

Asbestos Regulation and Compliance

Asbestos workshop for the elevator industry

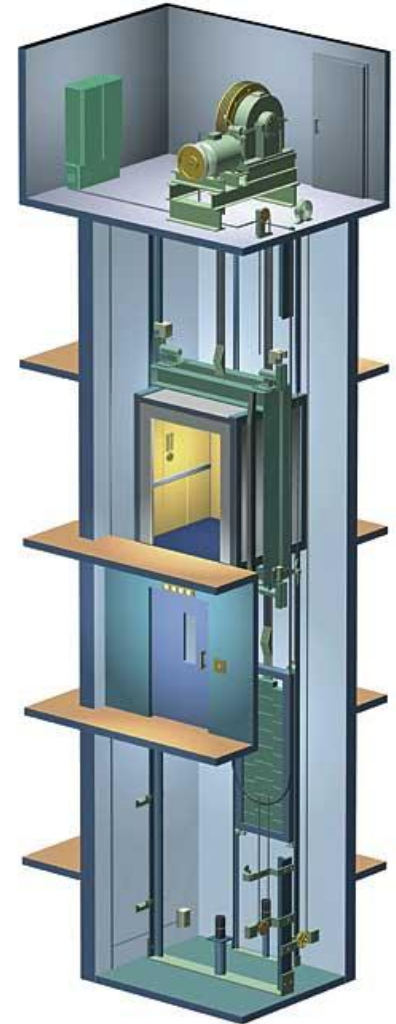
Yvonne Nann

Occupational Hygiene Officer

WorkSafeBC

Yvonne.Nann@worksafebc.com

November 25, 2015



Definition of “Asbestos-containing Material”

The Occupational Health and Safety Regulation now defines asbestos-containing material as:

- Containing **0.5% or more asbestos** as determined by polarized light microscopy, electron microscopy, and/or gravimetric analysis
- Vermiculite-containing insulation materials which contain **any** asbestos – even less than 0.5%



Asbestos Limits in the Air

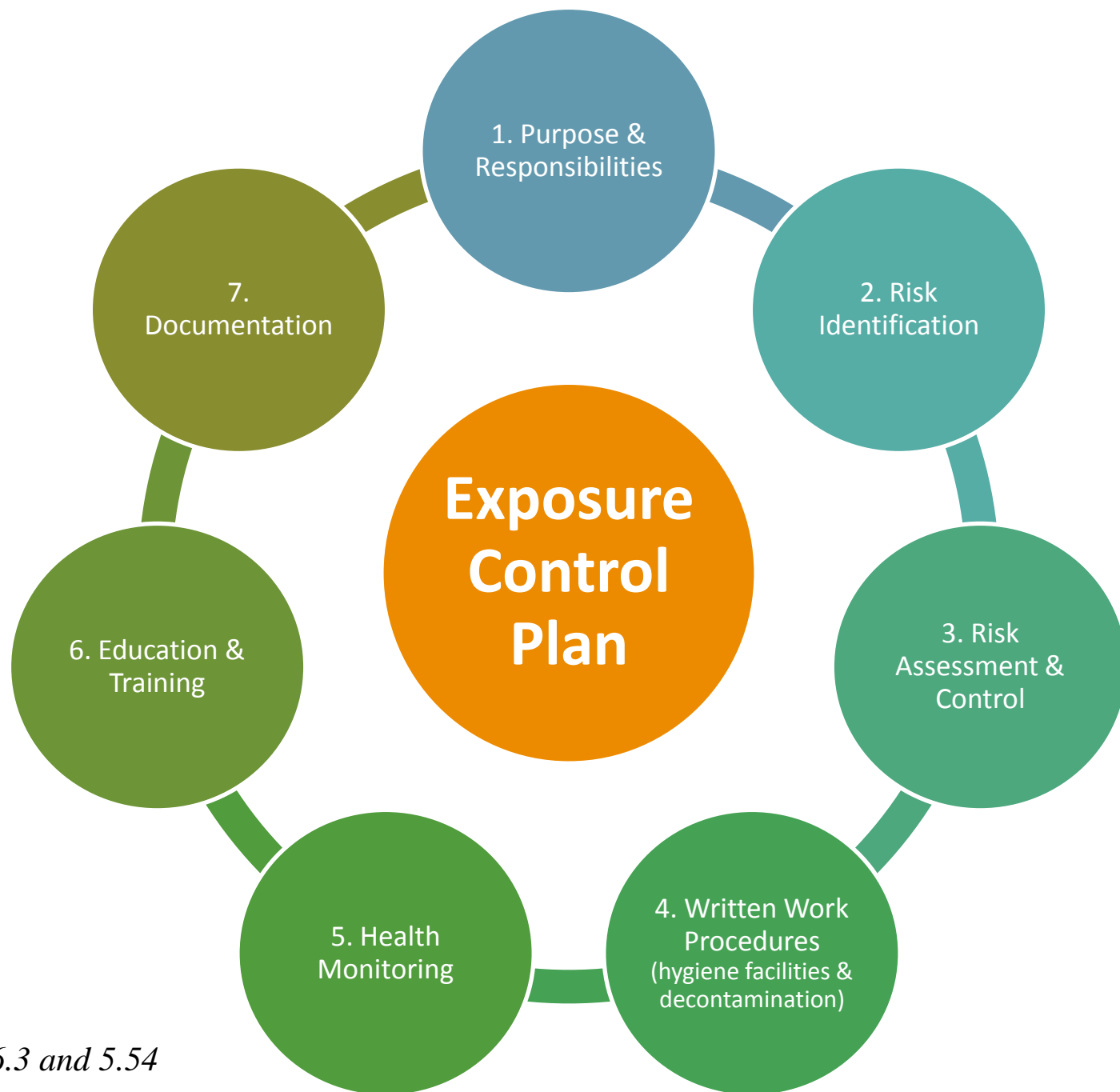
Asbestos Exposure Limits

- 0.1 fibres per cubic centimetre of air (**0.1 f/cc**), 8-hour time weighted average
- 0.02 fibres per millilitre (**0.02 f/ml**), clearance air sampling results

Asbestos in the air at these levels would be invisible to the naked eye.



