

Handbook

for safe work
in the petroleum industry



Working Together for Safety Recommendation 047E / 2021

1.0 Foreword

This handbook is intended to be a helpful resource for executing personnel. It was originally created by Equinor, but has now been further developed by a Working Together for Safety working group, in which all the other major operators on the Norwegian continental shelf have participated.

The checklists are general, and personnel must also clarify whether there are internal company guidelines that also apply at the workplace.

Life-saving rules are used by many companies, and these rules have been reviewed and all the important elements included in the checklists in this book.

The images in this book have been reproduced with Equinor's permission. We are grateful to them for sharing both the handbook and its associated images. Thanks also to the other members of the working group who have contributed to the work of updating this handbook.

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3.0 General checklists

Before the work starts

- a. Is the activity clearly described and understood by everyone?
- b. Has the risk been identified, understood and considered?
- c. Have all roles and responsibilities been clarified?
- d. Have you ensured that all safety requirements and barriers against energies and simultaneous operations have been established?
- e. Is there a need for SJA?
- f. Is there sufficient access control (on several levels if necessary), and is this marked with appropriate signage?
- g. Have you made yourself familiar with escape routes, emergency preparedness equipment and the safety system in the area?
- h. Is the working environment satisfactory in terms of lighting, noise, hand-arm vibrations, weather conditions, access, ergonomics, chemicals, etc.?
- i. Is there a need for special personal protective equipment (PPE)?
- j. Is scaffolding approved?
- k. Are tools and equipment secured both during transport and at the worksite?
- l. Are extensions/electricity cables approved/checked and properly hung?
- m. Have hoses and couplings been checked, secured and properly hung?
- n. Has the area technician verified that the equipment and facility have been prepared for the planned activity?
- o. Have you identified and informed your manager of any conditions you believe must be clarified before the activity starts?

3.0 General checklists

During the work

- a. We shall stop when we are unsure whether or not we have control, or to make ongoing risk assessments.
- b. Has the risk picture changed?
- c. Are we/am I adhering to requirements?
- d. Has everybody on the work team, including those who have joined the team at a later date, read and understood the safety requirements in the WP and any SJA for the job? Any SJA shall also be signed by new members of the team.
- e. Is there a need to improve the work method based on the new risk picture?
- f. How have you involved your manager in the assessment of the new risk picture?
- g. Implement measures if hazardous conditions, near-accidents or accidents occur.

Upon completion of the work

- a. Has the worksite been left clean and tidy?
- c. Have equipment and safety systems been reset for normal operations?
- d. Has the worksite been checked, and the WP/access permit signed and submitted?
- e. Are suggestions for improvement necessary, and if so, have you raised these with your manager?

4.0 Work at height

Work at height requires either a fixed platform with railing, approved scaffolding or the use of rope access. The risk shall be assessed so that the work can be performed in a safe manner.

All personnel who work at height shall:

- Use fall arrest equipment where this is required/necessary
- Only work on approved scaffolding constructed, modified and inspected by competent personnel. Remember that there are training requirements for users of scaffolding
- When using ladders, the ladder shall be secured and fall arrest equipment used where required
- Consider the need to establish a rescue plan

During work at height, you shall protect against dropped objects by:

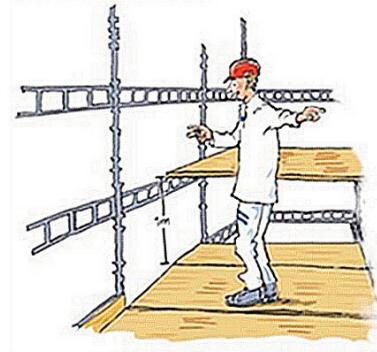
- Securing tools/equipment to prevent them being dropped to a lower level
- Cordoning off areas under work at height
- Securing all deck openings

For more information about the prevention of dropped objects, see the SfS Handbook "Prevention of Dropped Objects".

4.1 Scaffolding

When using scaffolding, the following points shall be checked:

- The scaffolding shall have a green inspection card with an approval date. Never use scaffolding featuring a red card and the text "Danger – Do not use scaffolding!"
- Two handrails shall be installed in addition to the knee board on scaffolding above sea
- Fall arrest equipment shall be used if the inspection card for the scaffolding is labelled "Use harness"
- Corrective measures regarding dropped objects shall be implemented (ref. SfS Handbook "Prevention of Dropped Objects")



4.2 Ladders and steps

Ladders shall only be used to access scaffolding platforms and landings, etc. As an exception, ladders may be used as a work platform in the event of short-term inspections or cleaning, etc. 'Ladders' refers to all types of ladders including stepladders, free-standing combination ladders and mobile ladders.

Checklist prior to using ladders:

- a. The ladder shall be checked before use and the manufacturer's user/assembly instructions shall be followed
- b. The ladder shall rest on a stable, appropriate firm surface, so that its rungs remain horizontal during use
- c. When ladders are used to access roofs, landings, etc., the ladder shall reach at least 1.0 metre above this
- d. The ladder shall be fixed at the top or secured in another way
- e. The ladder shall be used in such a way that workers maintain a secure grip and steady footing
- f. Hanging ladders (excluding rope ladders) shall be affixed in a way that ensures they cannot shift or start to swing
- g. Two persons shall be present until the ladder is secured
- h. When accessing a location higher than 3.5 m (11.5 ft) and using an almost vertical ladder, this shall usually be equipped with a cage from 2.5 m (8 ft)
- i. If the ladder is located near railings, the user shall use a fall arrest harness

4.3 Fall protection

The prevention of dropped objects must be ensured throughout the entire value chain, from design to removal. More information about aspects that are of particular importance for the individual elements in the value chain are given in Part 2 of SfS Recommendation 024E, "Management elements for the prevention of dropped objects". Be especially aware of the importance of the original design and later modifications. The foundations for a DO-free workplace are laid here.



4.3 Fall protection

- a. Everyone who uses personal fall equipment has received documented training.
- b. The fall arrest equipment has been checked visually for damage/wear or defects.
- c. When using fall arrest equipment, a work team shall consist of at least two persons.
- d. Fall arrest equipment is labelled in accordance with relevant standards.
- e. The anchoring point is in accordance with the manufacturer's usage instructions.
- f. The equipment is checked a minimum of every 12 months. The date of the last inspection shall be readable.
- g. On the basis of competence and experience, use attachment points that tolerate at least as high a load as that required in the user guide for the fall arrest equipment.
- h. In the event of a need to relocate, the fall arrest harness shall be equipped with a double rope (Y-line) and fall shock absorber.
- i. Fall arrest blocks may be used as an alternative to a double rope with fall shock absorber.
- j. Tools/equipment that are used at height shall also be secured against being dropped.
- q. The harness should feature two relief straps.
- r. Buddy checks shall be performed.
- s. If necessary, rescue preparations shall be made before the work is started.

5.0 Access control and signage

Access control refers to physical barriers of a temporary or permanent nature that prevent personnel from inadvertently entering the area that has been cordoned off (Ref. SFS Recommendation 026E " Access Control").

When using access control/signage you shall:

- a. Only cordon off the necessary area
- b. Assess the need for access control above and below the relevant area
- c. Mark alternative escape routes with signs (applies to physical access control)
- d. The cordon shall be clearly marked and specify the hazard, owner and contact information.
- e. The owner shall ensure that the cordon remains intact at all times.
- f. Remove access control measures after the work has been completed.

Recommended access control materials:

- a. Red/white plastic chain
- b. Webbing reel or equivalent
- c. Swing gate/railings

See the company's management system for approved access control materials

5.0 Access control and signage

Example of sign for cordoned-off area

HAZARD:	LEAK TESTING
ACCESS:	AUTHORISED PERSONNEL ONLY
OWNER:	AREA TECHNICIAN, CHANNEL / TEL.
WORK PERMIT:	WP 1234/08
CORDON ESTABLISHED:	DATE/TIME

Special types of signage

In the event of work on electrical installations, the responsible electrician shall cordon off the area using access control tape and a black 'lightning' sign on a yellow background.



In the event of work with sources of radiation, the radiographer/ responsible technician shall cordon off the area using access control tape and a black radioactive sign on a yellow background.

6.0 Work over sea

Work over sea refers to work outside permanent railings where there is a risk of personnel falling into the sea. Work performed using Rope Access (RA) is not defined as work over sea. Work in a hydraulic basket in a "moon pool" and on approved scaffolding is not defined as work over sea when an extra barrier is used.

Examples of extra barriers include fall arrest equipment, man-riding belts, nets or extra-high railings. The scaffolding must be erected one class higher than the calculated need. Two handrails shall be installed in addition to knee boards on scaffolding over sea.

The scaffolding shall be re-certified weekly or following external influences such as inclement weather and strong winds.

In the event of work over sea you shall:

- Assess the weather conditions: max. wave height 5m (equivalent to 3m significant wave height) and winds of 30 knots
- Establish MOB response and alarm routines.
 - Check that rescue/protective equipment (including life vests) is appropriate to the work situation.
 - Check that a fire, entry and safety guard (FES guard) has been appointed and the required checklists completed.
 - Check that tools and other equipment for use outside the platform/scaffolding are secured against being dropped.
 - Assess whether movement of the installation (floating) poses a risk to personnel.

