Respiratory Protection and Biological Materials

Potential Hazard

Healthcare workers may be exposed to infectious materials.

An “infectious material” is “a biohazardous infectious material or organism under the Hazardous Products Regulation,” as defined under Part 1 of the Workplace Safety and Health Regulation (M.R. 217/2006).

How to Control the Hazard

Workers may be required to use respiratory protection if their work could expose them to infectious materials. This bulletin covers the minimum requirements for personal respiratory protection where there is an exposure risk.

1. Find out the risk of exposure

A ventilation system in itself does not effectively protect workers from infectious materials. In workplaces where a ventilation system is all that is used to reduce the risk of exposure, employers must do a risk assessment to find out the chance of workers getting sick from exposure to infectious micro-organisms.

The risk assessment must consider the type of micro-organism, including its virulence and concentration, and the likelihood of worker exposure, including the potential for release and the type of procedure. These evaluations should only be performed by infectious disease control experts.

2. Put minimum requirements into place

Where a risk of exposure to infectious materials has been determined, worker exposure must be controlled. Employers must put safe work procedures into place that will eliminate or reduce the risk of exposure as far as reasonably practicable.

Respiratory protection can be the best way to stop airborne exposure to an infectious micro-organism. In these cases, the employer has legal responsibilities that apply to respiratory equipment and the workers who will use the equipment.

Approved respiratory equipment

Respirators must be:

- tight-fitting
- fit-tested
- air-purifying

(see over)
approved by the National Institute of Occupational Safety and Health (NIOSH)
at least 95 per cent efficient (N95).

Employers must provide the respirators, which must be selected, used and maintained in accordance with the CSA Group.

Airborne micro-organisms, even though they are living organisms, act the same way as airborne particulates. NIOSH has determined that a particulate respirator with a minimum of 95 per cent efficiency (N95) is generally enough to control airborne exposure to micro-organisms.

An N95 respirator, also known as a filtering facepiece respirator, is one of nine types of disposable particulate respirators. Particulate respirators are also known as “air-purifying respirators” because they filter particles out of the air you breathe. Workers can wear any one of the particulate respirators to protect against diseases that spread through the air, as long as the respirators are NIOSH-approved and have been properly fit-tested and maintained. NIOSH-approved disposable respirators are marked with the manufacturer’s name, the part number (P/N), the protection provided by the filter (e.g., N95), and “NIOSH.”

**Worker training**

Employers must make sure that workers use respiratory protective equipment correctly. This is required by the *WSH Regulation*. Workers must be adequately trained by a competent person to:

- properly fit, test, use, maintain and clean the equipment
- understand the equipment’s limitations
- use the equipment safely
- inspect and test the equipment before each use.

Each manufacturer of a respirator provides specific information for the safe use of a respirator.

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**Reference to legal requirements under workplace safety and health legislation:**

- Safe Work Procedures: Manitoba Regulation 217/2006 Part 2.1
- Health Care Facilities: Manitoba Regulation 217/2006 Part 39.3(1)
- Personal Protective Equipment: Manitoba Regulation 217/2006 Part 6; Part 6.15(1) and (2)

**Additional workplace safety and health information available at:** [safemanitoba.com](http://safemanitoba.com)

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