Air monitoring equipment on worker



OHSR 6.3 and 5.54

1.

Purpose &
Responsibilities

Purpose

- Minimize potential hazards and exposures to asbestos fibres
- Maintain asbestos-containing materials (ACM) in good condition
- Ensure proper clean up of asbestos fibres previously released
- Prevent further release of asbestos fibres
- Monitor the condition of ACM
- Establish safe work procedures

1.

Purpose &
Responsibilities

Responsibilities

The **Owner**:

- Has a responsibility to **maintain** his/her **property** in a manner that ensures the health and safety of workers.
- Must **give the contractor information** necessary to identify and control hazards to the health and safety of workers on his/her property.

1.

Purpose &
Responsibilities

Responsibilities

The **Employer**:

- Is responsible for **selecting qualified persons**, as defined in the Regulation, and ensuring that the safe work procedures are followed.
- Must exercise **due diligence** in the selection of the qualified person. This is especially necessary if the person being hired does not hold a certification or other proof of training.
- Must **provide** its workers with **information, instruction, training and supervision** of all known or reasonably foreseeable health and safety hazards they are likely to be exposed to.

1.

Purpose &
Responsibilities

Responsibilities

Workers must:

- Take reasonable care to **protect their health and safety and others** who may be affected.
- Carry out his or her work in accordance with **established safe work procedures** including using/wearing protective equipment, devices and clothing as required, report unsafe work or conditions.

2.
Risk
Identification

Risk Identification



Definition of “qualified person”

The Occupational Health and Safety Regulation defines a “**qualified person**” as a person who:

- Has **knowledge** of the management and control of asbestos hazards through education and training, and
- Has **experience** in the management and control of asbestos hazards.

Who is qualified?

- Certified Industrial Hygienist (CIH)
- Registered Occupational Hygienist (ROH)
- Certified Safety Professional (CSP)
- Canadian Registered Safety Professional (CRSP) or Professional Engineer (P.Eng.)
- Other acceptable combination of education, training and experience. This should include completion of recognized training courses in asbestos inspection and extensive occupational health and safety experience within the asbestos abatement industry.

**Provided that the holders of these qualifications have experience in the recognition, evaluation, and control of asbestos hazards.*

Due diligence

- Selecting qualified persons.
- Reviewing the person's **experience**.
- Reviewing the person's accredited **credentials**.

2.
Risk
Identification

Asbestos Survey or Inventory



A report that locates and describes:

- The **location** of all ACM in a building or structure (e.g., elevator components/operation).

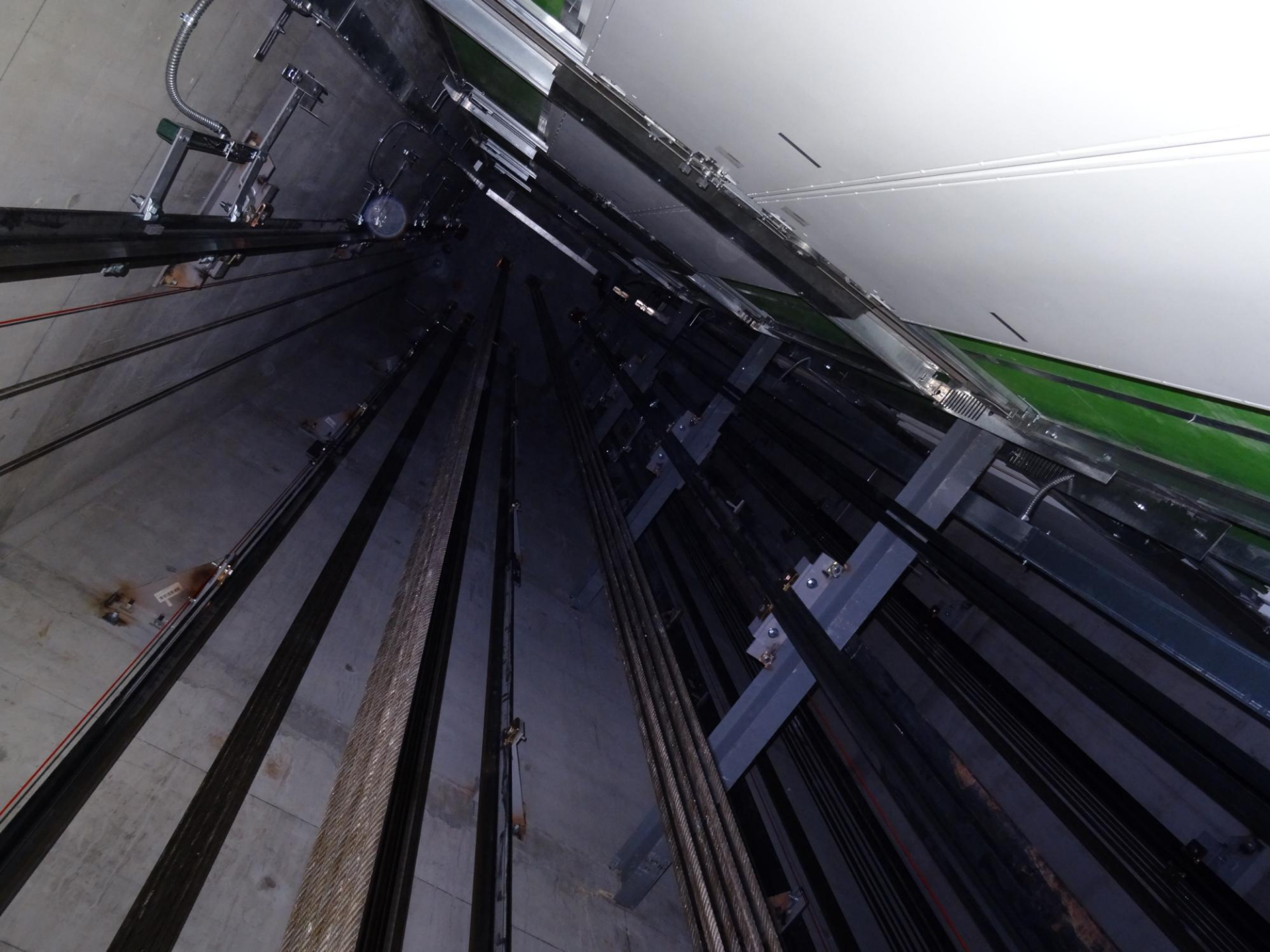
The employer must ensure that a **qualified person**:

