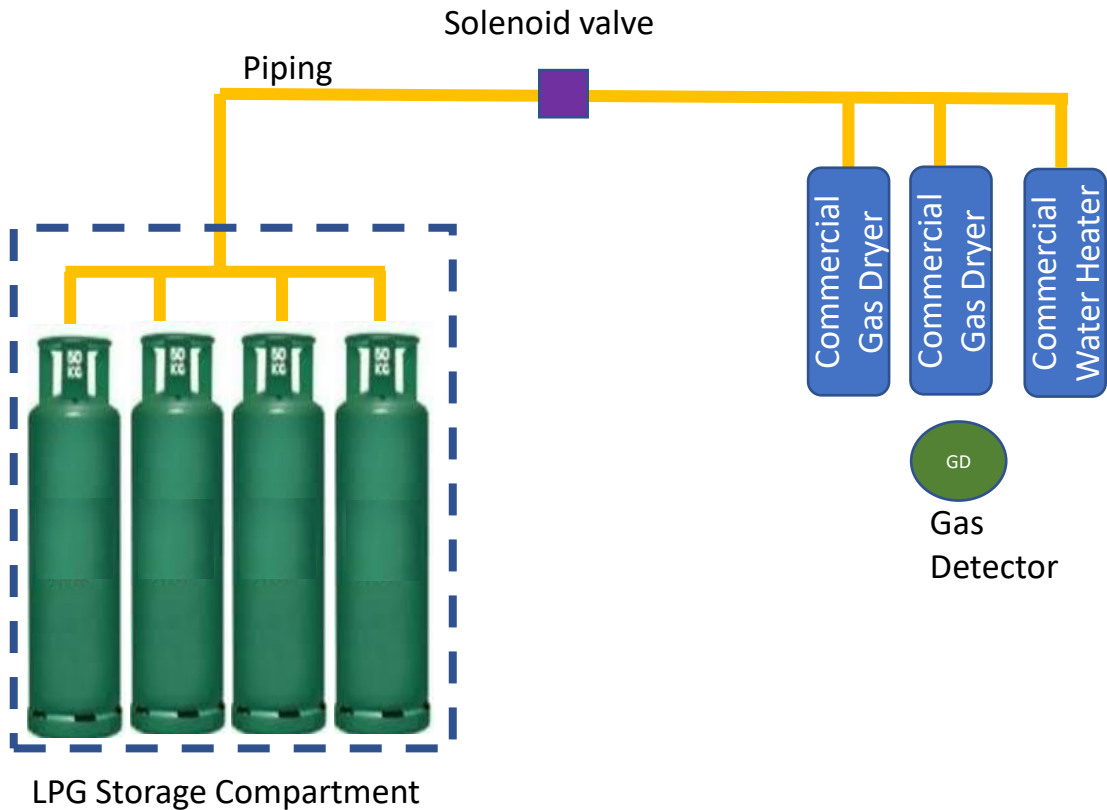
6.0 TECHNICAL REQUIREMENTS

6.1 Technical – Installation Requirements

- a) These requirements shall be fulfilled by a **Gas Contractor**.
- b) The design of the installation shall follow the requirements stipulated in the latest Malaysian Standards **MS 830** and **MS 930** or any modifications or substitutions thereto as directed by the Commission.
- c) Hoses shall not be used to connect a gas appliance to any LPG cylinder. However, an exception is granted to premises utilizing **not more than two (2) appliances** such as a water heater and dryer which are **manned at all times during operation** provided that:
 - i. **the number of LPG cylinders used shall not exceed two (2); and**
 - ii. **only one (1) cylinder may be connected to one (1) appliance.**

