What this sheet covers
This sheet describes good practice for opening non-hydrocarbon lines. It covers the key points you need to follow to help reduce exposure to an acceptable level, as part of your COSHH assessment.

Hazards
- Non-hydrocarbon lines can contain ethylene glycol, biocides, scale inhibitors etc.
- Health risks include cancer, genetic damage, reproduction effects, and sensitisation by inhalation or skin contact.
- Gas lines, eg nitrogen, can give rise to an asphyxiation hazard.

Access and equipment
- Erect barriers and notices.
- Restrict access.
- See sheet OCM1 if work is in a confined space.

Planning and procedures
Planning
- Define the isolation standards and routines for draining, purging and venting.
- Provide for drainage to appropriate drains, eg closed drains.
- Provide for gas venting to a safe place, eg a flare stack or cold vent.
- Establish emergency procedure.

Control equipment
- In poorly ventilated areas, provide enough fresh air to dilute and remove air contaminants.
- Provide portable/personal detectors where hazardous gases or vapours can be emitted.
- Provide a spillage clean-up kit.
- Provide eyewash equipment and an emergency shower close to the work site.
Control procedures
✓ Isolate the line for safe opening.
✓ Connect via valves and lock the pipework to the appropriate drain. Purge and drain the fluids.
✓ Vent pressurised gases to a safe place.
✓ Prove isolation. Carry out pressure build-up (PBU) checks.
✓ If necessary, have the authorised tester perform the gas test.
✓ Workers should break joints gently. In the event of an unexpected release, workers should evacuate the area immediately and raise the alarm.
✓ Fit ‘Disturbed joint’ tags on broken joints
✓ Test for leakage on remaking the joint.

Personal protective equipment (PPE) – see OCM3
✓ Provide portable/personal alarms where hazardous gases or vapours can be emitted.
✓ Respiratory protective equipment (RPE) is not normally needed.

Other protective equipment
✓ Where necessary, provide additional eye protection (visor or goggles).
✓ Provide disposable coveralls (Type 6).
✓ Provide clean chemical-resistant gloves, eg nitrile, and new gloves when these are damaged.
✓ Discard gloves at the end of the shift.

Maintenance, examination and testing
Checking and maintenance
✓ Make and follow schedules for preventative maintenance of plant and monitoring equipment.
✓ Before each use, check that portable/personal gas monitors are fully charged and working properly.
✓ Check for signs of damage to control equipment before starting work.

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

Personal monitoring
✓ Monitoring is not normally necessary.

Cleaning and housekeeping
✓ Place a temporary bund to contain any spillage.
✓ Clear up small spills with inert absorbent pads. Dispose as hazardous waste.
✓ Label bags of dirty clothing to warn the laundry about the hazard.

Waste
✓ Drain liquid residues to appropriate drains through hoses and valve connectors.

Employee checklist
☐ Are you sure about safe work procedures?
☐ Is the equipment in good condition and working properly?
☐ Is your portable/personal alarm fully charged and working properly?
☐ Is your respirator working properly? Check it every time.
☐ 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.
☐ Use, look after and store your PPE in accordance with instructions.
☐ Discard single-use gloves every time you take them off. Discard other gloves at the end of the shift.
☐ Wash hands before eating, drinking or using the lavatory.
**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.
- 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.

**Training and supervision**

- Provide supervision – ensure that safe work procedures are followed.
- Tell workers, including maintenance workers, what the hazards and risks are.
- Training includes toolbox talks on:
  - following safe working procedures
  - how to react to alarms and evacuate safely;
  - how to use RPE and check that it is working;
  - 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**

- OCEO Advice for managers
- OCM1 Confined spaces
- OCM3 Personal protective equipment (PPE)
- OCE14 if mercury is present
- OCE6 if hydrogen sulphide is present
- ORE1 if NORM is present
- IP code for hoses
- IP code for breaking flanges

**Other hazards**

- Flammability
- Residues that may catch fire spontaneously
- Hydrogen sulphide (H₂S)
- NORM (naturally occurring radioactive material)
- Mercury
- Substances harmful to the marine environment
- Asbestos gaskets

**Further information**

  www.hse.gov.uk/pubns/books/hsg254.htm
- Asbestos essentials  
  www.hse.gov.uk/asbestos/essentials/

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.