

OCE8

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.

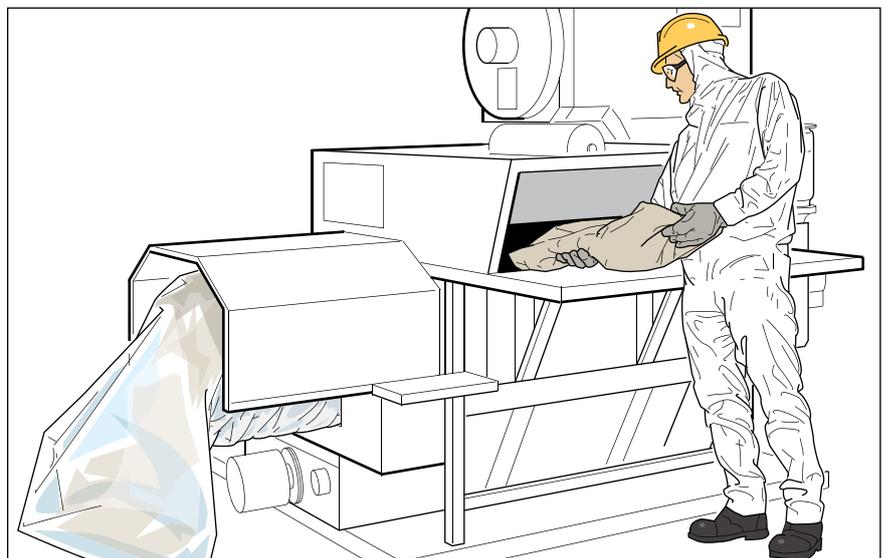
Also see essential information on the back of the sheet.

Mixing of drilling muds (sack room)

Control approach 2 Engineering control

What this sheet covers

This sheet describes good practice for control of exposure to chemicals when mixing drilling mud. It covers the key points you need to follow to help reduce exposure to an acceptable level, as part of your COSHH assessment.



Hazard

- ✓ Drilling muds contain a wide range of substances including base fluids (eg mineral oils/ calcium chloride brine), weighting agents (eg barite), viscosifiers (eg bentonite), surfactants (eg imidazolines) and biocides (eg glutaraldehyde). They can also contain contaminants from formations (eg oil, condensate and H₂S).
- ✓ Health effects include dermatitis, respiratory irritation, narcosis and cancer.

Access

- ✓ Restrict access to authorised personnel.



Equipment and procedures

Substitution

- ✓ Use water-based muds where possible: otherwise use low toxicity base oil and low-dust solids.

Control equipment

- ✓ Use bulk transfer methods where possible. Provide enclosed weighing hoppers for bulk solids.
- ✓ Provide an extracted sack-opening machine with integrated sack disposal.
- ✓ Otherwise enclose the hopper as much as possible and provide local exhaust ventilation. Permit access for careful opening and emptying of sacks.
- ✓ Ensure solids are poured gently into the hopper.
- ✓ Ensure empty sacks are rolled up in the extracted zone and put it in a polythene sack.
- ✓ Fit an airflow indicator to show that extraction is working properly.
- ✓ Discharge extracted air to a safe place.
- ✓ Provide a venturi system or metered pumping for bulk liquids.

Caution: Sacks often have dust on the surface

Personal protective equipment (PPE) – see OCM3

- ✓ Ensure that all items of PPE are compatible.

Respiratory protective equipment (RPE) – see OCM4

- ✓ Where effective LEV is not provided for sack handling, provide CE-marked RPE with an assigned protection factor of at least 20.
- ✓ Air-fed RPE with an assigned protection factor of at least 40 should be provided for emptying dust collectors.

Other protective equipment

- ✓ Provide disposable (type 5) coveralls.
- ✓ Provide non-slip rubber boots.
- ✓ Provide clean chemical-resistant gloves, eg nitrile, and new gloves when these are damaged.