Under ST Jurisdiction

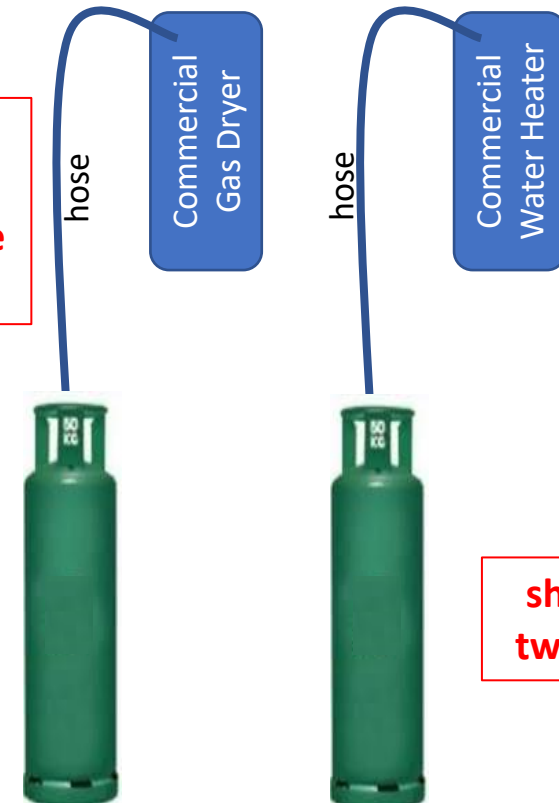
- Commercial & Residential
 - Piped Gas System



An exception is granted to premises

*** MANNED AT ALL TIMES DURING OPERATION ***

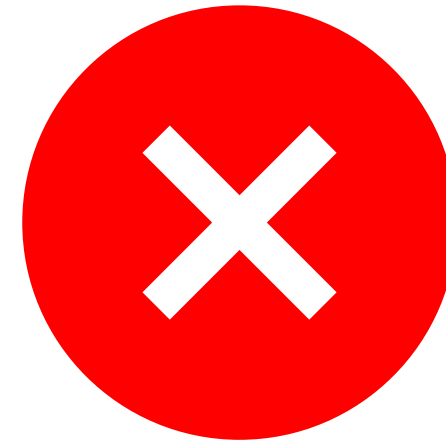
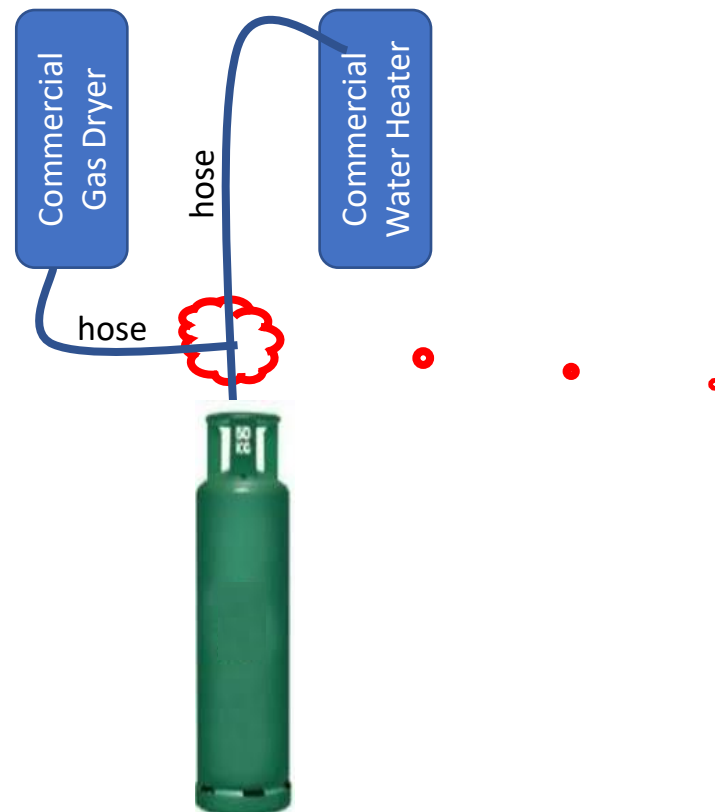
only **one (1)** cylinder may be connected to **one (1)** appliance.



shall not exceed **two (2)** cylinders.

An exception is granted to premises

MANNED AT ALL TIMES DURING OPERATION



Tee-hoses are not allowed

6.1 Technical – Installation Requirements (Cont.)

- d) If the launderette or premises using similar installations is located in a building containing a continuous row of shop houses, the LPG storage must **not contain more than 12 units of 50kg LPG cylinders.**
- e) **Gas detectors** approved by the Commission shall be installed within the vicinity of all gas appliances, taking into account the operating range of the gas detectors, and in any case **shall not exceed three (3) meters.**
- f) All gas detectors shall be connected to a **safety alarm** located in an area assigned to be frequented by the public and **linked to an automatic shut-off device.**
- g) The design must also follow any further requirements as issued by the Commission from time to time.

