

# OCM<sup>6</sup>

## Offshore COSHH essentials



This information will help offshore dutyholders (owners, operators and contractors) to comply with the Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended, to protect workers' health.

This guidance consolidates good control practice and reinforces existing knowledge with additional information.

It will help you carry out COSHH assessments, review existing assessments, deliver training and in supervising activities involving substances hazardous to health.

It is aimed at staff whose responsibilities include the management of substances hazardous to health on offshore installations (eg occupational health specialists, COSHH assessors, supervisors etc). It is also useful for trade union and employee safety representatives.

Following the guidance is not compulsory and you are free to take other action. But if you do follow this guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.

If you need a service provider (eg consultant), OCM sheets describe what they should deliver.

You may need help from a health and safety expert, whose report should cover the points in this sheet.

# Exposure monitoring

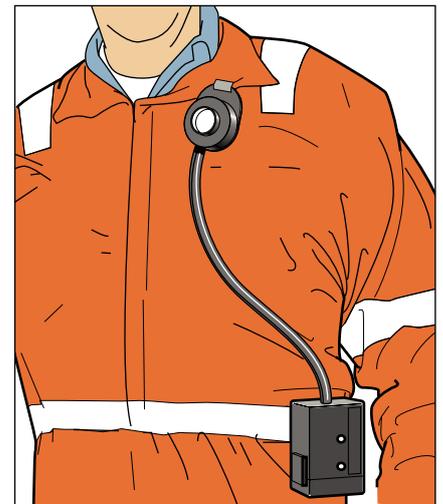
## Control approach 4 Special advice

### What this sheet covers

This sheet describes good practice for monitoring worker exposure. It includes advice to test fixed alarms.

### Monitoring

- ✓ Monitoring means measuring workers' exposures to named substances. Exposure may be by inhalation, by skin contact, or by swallowing.
- ✓ Personal monitoring assesses a person's exposure. Other sampling is used to assess the effectiveness of control measures.
- ✓ Ask consultants tendering for work for evidence of their competence, and of any laboratories they use for analysing samples.
- ✓ Provide past results of monitoring, so the consultant can put new results into context.
- ✓ Monitoring is required:
  - to help select the right controls;
  - where substances present a serious health risk;
  - to check that exposure limits are not exceeded and your control measures work well enough;
  - to help choose the right amount of respiratory protection;
  - to identify any need for health surveillance; and
  - when an inspector has issued an enforcement notice that requires you to monitor exposure.
- ✓ Exposure measurement is not an alternative to controlling exposure.
- ✓ Exposure varies from day to day, so you need the result to be no more than a fraction of the exposure limit, eg below one third.
- ✓ Monitoring always requires workers' co-operation, doing their jobs as normally as possible.
- ✓ Workers should be informed of the result.
- ✓ This sheet also contains a form for use where biological samples require workers' informed consent. See below.
- ✓ Static or background sampling is useful:
  - to check on the performance of extraction equipment;
  - to understand the potential for bystanders to be exposed.



**Caution:** Static or background sampling will not reflect personal exposure.

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### *Air monitoring*

- ✓ Air monitoring measures exposure by inhalation. It should take place on a busy day with the process running normally.
- ✓ Personal samples only are valid for comparing with exposure limits:
  - Full shift (12 hours) exposures should be compared with two-thirds of the 8-hour exposure limit.
  - Exposures at raised pressures need expert interpretation.

### *How do I sample air?*

- ✓ Sometimes you can use special meters, smoke tubes or colorimetric detector tubes to see if there is a problem with your controls.
- ✓ Normally you need specialised sampling equipment. Contact a health and safety consultant in occupational hygiene.
- ✓ Sometimes you will also need biological monitoring to detect exposure through skin contact, by swallowing, or if respirators are not working well enough.

### *Biological monitoring*

- ✓ Biological monitoring is recommended in cases where:
  - exposure control relies on the effectiveness of respirators;
  - exposure via the skin or ingestion could lead to adverse health;
  - there is a measureable metabolite, preferably in urine or exhaled breath.
- ✓ Biological monitoring needs 'informed consent' – eg see form below.
- ✓ Biological monitoring is necessary for work with lead.

