

DRAFT Airborne contaminants – Assessment Hazardsheet

The 5 steps of assessment can be used to systematically work through how the workplace is managing airborne contaminants as a risk, and whether they meet their obligations under the Health and Safety in Employment Act 1992 and the Hazardous Substances and New Organisms Act 1996.



STEP 1. IDENTIFYING POTENTIAL HAZARDS

Look out for: smells, unsealed containers, dust, fibres, mists, fumes, dirt, spills, and chemicals, work processes Particulates (e.g. dust from wood, flour or metal), gases, vapour and lack of oxygen all present risks.

Note: Many airborne risks are not visible.

What processes does the workplace have to identify the substances, material, plant and equipment that could contaminate the air and be hazardous to health? Do they have an inventory of chemicals / approved handler test certificates / location test certificates?

Duty-holders knowledge and understanding

Does the workplace or an engaged competent person understand relevant Workplace Exposure Standards?

Does the duty-holder hold and understand the manufacturer's hazard information for substances where applicable?

STEP 2. ASSESSING THE SIGNIFICANCE OF THE HAZARD

Has the employer taken the following into account?

The nature of the operations: duration and frequency of exposure to the substance

Level and likelihood of exposure: volatility, particle size, concentration of the substances, persistence of substance, working conditions (e.g. confined spaces)

The hazardous nature of contaminants present: carcinogens, toxics, corrosives, irritants and sensitisers.

The possible routes of entry: inhalation, absorption through skin, ingestion through mouth

What assessments have been done to identify whether the hazard poses a risk to employees or others?

This could include: monitoring of the concentration of substances in air, swab surveys of surfaces, exposure monitoring, occupational hygiene assessments and MOSHH assessments.

Inspectors need to consider the competency of the person carrying out the surveys (occ health training and exp)

STEP 3. IMPLEMENTING CONTROLS

Hierarchy of controls	Controls	
Eliminate	<ul style="list-style-type: none"> Discontinue use Substitute the material (note new risks) 	
Isolate	<ul style="list-style-type: none"> Enclose the process and use local ventilation (containment) Automate the process 	
Minimise (level 1)	<ul style="list-style-type: none"> Ventilation Reduce volume used Storage and labelling Processes to reduce release of the substance 	
Minimise (level 2)	<ul style="list-style-type: none"> Maintenance of plant, equipment and environment Respirators with face fit testing Other PPE e.g. Gloves Safe operating procedures Damping with water Spill procedures 	<ul style="list-style-type: none"> Emergency procedures Labelling and signage Disposal procedures Reduce contact and exposure Housekeeping Training, information and supervision

Training, information and supervision

Has the employer trained all persons exposed to airborne contaminants in the workplace?

Clear information and training should be provided to all employees about:

- All airborne contaminants present in the workplace and the controls in place to manage them
- What their responsibilities as employees are
- How to wear RPE if needed, including the provision of **respirator face-fit-tests**.

Appropriate supervision is essential until competency can be proven. Qualifications and previous training do not

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necessarily mean workers are competent in a new environment.

STEP 4. MONITORING AND MEASURING

a) Regular inspections or audits of:

- i) **Substances**
 - Substances should be stored in correct, sealed containers and in a safe, designated area (HSNO controls)
 - They should be labelled correctly, identifying the content and the associated hazards
- ii) **Machines, plant, equipment and work processes**
 - Machines and processes should be regularly inspected and maintained in good working order to reduce the levels of contaminants they produce
- iii) **Ventilation systems**
 - Level of contaminants should be measured to ensure the air change rate is sufficient to minimise the air concentration of the contaminant to a safe level
 - Ventilation systems should be inspected and maintained regularly
- iv) **Respiratory Protective Equipment (RPE) and Personal Protective Equipment (PPE)**
 - Stocks and availability of RPE and PPE should be maintained (e.g filters) and stored in a designated area.
 - Staff should be face fit tested and regular enquiries made on comfort and effectiveness
 - If RPE or PPE is for multiple use, there should be processes for cleaning and inspecting before next use

b) Exposure assessment

- i) Where significant airborne contaminant risks have been identified, exposure assessments should be done regularly to determine if exposure could result or is resulting in health effects
- ii) Survey reports should be reviewed to identify hazardous processes and should also be compared with workplace exposure standards
- iii) Trending of results could indicate deterioration of control measures
- iv) Regular housekeeping audits could demonstrate day-to-day management of air contaminants.

c) Health monitoring

- i) Appropriate health tests should be determined in relation to any health risks present e.g. blood tests, discomfort surveys, lung function testing. Duty-holders could discuss what monitoring is required with a qualified occupational health professional.
- ii) Employers should take all practicable steps to gain employees' consent to health monitoring when it is required. Employers must provide the results of any health testing to the employee. Health monitoring can be included as a condition in employment agreements.

d) Investigating accidents/incidents

- i) Where a person is harmed at work, procedures should be in place to investigate why, how, what, who and where the incident happened. Any accidents (including ID of health issue) must be recorded in an accident register, which should be reviewed on regular basis to spot trends and patterns regarding people, processes, work areas, plant and equipment.

e) Worker engagement

- i) Operational staff are instrumental to continuous hazard identification. Staff should be encouraged to inform managers of hazards they come across and any noticeable deterioration to their health.
- ii) Talking point sessions relating to the airborne contaminants at the workplace are a great way to bring health and safety to the attention of workers.

STEP 5. REVIEWING THE EFFECTIVENESS OF CONTROLS AND SYSTEMS

Review is central to continual learning and improvement of health and safety outcomes.

- Are controls reviewed regularly to check that they are still adequate?
- Is corrective action taken when incidents/accidents/audits/inspections/health monitoring/exposure assessments show current controls aren't adequate?
- Are arrangements reviewed when introducing new equipment, plant or processes?

DOCUMENTATION TO REQUEST AND VERIFY

The following examples are documents a workplace could produce as evidence that they have met their legal obligations.

Biological Exposure Indices	Health and safety policy / Safe operating procedures	Inspection/maintenance/training/ records	Investigation reports / accident register
Workplace Exposure Standards	Health monitoring / fit testing results	HSNO location and/or approved handler certification	Respiratory protection programme
Job safety analysis	Manufacturers information	Corrective action reports	Exposure assessments