6.1 Duties during work over sea

Duties of the safety guard (FES) during work over sea (see also Appendix 1)

General:

- a. Wear a vest that clearly shows who holds the FES role
- b. Have participated in the Safe Job Analysis (SJA)/ reviewed the SJA, if SJA is required

Communication/alarm:

- a. Know where the nearest fire alarm box/telephone is located
- b. Maintain radio communication with the CCR/radio room/ man overboard (MOB) rescue and worksite
- c. Agree communication routines with involved parties when starting/upon interruption of the work
- d. Ensure that the communication method is checked before the work is started

Preparedness/preparations:

- a. Check that the MOB preparedness team is informed before the work begins
- b. Ensure that escape routes are known to all involved personnel
- c. Become familiar with the prevailing weather conditions and weather limitations for work over sea

6.1 Duties during work over sea

During the work:

- a. Do not actively participate in the work, and always be present when work over sea is in progress
- b. Remain on a permanent platform deck with a clear line of sight to those performing the work
- c. Maintain an overview of the number of people involved in the work, and monitor the work and sound the alarm if personnel fall into the sea
- d. Pay attention to any changes in the weather conditions/ visibility and lighting conditions, and stop the work if the prerequisites and limitations for the work are not fulfilled
- e. Monitor the work situation and surroundings so that the work can be stopped should a situation that necessitates this arise

In the event of an interruption or pause in, or completion of, the work:

- a. Ensure that the equipment/worksite is secured
- b. Notify the area technician if safety systems have been disconnected, so that these can be reconnected. Remember to notify the technician again if the work is to be resumed.
- c. Follow the agreed communication routine
- d. Maintain an overview until everyone has returned to the fixed platform

6.1 Duties during work over sea

Action in the event of man overboard:

- a. Notify work team, central control room (CCR)/MOB rescue and sound the alarm
- b. Throw out a lifebuoy
- c. Keep sight of the person
- d. Ensure that the equipment/worksite is secured

In the event of other alarm situations:

- a. Notify the crew and stop the work
- b. Ensure that equipment/the worksite is secured
- c. Muster in accordance with alarm instructions
- d. Maintain an overview until everyone is in a secured location on the platform

As the safety guard (FES), remember to wear your vest!



7.0 Entering confined spaces

When entering confined spaces, executing personnel shall:

- a. Review the SJA and WP/entry permit
- b. Cordon off the area and use appropriate signage
- c. Locate escape routes and clarify these with the work team
- d. Check that energy sources are isolated and the necessary disconnections and blinding have been performed
- e. Check that the entry site has been drained and cleaned, and that the relevant measurements have been carried out, e.g. HC, O₂, benzene, Hg, H₂S, iron sulphide and radioactive deposits (LSA)
- f. Carry a gas meter and use the necessary respiratory protection and other protective equipment appropriate to the work task
- g. Maintain contact with the FES (entry) guard
- h. Ensure sufficient access and that the necessary rescue equipment has been prepared
- i. Check that permanently installed sources of radiation (measuring equipment) are closed/shielded
- j. Carry a torch with the correct ATEX class
- k. Install and test emergency lighting if relevant

When using electrical equipment when entering areas where movement is constricted due to the confined surroundings, the following applies:

- a. Supply hand tools and portable electrical equipment from an isolating transformer located outside the area
- b. Connect only one piece of equipment or tool per transformer or secondary winding

7.1 Duties during work over sea

Duties for the entry guard (see also Appendix 1)

Prior to entry:

- a. The entry guard shall not be assigned other work tasks that are in conflict with the entry guard's duties
- b. Have the relevant emergency equipment available at the entry site in accordance with the entry permit
- c. Be familiar with the use of rescue materials/equipment
- d. Ensure involved personnel know where the escape routes are
- e. Know where the closest fire alarm box/telephone is
- f. Have an agreed stop signal the with the work team

During entry:

- a. Establish radio contact and report that entry has commenced to the CCR in accordance with internal company guidelines
- b. Maintain visual or radio contact with personnel entering the confined space
- c. Monitor the activity and surroundings, so that entry may be stopped if a situation that necessitates this arises
- d. Maintain an overview of the number of persons who enter the worksite at any given time
- e. Stop the entry in the event of a portable gas meter alarm
- f. Adhere to the safety requirements in the entry permit/ Safe Job Analysis (SJA)

7.1 Duties during work over sea

In the event of undesirable incidents at the entry site:

- a. Notify the work team and sound the alarm
- b. Inform the CCR
- c. Secure equipment/entry site
- d. Wait at the entry site until the emergency team arrives, inform them of the situation and the number of people who have entered the confined space

In the event of another alarm situation:

- a. Notify the work team and stop the entry operation
- b. Secure equipment/entry site
- c. Muster in accordance with alarm instructions

In the event of interruptions and breaks:

- a. Secure equipment/entry site
- b. Notify the area technician/CCR if the work is interrupted for more than one hour

After entry:

- a. Secure equipment/entry site
- b. Notify the CCR that the entry operation is completed

7.2 Duties when using breathing air



The entry guard shall undertake the following tasks:

Tasks when using breathing air

- Have established communication and an agreed stop signal with the user
- Have established communication with the safety guard for breathing air quality
- Monitor the supply of breathing air, and open for backup air if necessary

Tasks in the event of undesirable incidents when using breathing air

- Notify the work team and sound the alarm
- Secure/lock the breathing air valve if this is out of sight
- Secure equipment/worksites
- Meet the rescue team at the injury site

Tasks in the event of another alarm situation when using breathing air

- Notify the breathing air user via alarm/PA
- Notify colleagues and stop work that involves the use of breathing air
- Ensure that equipment/worksites is secured
- Muster in accordance with alarm instructions

See also Appendix 1 – Requirements matrix for hot work class

8.0 Hot work

Hot work class A

In the event of hot work class A, you shall:

- Ensure that the SJA and WP have been reviewed by all involved personnel if the work is in a classified area
- Use an entry (FES) guard
- Remove or cover flammable materials in the area – this also applies to the back of the welding area (floors, walls, ceilings)
- Consider any gases that may develop upon heating of the workpiece (ref. Sfs Recommendation 034E “Preventive measures for hot work”)
- Use the necessary respiratory protection and other PPE appropriate for the work task
- Have a gas meter at the worksite
- Have fire extinguishing equipment at the worksite
- Place the welding apparatus in a secure location and ensure it is earthed
- Connect the welding apparatus to the nearest outlet and stretch out the cables
- Use extraction via hood correctly
- Cover or plug drains in the area
- Cordon off the area
- Verify mechanical isolation

See also Appendix 1 – Requirements matrix for hot work class A in guideline 088

8.1 Welding/tubing plugs

The following measures shall be taken when using welding plugs during hot work class A:

- a. A technical/operational procedure shall be established for each individual welding job where welding plugs are used
- b. Welding plugs shall be approved in accordance with the company's internal guidelines and inspected prior to use
- c. There shall be drainage/pressure relief between the welding plug and approved barrier, or through the welding plug in order to ensure that pressure cannot build up upstream of the welding plug
- d. The pressure in the welding plug shall be checked wherever possible
- e. The work shall be arranged so that personnel are not required to be positioned in front of the open end of the pipe unless this is absolutely necessary for the work operation
- f. The welding plug shall be secured using a physical barrier as soon as possible
- g. The physical barrier must remain in place until the pressure has been released from the welding plug in connection with disassembly/completion of the job

8.2 Prior to hot work class A

Duties and tasks prior to and during hot work class A (see also Appendix 1))

- a. Have portable gas meters at the worksite
- b. Know where the electrical outlet for the welding apparatus/electrical equipment can be switched off
- c. Check that the worksite is clean and tidy and free of flammable substances below, behind and in cavities
- d. Ensure that drains are plugged/covered/filled with water
- e. Ensure that gas bottles are secured
- f. Ensure that hoses/cables are in good condition and suspended/protected
- g. Ensure that fire blankets are in place to protect against sparks
- h. Have a fire extinguisher appropriate to the potential fire type at the worksite
- i. Ensure that involved personnel know where the emergency escape routes are
- j. Know where the triggers for the deluge system are
- k. Know where the closest fire alarm box/telephone is
- l. Have an agreed stop with executing personnel
- m. Have established radio contact with the CCR if this is required by the work permit

8.3 Duties of the fire guard – hot work class A

If a fire hose is available and relevant:

- a. Know where the closest fire hydrant/hose is. The fire hose shall have a pressurised nozzle in the immediate vicinity (ambient temperature must be considered)

During hot work class A:

- a. Always be present when hot work class A is in progress
- b. Do not actively participate in the work
- c. Monitor the work situation and surroundings
- d. Stop the work if the alarm on the portable gas meter sounds
- e. Stop the work if a situation requires this
- f. Wear a vest that clearly shows who holds the role of safety guard

If the alarm sounds during hot work class A:

- a. Notify the work team and stop the work
- b. Switch off equipment/electrical supply and secure the workplace/open the valve for cooling if relevant
- c. Muster in accordance with alarm instructions

8.3 Duties of the fire guard – hot work class A

If a fire breaks out on site:

- a. Notify personnel and activate the alarm
- b. Notify the central control room (CCR)
- c. Save lives without exposing yourself to too much risk
- d. Switch off equipment/electricity
- e. Start fire extinguishing procedures/cooling
- f. Remove gas cylinders from the area

In the event of interruptions to/ completion of hot work class A:

- a. Switch off electrical supply to equipment/shut off gas bottles
- b. Notify the area technician, so that isolated safety systems can be activated
- c. Remain present at the worksite following heat treatment until the temperature is below 200 °C (390°F)
- d. Ensure that there are no ignition sources that may start a fire at a later point in time

Additional tasks when using a habitat:

- a. Have fire extinguishers both inside and outside the habitat
- b. Activate the habitat's light and sound alarm if a situation demands this
- c. Stand outside the habitat. In the event of larger habitats or special operations, whether an extra FES (fire) guard is necessary inside the habitat shall be considered

8.3 Duties of the fire guard – hot work class A

- d. Assess where the alternative escape route from the habitat should be
- e. Ensure that propane bottles in the habitat are removed from the habitat before any other hot work is performed in the habitat
- f. Ensure that the communication method has been agreed between executing personnel and the entry/ habitat safety guard for example for opening the door of the habitat. (Ref. SfS Recommendation 036E “Habitat”)
- g. Have established contact with the area technician
- h. In the event of welding, have a zinc bucket for discarded electrodes, as well as a water-based fire extinguisher for the cooling of electrodes and the work area available in the habitat