6.2 Technical – Piping Requirements

- a) These requirements shall be fulfilled by a Gas Contractor.
- b) The material used for any piping shall be of carbon steel complying with the ASTM A 106 or API 5L Grade B standards.
- c) The piping shall be of a seamless type.
- d) The minimum grade of the pipes shall be Schedule 40 of API 5L Grade B.
- e) Any equipment such as valves or regulators connected to the piping shall not be installed higher than two (2) meters above the finished floor level.
- f) A pressure gauge shall be installed after each regulator to indicate the pressure of the gas in the piping system. This is to enable the determination of whether the pressure is in compliance with the maximum operating pressure allowed by the Commission as stated in the ATO.
- g) Any changes in the direction of the piping shall use standard gas fittings. The use of non-standard gas fittings or manually welded parts are strictly prohibited.

6.2 Technical – Piping Requirements (cont.)

- h) Piping shall be **adequately supported** in order to ensure that it is securely fixed at the installed position. The support shall be able to withstand the load of the pipes and any vibrations created during the transportation of gas.
- i) **Hoses** used to connect pipes to any appliances such as water heater or dryer **shall not exceed 1.5 meters** in length.
- j) All piping **shall not be in contact** with electrical cables, metal parts or any substance or material which may create sparks.
- k) **No other items** shall be placed on any piping at any time.

6.3 Technical – Storage Requirements

These requirements shall be fulfilled by a Gas Contractor and/or the owner of the piping system, as applicable.

a) General Storage Requirements

i. The LPG storage **shall not**:

- **be located at the main entrance of the laundrette premises;**
- **be located in an area where the safety of the public might be jeopardized;**
- **be located at the basement of any building;**
- **be located under any staircase or ramp;**
- **store any unused LPG cylinders;**
- **contain any mechanical/electrical ventilation system unless the ventilation system is a certified explosion-proof type;**

6.3 Technical – Storage Requirements (cont.)

ii. The LPG storage shall:

- be located at an area with **adequate ventilation**;
- **have adequate leg room** for the safe loading and unloading of LPG cylinders;
- have **emergency shut-off valves** equipped with pull-out cables installed at appropriate locations where the pull-out cables to activate the shut-off valves shall be placed in suitable conduits;
- have **standard safety signage** installed in accordance with Malaysian Standards MS 830:2013; and
- at **all times comply with Malaysian Standards MS 830:2013**.

iii. Pigtails connected to any manifold shall be fitted with **a check valve**.

iv. The space in the opposite direction of the LPG storage **shall be clear from obstruction** so as to allow easy access to the LPG storage.

v. The public shall not be given access or be able to access the area within the vicinity of the LPG storage area.

6.4 Technical – Maintenance Requirements

- a) These requirements shall be fulfilled by the **owner of the piping system**.
- b) The piping system or installation **shall be maintained in good condition** according to standards prescribed by the Commission, or, if not prescribed by the Commission, according to acceptable industry standards.
- c) **A responsible person (OB) shall be assigned to the piping system or installation who shall conduct regular inspections and ensure that the piping system or installation is free from any gas leakage.**
- d) The piping system or installation shall be inspected, tested and certified by a competent person **every two (2) years** or for such periods as may be determined by the Commission.

