



SERVICES

- Indoor Air Quality
- Asbestos Management
- Hazardous Risk Management
- Heat Stress Management
- Odour Monitoring
- Noise Mapping Surveys
- Occupational Dust & Chemical Assessments
- Occupational Noise

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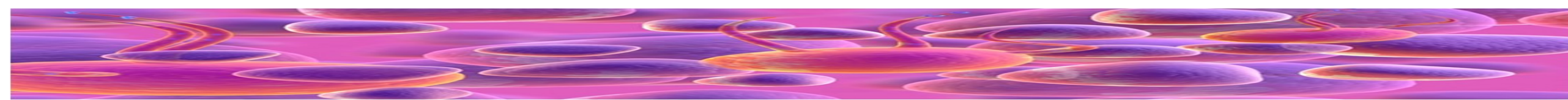
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Occupational Matters

Minimising health exposure effects.





About Us

Occupational Matters onsite testing will lessen occupational exposure to chemicals, dust and noise within the workplace.



A process can produce excess noise by engineered

Chemical and dust emissions are caused by the raw materials added into a production process which are released into an operators breathing zone if not enclosed.

Occupational Matters can assist by completing one of the following assessments to improve your workplace :

- Chemical and dust testing
- Occupational noise
- Indoor air quality survey
- Microbiological investigation

Our goal is to minimise occupational exposure effects

Workplace health & safety is maintained by health surveillance to eliminate *potentially hazardous* processes.

The first step to reducing possible exposure levels and pathways is to assess the present condition.

Contaminant levels are assessed to ensure employees are working in a safe environment.

A production process can create exposure hot spot areas or operations within a direct exposure pathway to contaminants and therefore increases the risk of health side effects.

An occupationally safe workplace is healthy

Exposure limits have been created to stop workers developing health side effects.

Controls & improved work practices if applied can make an unsafe workplace into a safe and compliant business.

Do you need an occupational assessment? Or need more info?

Send us an e-mail & we will be in contact shortly to assist you in your occupational concerns.

Company Director

Samantha Sims
B. Env. Science



Occupational Noise Survey

Constant exposure to manufacturing noise can lead to industrial deafness. Site noise levels need to be compared to 2 criteria.

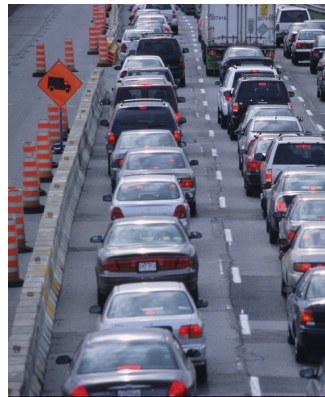
Occupational legislation and Australian Standards noise exposure limits are:

- 8 hour shift must be below 85 db(A); and,
- Loud knocks/bangs must be limited to 140 db(C).

If levels are over the criteria, workers require hearing protection and it must suit the site noise levels.

A sites noise level can vary from one operation to the next and a site assessment will allow a client to ascertain the noisiest equipment and process.

Hearing protection equipment may be only necessary in only one operation, therefore if enforced in all areas may as a consequence reduce production inefficiency.



Core Services



Occupational Dust & Chemical Assessments

A workplace production may give off emissions from mixing, addition of heat or chemicals or physically disturbing aerosols, particles or fibres into the air.

To assess these air pollutants, samples can be taken at static areas or worn by operators to discover the present working conditions.

Occupational legislation outlines employers have a responsibility to conduct periodic monitoring to ensure the workplace contaminant levels are below the exposure criteria.

Australian standards outline the necessary sampling and laboratory techniques needed to assess the workplace contaminants including respirable dust, inhalable dust and volatile organic compounds. If the standards are not applied during an assessment the site is not compliant to recognised national requirements.

Occupational Matters apply these nationally approved methods to ensure clients are presented with reliable results of the existing site levels.



Indoor Air Quality Assessments

Air quality may be reduced due to pollution emissions or poor air circulation in a confined environment.

Gas detectors can be used to alarm when levels exceed exposure criteria.

The air quality parameters may be tested to determine the source of the reduced air quality.

Office environments often experience poor air quality due to re-circulated air.

Manufacturing processes may reduce air quality via releasing gases into the surrounding air whereby operators are endangered and become exposed to if not controlled.

Contaminants measured can be:-

- Dust;
- Humidity, oxygen, temperature, CO, CO² ;
- H₂S, SO_x, NO_x.

These air contaminants may be measured singularly or grouped on one gas detecting unit.

An assessment identifies the contaminants and levels if high, requires remediation.



Microbiological Investigations

Excess water, humidity or un-cleaned ventilation units led to increased microbiological growth.

Naturally, these micro-organisms live in the outside environment and mostly are found in substrates such as soil, organic matter and water.