8.4 Hot work class B

In the event of hot work class B in classified areas, you shall:

- a. Have a gas meter at the worksite
- b. Consider the use of appropriate fire extinguishing equipment
- c. Consider removing or covering flammable substances

See also Appendix 1 – Requirements matrix for hot work class B from guideline 088



9.0 Explosives

When using explosives, you shall:

- a. Clarify/check with the person responsible for explosives prior to starting the work
- b. Check that explosives are labelled and stored in accordance with regulations
- c. Verify that the necessary documentation for risk, handling and storage is available
- d. Log the amount of explosives stored at any given time, and ensure that the amount is in accordance with regulations
- e. Consider the need for radio silence when working with explosives
- f. Ensure that explosives that require radio silence are not stored on the installation permanently
- g. Ensure that hot work class A is not carried out within the safety boundary



10.0 Chemicals

When using chemicals, you shall:

- a. Use protective equipment in accordance with the risk assessment/safety datasheet and WP
- b. Ensure sufficient extraction/ventilation
- c. Have the necessary first-aid equipment available (eye wash, shower, etc.)
- d. Act as described in the action card in the event of accidents, and contact the HSE coordinator/nurse
- e. Assess whether the work may lead to the mixing of chemicals/substances that are incompatible, or which may give rise to an undesirable reaction and/or undesirable exposure
- f. Clarify the storing of residual chemicals/waste in accordance with installation requirements or the person responsible for materials.
- g. Check that filling and storage take place in accordance with requirements and risk assessments. Be especially aware of the following:
 - Hazards when storing incompatible substances together
 - Risk of caustic/corrosive chemicals reacting with substances they may come into contact with
 - Risk of discharge; consider accumulations in the event of spills when planning the activity
 - Consider whether temperature changes in the work with chemicals may pose an altered risk, or change the chemicals' composition
 - Risk of overfilling

10.1 Paint, spray-paint

- h. If chemicals are transferred to another approved container, the old label shall be removed, the container cleaned, and a new label applied in accordance with regulations
- i. Chemical waste shall be handled and classified in accordance with the safety datasheet
- j. If you need clarification, contact your manager

Paint, spray-paint

Ved bruk av maling/sprøytemaling skal du:

- a. Have the safety datasheets for the relevant chemicals available
- b. Ensure sufficient extraction/ventilation
- c. Cover adjacent ventilation intakes and critical equipment
- d. Check the equipment that will be used
- e. Check that the relevant materials are earthed
- f. Ensure that protective equipment is in accordance with the risk assessment and safety datasheet for the paint to be used
- g. Verify that the chemicals checklist has been reviewed
- h. Consider other work, materials and climatic conditions
- i. Establish the necessary cordons and signage
- j. Sort paint waste/packaging for correct disposal

10.2 LSA (Low Specific Activity) materials

LSA (Low Specific Activity) radioactive materials

When planning the work, or if low specific activity radioactive materials (LSA) are suspected, equipment/piping shall be handled as LSA contaminated, or metering shall be requisitioned before starting the work in order to verify/confirm whether the equipment/pipe is LSA contaminated.

The worksite shall be cordoned off and signage erected before the work takes place. If LSA materials are detected, appropriate personal protective equipment shall be used. Which personal protective equipment is appropriate is determined by the radiation protection coordinator or the facility's requirements, based on the scope of LSA and the type of work to be performed.

The following must also be considered:

- a. Principal of avoiding the formation of dust, keep LSA damp
- b. Cordoning off and signing of monitored/controlled areas
- c. Prevent spread/spillage of LSA-containing materials
- d. Waste that contains LSA shall be packaged and declared in accordance with IMDG/dedicated waste guide

Relevant protective equipment:

- a. Disposable dust suit
- b. Sealed safety glasses (goggles)
- c. Respiratory protection with appropriate filter (type ABEK1-Hg-P3 or equivalent) or breathing air
- d. Nitrile gloves and rubber boots

Asbestos

If the presence of asbestos in the work area cannot be ruled out (the probability of finding asbestos is greatest for installations/facilities constructed prior to 1990), the following must be considered:

- a. The handling of materials containing asbestos requires approval from the Norwegian Labour Inspection Authority
- b. Handling of asbestos refers to: material sampling, cleaning, repair, enclosure, painting or removal
- c. In the event that asbestos is suspected in a material being worked on, the area must be closed off. Sampling of the material must be performed by a firm approved by the Norwegian Labour Inspection Authority. The work shall be performed in accordance with the protection requirements specified in Chapter 4 of the Regulations concerning the performance of work.

Typical locations where asbestos may be found include high-temperature areas, exhaust ducts, insulation and seals.

During work on normally pressurised systems, you shall:

- a. Ensure that the relevant documentation is available, i.e. isolations/valve and blind lists/marked drawings
- b. Review the safety datasheets for the relevant media
- c. Use personal protective equipment for the relevant work
- d. Check that hoses and couplings that are used are appropriate to the relevant pressure and medium
- e. Verify that electrical locking has been carried out (if necessary)
- f. Verify mechanical isolation
- g. Demonstrate in the field that affected equipment is depressurised
- h. Check that blinds and seals have the same pressure class as the flange on which they are mounted
- i. Ensure the correct torque is used during flange pulling
- j. In the event of splitting: be aware of the risk of chemicals such as benzene, H₂S, mercury, etc. Consider measures such as meters and/or extra protective equipment.
- k. Do not stand 'in the firing line'

See also Appendix 1 – Requirements matrix for work on hydrocarbon system from guideline 088

12.0 Pressure testing of new pipe

When pressure testing, you shall:

- a. Verify that the equipment is secured against overpressure
- b. Check that the contents of the test job package are complete and contain test-P&ID and/or test-ISO with the necessary test parameters
- c. Check that a test procedure exists for the relevant job
- d. Check that pressure testing equipment is approved and certified (calibrated)
- e. Establish good coordination between the relevant parties who are involved in/affected by the testing
- f. Cordon off the area
- g. Ensure continuous guard duty/radio connection
- h. Verify mechanical isolation/blinding
- i. Place pressure/temperature recorder and manometer in a safe location
- j. Check that equipment and instruments that shall not be part of the pressure test are removed or isolated
- k. Check and secure hoses, couplings and temporary pipe supports
- l. Check the need for alternative escape routes
- m. Check that valves are in the correct position
- n. Coordinate with CCR
- o. Inform of pressure testing over the PA system if possible

12.0 Pressure testing of new pipe

During pressurisation, you shall:

- a. Not stand and observe directly in front of possible leak points such as the pressure manometer, inspection glass or flange connections

Upon completion of pressure testing, you shall:

- a. Start the depressurisation by gradually opening the bleed-off valve (shall be performed carefully and slowly)
- b. Open low drainage points and ensure that all water is drained out of the piping system by checking and draining all low points in the system. NB! Local low points in equipment and valves can require special drainage in order to avoid freezing, corrosion, etc. Consider the need for the addition of a heating cable to avoid freezing.
- c. Ensure that the entire pipe system is depressurised, so that no remaining pressure is trapped within pipe sockets, equipment, valves, etc.

Ensure that you do not stand 'in the firing line'!

13.0 Material handling

Pre-use check

Anyone who will use or reuse a load container shall perform a qualified pre-use check in advance, in accordance with Norwegian Oil and Gas inspection form 116, 'Inspection of load containers'.

It is emphasized that pre-use inspections of load containers shall be performed every single time a load container is used or reused. Once completed, the inspection form shall be signed and stored in a traceable manner in the dedicated system for barrier management and made available to the load recipient.

Load containers with defects or damage shall be immediately set aside and made available for repair by the owner. The type of defect or damage shall be specified in the inspection form, which shall accompany the load container when it is transported to the owner.

Lifting set

- a. Check that tag with associated ring or wire is affixed to the lifting set and that the subcomponents appear undamaged.
- b. Visually check the ENTIRE lifting set and shackles for damage.
- c. The following components shall be visually inspected for damage and the formation of cracks upon bending on ALL loops: top loop, forerunner, collecting loop and coupling loops for shackles
- d. Check that there are pins in the shackles and that the pins are split/curved.

Contact the relevant specialist when replacing tackle/shackles.

13.1 User inspection

Load containers

- a. Check the annual control date
- b. Check that ALL applied identity numbers are readable
- c. Check that lifting lugs appear undamaged
- d. Check the unit for deformations in the primary structure
- e. Check doors, including: Locking rods with claws, hinges, seals, door handles, snap hooks, carabiners and the fastening arrangement on external side walls and doors intended to secure doors in the open position
- f. Check that ALL moving parts on doors and attachment points are lubricated
- g. Check that the unit is free of hole damage and scale rust
- h. Check that there are no loose objects on, in or under the load container
- i. Check that the barrier net in the container or net over the load in the basket/skid is free of damage and defects and is appropriate to the load container
- j. Check that the attachment points for nets that provide full coverage of the basket/skid are free of damage and defects
- k. Check that old labels, cable ties, etc. have been removed from the load container
- l. Check that drainage holes are open
- m. Check that the load container does not have a stacking point that may pose a risk of the container snagging on vessels or other load containers during lifting operations

13.1 User inspection

Additional points for tanks

- a. Check that valve outlets are supplied with blind plugs/ covers and that these are securely attached using safety chains.
- b. Check that mounted equipment, such as valve handles, grilles, plates, access hatches, etc., are firmly screwed on.
- c. Check for any leaks, especially at flanges/gaskets and connection points.