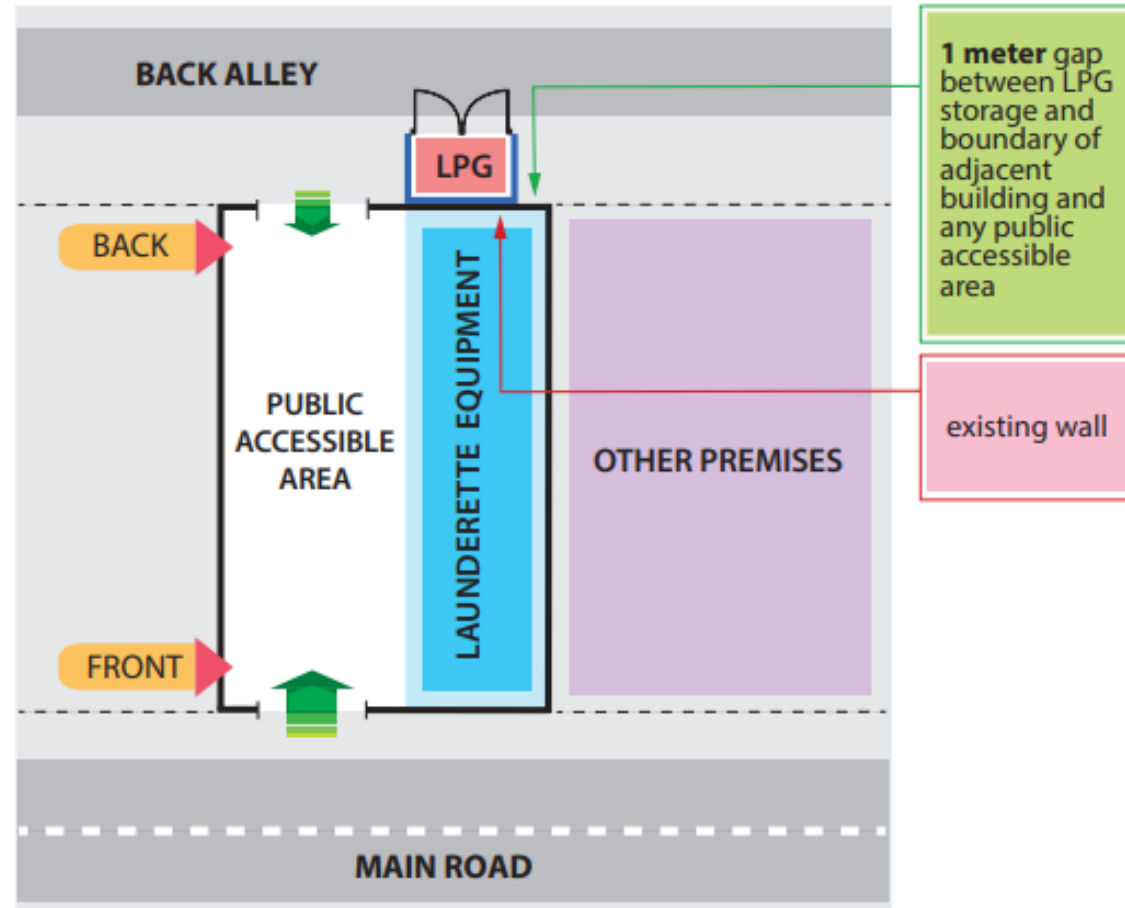
6.5 Technical – Other Requirements

- a) These requirements shall be fulfilled by **the owner of the piping system**.
- b) All LPG storage cylinders must be those assigned for commercial use by the Ministry of Domestic Trade and Consumer Affairs. The use of LPG storage cylinders for domestic purposes is strictly prohibited.
- c) Adequate warning and evacuation signs shall be displayed at the premises to facilitate the public in the event of any emergencies.
- d) **“No Smoking”** signs shall be placed at appropriate locations within the premises.
- e) For premises operating on a **24-hour** basis, the **contact number** of the **responsible person (OB)** and other **emergency contact numbers** such as the **police, fire department** and the like shall be displayed at the area frequented by customers.