Air conditioners , cooling towers and human contact are a number of avenues for microbes to be introduced into an indoor environment.

Enclosed indoor environments once exposed to unnatural levels of microbes will be repeatedly circulated and as the exposure increases, workers develop sensitive allergic reactions or respiratory discomfort.

To assess if complaints such as hives or influenza symptoms are a result of microbes, exposure plates of the surrounding air and swab testing of surfaces and ventilation units determine the source of contamination.

Furniture materials are a haven for biological contaminants as they can provide a food source, moisture if wet and an ideal temperature for growth.

A preventative measure is to regularly service and clean ventilation units and upgrade housekeeping practices within the workplace.

If microbe levels are high all surfaces and furniture needs to be treated.



Hazardous Risk Management & Registers

Now in Australia we have adopted the UK hazardous chemical classification system.

Duties of a Person Conducting a Business or Undertaking needs to complete risk assessments annually.

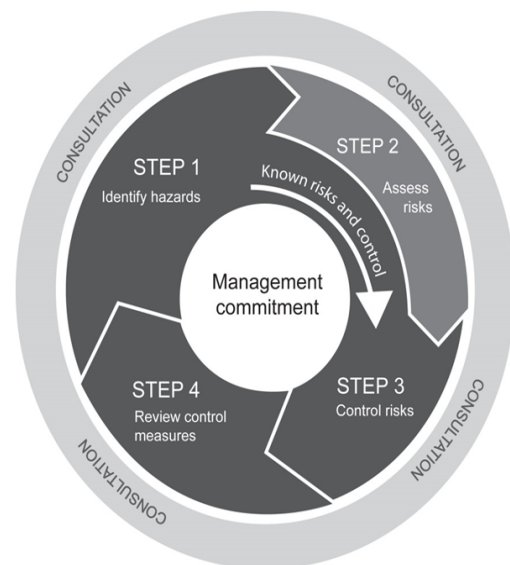
A hazardous risk assessment will identify, manage and eliminate these possible types of hazards.

- Identify which workers are at risk of exposure;
- Determine what sources and processes are causing that risk;
- Identify if and what kind of control measures should be implemented, and ;
- Check the effectiveness of existing control measures.

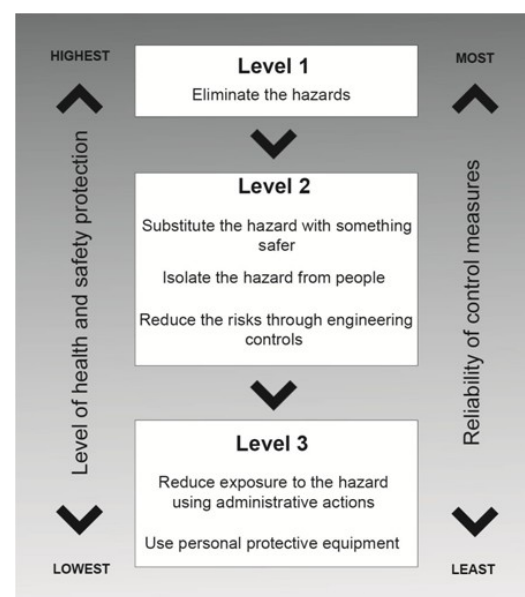
A **Hazardous chemical** means any substance, mixture or article that satisfies the criteria for a hazard class in the *Globally Harmonised System of Classification and Labelling of Chemicals* (GHS)

The Globally Harmonised System of Classification and Labelling of Chemicals (GHS) has been introduced by the Work Health and Safety (WHS) Regulations as a means of classifying workplace hazardous chemicals and communicating their hazards through labelling and safety data sheets.

The risk management process flowchart (Code of Practice How to Manage WHS Risks 2009).



The hierarchy of risk control (Code of Practice How to Manage WHS Risks 2009).



GHS Labelling Pictograms



The GHS hazardous chemical is a:

- acute toxicity - oral - Category 5
- acute toxicity - dermal - Category 5
- acute toxicity - inhalation - Category 5
- skin corrosion/irritation - Category 3
- serious eye damage/eye irritation - Category 2B
- aspiration hazard - Category 2
- flammable gas - Category 2
- acute hazard to the aquatic environment – Category 1, 2 or 3
- chronic hazard to the aquatic environment - Category 1, 2, 3 or 4, or
- hazardous to the ozone layer.

If any hazardous chemicals are onsite, they now require proper labelling as per the GHS system, a current copy of the MSDS onsite along with a hazardous register or manifest depending on the quantity stored within the premises. A register or manifest and MSDS is to be accessible to all staff and emergency services.

Hazardous risk management is now legislated within WHS Regulation and Act. If your site requires advice how to update your risk management system, an Occupational Matters experienced consultant can assist without disruption to the workplace.