Additional points for open waste containers

- a. Check that full-coverage tarpaulins or lids are free of damage and defects.
- b. Check that attachment points for full-coverage tarpaulins or lids are free of damage and defects.
- c. Check that the compactor has an emergency stop button and machine guard.

13.2 Planning of lifting operations

All lifting operations shall be planned and risk assessed. Lifting operations shall be categorised in one of the following three levels, ref. NORSOK R-003

- 1) Lifting operations that can be risk assessed and planned in connection with the pre-job discussion.
- 2) Critical lifting operations that require a WP, SJA or other specific safety measures.
- 3) Planned lifts where there is a need for engineering support and e.g. HAZID/HAZOP.

Critical lifting operations are operations that may have significant consequences in the event of failures, e.g. lifts above pressurised hydrocarbon systems, lifts above critical equipment outside the permitted zone in the load limit chart, personnel transport where there are no other approval schemes and tandem lifts where the weight of the load exceeds the maximum lifting capacity of one of the lifting devices.

During planning, measures shall be identified to reduce the probability of hazardous situations arising, as well as limit the scope of the damage should they occur. It is important not to dismiss any hazards by simply thinking that the lifting operation is a routine one. Instead, think through measures in order to reduce the dangers.

- a. The slinger should not be in contact with the load. If the load must be guided into place, the load shall first be stabilised, and an all-clear signal given by the operator of the lifting gear.

13.2 Planning of lifting operations



13.2 Planning of lifting operations

- b. The slinger shall maintain control over the load, not take control over it. Loads should be guided at as low as possible. If it is necessary to guide the load, the slinger should use a boat hook, guide rope or similar device in order to remain at a distance from the load.
- c. The operator of the lifting device shall consider and approve the use of a guide rope. If use of a guide rope is necessary, personnel shall have received the necessary training in its use and be involved in the planning of the operation.
- d. All personnel shall be familiar with the assignment, what shall be lifted, the weight of the load, the centre of gravity, what lifting gear shall be used, the lift route and the roles of those involved.
- e. Material handling plan/established procedures for the relevant lifting operation shall be identified and used in connection with the planning and execution of the lifting operation.
- f. Sufficient personnel shall be present during all phases of the lifting operation.
- g. The lifting route has been clarified and any obstacles removed prior to lifting.
- h. Ensure all involved personnel have their 'backs free'
- i. The area shall be cordoned off as necessary to prevent personnel walking or standing beneath suspended loads.
- j. Communication methods are clarified.

13.2 Planning of lifting operations

- k. The lifting operation can be performed safely with regard to other simultaneous operations. The lifting gear and equipment have been inspected and are appropriate, and planned to be used in accordance with the manufacturer's instructions.
- l. The landing area for the load is of a sufficient size and dimensioned for the weight of the load.
- m. Involved personnel have sufficient competence and knowledge of the regulations and standards that apply to the operation to be performed.
- n. The supplier or specialist enterprise shall be involved in tandem lifts where the weight may exceed the lifting capacity of one of the lifting devices, if a procedure for how this shall be performed does not exist.
- o. Check that there are no loose objects at, in or under the load container/load.

13.3 Approval for use, temporarily erected lifting equipment

Capacity less than or equal to 2 tonnes

- a. Shall be performed by an approved rigger who approves that the lifting point is of sufficient strength and issues a certificate of use.
- b. Capacity tables may be used. Ref. Sfs lifting tables on the Sfs website

Capacities greater than two tonnes

- a. The rigger shall ensure that the strength of the suspension point is approved by a competent organisation (Ref. NORSOK R-003)
- b. The competent organisation issues a certificate of approval for the temporary attachment point.
- c. The rigger issues the certificate of use for the lifting equipment and suspends the correct equipment from the suspension point.

Use checks

Pre- and post-use checks of the lifting equipment shall always be carried out. Routines for daily checks of the lifting equipment may replace the requirement for pre- and post-use checks.

When mounting/dismounting lifting equipment on lifting beams, the planning and risk assessment must include the need for securing of the lifting equipment in order to prevent dropped objects. When mounting a trolley, check whether this can pass the end stops on the beam.

All positioning, assembly, use and maintenance shall be in accordance with the manufacturer's instructions for use.

13.4 Material handling – colour codes

Colour codes for fibre straps

 1t violet	 6t brown
 2t green	 8t blue
 3t yellow	 10t orange
 5t red	 > 10t orange

Year colour (certification date)

Annual colour codes for lifting equipment without a unique serial number

 2019, 2023, 2027
 2020, 2024, 2028
 2021, 2025, 2029
 2022, 2026, 2030 etc.

NB! The annual colour code on loose lifting equipment is a visible sign that the annual inspection has been carried out. For lifting equipment with a unique label, the annual inspection shall also be documented by an inspection report from the specialist company. For lifting equipment without a unique label, an inspection report that specifies the type and number of inspected units in addition to the annual colour code is sufficient.

Note that the colour code on lifting equipment will be 'incorrect' from 1 January until the inspection is carried out. The inspection may take place at any time during the year, but must be performed at the same time each year.

14.0 Noise/work in noise zones

In the event of noise/when working in noise zones, you shall:

- Consider noise shielding of equipment that is in operation
- Check the noise map with regard to the length of time personnel may remain in the area/use of hearing protection
- Use double hearing protection where this is required
- Consider self-produced noise and impulse noise
- Notify colleagues in adjacent areas before starting work that involves noise that may cause hearing damage
- Change hearing protection internal components and check whether the band is tight enough every six months.

Områdestøynivå dB(A)	Farge	Maksimal oppholdstid pr skift
>110		Opphold ikke anbefalt - kun på spesielle betingelser
106-110		30 minutter per skift
101-105		2 time per skift
96-100		1 time per skift
91-95		6 timer per skift
86-90		12 timer per skift
81-85		Ingen tidsrestriksjoner
76-80		Ingen behov for hørselvern
≤75		Ingen behov for hørselvern

If an employee's permitted exposure time has been used up for the day, the individual shall only continue to work in areas with a noise level below 80 dB(A). The use of hearing protection with seal check, continual exposure measurement and warning function if this the limit exceeded may replace the table above.

15.0 Work in H₂S areas

In areas with a risk of acute H₂S emissions, the following shall be checked:

- a. Review the installation's specific requirements for work with or in areas with a risk of H₂S. Check the H₂S area classification to assess the risk of exposure.
- b. Check the SJA requirements regarding the activity with a risk of H₂S exposure, ref. the installation's specifications.
- c. Persons/work teams performing activities in areas with accessible escape routes shall carry equipment that continually monitors the atmosphere for H₂S.
- d. Personnel who perform activities (e.g. on scaffolding, in confined spaces, etc.) where escape routes are not easily accessible shall carry personal escape masks. If the gas alarm sounds, personnel shall don the masks and leave the area.
- e. In the event of the detection of high levels of H₂S by equipment, or in areas where a high concentration of H₂S is suspected, breathing air equipment shall always be used.
- f. In the event of the detection of H₂S, or work in any area without good ventilation, two persons shall always be present: One person shall monitor the H₂S while the other remains vigilant and not close by, but maintains radio or eye contact with the person monitoring the H₂S level.

16.0 Use of equipment/tools

16.1 Work on electrically powered equipment

In the event of work on electrical equipment or equipment that is electrically powered, you shall:

- a. Check that the disconnection from the electricity supply and personal protection against connection have been carried out
- b. Check that a test start has been performed

16.2 Portable electrical equipment

When using portable (loose) electrical equipment, you shall check:

- a. That the equipment has an approval label that contains a minimum of the year's colour code or mark.
- b. That the equipment/tool has no damage or defects
- c. That cables/leads:
 - are free of cuts and damage
 - not pulled through doors and openings without being protected against being pinched and damaged
 - do not obstruct escape routes and ordinary traffic
 - do not cross safety barriers against fire without compensating measures being implemented
 - are suspended using S-hooks or another appropriate method
- d. Any transition from Ex to non-EX shall be near the worksite.
- e. Equipment must be approved in accordance with the zone classification where the equipment shall be used, or handled via an approved WP

16.2 Portable electrical equipment

Provisional extension leads shall:

- a. Be connected via plug in the system cabinet or to a permanently installed outlet
- b. Be max. 25m for one-phase
- c. Be max. 40m for three-phase
- d. Be dimensioned in accordance with the power level of the plug
- e. Not be extended using additional extension leads
- f. Ensure that the equipment is without voltage when the work is interrupted

In the event of faults/defects on the equipment, contact the electrician or set the equipment at the specified location.



16.3 Electrical system

When working on electrical systems, you shall:

- a. Have the necessary permits and authorisations
- b. Know who has been appointed Responsible for the work (low voltage) or Safety manager (high voltage)
- c. Understand the risks associated with the execution of the relevant work, and which work method has been chosen
- d. Be aware of arcing energy levels in the relevant panels/equipment you will be working on, along with any limitations associated with this

16.4 Temporary equipment

When using temporary equipment, you shall check:

- a. That the equipment has been inspected, maintained and approved in accordance with attached certificates/inspection forms/checklists
- b. That the equipment and cables are free of visible damage
- c. That the location of the equipment is approved with regard to area classification and escape routes
- d. If connecting to systems, check that the equipment has the appropriate specification for the pressure/medium of the system that the equipment will be connected to, and that the connection is approved by the system owner
- e. Regular follow-up of temporary equipment in the field is recommended. Check for leaks, damage, etc.

After the work has been completed, notify the relevant persons that the equipment can be disconnected and returned.

