



MINISTRY OF HEALTH  
SINGAPORE

MH 78:70 V16

15 Nov 2010

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**MOH CIRCULAR 28/2010**  
**BIOSAFETY ADVISORY ON THE PROPER USE OF RESPIRATORY PERSONAL**  
**PROTECTIVE EQUIPMENT (PPE)**

Tight-fitting particulate filtering facepiece respirators (e.g. a N95-mask) or any other personal protective equipment (PPE) will not protect a person from exposure to aerosolised infectious materials **unless it is used correctly.**

2 In any workplace where respirators are necessary to protect the health of employee, **a written respiratory protection program with work-specific procedures shall be established and implemented.** The program shall include the following components:

- (i) Procedures for selecting the appropriate respirator for use in the workplace;
- (ii) Medical evaluation<sup>1</sup> of employees required to use respirators;
- (iii) Procedures for fit testing tight-fitting respirators which must be carried out:
  - a. Prior to initial use whenever a different respirator facepiece (size, style, model or make) is used;
  - b. Annually thereafter or as soon as there are any changes in the employee's physical condition that could affect respirator fit (e.g. after obvious change in body weight, facial scarring, cosmetic surgery, dental changes etc.);
- (iv) Prohibition of the use of tight fitting respirators by individuals with beards or other facial hair (e.g. stubble, beard, moustache and sideburns) or any other condition that prevents direct contact between the face and the edge of the respirator or that interferes with the valve function. Recommendations on the use of loose fitting powered air purifying or supplied air respirator for individuals with facial hairs and/or an individual who cannot obtain an adequate fit with a tight fitting respirator;

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<sup>1</sup> Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. The purpose of the medical evaluation is to assure that the employee is physically and psychologically able to perform the assigned work while wearing respiratory protective equipment.

- (v) Procedures for proper use of respirator in routine and reasonable foreseeable emergency situations;
- (vi) Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
- (vii) Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirator<sup>2</sup>, whenever applicable;
- (viii) Program for training employees which covers:
  - a. Knowledge of respiratory hazards to which they are potentially exposed during routine and emergency situations; and
  - b. Proper use of respirators, including donning and removing them, and limitations on their use, and their maintenance;
- (ix) Procedures for regularly evaluating the effectiveness of the respiratory protection program.

### Useful links

3 Details on the appropriate use of respirators can be obtained from the following links/reference:

- (i) US Occupational Safety and Health Administration:  
[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=12716](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716)
- (ii) 3M:  
<http://multimedia.3m.com/mws/mediawebserver?6666660Zjcf6IVs6EVs66SiphCOrrrrQ->
- (iii) Biological Safety Principles and Practices (3<sup>rd</sup> Edition). Diane O Fleming & Debra L. Hunt (ed).

4 For clarification, please contact the MOH Biosafety Legislation Branch at (63259205 or 63251320).



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<sup>2</sup> Atmosphere-supplying respirator means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units