Department of **Local Government, Industry Regulation and Safety**

GOVERNMENT OF WESTERN AUSTRALIA

WorkSafe Western Australia

How to identify airborne contaminant hazards in manufacturing

As a person conducting a business or undertaking (PCBU) in the manufacturing industry, you must protect your workers from breathing in airborne contaminants.

Workers in the manufacturing industry can be exposed to a wide range of hazardous dusts, gases, fumes, mists and vapours including:

- airborne flour dusts from mixing ingredients in food manufacturing
- dusts created from wood and textile manufacturing
- welding fumes from metal and machinery manufacturing
- chemical vapours in rubber and chemical manufacturing.

The first step is to identify where these hazards are in your workplace.

This is part of your duty of care to minimise health and safety risks at your workplace as much as you reasonably can.

Breathing in airborne contaminants such as fumes, dusts, gases, mists, fibres or vapours at work can cause harm. Being exposed to theses hazards can lead to conditions like asthma, or diseases like lung cancer and hard metal pneumoconiosis.

How to identify hazards

Look at your workplace

Observe your workplace and how your workers conduct their work to help identify the presence of airborne contaminants. You should look at what types of machinery and equipment are used, and how they are used, what hazardous chemicals are around, the general state of tidiness/ maintenance, and the level of mechanical or natural ventilation.

Look to see if:

- residues are on machinery, work surfaces, walls, windows or the ground
- any tools have activated warning lights, that indicate the tool or filters are not working as intended
- workers are using control measures appropriately, such as on-tool dust extraction and wearing suitable respiratory protection equipment.

If you can see or smell something in the air, your workers may also be breathing it in. However, some hazards are invisible and odourless.

How to identify hazards (continued)

Talk and consult with your workers

Your workers or your health and safety representatives (HSRs) may know what work processes create airborne contaminants, how much is produced and how often it happens. They may also be able to tell you how work practices could be changed to manage the risk of breathing it in. Your workers can also tell you and the HSRs if certain tasks make them cough, itch or feel unwell.

Read labels and safety data sheets

Some materials used in your workplace may contain or generate a hazardous chemical. Hazardous chemicals are required to have a safety data sheet containing health and physical hazards information. Look for labels on other materials too, as these may also contain health information.

For more information, see Safety data sheets.

Engage a professional

An occupational hygienist can help identify hazards in your workplace. You can search for occupational hygienists near you on the Australian Institute of Occupational Hygienists' website.

Your industry association may be able to help you identify the hazards at your workplace or suggest who can assist you.

Reassess

Managing WHS risks is an ongoing process. When you introduce new materials or processes into the workplace, you must reassess for any new or changed airborne contaminants. Changes in seasonal practices and weather mean that you must regularly inspect your workplace to identify if these changes present a new or changed hazard that may affect the health and safety of your workers.

If a hazard is identified, you should conduct a risk assessment for airborne contaminants. For more information, read our checklist *How to identify airborne contaminant hazards in manufacturing*.