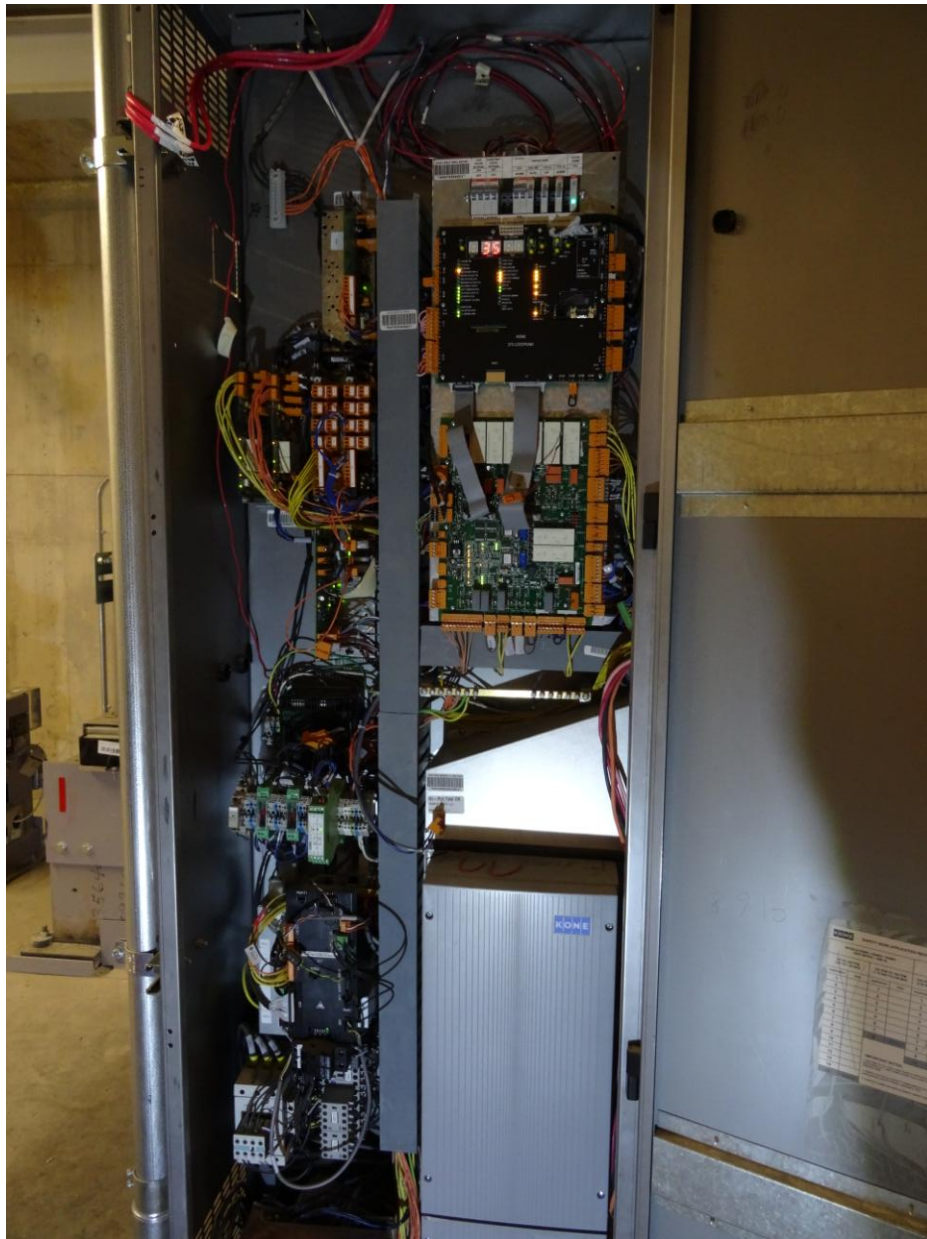
- Collects representative samples of ACM
- Prepares an inventory of ACM

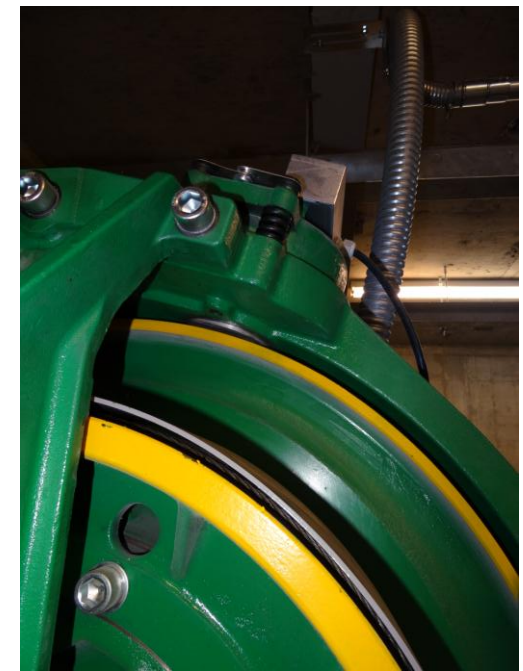
This inventory must be kept at the workplace and be kept current.

Where might asbestos be found?

Elevator Components	Building Materials
<ul style="list-style-type: none">• Limit switches	<ul style="list-style-type: none">• Insulation within elevator door
<ul style="list-style-type: none">• Electrical wiring	<ul style="list-style-type: none">• Floor tile
<ul style="list-style-type: none">• Resistor banks	<ul style="list-style-type: none">• Ceiling tiles
<ul style="list-style-type: none">• Brake pads	<ul style="list-style-type: none">• Drywall Joint Compound
<ul style="list-style-type: none">• Cement board	<ul style="list-style-type: none">• Pipe insulation
<ul style="list-style-type: none">• Blowout coils	<ul style="list-style-type: none">• Sprayed insulation
<ul style="list-style-type: none">• Elevator cab roof-coating materials	<ul style="list-style-type: none">• Fire stop or mastics
<ul style="list-style-type: none">• Elevator door core materials	<ul style="list-style-type: none">• Cement rainwater leaders







2. Risk Identification

Risk Identification

- Identify all ACM present in the workplace by **signs**, **labels**, or other effective means.
 - Colour coding
 - Letter encryption
 - Floor plan mapping
 - Signage placed behind access ways



3.