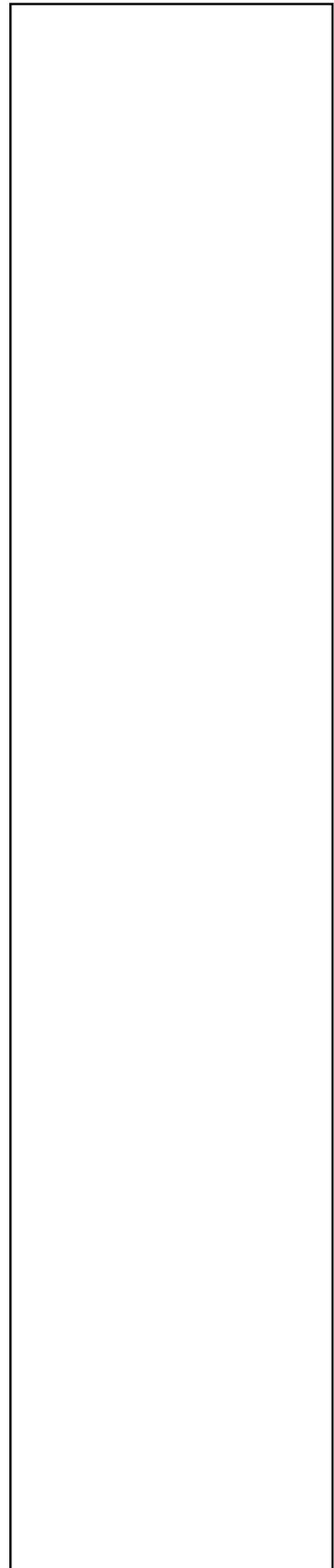
**Caution:** Biological monitoring is not health surveillance.

### **Consultant's report**

- ✓ Ask tendering consultants how will they check that you understand their report?
- ✓ Demand 'context' information with every sample: who, what task, done how often, for how long, with what equipment and what control measures, and observations on how the worker did the job.
- ✓ Ask for comments on other exposure routes.
- ✓ Require all monitoring results and an explanation of what they mean.
- ✓ Follow recommendations on maintaining or improving the control measures.
- ✓ This should have two parts: fact and opinion.
- ✓ Checklist of points to cover.

### *Facts*

- The background to and purpose of the monitoring.
- The process measured, the hazards involved, the work patterns.
- The control measures in place and their performance.
- Photographs and diagrams.
- What measurements were taken, and how
- How and where samples were analysed.
- Exposure limits or benchmarks, and comments on these.
- Industry standards of good control practice.
- Monitoring results, calculations and 8-hour time-weighted average exposures.



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### Opinion

- Exposure sources and adequacy of the control measures.
- Discussion of results and compliance with standards.
- Assessment of risk.
- Identification of tasks not measured that are likely to involve exposure.
- Work groups that could be exposed, but were not monitored.
- Any matters of concern, and how to address them.
- Recommendations for improvement or further surveys.

### Testing

- ✓ Where gas or vapour alarms are provided, test that these are working at least once a week or as provided in the planned maintenance routine (PMR).

### Useful links

Occupational Safety and Health  
Consultants Register  
[www.oshcr.org/](http://www.oshcr.org/)

### Further information

*Monitoring strategies for toxic  
substances* HSG173 (Second  
edition) HSE Books 2006  
ISBN 978 0 7176 6188 6  
[www.hse.gov.uk/pubns/books/  
hsg173.htm](http://www.hse.gov.uk/pubns/books/hsg173.htm)

*Occupational exposure limits  
for hyperbaric conditions:  
Hazard assessment document*  
Environmental Hygiene  
Guidance Note EH75/2  
HSE Books 2000  
ISBN 978 0 7176 1899 6

*Workplace exposure limits EH40*  
[www.hse.gov.uk/coshh/table1.pdf](http://www.hse.gov.uk/coshh/table1.pdf)

You can find the full Offshore  
COSHH essentials series at  
[www.hse.gov.uk/coshh/index.htm](http://www.hse.gov.uk/coshh/index.htm)

**This guidance was developed by representatives from the UK offshore oil and gas industry and trade unions, with HSE.**

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### **Informed consent: For taking biological samples from workers**

Regarding the control of exposure to *[named substance]* at *[identified premises]*, your agreement is needed to provide a sample of *[blood/urine/breath/other]* to a representative of *[service provider]*, to decide whether further steps are needed to control your exposure.

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Please note:

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1. The sample will only be analysed for *[named substance]*

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  2. The result will indicate your personal exposure to *[named substance]*

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  3. Do you want to receive your own copy of the results and be told what it means *[Yes/No]*? If Yes, send the result to *[person's address]*. You can show the result to your trade union representative, if you wish.

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4. The results will show whether improvements in control are needed to reduce your exposure.

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*[Yes/No]* You can send my personal test result and interpretation to my employer.

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*[Yes/No]* You can send my anonymised result and interpretation to my employer.

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*[Yes/No]* You can send only the interpretation to my employer.

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*[Employee's signature]* and *[date]*