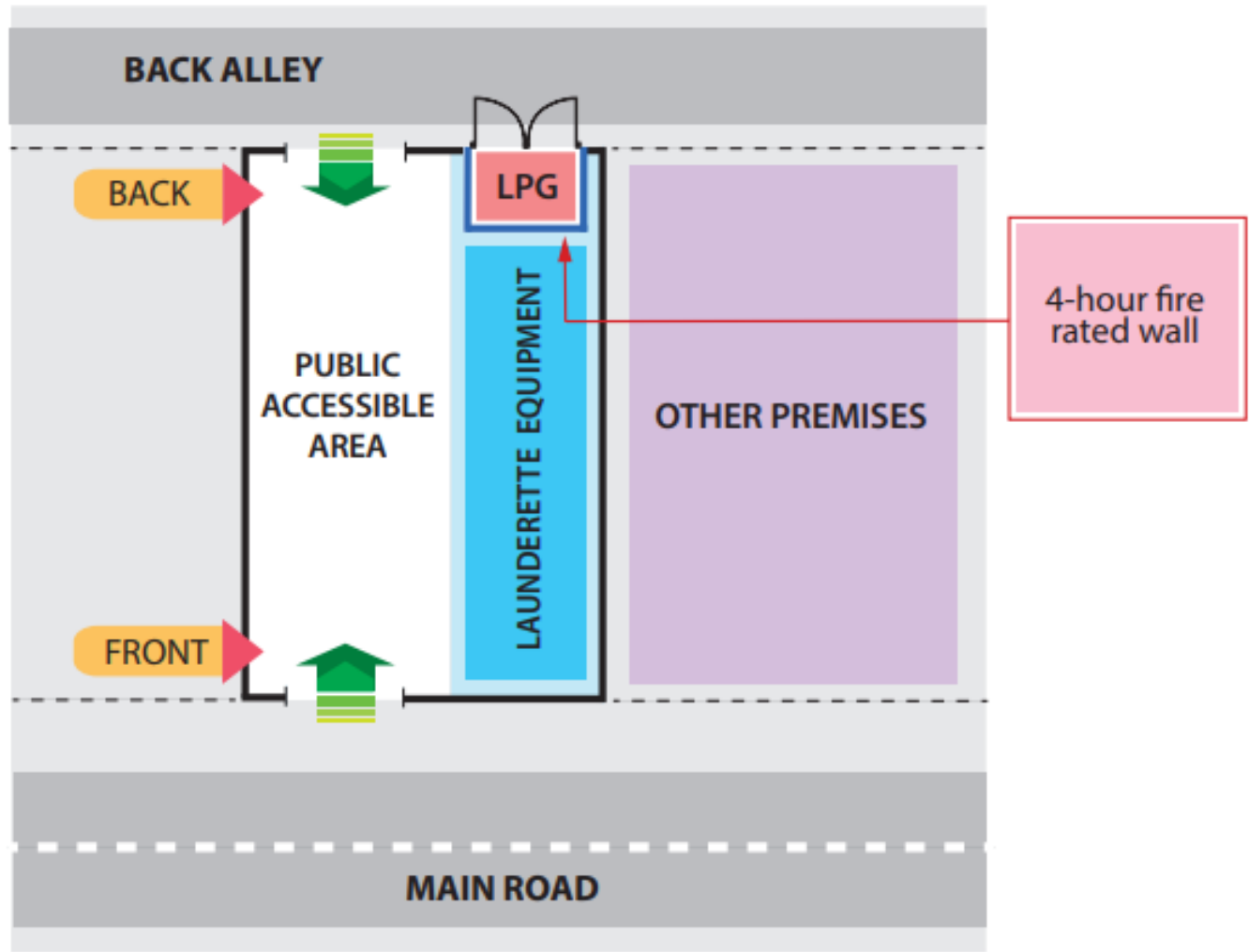
**7.0 TYPICAL
LAYOUT
DIAGRAMS FOR
LAUNDERETTES**

TYPE A - LPG STORAGE PLACED OUTSIDE OF LAUNDERETTE PREMISES



¹ Provided that the owner or occupier of the launderette or premises using similar installations has obtained all the necessary approvals, permits, etc. to build the LPG storage at the said location

TYPE B - LPG STORAGE PLACED INSIDE OF LAUNDERETTE PREMISES



7.3 For both Type A and Type B layouts:

- (a) The public accessible area shall be equipped with a safety alarm, in accordance with paragraph 6.1(f) of these Guidelines;
- (b) Gas detectors approved by the Commission shall be installed within the vicinity of all gas appliances, in accordance with paragraph 6.1(e) of these Guidelines;
- (c) The contact number of the responsible person and other emergency contact numbers and adequate warning and evacuation signs shall be displayed at public accessible area, in accordance with paragraphs 6.5(c) and 6.5(e) of these Guidelines; and

- (d) There shall be a one (1) meter gap between the LPG storage and the boundary of any adjacent buildings, and between the LPG storage and any public accessible area inside the launderette or premises using similar installation.

7.4 In addition, for Type B layout, a 4-hour fire-rated wall shall be installed in accordance with paragraph 6.3(b)(i) of these Guidelines.