Risk
Assessment &
Control

Risk Assessment

Where ACM may be disturbed, a risk assessment must be conducted by a qualified person before any

- **Demolition**,
- **Alteration**, or
- **Repair** of machinery, equipment or structure.



Risk Assessment

Purpose: To assess the risk to workers from asbestos materials either used or present in the workplace.

Assessment of the identified ACM includes:

- Condition
- Friability
- Accessibility and likelihood of damage
- Potential for fibre release and exposure to workers



Risk Assessment

Condition	Risk of Exposure
Is the material in good condition, showing no apparent damage at all?	Minimal
Does the material have mild damage?	Low
Does the material have moderate damage?	Moderate
Does the material have severe damage? E.g., areas missing, hanging loose, water-damaged?	High



Risk Assessment

Friability	Risk of Exposure
Is the material firmly bound?	Minimal
Is the material slightly friable?	Low
Is the material moderately friable?	Moderate
Does the material break apart easily?	High (very friable)



Risk Assessment

Accessibility & Likelihood of Damage	Risk of Exposure
Are the fibres totally enclosed, such as behind a fixed structure (ceiling, wall, etc.)?	Minimal
Are the fibres inaccessible, such as beyond the reach of the public?	Low
Are the fibres accessible in a low activity area?	Moderate
Are the fibres accessible in a high activity area, such as a hallway or stairway?	High

3.

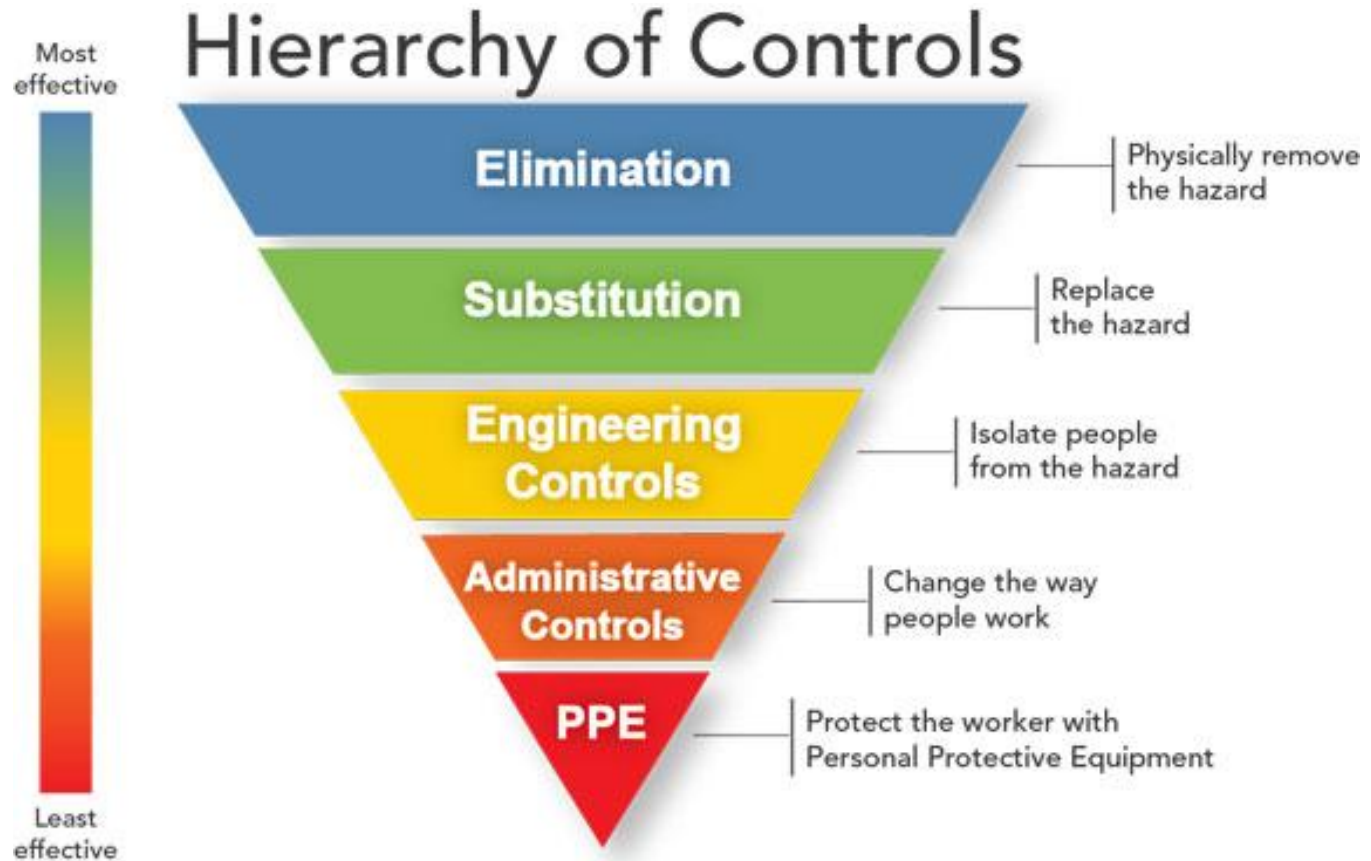
Risk
Assessment &
Control

Risk Assessment

- Potential for fibre release and exposure to workers
 - Each parameter assigned a “score” to indicate the potential for exposure
 - Scores are combined for an overall risk factor

3.
Risk
Assessment &
Control

Controls



3.

Risk
Assessment &
Control

Risk Classification

To assess the likelihood of asbestos fibres being released during handling activities and to select appropriate work precautions, according to the level of the risk to workers.

3.

