



OSHD/SSCir/1

25 April 2011

INSPECTION AND FILLING OF COMPRESSED GAS CYLINDERS

This circular is aimed at occupiers of workplaces, gas suppliers or manufacturers carrying out filling of compressed gas cylinders.

2 Under the Workplace Safety and Health (General Provisions) Regulations, all gas cylinders must be examined or tested periodically by a competent person to ensure continued mechanical integrity for safe use. The Regulations require that gas cylinders containing corrosive gases be examined or tested at least once every 2 years whilst those containing other gases be examined or tested at least once every 5 years.

3 Occupiers, gas suppliers or manufacturers carrying out gas filling must ensure that both the filling gases, as well as gas cylinders, are free from contaminants that could pose safety and health risks to users. Medical oxygen and breathing air supplied in cylinders must meet established standards, such as BS EN 12021 or equivalent. Furthermore, additional tests on medical oxygen or breathing air gas samples taken from the cylinders are to be conducted after the filling process to verify that the contents meet the intended specifications.

4 Singapore Standard CP 12 "Code of Practice on the filling, inspection, testing and maintenance of containers for the storage and transport of compressed gases" specifies, among other things, the *pre-filling inspection procedures* and *filling procedures*. In the case of oxygen or air cylinders, the pre-filling inspection procedures of the standard require that the cylinders be blown down to atmospheric pressure to remove any contamination.

5 Gases are to be filled into dedicated gas cylinders to avoid cross-contamination. Where conversion of cylinders for different gas services is required, occupiers, gas suppliers or manufacturers must ensure that the measures outlined in the Singapore Standard CP 75 (ISO 11621): “Code of Practice for gas cylinders - Procedures for change of gas service” are adhered to. For example, when transferring cylinders from an inert to oxidising gas service, the standard requires the cylinders to undergo examinations to ascertain mechanical integrity, material compatibilities and suitability of their fittings. In addition, the standard requires visual internal inspections and/or cleaning of the cylinders to remove any contaminant.

6 For your compliance.

A handwritten signature in black ink, appearing to read 'Kevin Teoh', with a horizontal line underneath.

KEVIN TEOH
DEPUTY COMMISSIONER FOR WORKPLACE SAFETY AND HEALTH
OCCUPATIONAL SAFETY AND HEALTH DIVISION