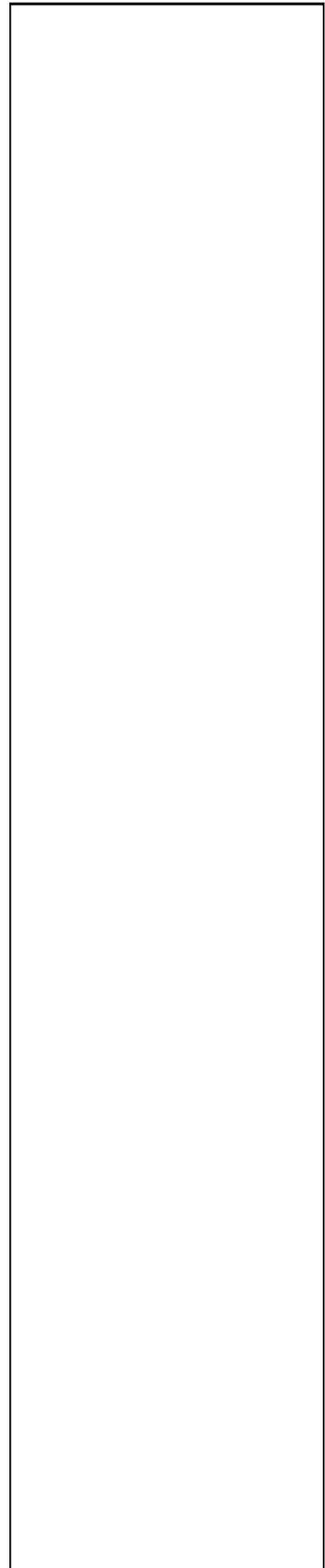
Maintenance, examination and testing

Checking and maintenance

- ✓ Check for signs of damage at the start of every shift.
- ✓ At least once a week, check that airflow indicators work properly.
- ✓ Keep this information in your testing logbook.
- ✓ Check dust collectors and empty before they are too full.
- ✓ Lock off extraction systems before emptying dust collectors.

Examination and testing

- ✓ Extraction systems require statutory 'thorough examination and testing' (TEXT).
- ✓ Get a competent ventilation engineer to perform the TEXT at least once every 14 months (see HSE publication HSG258).
- ✓ Carry out all actions arising from the TEXT.



RPE

- ✓ Examine and test RPE thoroughly at least monthly and for infrequently used RPE at least three monthly. Replace worn parts.

Records

- ✓ Keep records of all examinations and tests for at least five years.

Exposure monitoring

- ✓ Prove that you are using the right level and type of RPE – use monitoring records or carry out personal air monitoring.

Cleaning and housekeeping

- ✓ Clean the area at least once a week, or after each batch mixed.
- ✓ Clear up spills immediately. Use protective gloves. You may also need RPE.
- ✓ Use a class H vacuum cleaner or use wet methods for cleaning.

Caution: Do not use a brush or compressed air for cleaning. Never use compressed air to remove dust from clothing.

- ✓ Label bags of dirty clothing to warn the laundry about the hazard.

Waste

- ✓ For disposal off-installation, provide the operator of the disposal vessel with suitable information.

Personal decontamination and skin care

- ✓ Provide warm water, mild skin cleansers, nailbrushes, and soft paper, fabric towels or hot air for drying. Avoid abrasive cleansers.
- ✓ Instruct workers in how to clean their skin effectively.
- ✓ Tell workers to wash hands before every break.
- ✓ Provide pre-work skin creams, which will make it easier to wash dirt from the skin, and after-work creams to replace skin oils.

Caution: 'Barrier creams' or 'liquid gloves' do not provide a full barrier.

Health surveillance

- ✓ Conduct low-level health surveillance for dermatitis involving skin checks by suitably trained responsible person.

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:
 - how to use equipment properly;
 - how to check that extraction is working properly;
 - how to clean up spills correctly; and
 - what to do if something goes wrong.
- ✓ Involve managers and supervisors in health and safety training.

Employee checklist

- Is the equipment in good condition and working properly?
- Look for signs of leaks, wear and damage before every job.
- Clean up leaks and spills immediately.
- If you find any problem, get it fixed. Don't just carry on working.
- Co-operate with health surveillance.
- Use, look after and store your PPE in accordance with instructions.
- Wash hands before eating, drinking or using the lavatory.

Essential information

OCE0 *Advice for managers*
OCM2 *Local exhaust ventilation (LEV)*
OCM3 *Personal protective equipment (PPE)*
OCM4 *Respiratory protective equipment (RPE)*
OCM7 *Health surveillance*
OCM8 *Storing chemicals*

Other hazards

- Musculoskeletal disorders – manual handling awkward heavy items in restricted places
- Substances harmful to the marine environment

Further information

Respiratory protective equipment at work: A practical guide HSG53 (Third edition)
HSE Books 2005
ISBN 978 0 7176 2904 6
www.hse.gov.uk/pubns/books/hsg53.htm

Controlling airborne contaminants at work: A guide to local exhaust ventilation (LEV)
HSG258 HSE Books 2008
ISBN 978 0 7176 6298 2
www.hse.gov.uk/pubns/books/hsg258.htm

BS EN 60335-2-69:2003
Class H vacuum cleaner

BS EN 60335-2-69:2009
Household and similar electrical appliances. Safety. Particular requirements for wet and dry vacuum cleaners, including power brush, for commercial use

Workplace exposure limits EH40
www.hse.gov.uk/coshh/table1.pdf

You can find the full Offshore COSHH essentials series at
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.