Risk
Assessment &
Control

Risk Classification

Low Risk Work Activities

Definition:

- A work activity that involves working with or in proximity to asbestos-containing material, if the material is not being cut, sanded, drilled, broken, ground down or otherwise fragmented, or otherwise disturbed.
- There must be **no potential** for the release of asbestos fibres.

3.

Risk
Assessment &
Control

Risk Classification

Low Risk Work Activities

Examples:

- Repairs to asbestos-containing drywall that does not touch the asbestos-containing material (e.g., mud, filler, joint compound)
- Installing a screw hanger on drywall that has asbestos-containing material
- Replacing a single vinyl asbestos tile in the elevator cab without breaking the tile
- Removing intact limit switches and intact control panels
- Moving asbestos-containing waste that is contained in clean, sealed bags and then double bagged
- Moving sealed elevator brake pads



Risk Classification

Low Risk Work Activities

Requirements:

- Nothing, besides work procedures.
- The use of PPE or engineering controls to prevent worker exposure to airborne asbestos fibres is not required because asbestos is **not** being disturbed.

*These are **MINIMUM** requirements.*



Risk Classification

Moderate Risk Work Activities

Definition:

- A work activity, other than a high risk work activity, that involves working with or in proximity to ACM that is being cut, sanded, drilled, broken, ground down or otherwise fragmented, or otherwise disturbed.
- It is necessary to **use PPE** or **engineering controls** to prevent worker exposure to airborne asbestos fibre.

3.

Risk
Assessment &
Control

Risk Classification

Moderate Risk Work Activities

Examples:

- Using hand tools to cut, shape, drill, grind or remove non-friable manufactured products containing asbestos (e.g., asbestos containing pipe insulation)
- Collecting bulk asbestos samples for analysis
- Removing asbestos tape or paper on ductwork
- Removing vinyl asbestos tile or other non-friable materials



Risk Classification

Moderate Risk Work Activities

Examples:

- Backing mounting screws out of asbestos-containing boards and removing the boards intact
- Opening limit switches, electrical control panels
- Cutting asbestos insulated electrical wires
- Removing brake pads and housing
- Removing Resistor banks from inside the control panel
- Removing items attached to asbestos cement board

3.

Risk
Assessment &
Control

Risk Classification

Moderate Risk Work Activities

Requirements:

Specific procedures and containment such as:

- Negative pressure in the enclosure to prevent the air escaping or glove bag
- Respiratory protection with P100 filters
- Appropriate clothing impervious to asbestos fibres
- Decontamination or washing station for worker decontamination
- HEPA vacuum, sealed asbestos waste
- First aid



3.

Risk
Assessment &
Control

Risk Classification

High Risk Work Activities

Definition:

- A work activity that involves working with or in proximity to ACM if a high level of control (e.g., airtight enclosure) is necessary to prevent worker exposure to airborne asbestos fibre.

3.

Risk
Assessment &
Control

Risk Classification

High Risk Work Activities

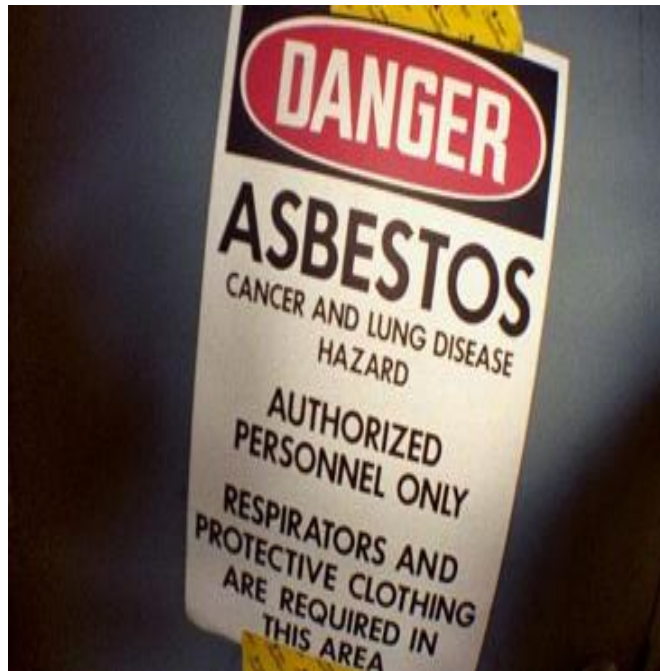
Examples:

- Removing, encapsulating, or enclosing materials containing **FRIABLE** asbestos during repair, alteration, maintenance, demolition, or dismantling of any part of a building structure, machine or piece of equipment
- Removing asbestos-containing textured materials from ceilings or walls
- Using power tools (without water or dust controls) to cut or drill through asbestos-containing materials

4.

Written Work
Procedures

Written Work Procedures



Written safe work procedures must address:

- Containment of asbestos operations
- Control of the release of asbestos fibre
- Use and maintenance of appropriate PPE & clothing
- Removal of asbestos waste and cleanup of asbestos waste material
- Means for the decontamination of workers

→ **Must provide workers with task-specific work direction that addresses both hazards and required controls.**

4.

Written Work
Procedures

Waste Handling & Disposal

Hazardous waste handling and disposal include:

- All ACM & contaminated waste to be placed in impervious containers.
- Double bagged & labeled as asbestos waste.
- Wet clean or HEPA vacuumed surfaces before removal from designated work area
- Decontaminate or clean reusable tools, equipment or machinery
- Complete waste manifest
- Must be removed while work is in progress, at the end of each shift, and at completion of job.



4.

Written Work
Procedures

Hygiene and Decontamination Procedures

- Prohibit drinking, food consumption, smoking, etc at the work area
- Full shower decontamination facility (for high risk work activities)
- Washing facilities and personal decontamination (with soap and water) – changed regularly after use to ensure cleanliness
- HEPA vacuum
- Procedures for laundering contaminated clothing

5.