² Provided that the owner or occupier of the launderette or premises using similar installations has obtained all the necessary approvals, permits, etc. to build the LPG storage at the said location



**9.0 EFFECTS OF
CONTRAVENTIO
N OR NON-
COMPLIANCE**

9.0 EFFECTS OF CONTRAVENTION OR NON-COMPLIANCE

- 9.1 All parties concerned should note that any person who carries out activity of use of gas through a piping system at a launderette or premises using similar installations requires a licence to be issued by the Commission. In addition, any licensee, competent person or any person subject to these Guidelines must comply with it.
- 9.2 It is an offence under subsection 30(1) of the Act if any person carries out any activity of retail or use of gas through a piping system without any licence. On conviction, the offender will be liable to a fine not exceeding one hundred thousand ringgit (RM100,000.00) or to imprisonment for a term not exceeding three (3) years or to both and to a further fine not exceeding one thousand ringgit (RM1,000.00) for every day or part of a day during which the offence continues after conviction, and any piping system or part thereof used or intended to be used in the commission of the offence shall be liable to forfeiture.
- 9.3 It is an offence under subsection 37C(6) of the Act if any licensee, competent person or any person fails to comply with these Guidelines. For this offence, section 31 of the Act provides that on conviction, the offender will be liable to a fine not exceeding one hundred thousand ringgit (RM100,000.00) and, in the case of a continuing offence, to a fine not exceeding two thousand ringgit (RM2,000.00) for every day or part of a day during which the offence continues after conviction.





**MASALAH-
MASALAH DOBI
SEDIAADA**

Masalah-masalah Dobi Sediada

- Sebelum Garispaduan Dobi dikeluarkan -

- **Tiada** Lesen & ATI/ATO – terutamanya dobi perseorangan,
- Ada Lesen & ATI/ATO **tidak dipamerkan** (mudah dilihat) di premis dobi,
- Lesen Gas **tidak diperbaharui**,
- **Tiada** tanda amaran **“Dilarang Merokok”** dipasang,
- **Tiada** no. telefon untuk dihubungi semasa kecemasan dipamerkan (mudah dilihat) di Dobi Layan Diri; Orang Bertanggungjawab, POLIS & BOMBA,
- **Tiada** Orang Bertanggungjawab dilantik,
- Lokasi Storan LPG berada **di depan/pintu masuk utama** premis dobi,
- Storan LPG **tidak mengikut standard**,
- Storan/Silinder LPG **melebihi 12nos.** X 50kg,
- Masih menggunakan silinder **14kg bersubsidi/komersial**,

Masalah-masalah Dobi Sediada

- Sebelum Garispaduan Dobi dikeluarkan -

- **Tiada** *Back Check Valve* dipasang selepas *pigtail*.
- **Tiada** *Emergency Shut-Off Vave + pullout cable* dipasang,
- **Tiada** *venting line* pada *pressure regulator* (bukan jenis *built-in*) dipasang,
- Papan tanda keselamatan **tidak mengikut standard**,
- **Tiada** papan tanda keselamatan dipasang,
- **Tiada** alat Pengesan Kebocoran Gas dipasang,
- **Tiada** alat *automatic shut-off* disambung/dipasang,
- **Tiada** penggera keselamatan yang disambung/dipasang,
- Memasang hos getah yang **tidak diluluskan** ST ke perkakas gas,
- Panjang hos getah **melebihi 1.5mtr**, dan
- Perkakas gas (Pengering & Pemanas Air) **tidak diluluskan** ST.

Penguatkuasaan sepenuhnya kepada premis sediada?

✓ These Guidelines shall come into operation **on the date of its registration.**