16.5 Gas meters

When using gas meters, you shall:

- a. Have received information/equipment-specific training in the use of the apparatus
- b. Check that the instrument can measure what is required by the work permit (range/alarm limits)
- c. Check that the instrument is calibrated and charged
- d. Become familiar with the instrument's functions, limitations and measurement range
- e. Ensure that the instrument is turned on and appropriately placed with regard to the expected gas leak and wind direction
- f. Check that the detector cell is not covered and remove any cap/cover
- g. Ensure that the apparatus is not exposed to damp
- h. Turn gas meters off and on in unclassified areas
- i. If attaching to boiler suit/belt, ensure double retention (to avoid dropped objects)

16.6 Radio

When using radios, you shall:

- a. Undertake a radio check before the work starts
- b. Check that the radio is free of damage, and that the battery is sufficiently charged
- c. Use allocated channels
- d. Maintain an overview of alternative communication methods
- e. Put the radio in its original carrying pouch, and handle with care
- f. Batteries shall only be used in unclassified areas

16.7 Ex-certified tablets/smartphones

When using Ex-certified tablets/smartphones you shall:

- a. Perform a pre-use check
- b. Check that the equipment is approved for use (marked with the year's colour code if necessary)
- c. Be aware of which zones the equipment is approved for
- d. Be aware of the rules that apply in the various zones

16.8 Pneumatic tools

When using pneumatic tools, you shall:

- a. Check the max. use time for the tool
- b. Check that gaskets are in good working order
- c. Check that tools are depressurised when leaving the worksite during breaks
- d. Ensure that the tool is in good condition and that labels are readable, including ATEX (Ex) labelling. Ref. SfS recommendation 042E "Handling of non-electrical ignition sources"
- e. Use a pressure reducing valve between the air outlet and tool in the event of work where the pneumatic tool has a lower working pressure than that available at the facility
- f. Undertake the necessary earthing (sludge extractor, ejector, pumps). The max. permitted RPM stated on the grinding/cutting disc shall always be higher than the max. RPM specified on the tool

16.9 Use of large workshop machines

(e.g. lathe, milling machine, sheet metal cutter/ shear, drill press, band saw) in an approved work- shop. Documented safety training is required for each machine.

When using such machines, you must:

- a. Check the condition of/area around the workshop machine:
 - Is an instruction manual available at the workplace?
 - Does the machine have visible defects such as a missing protective guard, loose parts?
 - Are the necessary guide tools, fasteners, cutting sticks in place?
 - That there is no damage/defects on the workpiece before the work starts
 - That the correct chucking/fastening of the workpiece has been used
 - That the correct choice of tools has been made (turning tool, chucks, saw blade, etc.) for the tasks
- b. Be aware of:
 - The risk of being cut when handling shavings. Always stop the machine before you remove shavings and use a brush to remove shavings
 - Loose-fitting clothes, jacket/arms and hair
- c. Assess the need for special protective measures:
 - Correct gloves for the task (NB! do not use gloves when operating rotating machinery)
 - Breathing air/dust mask
 - Filter mask, if there is a risk of release of chemicals
 - Earmuffs
 - Hardhat with optional earmuffs
 - Viser/safety glasses

16.10 Use of knives

In performing most work tasks, **alternatives to knives** are just as good or better than knives

- Scissors** from various manufacturers and in various designs for the cutting of rope, cable ties, packing tape, etc. These also work well for cutting tarpaulins.
- Side cutters** in various sizes for the cutting of cable ties, cable, string, etc.



- Sheath knives** with a smooth handle and no hand guard are poor universal tools

**'I'm just going to' ...
stop and think!**

Many cuts occur in connection with tasks that are not a direct part of the work operation (tidying up, adjusting and removing items, etc.) Think through the risks and how you can avoid injuries.



16.10 Use of knives

Use specialist knives where scissors/cutters are of no use:

- Stanley knives** of solid metal with various blade types are suitable tools for cutting tarpaulins, cardboard, packing tape, etc. The knives are available with spring-loaded or lockable retractable blades
- Cable knives** are specially designed for the stripping of cables
- Knives with short blades** and blunt tips pose less of a risk of stab injuries. The knife also has a hand guard on the handle



When using knives, you shall

- Assess the cutting method and risks
- Check that the cutting tool is complete and in good working order
- Use knives against a firm surface if possible
- Secure tools during work at height
- Consider the risks involved in storage/ transport
- Use cut-resistant gloves

For selection of the correct tool, check relevant requirements and procedures.

17.0 Breathing air

When using breathing air, you shall:

- a. Ensure that the air source (compressor, bottle bank, air system, etc.) is approved as breathing air.
- b. When borrowing breathing air, be able to exhibit the necessary skills in the use of the relevant breathing air equipment by performing an assembly inspection. A user inspection and buddy check of the breathing air equipment shall also be reviewed.
- c. Check that the hose/couplings for breathing air are in accordance with the facility's requirements
- d. Ensure communication and safety for the breathing air user (buddy check) – especially when using mobile breathing air compressors
- e. Perform a user inspection before the work starts
- f. Disassemble and clean the breathing air equipment

See SfS Recommendation 009E:
“Breathing air and respiratory equipment”

18.0 Refilling of Nitrogen

During N₂ refilling, you shall:

- a. Check that the N₂ refilling equipment is certified, maintained and fit for purpose
- b. Perform a visual check of all the equipment prior to use
- c. Perform a pre-use check of hoses and couplings
- d. Ensure that clean/dry hoses are used on the intake and outlet of the filling unit

As a minimum, N₂ filling equipment shall have the following safety functions:

- a. Adjustable pressure regulator for delivery pressure
- b. Double pressure indicator for delivery pressure
- c. Pressure safety valve (PRV/PSV) for delivery pressure (for protection of receiving system)
- d. Bleed valve

When using gas booster pumps, the following safety functions shall also be present:

- a. PRV/PSV with fixed setting for protection of pump
- b. PRV/PSV for protection of N₂ supply against overpressure in the event of any backflow

19.0 Hoses/couplings

Inspection points for hoses and couplings:

- The system's design pressure shall not exceed the hose's maximum working pressure
- The hose is labelled with the year's colour code (if relevant)
- The hose couplings are of the correct type and affixed securely
- The hose is free of damage
- The hose is sufficiently secured (ref. Sfs Recommendation 039E "Securing hoses")
- The hose is cleaned and ready for use
- The hose is labelled with an ID number and the maximum working pressure is engraved on the sleeve in accordance with applicable requirements.
- The hose has the correct colour for the relevant medium:

MEDIUM	FARGEKODE	SLANGE
Luft		Gul
Ferskvann		Blå
Sjøvann		Grønn
Damp		Svart
N2 Høytrykk		Oransje (frem til utskifting kan svart benyttes)
N2 lavtrykk		Hvit
Hydrokarboner		Svart eller metallisk (flettet stål)
Pusteslanger		Svart m. grønn stripe /grønn slange

20.0 Tarpaulins in classified areas

When using tarpaulins in classified areas, you shall agree use of the covering with the area responsible and take the following into account:

- Deluge/sprinkler system
- Detectors
- Blast walls
- Operation of equipment
- Ventilation (the tarpaulin must be designed to ensure effective air circulation at the top)
- Lighting
- Emergency access
- Weather conditions
- Max. 2 sides (check local requirements) covered, using waterproof, flame-retardant tarpaulin. In the event of a need for more coverage a special application shall be made
- The sides of large scaffolding shall not be covered further down than max. 2 metres from ground level
- Consider the risk of gas/changes in zone classification
- Check that the tarpaulin does not cover openings in scaffolding floors/grating/permanent decks
- In the event of a risk of freezing temperatures, check for accumulated water that may lead to a risk of falling ice

21.0 Pre-treatment of surfaces

In the event of sandblasting, jet washing, UHP, mechanical pre-treatment, etc., you shall:

- a. Become familiar with the area requirements/safety system in the area where the work will be carried out, and check user instructions and requirements regarding training in the use of the equipment
- b. Consider risks in the event of heating of the surface and surface coating (ref. Sfs Recommendation 034E "Hot Work")
- c. Consider whether the activity will give rise to temperatures that will require measures equivalent to hot work (ref. WP system)
- d. Use approved protective equipment appropriate to the pre-treatment method
- e. Identify and cover equipment that may be damaged by the activity (e.g. cables, air intakes, drains, junction boxes, detectors, etc.)
- f. Contact the relevant specialist department for inspection of the area in the event of any damage to the equipment/facility
- g. Pressure-balance the equipment before the area is left without supervision and when dismantling equipment
- h. Cordon off the area if the work may pose a risk to other personnel
- i. Remove all covers after the work is completed, and be aware of covers that inhibit detectors or drainage systems during work stoppages.
- j. Clean the area upon completion of the work
- k. Use hearing protection in accordance with noise zones and self-produced noise
- l. Ensure that the equipment is earthed in accordance with ATEX requirements when blast cleaning and using UHP

22.0 Grinding and cutting

When grinding/cutting, you shall:

- a. Use appropriate gloves, sealed safety glasses and hearing protection, and respiratory protection if necessary
- b. Cordon off the area
- c. Work in an approved workshop or have an approved WP for the job

When using hand tools, you shall:

- a. Check the tool's noise and vibration level and adhere to any usage limits (ref. Sfs Recommendation 044E "Labelling and use of handheld tools")
- b. Check that the protective cover is intact and firmly screwed on
- c. Check that the grinding/cutting disc features no damage or defects
- d. Check that the grinder is not locked in the 'on position'
- e. Check that the correct type of disc is used, and that it has the correct RPM for the tool.

NB! Cutting discs shall not be used as grinding discs.

