

# OCE16

## 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 this 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.

Also see essential information on the back of the sheet.

# Bulk sampling

## Control approach 3 Containment

### What this sheet covers

This sheet describes good practice for taking samples – process fluids, well fluids, aviation fuel etc. It covers the key points you need to follow for good control practice to control exposure as part of your COSHH assessment.

### Hazards

- ✓ Not possible to list all substances that are sampled but the main ones are: process fluids, which are complex mixtures in the liquid state (crude oil, condensate) and will contain BTEX (benzene, toluene, ethyl benzene and xylenes); natural gas (predominantly methane); and liquefied petroleum gases (butane and propane).
- ✓ Health risks include cancer, genetic damage, reproduction effects, and sensitisation by inhalation or skin contact.
- ✓ The workplace exposure limit (WEL) for benzene is 1 ppm (8-hour time-weighted average (TWA)). Keep exposure as far below this as reasonably practicable.

### Access

- ✓ Fit sampling points that are safe and easy to access.
- ✓ Provide safe access to sampling points.

### Facilities

- ✓ Provide for drainage to appropriate drains, eg closed drains.
- ✓ Provide for gas venting to a safe place, eg a flare stack or cold vent.

## Equipment and procedures

### Planning

- ✓ Define the sampling procedures and valve sequences.

## Control equipment

### Sampling glycols and hydrocarbons

- ✓ Provide sampling cylinders with locking connectors, ullage tubes and bursting discs of the correct rating.
- ✓ Ensure that these match the sampling points.
- ✓ Ensure good general ventilation.
- ✓ Provide a spillage clean-up kit.
- ✓ Provide eyewash equipment close to the work site.

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### *Safe sampling*

- ✓ For process fluids/gases, sample into a piston-type cylinder or a flow-through 'bomb' with a vent line. The sampling receptacle must be of a suitable pressure rating.
- ✓ For hazardous, non-pressurised materials, flush for safe disposal before sampling into a container. You may need to provide personal protective equipment.

**Caution:** Avoid glass containers whenever possible. Avoid plastic containers with flammable materials. Some sample streams can be hot.

### *Emergency procedures*

- ✓ Ensure operators close valves if leaks occur or the bursting disc ruptures.

### *Personal protective equipment (PPE) – see OCM3*

- ✓ Respiratory protective equipment (RPE) is not normally needed.

### *Other protective equipment*

- ✓ Where necessary, provide additional eye protection (visor or goggles).
- ✓ Ensure workers wear protective gloves for sampling. Single-use nitrile or PVC gloves are acceptable.
- ✓ Discard gloves at the end of the task.
- ✓ Tell workers to discard single use gloves every time they take them off.

## **Maintenance, examination and testing**

### *Checking and maintenance*

- ✓ Check for signs of damage to control equipment before starting work.
- ✓ Follow manufacturers' instructions for inspecting and maintaining sampling cylinders.

### *Exposure monitoring*

- ✓ Monitoring is not normally necessary. However, some personal benzene monitoring should be carried out to establish the effectiveness of controls.

## **Cleaning and housekeeping**

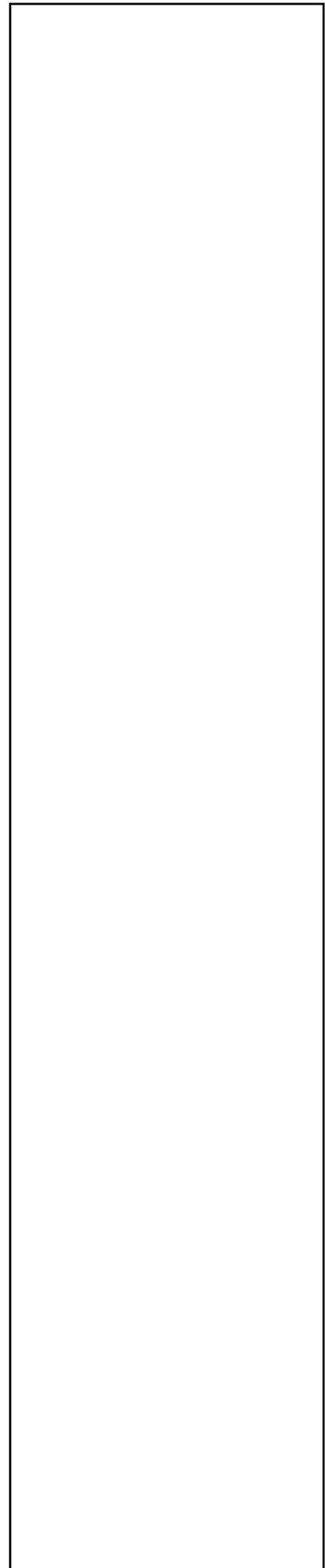
- ✓ Place a temporary bund to contain any spillage.
- ✓ Clear up small spills with inert absorbent pads. Dispose as hazardous waste.

### *Waste*

- ✓ Residues are 'hazardous waste'. Label containers clearly – include a UN number where appropriate. Store and dispose of waste safely.

### *Personal decontamination and skin care*

- ✓ Provide warm water, mild skin cleansers, nailbrushes and soft paper, fabric towels or hot air for drying. Avoid abrasive cleaners.
- ✓ Provide pre-work skin creams, which will make it easier to wash dirt from the skin, and after-work creams to replace skin oils.



### Health surveillance

- ✓ Conduct skin checks for dermatitis.

### Training and supervision

- ✓ Provide supervision – ensure that safe work procedures are followed.
- ✓ Tell workers, including maintenance workers, what the hazards and risks are.
- ✓ Explain the early signs of dermatitis.
- ✓ Training includes toolbox talks on:
  - following safe working procedures;
  - how to use equipment properly;
  - how to clean up spills correctly; and
  - what to do if something goes wrong.
- ✓ Involve managers and supervisors in health and safety training.

### Essential information

OCE0 *Advice for managers*

OCM3 *Personal protective equipment (PPE)*

OCM4 *Respiratory protective equipment (RPE)*

### Employee checklist

- Is the equipment in good condition and working properly?
- Do you know how to use the control equipment properly?
- Look for signs of leaks, wear and damage before every job.
- Do you have a spill clean-up kit handy?
- If you find any problem, get it fixed. Don't just carry on working.
- Wash hands before eating, drinking or using the lavatory.

### Other hazards

- Flammability
- Substances harmful to the marine environment

### Further information

*Developing process safety indicators: A step-by-step guide for chemical and major hazard industries* HSG254 HSE Books 2006 ISBN 978 0 7176 6180 0 [www.hse.gov.uk/pubns/books/hsg254.htm](http://www.hse.gov.uk/pubns/books/hsg254.htm)

*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.**