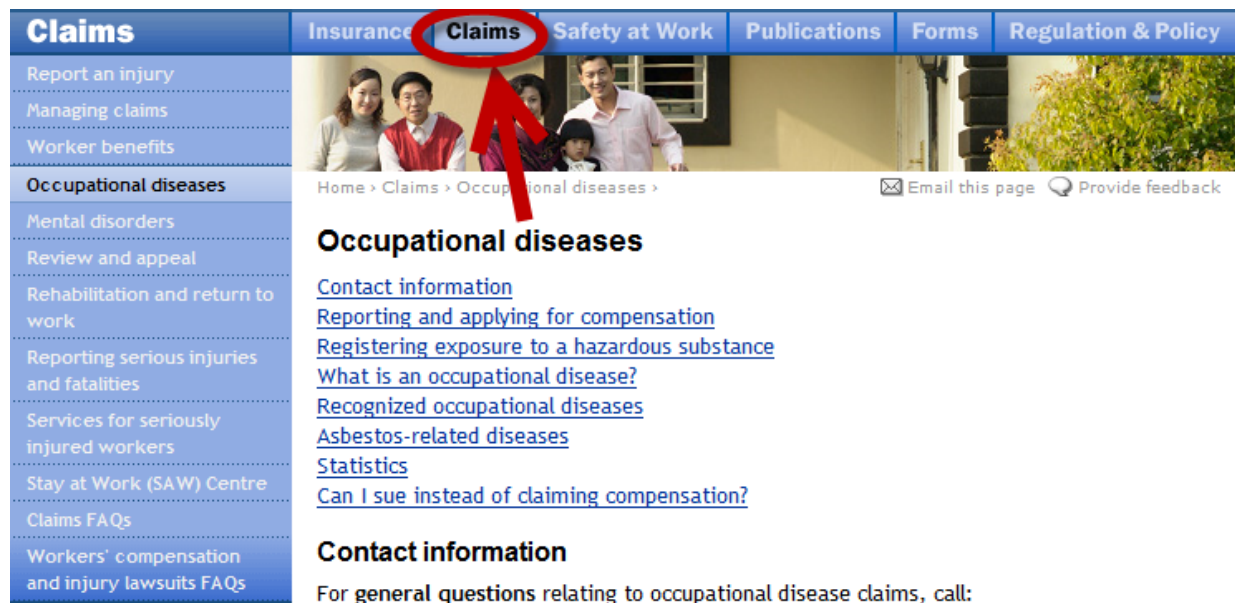
Health
Monitoring

Health Monitoring

Health monitoring may include:

- Early reporting systems linked with periodic inquiries about signs and symptoms.
- Periodic medical tests and examination such as chest x-rays by Healthcare professional
- Maintenance of records which link job and exposure records (ensure confidentiality)
- Review and re-evaluated on a regular basis to ensure the effectiveness of exposure control plan.

Asbestos Exposure Registry Program



Claims

- Report an injury
- Managing claims
- Worker benefits
- Occupational diseases**
- Mental disorders
- Review and appeal
- Rehabilitation and return to work
- Reporting serious injuries and fatalities
- Services for seriously injured workers
- Stay at Work (SAW) Centre
- Claims FAQs
- Workers' compensation and injury lawsuits FAQs

Home > Claims > Occupational diseases >

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Occupational diseases

[Contact information](#)
[Reporting and applying for compensation](#)
[Registering exposure to a hazardous substance](#)
[What is an occupational disease?](#)
[Recognized occupational diseases](#)
[Asbestos-related diseases](#)
[Statistics](#)
[Can I sue instead of claiming compensation?](#)

Contact information

For general questions relating to occupational disease claims, call:

- Manager, Occupational Disease Services at: 604.231.8842.

To register an occupational disease claim including asbestos-related disease claims:

- Call Teleclaim at 1.888.WORKERS (1.888.967.5377), Monday to Friday from 8 am to 6 pm. The claims representative will also provide a user ID and password so that claim details can be viewed online.

For questions regarding fatalities and/or survivor benefits, call:

- Manager, Fatal and Survivor Benefits at: 604.231.8842

Reporting and applying for compensation for an occupational disease

Workers, employers, and treating physicians are required to report an occupational disease to WorkSafeBC.

View information on [reporting and applying for compensation](#) for an occupational disease.

Registering exposure to a hazardous substance

Due to the latency and long period of exposure required for the onset of some occupational diseases, WorkSafeBC has developed an [Exposure Registry Program](#) as a way for workers, employers, and others to register a worker's exposure to a harmful substance at work.

Exposure Registry Program

If you have any questions regarding the completion of this form, please contact Prevention Support Services — Prevention Records at 604 276-3231.

select one

Have you been exposed to a harmful substance or agent at work?

If you have, you may be entitled to compensation as set out under section 6 of the [Workers Compensation Act](#) if you develop an occupational disease due to the exposure — now or in the future.

Due to the latency and long period of exposure required for the onset of some occupational diseases, WorkSafeBC has created this new exposure registry as a way for workers, employers, and others to register a worker's exposure to a harmful substance or agent at work. The information obtained through the registry will be kept as a permanent record of a worker's exposure.

If your exposure has resulted in medical treatment or time loss from work, please complete an application for compensation

Phone 1 888 WORKERS (1 888 967-5377) or #5377 for TELUS, Rogers, and Bell mobility customers, Monday to Friday, 8 a.m. to 4 p.m. PST

To report a serious incident or fatality

Phone 1 888 621-SAFE (7233) Monday to Friday, 8 a.m. to 4 p.m. PST, or toll-free 1 866 WCB-HELP (922-4357) after hours.

I understand the information on this form is collected, used, and disclosed under the authority of the *Workers Compensation Act* and the *Freedom of Information and Protection of Privacy Act*. I acknowledge that WorkSafeBC may disclose this information to the worker, the employer, or their respective representatives, or to others in accordance with the *Workers Compensation Act* and the *Freedom of Information and Protection of Privacy Act*.

Person submitting information*

Worker ☐ Employer ☐ Other ☐

** Indicates a mandatory field.*



Next

6.

Education &
Training

Worker Education and Training

Worker education and training includes:

- Hazards of asbestos
- Means of identifying and labeling ACM (e.g., brake pads, cement boards, spray insulations, pipe insulation in machine room, etc.)
- Correct use of PPE and required engineering controls
- Work procedures to be followed
- Purpose and significances of required health monitoring
- What to do if suspected ACM is encountered that has not been identified on inventory.