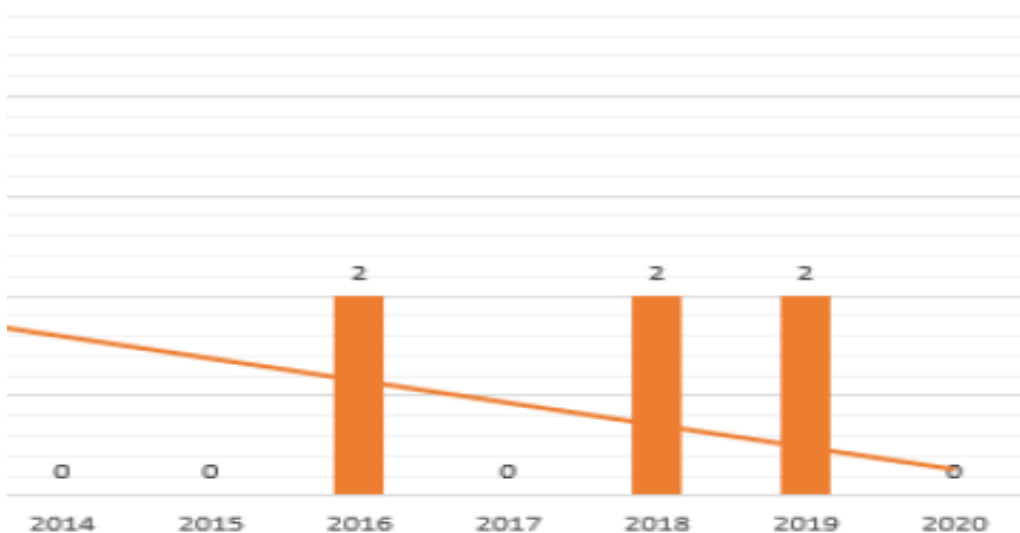
Masalah-masalah Dobi Sediada

- “Elakkan Menggunakan Telefon Bimbit”
- Di dalam premis dobi ada *playground*.
- Kemalangan di premis dobi terbaru.

Maklumat Awal Laporan Kes;

- **Tiada LESEN GAS dan ATI/ATO.**

Bilangan Kemalangan Gas Berpaip, 2005-2020



TAIPING - Seorang pelanggan yang dipercayai sedang membasuh dan mengeringkan bajunya di sebuah kedai dobi layan diri di Kamunting, di sini, berdepan detik cemas selepas kedai berkenaan terbakar, malam tadi.

Dalam kejadian jam 8.45 malam itu, mangsa berusia lingkungan 30-an mengalami kecederaan di kaki dan tangan sebelum dibawa menerima rawatan sebagai pesakit luar di hospital.

Jurucakap Jabatan Bomba dan Penyelamat Malaysia (JBPM) Perak berkata, pihaknya yang menerima panggilan kejadian bergegas ke lokasi dan mendapati sebuah kedai dobi terbakar.

Katanya, pihaknya kemudian menjalankan operasi pemadaman dan berjaya mengawal api daripada terus merebak ke kedai bersebelahan.

“Terdapat seorang lelaki yang juga pelanggan kedai dobi berada di kedai berkenaan ketika kejadian dan mengalami kecederaan di bahagian kaki serta tangan.

“Mangsa kemudiannya dibawa oleh ambulans ke hospital berdekatan selepas mengalami kecederaan ringan dan menerima rawatan pesakit luar,” katanya.

Menurut jurucakap, siasatan lanjut sedang dijalankan bagi mengenal pasti punca berlakunya kebakaran itu dan operasi ditamatkan jam 11.38 malam. - Getaran, 5 Mei 2021

Nak ke kedai dobi layan diri?

Pastikan anda semak perkara ini:

- 1 Dobi mempunyai **KELULUSAN ST** (ATO/Lesen ST).
- 2 Jika terhidu bau gas, **SEGERA KELUAR** kedai dan hubungi no. telefon kecemasan yang tertera atau POLIS/BOMBA.
- 3 **DILARANG MEROKOK**
- 4 **ELAKKAN** guna **TELEFON BIMBIT**.
- 5 Kedai dobi **BUKAN TEMPAT BERSANTAI**, elakkan datang beramai-ramai atau bersama keluarga.
- 6 Hanya untuk **MEMBASUH DAN MENGERING** pakaian sahaja.

Be Energy
smart

**Utamakan Keselamatan!
Sayangi Nyawa Anda.**

THINK **SAFETY**, THINK **ST**

Sebarang aduan boleh dihantar ke
www.st.gov.my

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FAX : +603 - 8870 8649

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www.st.gov.my

תודה
Dankie Gracias
Спасибо شكراً
Merci Takk
Köszönjük Terima kasih
Grazie Dziękujemy Děkojame
Ďakujeme Vielen Dank Paldies
Kiitos Täname teid 谢谢
Thank You Tak
感謝您 Obrigado Teşekkür Ederiz
Σας Ευχαριστούμ 감사합니다
Бодхон
Bedankt Děkujeme vám
ありがとうございます
Tack