



## RESPIRATORY RISK REDUCTION

# Workplace Exposure Monitoring

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## Why do exposure monitoring?

Some of the activities we undertake involves the usage of a variety of substances such as, but not limited to, chemicals, fumes, dusts, fibres, whilst undertaking their daily work.

Under the right circumstances, some substances may have a harmful effect on their health.

These are called 'hazardous substances' and are regulated by the Control of Substances Hazardous to Health Regulations 2002 (COSHH). If exposure<sup>1</sup> to a hazardous substance is not properly controlled it may cause ill health in a number of ways. Exposure that may harm can occur in the following ways:

- Inhalation - too much being taken into the body through breathing;
- Absorption - being absorbed through the skin;
- Ingestion - being swallowed; or
- Contact - acting directly on the body at the point of contact, e.g. the skin.

Where it is anticipated an employee's job will involve an exposure to a known hazardous substance(s), determining the 'actual' levels of the employee's personal exposure is important. Monitoring<sup>2</sup> will allow you to ascertain the adequacy and effectiveness of the control of the exposure of employees to substances hazardous to health and support in the protection of the health of employees. It can also:

- Support the selection of the correct controls;
- Identify where substances present a serious risk to health;
- Ensure exposure limits are not exceeded, where applicable, in line with the health and safety executive (HSE) EH40 Workplace Exposure Limits;
- Support appropriate selection of respiratory protective equipment (RPE)
- Identify the requirement for health surveillance

## When to monitor?

There are no defined monitoring regimes for most hazardous substances. Monitoring should be undertaken on a busy day when all processes or work activities are running normally to reflect a true picture of the exposure to the employee.

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1: Exposure – the state of having no protection from something harmful

2: Monitoring – A means of assessing the workers' exposure to named substances



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It is important to remember that in order to determine the levels of exposure, personal monitoring of the employee exposed should be undertaken to obtain a true reading.

Monitoring must be undertaken by a Network Rail approved company. This allows for selection of appropriately accredited companies with the competently trained individuals who can undertake the monitoring in line with appropriate methodologies such as those for aerosols which are captured within MDHS14/3: General methods for sampling and gravimetric analysis of respirable and inhalable dust.

Should you wish to undertake exposure monitoring please contact [healthandwellness@networkrail.co.uk](mailto:healthandwellness@networkrail.co.uk) for a list of approved suppliers.

### What to expect in your exposure monitoring report?

The information provided in the exposure monitoring report should enable employers and others (e.g. employees, safety representatives, enforcement authorities) to understand and draw conclusions about the records' validity and the adequacy of control of employees' exposure to substances hazardous to health.

To ensure the information provided to you is useful in supporting the effective and adequate management of employee's exposure, it is worth requesting that the monitoring company includes, but not limited to, the following points:

- Traceability information
  - employer's name and address,
  - employees role,
  - name of the substance monitored (including Chemical Abstracts Services (CAS) number),
  - work exposure limit (WEL) (if applicable),
  - process/task description,
  - date of monitoring,
  - report author's name,
  - dates of sampling and reporting;
  
- Sampling information
  - work activities during monitoring,
  - type of sampling (breathing zone, fixed site, dermal, surface and/or biological monitoring),
  - sample identification reference,
  - location details, sampling duration,
  - activity duration,
  - monitoring duration,
  - references to sampling,
  - analytical and quantification procedures,



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- weather at time of monitoring and 72 hours before sampling (inc temperature/wind/speed/weather description i.e. raining).
- Exposure control information
  - the types of controls in place;
  - for each type of control, the information provided should enable an assessment of the adequacy of exposure control,
  - recommendations for enhanced controls where deemed necessary.
- Health Surveillance
  - The report shall contain recommendations regarding employees health surveillance requirements based on the results of the monitoring and linked to the hazard in question.
- A summary
  - providing sufficient detail for the employer to determine whether their employees' exposure is adequately controlled to comply with the requirements of regulation 7;
- The report author's assurance
  - including a written confirmation, as applicable, that the report author is competent to carry out sampling and analysis, write the report and interpret the results to help the employer assess the adequacy of exposure control.

When exposure monitoring is undertaken, a copy of the report should be sent to the health and wellness team inbox at [healthandwellness@networkrail.co.uk](mailto:healthandwellness@networkrail.co.uk)