When using stationary equipment, you shall:

- a. Check that the distance from the device to the stone is max. 2 mm
- b. Check that the protective screen/cover is in order

23.0 Instrument tubing/fittings

When working on instrument tubing/fittings you shall:

- a. Check that the instrument tubing/fittings are de-pressurised before the work starts
- b. Check that instrument tubing/fittings with differing threads are not mixed
- c. Check that instrument tubing/fittings from different suppliers are not mixed
- d. Install new instrument tubing/fittings in accordance with the supplier's instructions
 - Use tubing cutters
 - Use the correct bending tools
- e. As a general rule, different types of instrument tubing/fittings shall not be combined. Exemptions from this shall be approved in advance
- f. Use thread sealant on conical threads
- g. Ensure that threads are cleaned and de-greased
- h. Check any curing time and temperature before the instrument tubing/fittings are pressurised
- i. Use two spanners of the correct size when assembling and disassembling instrument tubing/fittings
- j. Verify that the pressure class of the instrument tubing and fittings is in accordance with specifications

24.0 Cyber security

When using portable computing equipment and storage media and physically connecting to the network, you shall:

- a. Apply for a work permit if work shall be performed on automation, data and telecommunications equipment and requires the connection of programming tools (external PC) or storage media (USB)
- b. Contact the responsible specialist on the installation for help if necessary prior to connecting to the network
- c. Ensure that computing equipment has been scanned for viruses before connecting it to technical systems offshore

25.0 Definitions and abbreviations

WP	Work permit
FES guard	Fire, entry and safety guard
HAZOP	Hazard and operability analysis
HSE	Health, safety and environment
LSA	Low specific activity (radioactive scale)
MOB	Man overboard
SJA	Safe job analysis
CCR	Central control room
SWL	Safe working load
UHP	Ultra high pressure
IMDG	International Maritime Dangerous Goods

26.0 Appendix 1 – Requirements matrices from 088

5.2.1 Hot work class A			
Work with equipment and tools that constitute an effective ignition source and which when used in a normal manner may ignite an explosive atmosphere and/or solid materials or liquids, i.e. high energy is given off in the form of sparks, an open flame or electric arc, and/or the tool/equipment has a surface temperature that exceeds the ignition temperature for the exposed medium.			
Typical ignition sources include:			
- Welding		- Hot tapping of piping/vessels under pressure	- Ordinary grinding/cutting discs
- Heat shrinking with open flame		- Preheating using an open flame	- Annealing
- Burning.			
Preconditions and limitations		Requires WP Level 1	WP not required
Limitations for hot work class A depend on the production status, as well as the classification of the area in which the work shall take place.		Classified area	Unclassified area
Comments			Approved workshop
a) All hot work class A requires a separate advance assessment in accordance with the guidelines of the individual operating company.			
b) Additional limitations associated with drilling and well operations will apply in accordance with the procedures for simultaneous drilling and production given by the individual operating company.			
c) Not permitted during rundown/start-up of process systems when there is a risk of hydrocarbon release.			
d) Guidelines for the use of habitats are given by the individual operating company.			
Normal operation:			
	Is hot work A allowed – without habitat?	No	Yes (a)
	Is hot work A allowed – with habitat?	Yes (a)(b)(c)(d)	N/A
Production shutdown:			
	Is hot work A allowed – without habitat?	Yes (a)(b)(c)	Yes (a)
	Is hot work A allowed – with habitat?	Yes (a)(b)(c)(d)	N/A
Operational and safety preparations by area technician			
1.	An SJA must always be carried out prior to the work.	x	
2.	The equipment must be taken out of operation, depressurised, drained/emptied, cleaned/rendered gas-free/made inert.	x	x
3.	The equipment must be isolated/blinded from other parts of the plant.	x	x
4.	Prevent release of oil/gas in the area. Undertake thorough evaluations of potential leakage sources in the surrounding area.	x	x
5.	Inspection of the work site: The area technician shall inspect the work site prior to and during the work.	x	x
6.	Gas measurement prior to the work.	x	x
7.	All safety systems in the area/adjacent areas shall be operative/compensating measures shall be implemented.	x	x x
Operational and safety preparations by executing skilled worker			
1.	An SJA shall always be carried out prior to the work.	x	
2.	Gas measurement at the work site: Continuous gas measurement so that the work can be stopped and the equipment secured if gas is detected.	x	x
3.	Verify mechanical isolation.	x	x
4.	Fire extinguisher/fire prevention measures: Including shielding against sparks with fire blankets, inspection at the rear side of the work site or behind walls in cavities, removal or covering of flammable materials, removal of oil spills, gas bottle valves to be closed during interruptions/work stoppages, electrical earthing of equipment. Portable fire extinguisher/fire extinguishing equipment available at the work site.	x	x x
5.	Welding equipment safely located and earthed.	x	x x
6.	Continuous guard/radio communication in accordance with 5.2.11 Duties of the fire guard.	x	x
7.	Drains/outlets in the area plugged/covered.	x	x
8.	Barriers/warning signage.	x	x
9.	Coordination with CCR/area technician.	x	x
10.	Procedures/checklists for the operation read and understood by involved personnel.	x	x x
11.	Special personal protective equipment for the operation noted on the WP in accordance with the relevant work.	x	x x

26.0 Appendix 1

– Requirements matrices from 088

5.2.2 Hot work class B	Requires WP Level 1 in classified areas
Work that constitutes a potential ignition source and which is not defined as hot work class A.	
<p>Typical ignition sources include:</p> <ul style="list-style-type: none"> • Heat shrinking with an electrical heat gun • Sandblasting, needle picking • Electrical hand tools • Electrical isolation testing (megger testing) • Soldering equipment • All electrical or battery-operated equipment/apparatus/instruments that are not Ex-protected in accordance with the classification of the areas in which they will be used • Rotating steel brushes 	
<p>Preconditions and limitations</p> <p>Limitations associated with drilling and well operations will apply in accordance with the procedures for simultaneous drilling and production given by the individual operating company.</p>	
<p>Comments</p> <p>In unclassified areas this type of work may be performed with a WP level 2.</p>	
<p>Operational and safety preparations by area technician</p>	
<p>1. Prevent release of oil/gas in the area. Undertake thorough assessment of potential leakage sources in the surrounding area.</p>	
<p>2. Inspection of the work site: The area technician shall inspect the work site prior to and during the work.</p>	
<p>3. Gas measurement prior to starting the work (in classified areas).</p>	
<p>4. All safety systems in the area/adjacent areas must be operative/compensating measures implemented.</p>	
<p>Operational and safety preparations by executing skilled worker</p>	
<p>1. Gas measurement at the work site: Continuous gas measurement (in classified areas) so that the work can be stopped if gas is detected.</p>	
<p>2. Fire extinguisher/fire prevention measures: Use a suitable fire extinguisher. Consider whether removal or covering of flammable materials is necessary with regard to the work equipment to be used.</p>	
<p>3. Procedures/checklist for the operation read and understood by involved personnel.</p>	
<p>4. Special personal protective equipment for the operation must be noted on the WP in accordance with the relevant work.</p>	

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5.2.3 Entry into confined spaces	Requires WP Level 1
Complete or partial entry into confined spaces or areas that are not normally naturally or mechanically ventilated, such as tanks, pipes, chain lockers and exhaust ducts.	
<p>Preconditions and limitations</p> <ol style="list-style-type: none"> 1. All pipelines connected to the container must be isolated using a spade blind. In special cases, other means of isolation may be accepted provided that the barrier is kept under continual control during all phases of the work. If such an alternative isolation method is used, it shall be specified in the individual operating company's work procedures. 2. The container /confined space must not be entered until the area technician has ensured that it is safe to do so and has given clearance to start the work. 3. A WP for entry is only valid for entry into the space and a visual inspection. A separate WP must be used for any other work to be carried out. 4. Documentation covering a minimum of the following shall be available: <ul style="list-style-type: none"> • Isolations/valve and blind lists • Marked-up drawings <p>This documentation must be linked to the WP and stored in accordance with the guidelines of the individual operating company. Breathing air equipment must be in accordance with NS-EN 12021 and the Labour Inspection Authority's regulations regarding action and limit values and the Manufacturer Regulations (Produktentföreskriften).</p>	
<p>Operational and safety preparations by area technician</p>	
<p>1. An SJA shall always be carried out prior to the work.</p>	
<p>2. The equipment shall be depressurised, drained/emptied, cleaned/rendered free of gas.</p>	
<p>3. Equipment shall be isolated and blinded from other parts of the plant, including electrical and mechanical isolation.</p>	
<p>4. Equipment shall be vented. Extra ventilation shall be used as required.</p>	
<p>5. Measures against radioactive radiation: If radioactive scale deposits are suspected inside containers or pipes, the work must not proceed until the radiation levels have been measured. Permanently installed radioactive sources must be closed/shielded.</p>	
<p>6. Inspection of the work site: The area technician shall inspect the work site prior to and during the work. The time interval for new gas tests must be specified on the WP.</p>	
<p>7. Other: If iron sulphide is expected, the tank/container should be cleaned with water. Iron sulphide deposits should be kept moist and removed.</p>	
<p>8. Gas measurement:</p> <ul style="list-style-type: none"> • Gas measurements including an oxygen test and other relevant industrial hygiene measurements must be performed prior to entry. • Results of the measurements shall be noted on the WP. • If the work has not started within one hour of clearance for entry being given, new gas tests shall be performed and a new clearance obtained. • The concentration of flammable or toxic substances shall be reduced to a level that is not harmful to personnel when entry takes place without the use of protective respiratory equipment. • The oxygen level must be 20.9%. 	
<p>Operational and safety preparations by executing skilled worker</p>	
<p>1. An SJA shall always be carried out prior to the work.</p>	
<p>2. Gas measurements at the work site: Continuous gas/oxygen measurement so that the work can be stopped if gas/lack of oxygen is detected.</p>	
<p>3. Verify mechanical isolation.</p>	
<p>4. Electrical isolation/locking as necessary.</p>	
<p>5. Continuous guard/radio communication in accordance with 5.2.12 Duties of the safety guard.</p>	
<p>6. Barriers/warning signage.</p>	
<p>7. Chemical datasheet or action card read and available.</p>	
<p>8. Procedures/checklists for the operation read and understood by involved personnel.</p>	
<p>9. Special personal protective equipment for the operation must be noted on the WP in accordance with the relevant work. See also 5.2.12. Duties of the safety guard.</p>	
<p>10. Other requirements /preparations prior to entry:</p> <ul style="list-style-type: none"> • All lamps/lighting used inside the container shall be of an explosion proof type when entering an atmosphere that may contain hydrocarbons. • All equipment used for the ventilation of containers must be explosion-proof, preferably pneumatically-operated. • Use of electricity is not permitted in tanks in which an explosive atmosphere may be present. If electrical lighting/equipment is used (after the tank/container has been cleaned and there is no risk of explosion) a suitable earth fault protection relay must be used. • Escape routes must be identified and known to involved personnel. • Gas bottles must not be brought inside tanks/containers. Gas hoses must be removed from the tank/container and the bottle valves closed whenever the work is stopped. • Special caution must be exercised when entering tanks/spaces that have been rendered inert. 	