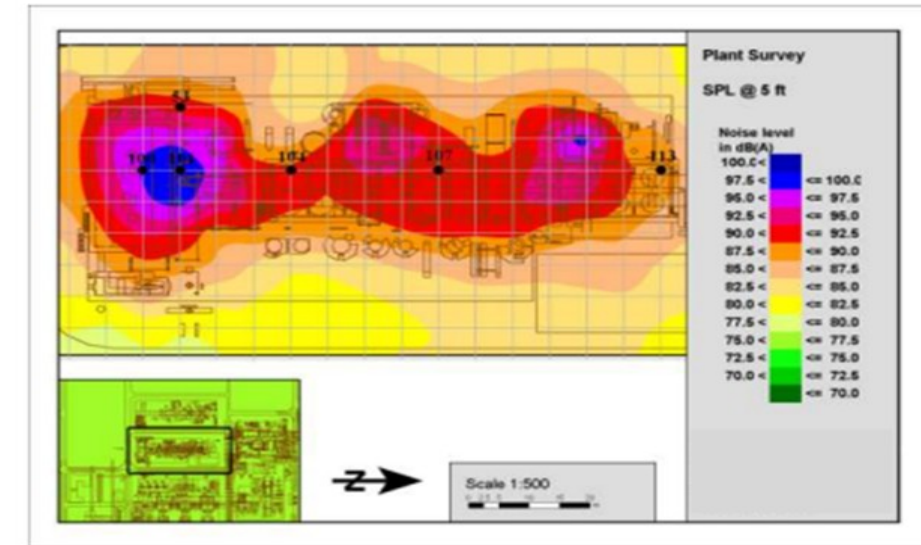
Asbestos Registers & Management Plans

Asbestos management is an important occupational concern for business as is controlled national legislation and can cause major headaches if not managed.

Due to a premises being old and not maintained may be filled with degrading asbestos materials and exposing occupants to dangerous fibres floating within the air environment.

Buildings in Australia typically contain asbestos if built during 1940's up until as late as 1980. Uses ranged from fire retardant coatings, concrete, bricks, pipes and fireplace cement, heat, fire, and acid resistant gaskets, pipe insulation, ceiling insulation, fireproof drywall, flooring, roofing, lawn furniture, and drywall joint compound. As old structures age these materials may breakdown causing exposure to asbestos.

Noise Exposure Maps



WHS
Risks
2009).

Occupational noise dosimeter surveys are a great tool for assessing the individual exposures to the operator, another approach is looking at noise levels in a designated zone.

This can be created by taking measurements with a SLM (Sound Level Meter) and inputting data into a noise mapping program. This survey will present a map with noise level contours of the site's manufacturing areas or operations.

The noise map approach of assessing occupational noise can provide valuable insight to a manager and make decisions such as where to place a new piece of machinery to streamline a process or where engineering controls are required. This analysis can if performed annually highlight the changes in productivity comparable to changes to noise level exposures to areas.

Heat Stress Management



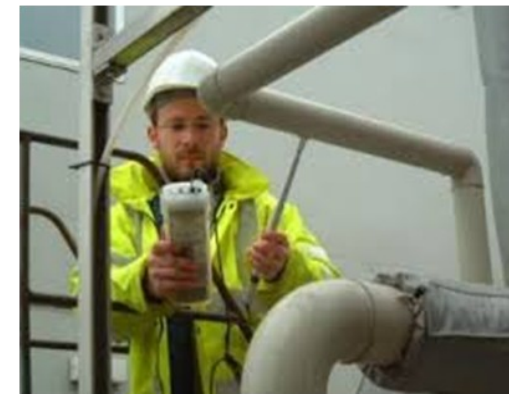
Heat stress management is an occupational concern for employees who work continually in hot environments.

Occupations who suffer heat stress are foundries, food industries, mining and quarries, building material manufacturing, paper mills, welding and workers who wear full protective non breathable coveralls or are required to work outside for the entirety of their shift in the elements.

Heat stress occurs when the body's cooling system can't keep up with the heat induced by activity or environment. Symptoms include dizziness, exhaustion, heat cramps, dehydration, and collapse.

A person may be in danger of symptoms such as stroke if the body core temperature reaches 41°C. To accurately assess the risk of heat stress a heat stress monitor is used which records both the core temperature and real time relative humidity.

Odour Monitoring



Odour complaints or emissions can cause discomfort and in the case of gases can cause symptoms such as fainting, headaches and in severe cases unconsciousness.

Gas detectors are the most common method of identifying odour's and their source, but a detailed survey can involve capturing grab samples of the odour and completing a laboratory analysis.

The most common odour problems are rotten egg gas from plumbing or AC and paint stripper smell for example VOC emissions. These results then can be compared to indoor air quality criteria.

