

# Directive concerning the storage of gas cylinders LEX 1.5.6

10<sup>th</sup> June 2013, status as at 15<sup>th</sup> March 2021

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*The Direction of the Ecole polytechnique fédérale de Lausanne hereby adopts the following:*

## Preamble

There are different types of gas: inert, inflammable, toxic and/or oxidant. This directive determines the storage instructions and quantities of compressed gas authorised on premises. It also determines the measures to take in case of accident.

## Section 1 Instructions

### Article 1 General measures

<sup>1</sup> All compressed gas cylinders must be stored in a secure cabinet of the EI90 type minimum. Cabinets must be ventilated in accordance with established security regulations (which can be consulted [here](#)). A detector, in the place of use and in the cabinet, with servo control must be present for toxic and/or inflammable gases. A detector may be installed in cases deemed particularly hazardous (for example, large quantities of CO<sub>2</sub>).

<sup>2</sup> Gas cylinders must be physically separated according to their chemical incompatibilities<sup>1</sup>.

<sup>3</sup> No cylinders of 50 l to 200 bars must be present in the premises outside of the cabinets.

<sup>4</sup> For any special needs that may require greater quantities than those specified above, a possible dispensation may be requested by contacting the Department of Security, Safety and Facilities Operations (DSE-OHS).

### Article 2 Maximal gas volume

<sup>1</sup> The total maximum number of gas cylinders authorised per premises is 4.

<sup>2</sup> **Inert gases:** the maximum volume of inert gas authorised per premises outside of cabinets is 2 Nm<sup>3</sup>. For one cylinder, Nm<sup>3</sup> = p (bar) · V (l) / 1000.

<sup>3</sup> **Inflammable gases:** the maximum volume of inflammable gas authorised per premises outside of ventilated cabinets is 0.8 Nm<sup>3</sup> (maximum 2 out of 4 cylinders).

<sup>4</sup> **Toxic gases:** the maximum volume of toxic gas authorised per premises outside of ventilated cabinets is 0.2 Nm<sup>3</sup> (maximum 2 out of 4 cylinders).

<sup>4</sup> **Oxidant gases:** the maximum volume of oxidant gas authorised per premises outside of ventilated cabinets is 0.8 Nm<sup>3</sup> (maximum 2 out of 4 cylinders).

## Section 2 In case of accident

### Article 3 Turn off the gas supply

Close the valve whenever possible.

### Article 4 Immediately alert 115

Try to gather ad hoc information concerning the gas or mixture involved in the accident.

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<sup>1</sup>Directive on **Laboratoires chimiques** (# 1871)

Directive on **Gaz liquéfiés, 1ère partie** ; Réipients, stockage, transvasement et remplissage (# 1941)

Information sheet: **Bouteilles à gaz, Entrepôts, rampes, systèmes de distribution de gaz** (# 66122)

### ***Section 3    Final provisions***

#### **Article 5    Entry into force**

The present directive entered into force on 10<sup>th</sup> June 2013 (version 1.1) and was revised on 18<sup>th</sup> May 2020 (version 1.2) and on 15<sup>th</sup> March 2021 (version 1.3).

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