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5.2.4 Isolation of safety system	Requires WP Level 1
<p>Work that involves the isolation, testing and bypassing of safety systems. Safety systems include but are not limited to:</p> <ul style="list-style-type: none"> • Emergency shutdown systems • Fire-fighting systems • Blowdown system • Detection systems • Alarm systems • Emergency power and non-interruptible power supplies • Evacuation systems and equipment • PA systems <p>For a detailed overview of safety systems, refer to the provisions for the specific installation.</p>	
<p>Preconditions and limitations</p> <ol style="list-style-type: none"> 1. The isolation of safety system functions shall always be assessed on the basis of the consequences and risks associated with the isolated function. Isolation shall always be considered with regard to other activities on the installation, including drilling and well operations, hot work and other work on safety systems. Compensating measures shall be implemented. 2. The person responsible for areas/systems affected by the isolation of safety systems must be informed of the work in advance. If the isolation affects more than one installation, the relevant installations must be contacted for coordination. 3. Work to be undertaken while the safety system is disconnected must be planned with the smallest scope and shortest duration possible. 4. An up-to-date overview of isolated safety systems on the installation must be available at all times. 	
<p>Comments</p> <ol style="list-style-type: none"> 1. Routine testing as a part of the preventive maintenance of fire and gas detection systems, emergency shutdown systems and PA systems, and the testing of emergency generators, is not regarded as isolation of a safety system when performed in accordance with an established programme where dedicated personnel are present at the specific location at the facility and in the CCR. Such work may be performed with a WP level 2. 2. Brief isolation of fire and gas system detectors during routine draining/bleed off performed by the area technician may be carried out without a WP. 3. Brief isolation of single devices in the process shutdown system, performed by the CCR technician in the event of special operational needs such as the start-up/run down of systems, draining of level switches, etc., may be performed without a WP. 	
<p>Operational and safety preparations by area technician</p> <ol style="list-style-type: none"> 1. Safety tags/locking. 2. Isolation of safety system: Compensating measures must be implemented so that sufficient barriers are in place at all times. Examples of such compensating measures include use of a safety guard in the area, placing additional fire-fighting equipment in the area, installing additional detection equipment, the use of additional communications equipment, the use of alternative evacuation/rescue equipment, etc. Isolation and reactivation must be logged in accordance with the guidelines of the individual operating company. 	
<p>Operational and safety preparations by executing skilled worker</p> <ol style="list-style-type: none"> 1. Continuous guard/radio communication must be considered as a compensating measure. 2. Barriers/warning signage to be considered in each individual instance. 3. Coordination with CCR/area technician. 4. Procedures/checklists for the operation read and understood by involved personnel. 	

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5.2.5 Work on hydrocarbon system	Requires WP Level 1
<p>Work on piping system, tanks and associated components that pose a risk of the release of produced oil/gas/condensate.</p> <p>Other work on hydrocarbon systems may be carried out with a WP level 2.</p> <p>Routine work with existing procedures may be carried out with a WP level 2.</p>	
<p>Preconditions and limitations</p> <p>Documentation that covers a minimum of the following shall be available:</p> <ul style="list-style-type: none"> • Isolation/valve and blind lists • Marked-up drawings <p>This documentation must be linked to the WP and be stored in accordance with the individual operating company's guidelines.</p>	
<p>Operational and safety preparations by area technician</p> <ol style="list-style-type: none"> 1. Depressurisation of the equipment. 2. Draining/emptying if piping system/equipment is to be opened. 3. Cleaning/removal of gas to be assessed with regard to the work to be carried out. 4. The equipment must be isolated/blinded from other parts of the plant in accordance with the individual operating company's guidelines if the piping system/equipment is to be opened. 5. Safety tags/locking. 6. Other: Checks for possible leaks must be performed and the affected equipment must be checked for H₂S and benzene where these are likely to be present. 	
<p>Operational and safety preparations by executing skilled worker</p> <ol style="list-style-type: none"> 1. Verify mechanical isolation. 2. Consider electrical isolation/locking. 3. Coordination with CCR/area technician to be assessed with regard to the work to be performed. 4. Chemical datasheet or action card read and available. 5. Procedures/checklists for the operation read and understood by involved personnel. 6. Special personal protective equipment for the operation must be noted on the WP in accordance with the relevant work. 	

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5.2.6 Pressure testing	Requires WP Level 1
Testing of newly installed or modified tanks/piping/Xmas trees in accordance with an approved pressure testing procedure and testing above working pressure and/or design pressure.	
Preconditions and limitations	
<ol style="list-style-type: none"> 1. Executing personnel must have knowledge of the equipment to be tested (design conditions, pressure rating, etc.) and the equipment to be used during testing. 2. A test procedure for the relevant job must be available, and include a work description covering isolations/valve and blind lists and marked-up drawings. 3. A liquid test medium (water) shall normally be used. If any other test medium is used as an exception, this must be clearly stated on the WP. 	
Operational and safety preparations by area technician	
<ol style="list-style-type: none"> 1. Isolation/blinding. 2. Safety tags/locking. 	
Operational and safety preparations by executing skilled worker	
<ol style="list-style-type: none"> 1. Verify mechanical isolation. 2. Continuous guard/radio communication. 3. Implement barriers/warning signage. 4. Coordinate with CCR/area technician. 5. PA announcement prior to and upon completion of the work. 6. Procedures/checklists for the operation read and understood by involved personnel. 7. Other requirements/preparations: Equipment used for pressure testing must be calibrated, approved and certified. Alternative escape routes must be established if normal escape routes are blocked. 	

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5.2.7 Work over sea	Requires WP Level 1
Work over sea refers to work that takes place outside permanent railings where there is a risk of a person/persons falling into the sea.	
The use of rope access (RA) is not defined as work over sea when it is performed in accordance with "NS 9600 (SOFT Standard); Arbeid I tau (Rope access techniques)". Ref. section "Other activities/critical operations requiring WP Level 1".	
Work in a hydraulic basket in a "moon pool" and on approved scaffolding is not defined as work over sea when extra barriers are used.	
Example of extra barriers include:	
<ul style="list-style-type: none"> – Fall arrest equipment – Man-riding belt – Net – Scaffolding with extra high railings, erected in accordance with class 3 and certified as class 2. The scaffolding shall be re-certified once a week and following any effects of external influences such as inclement weather and strong winds 	
Preconditions and limitations	
<ol style="list-style-type: none"> 1. Wind: 30 knots measured at 10 m above sea level. 2. Waves: Max. wave height of 5 m (equivalent to 3 m significant wave height). Emergency response: Establish MOB response. Lighting/visibility: The work must only take place if there is sufficient lighting and visibility for the work and the rescue of personnel. 3. Roll/movement: The work must not take place if the roll or heave of a floating vessel poses a risk to involved personnel. 4. Diving operations: In the event of diving close to the work site, the person responsible for the operation on board the diving vessel shall decide whether work over sea may be permitted. 	
Comments:	
<ol style="list-style-type: none"> a. Stricter limitations may apply on the individual installation due to possible launches, crane limitations, etc. b. For floating production installations with drilling activities, work over sea may be governed by special working procedures for the specific installation. 	
Operational and safety preparations by area technician	
<ol style="list-style-type: none"> 1. Other: Avoid effluent/overflow from operational systems when personnel are working below cellar deck. 	
Operational and safety preparations by executing skilled worker	
<ol style="list-style-type: none"> 1. Continuous guard/radio communication in accordance with 5.2.14 "Duties of the safety guard during work over sea". 2. Procedures/checklists for the operation read and understood by involved personnel. 3. Special personal protective equipment for the operation: Life buoy with line and light must be readily available. Personal protective equipment shall adapted to the work situation and may include a life vest/jacket, safety harness with integrated buoyancy aid, safety line and rescue belt. 4. Other requirements/preparations: The need for measures to prevent dropped objects falling to lower levels or onto vessels must be assessed. 	