7.

Documentation

Documentation

Maintained for 3 Years	Maintained for 10 Years
1. Control of fibre release	1. Asbestos inventory
2. Training and instruction of workers	2. Risk assessment
3. Written work procedures	3. Inspections
4. Notice of Project – Asbestos (NOPA)	4. Air monitoring



OHSR 6.3 and 5.54

RESOURCES

Safety at Work
[Insurance](#)
[Claims](#)
[Safety at Work](#)
[Publications](#)
[Forms](#)
[Regulation & Policy](#)
[Safety by topic](#)
[Safety by industry](#)
Quick Links

- OHS Regulation
- Registering exposure to a hazardous substance
- Working Alone
- Discriminatory action complaints
- Hazard Alert Posters
- Notice of Project
- Toolbox Meeting Guides
- Employers' Advisers Office
- Workers' Advisers Office

Customer Centres

- Employers/ Small Business
- Workers
- Health Care Providers

How Do I?

- [Find my classification unit?](#)
- [Get a clearance letter?](#)
- [Report an incident?](#)
- [Report fraud?](#)
- > [More FAQs](#)

Portal partner:


Subscribe to E-News

Get safety updates, incident summaries and other WorkSafeBC updates by e-mail.


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(required to view PDF files)

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Your online resource for workplace injury prevention information from WorkSafeBC and elsewhere on the Internet. The industries and topics provide safety news, updates and resources.

Safety at Work

 Search for:

 Search in:
Industries

- Agriculture
- Performing Arts and Film
- Construction
- Commercial Fishing
- Education Sector
- Forestry
- Health Care
- Manufacturing
- Wood Products Manufacturing
- Metal and Non-metallic Mineral Products
- Petroleum (Oil and Gas)
- Small Business
- Tourism and Hospitality

Resources

- Mobile Apps
- Interactive ebooks
- Web books
- Slide shows

Topics

- Young Worker
- Accident Investigations
- Apprenticeship Programs
- Blasting Operations
- Bullying and Harassment
- Certification and Training
- Confined Spaces
- Ergonomics
- First Aid
- Hearing Loss Prevention
- Indoor Air Quality (IAQ)
- Ladder Safety
- Mental Health in Workplace
- **Occupational Disease**
- Personal Protective Equipment (PPE)
- Road Safety
- Variances to the OHS Regulation

Connect:
Prevention Line

 Toll-free within Canada:
1 888 621-SAFE (7233)
Fax: 604 276-3247

Spotlight:

WorkSafeBC Penalties

Search and view WorkSafeBC penalties on your smartphone or tablet.

Incident Awareness

Recent Incidents

Young worker's leg fractured by mower
Worker's fingers amputated when caught in machine

 > [More recent incidents](#)
Fatalities

Arborist died after being struck by tree

Safety at Work

[Insurance](#)[Claims](#)[Safety at Work](#)[Publications](#)[Forms](#)[Regulation & Policy](#)[Safety by topic](#)[Young Worker](#)[Accident Investigations](#)[Apprenticeship Programs](#)[Blasting Operations](#)[Bullying & Harassment](#)[Certification & Training](#)[Confined Spaces](#)[Ergonomics](#)[First Aid](#)[Hearing Loss Prevention](#)[Indoor Air Quality \(IAQ\)](#)[Ladder Safety](#)[Mental Health in the Workplace](#)[Occupational Disease](#)[Exposures](#)[Diseases](#)[Organizations](#)[Personal Protective Equipment \(PPE\)](#)[Road Safety](#)[Variances OHS Regulation](#)[Violence Prevention](#)[WHMIS](#)[Safety by industry](#)

Home > Safety at work > Occupational Disease > Hazardous Materials Exposures

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Exposures - Hazardous Materials Exposures

The following links list tools, publications, and other resources to help prevent exposure to hazardous materials in the workplace. These resources may not meet all the requirements for health and safety in British Columbia. Please check the *Workers Compensation Act*, the Occupational Health and Safety Regulation, and related materials for specific WorkSafeBC requirements.

[Biological Exposures](#) | [Hazardous Materials Exposures](#) | [Physical Exposures](#)

Asbestos

[Profile on asbestos exposure](#) (CAREX Canada)

OHS Regulation & Guidelines for Asbestos

OHS Regulation

- [6.1 to 6.32 Asbestos](#)
- [20.2 Notice of Project](#)
- [20.112 Hazardous Materials](#)

OHS Guidelines

- [G6.1 to G6.32 Asbestos](#)
- [G20.2\(1\)\(a\) to \(c\) Notice of project](#)
- [G20.112 Hazardous materials - asbestos](#)

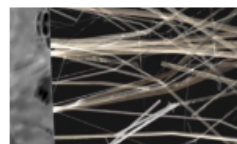
Multimedia



[Asbestos](#)
(2 min. 16 sec.)



[Asbestos in Demolition and Renovation](#)
(5 min. 10 sec.)



[Asbestos Hazards in Renovations, Restorations, and Demolition](#)
(2 min. 55 sec.)

Quick Links

- OHS Regulation
- Table of Exposure Limits
- Occupational Diseases Statistics
- Exposure Registry Program
- Occupational Diseases Claims
- Young Worker Exposure Prevention Series
- WorkSafeBC interactive ebooks
- HiddenKiller.ca
- CAREX Canada

Customer Centres

- Employers/ Small Business

Occupational Health and Safety Regulation

Part 6: Asbestos

▪ Workers Compensation Act - Excerpts & Summaries
▪ Hazardous Products Act (Canada) - Summary of Key Sections
1. Definitions
2. Application
3. Rights & Responsibilities
4. General Conditions
5. Chemical Agents & Biological Agents
6. Substance Specific Requirements
7. Noise, Vibration, Radiation & Temperature
8. Personal Protective Clothing & Equipment
9. Confined Spaces
10. De-energization & Lockout
11. Fall Protection
12. Tools, Machinery & Equipment
13. Ladders, Scaffolds & Temporary Work Platforms
14. Cranes & Hoists
15. Rigging
16. Mobile Equipment
17. Transportation of Workers
18. Traffic Control
19. Electrical Safety
20. Construction, Excavation & Demolition
21. Blasting Operations
22. Underground Workings
23. Oil & Gas
24. Diving, Fishing & Other Marine Operations
25. Camps
26. Forestry Operations & Similar Activities
27. Wood Products Manufacturing
28. Agriculture
29. Aircraft Operations
30. Laboratories
31. Firefighting
32. Evacuation & Rescue
34. Rope Access
Prevention Policies
OHS Guidelines
WCB Standards