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5.2.8 Work with radioactive substances	Requires WP Level 1		
Work with radioactive substances/isotopes including work on systems with radioactive scale deposits (LSA).			
Preconditions and limitations			
Regulations issued by the Norwegian Radiation Protection Authority (Statens Strålevern) must be complied with when working with/using radioactive sources. The matrix below only includes the requirements that directly relate to WPs.	Use of radioactive isotope	Low radiation activities Instrumentation with radioactive sources	Low Specific Activity deposits (LSA)
1. Only authorised personnel may perform work involving radioactive substances and a radiation protection supervisor must be present at the installation.	x		
2. LSA contaminated equipment and materials are classified as radioactive if the radiation activity exceeds 10Bq/g of ²²⁶ Ra or the dose rate on the outer surface is over double the background radiation in the area.			x
3. Personnel who are to assist during radiography works or with LSA materials must have received information and training regarding radiation hazards and relevant protection.	x	x	x
4. The dose rate (Geiger counter) for exposed personnel must be measured prior to starting the work.	x	x	x
5. The emergency response plan for radiation protection must be known and understood and emergency equipment must be available.	x		
Operational and safety preparations by area technician			
1. During LSA activities the area technician's operational and safety preparations will most often be associated with requirements regarding entry into confined spaces or work on hydrocarbon systems.		x	x
2. Measures against radioactive radiation.	x	x	x
3. Other: Radioactive radiation may affect instruments that are based on radioactive measurements. The impact on process equipment with such instruments must therefore be evaluated when using radioactive isotopes.	x		
Operational and safety preparations by executing skilled worker			
1. Barriers/warning signage/PA announcement: Areas where the radiation level may exceed 7.5 micro Sv/hour are defined as hazardous areas that must be monitored, cordoned off and marked with signage that declares a radiation hazard. Other work activities are prohibited in such areas. PA announcement prior to starting and upon completion of the work.	x	x	x
2. Coordination with CCR/area technician.	x	x	x
3. Procedures/checklist for the operation read and understood by involved personnel.	x	x	x
4. Special personal protective equipment for the operation: Protective equipment shall be used in order to prevent skin contact with LSA materials or the inhalation of dust. Personnel working with isotopes must carry a personal dosimeter. This also applies when working with LSA if the exposure exceeds 7.5 micro Sv/h.	x		x
5. Other requirements/preparations: LSA materials must be kept moist in order to prevent the inhalation of dust. Openings on LSA contaminated equipment shall be covered or wrapped in plastic. Personnel who handle LSA materials must pay special attention to personal hygiene and thoroughly wash their hands prior to consuming food/beverages. LSA = Low Specific Activity radioactive scale			x

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5.2.9 Work with dangerous substances	Requires WP Level 1
Work operations involving chemical products classified as chemical substances and mixtures that may be hazardous to health or the environment, or pose a risk of fire or explosion.	
Examples of work with dangerous substances:	
Fire/explosion hazard: Handling/use of flammable chemicals where the volume and/or proximity to ignition sources poses a higher risk of ignition.	
Environmental hazard: Work that poses an increased risk of discharges of chemicals to sea, where the volume that shall be used exceeds 1 m ³ .	
Health hazard: Heating of materials that are surface-treated and which may result in the thermal decomposition of, for example, paint. Work on pipe systems, tanks and associated components that may pose a risk of the release of chemical products. Grinding, sandblasting or cutting of structures or work that generates dust or hazardous chemical pollution that is harmful to health and to which other personnel may be exposed.	
A WP level 2 is required in the event of:	
<ul style="list-style-type: none"> - Painting works involving the use of brushes and rollers, regardless of the hazard category. - Work on piping systems, tanks and associated components that do not entail a risk of the release of dangerous substances, or which have a lower risk. 	
Exemption from WP: The individual operating company may decide that work operations or tasks in which chemicals are handled may be carried out without the use of a WP, ref. chapter 1.2.6. Such activities may include:	
<ul style="list-style-type: none"> - Normal operating activities within production, drilling, logistics, maritime operations or hotel management if relevant procedures, safety datasheets and executed risk assessments with suggested barriers have been read and understood by the executing personnel. - Handling of chemicals in closed systems (pipes/hoses) with drip-free connections that prevent spills during connection and disconnection. - The use of small volumes of red or black chemicals (e.g. tubes of adhesive or sprays) where the work description forms part of the risk assessment. 	
Preconditions and limitations	
<ol style="list-style-type: none"> 1. Chemicals shall be labelled in accordance with regulations and approved for use on the installation in accordance with the guidelines issued by the individual operating company. 2. Safety datasheets shall be available. 	
Operational and safety preparations by area technician	
<ol style="list-style-type: none"> 1. Depressurisation of equipment if piping system/equipment is to be opened. 2. Draining/emptying if piping system/equipment is to be opened. 3. Cleaning/removal of chemical vapours must be considered with regard to the specific work to be carried out. 4. Isolation/blinding of equipment from other parts of the plant in accordance with guidelines issued by the individual operating company if the piping system/equipment is to be opened. 5. Safety tags/locking. 6. Other: Check for leaks. Safety datasheet or action card must be reviewed prior to starting the work. 	
Operational and safety preparations by executing skilled worker	
<ol style="list-style-type: none"> 1. Verify mechanical isolation if pipe system/equipment is to be opened. 2. Barriers/warning signage: The area must be cordoned off if there is a risk that other personnel may be exposed. 3. Safety datasheet or action card must be available and reviewed by executing personnel prior to starting the work. 4. Procedures/checklists for the operation read and understood by involved personnel. 5. Special personal protective equipment for the operation: Protective equipment shall be used in accordance with the safety datasheet or action card. Safety equipment such as an emergency shower and eyewash station shall be available. 6. Other requirements/preparations: Products shall be stored and used correctly in accordance with the safety provisions outlined in the safety datasheet. 	

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5.2.10	Work with explosives	Requires WP Level 1
Preparation, arming and control of explosives.		
Preconditions and limitations		
1. Only authorised personnel may carry out this type of work.		
Operational and safety preparations by area technician		
Operational and safety preparations by executing skilled worker		
1. Barriers/warning signage: The area must be cordoned off and marked with warning signage.		
2. PA announcement prior to starting the work.		
3. Procedures/checklists for the operation read and understood by involved personnel.		
4. Other requirements/preparations: In the event of well operations involving the use of explosives, the perforation and safety procedures must be described in the relevant programme. Radios must be secured if radio silence is required.		

5.2.11	Fire, entry and safety (FES) guards
The following prerequisites are used for the selection of personnel to act as FES guards:	
<ul style="list-style-type: none"> - FES guards shall not be connected to rescue efforts. - Personnel who hold valid basic safety and emergency response training for the continental shelf have the necessary general competence. - Personnel who have completed basic training for onshore facilities (two day course) hold the necessary general competence. - It must be ensured that no conflict arises between the work tasks of FES guards and other work or rescue activities and/or physical work. - It is recommended that FES guards are equipped with a vest that renders their role visible. 	

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5.2.13	Duties of the safety guard during entry into confined spaces	OK
The safety guard must:		
General	Have received necessary training in accordance with company guidelines.	
	Be identified/marked so that it is clearly visible who holds the guard function.	
	Have participated when the SJA was performed / have reviewed the SJA.	
Communication/warning	Have located the nearest manual fire call point/telephone.	
	Have established radio communication with the CCR and visual or radio contact with the personnel performing the entry job.	
	Have agreed a stop signal with executing personnel.	
Emergency response / preparations	Have equipment for the rescue of personnel available at the work site, such as a safety line, rescue harness, explosion-proof flashlight, breathing apparatus with buddy mask and other rescue equipment as specified in the WP.	
	Be capable of using/operating the rescue materials/equipment.	
	Check and be able to use breathing equipment used for rescue.	
	Ensure that involved personnel are familiar with the escape routes.	
During the work	Not take active part in the work and always be present when entry work is underway.	
	Be located near the entrance to the tank/container/space, keep watch and monitor the number of personnel who enter.	
	Monitor the work situation and surroundings so that the work can be stopped should a situation that necessitates this arise.	
	Stop the work if the portable gas detector sounds an alarm.	
In the event of interruptions to / completion of the work	Secure equipment/the work site.	
	Inform the area technician if safety systems have been isolated so that these can be reactivated.	
Actions in the event of undesirable incidents during entry into confined spaces	Alert fellow workers and sound the alarm. Inform the CCR.	
	Undertake immediate rescue efforts if such efforts can be made without risk to self or others.	
Other alarm situations	Secure equipment/the work site.	
	Alert fellow workers and stop the work.	
	Muster according to the station bill.	

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5.2.14 Duties of the safety guard during work over sea		OK
The safety guard must:		
General	Have received necessary training in accordance with company guidelines.	
	Be identified/marked so that it is clearly visible who holds the guard function.	
	Have participated in any SJA that has been performed/have reviewed the SJA.	
Communication / warning	Have located the nearest manual fire call point/telephone.	
	Have established radio communication with the CCR/radio room/MOB function and the work site.	
	Agree upon the communication routine with the involved parties, including the exchange of information at start-up, upon completion, and in the event of interruptions to the work.	
	Communication channels shall be checked prior to starting the work.	
Emergency response / preparations	Ensure that the MOB function is informed and operational prior to starting the work.	
	Ensure that involved personnel are familiar with the escape routes.	
	Become familiar with the weather limitations for work over sea and the prevailing weather conditions.	
During the work	Not take active part in the work and always be present when work over sea is underway.	
	Remain on the permanent deck of the installation and have an unobscured view of the executing personnel.	
	Maintain an overview of the number of personnel involved in the work, keep watch and sound the alarm should personnel fall overboard.	
	Monitor changes in weather conditions/visibility and light, and stop the work if the preconditions and limitations for the work are exceeded.	
	Monitor the work situation and surroundings so that the work can be stopped should a situation that necessitates this arise.	
Interruptions / breaks / completion of the work	Secure equipment/the work site.	
	Inform the area technician if safety systems have been isolated so that they can be reactivated.	
	Adhere to the agreed communication routine.	
Actions in the event of "man over board"	Monitor personnel until everyone has reported back to a safe location on the permanent platform deck.	
	Alert fellow workers and the CCR/MOB function and sound the alarm.	
	Throw out a life buoy.	
	Maintain visual contact with the person.	
Other alarm situations	Secure equipment/the work site.	
	Muster according to the station bill.	
	Alert fellow workers and stop the work.	
	Secure equipment/the work site.	
	Monitor personnel until everyone has reported back to a safe location on the permanent platform deck.	