ASBESTOS

6.1 [Definitions](#)

6.2 [Application](#)

General Requirements

6.3 [Exposure control plan](#)

6.4 [Inventory](#)

6.5 [Identification](#)

6.6 [Assessment and classification](#)

6.7 [Control of asbestos fibre](#)

6.8 [Procedures](#)

6.9 [Prohibitions](#)

6.10 [Substitution](#)

6.11 [Instruction and training](#)

6.12 [Monitoring](#)

Designated Work Areas and Containments

6.13 [Designated area](#)

6.14 [Permanent enclosure design](#)

6.15 [Glove bags](#)

6.16 [High risk work](#)

Ventilation

6.17 [Containment ventilation](#)

6.18 [Local exhaust ventilation](#)

6.19 [Filter testing](#)

Other Means of Controlling Exposure to Asbestos

6.20 [Protecting work surfaces](#)

6.21 [Preventing spread](#)

6.22 [Wetting material](#)

6.23 [Repairing damaged material](#)

6.24 [Friction material](#)

Waste Handling and Disposal

6.25 [Sealed containers](#)

6.26 [Cleaning containers and equipment](#)

6.27 [Waste removal](#)

6.28 [Waste disposal](#)

Personal Protective Clothing and Equipment

6.29 [Respiratory protection](#)

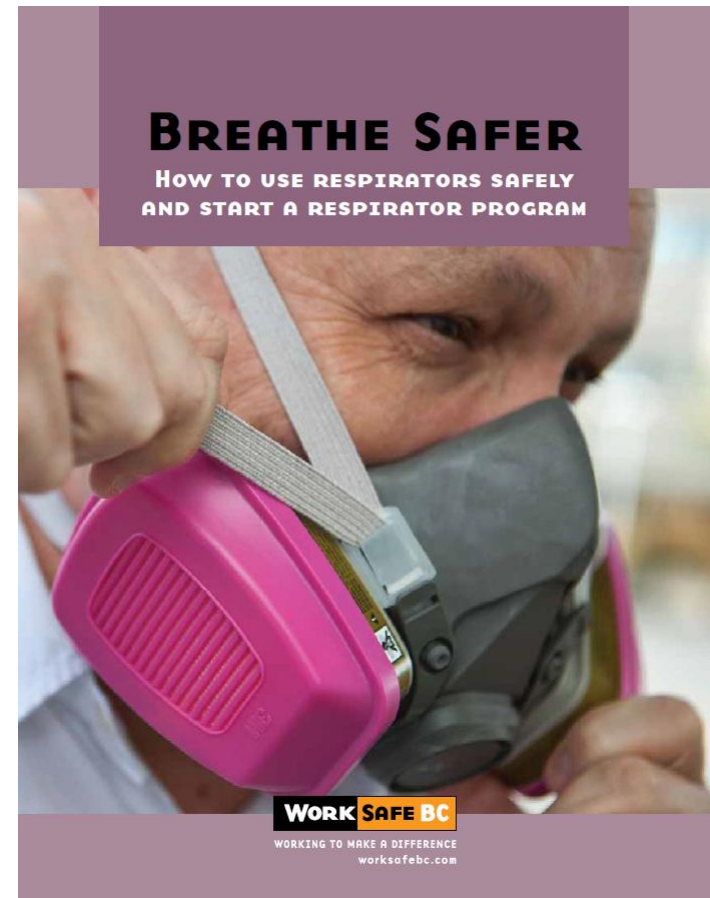
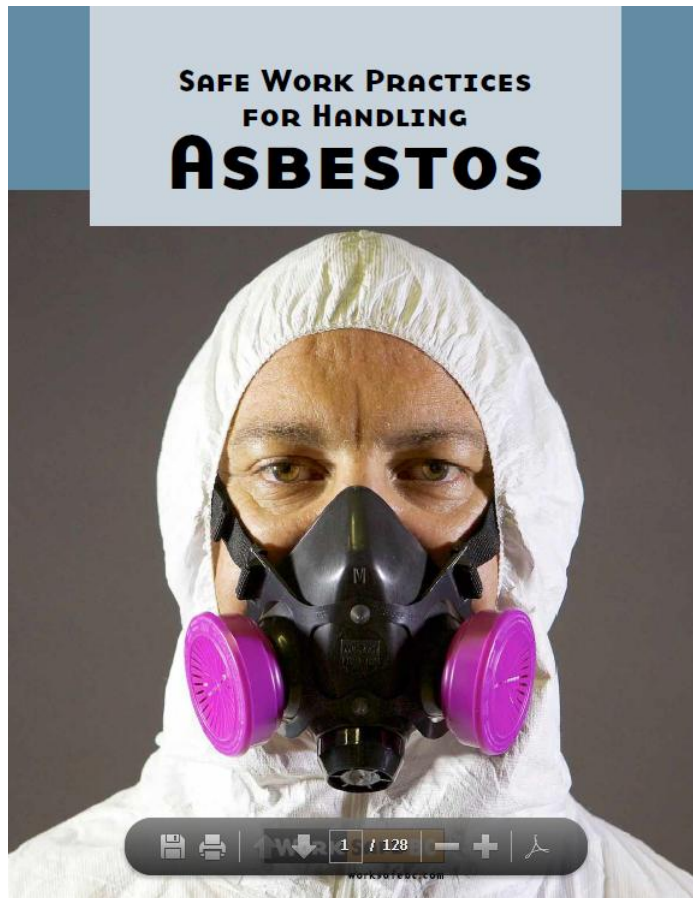
6.30 [Protective clothing](#)

6.31 [Information to laundry workers](#)

Documentation

6.32 [Types of records](#)

Handbooks



QUESTIONS