

Каспийский Трубопроводный Консорциум Caspian Pipeline Consortium Каспий Құбыр Консорциумы





CPC LIFE SAVING RULES

















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Foreword by CPC General Director N. Gorban

"All incidents are preventable – our goal is zero injuries.

CPC Life Saving Rules reflects experience gained and lessons learned in Caspian Pipeline Consortium, within CPC Shareholder Companies and across the oil industry. These rules provide simple and clear instructions for all to protect themselves of the risks specific to our industry.

Application of these rules is es-

sential for prevention of fatalities and serious injuries. Safety is everybody's business within CPC. Safety assurance requires competence, discipline and courage to step in when an unsafe behavior or condition is noticed.

I am sure that together through application of **CPC Life Saving Rules** and strengthening our safety culture we can succeed in achieving our goal of zero injuries."

> CPC General Director N. Gorban

CPC Life Saving Rules are based on a systematic approach to hazard identification and risk mitigation measures. These Rules **are not all inclusive and should be applied together with relevant RF and RoK legislation requirements**, CPC rules and regulations as well as safe practices applicable to a particular type of work.

KNOW and COMPLY with Life Saving Rues. NO EXCEP-TION!

Gain knowledge and DEVELOP YOUR SAFETY EXPERTISE!

SPEAK UP, INTERVENE when you notice unsafe behavior or condition!

SUSPEND THE WORK if you perceive incident is likely or mitigation measures are insufficient. EVERYONE HAS STOP WORK AUTHORITY!

> "...Any person regardless of position, level or rank has the right and the responsibility to use **STOP WORKING AUTHORITY** when any unsafe or risky condition is deemed to be present..."

> > "DO THE WORK SAFELY OR DON'T DO IT AT ALL."

> > > N. Gorban CPC General Director

HSE LEADERSHIP

Every CPC employee, contractor (subcontractor) is required to comply with **CPC Life Saving Rules**.

All Managers/Supervisors acknowledge their leading role in ensuring HSE compliance by active participating in work planning, preparation and monitoring and shall demonstrate personal leadership and visible involvement in promoting a consistent and compliant health, safety and environment culture.

All CPC and contractor/subcontractor employees are obliged both to themselves and those around them to ensure that safe practices are adhered to at all times.



Personal Commitment to Safety:

- I will always identify hazards and assess risks prior to the start of each activity.
- I will always follow safe work practices and procedures.
- I will complete all required training and maintain qualifications to ensure I can carry out my duties safely.
- I will seek assistance from my manager and qualified experts if I have any questions about doing a task safely.
- I will always report ALL incidents and near misses.
- I will always perform high hazardous activities in accordance with appropriate Permit to Work.
- I will always wear all PPE as required for the site and conditions.
- I will reassess the hazards and risks with every change of process, procedure, people or natural circumstance.
- I will always watch out for and assist my coworkers (company and contract) to ensure work is performed in a safe manner.
- I will exercise my Stop Work Authority when I believe conditions to be unsafe in order to prevent an incident from happening.



RULE # 1

Follow site access requirements: alcohol free and no smoking policy, restriction of electronic devices use and application of minimum PPE set

(Refer to «Regulation on access control»; «Requirements to protective clothing, safety shoes and other personal protective equipment»; «Procedure of including into CPC-R contracts HSE requirements for Contractors»)

Main on-site restrictions:

- personnel may be admitted to the site only upon an HSE induction briefing;
- persons under the influence of alcohol, narcotics or other toxic substances as well as those who have medical contraindications are prohibited to enter the site;
- smoking is banned at all CPC sites except for designated areas;
- use of mobile phones and taking photos/videos at CPC sites is strictly prohibited;
- it is necessary to wear **a minimum set of PPE** at CPC sites (safety boots, hard hats, safety glasses, fire-retardant special clothes; if necessary - hearing protection, gloves, H2S PPE and other PPE depending on work specifics).

Work with a valid permit to work when required

(Refer to Permit to Work Procedure for arrangements of Hot works, Gas-Hazardous, Excavation, Repair and other hazardous works)

Permits to work and authorizations are critical for safety assurance:

- work shall not be done without a prior risk assessment;
- a permit to work shall contain the exhaustive information about the scope of work and used equipment, comprehensive description of hazards, risks and controls.
- work preparation should include inspection of the work area;
- additional permits are required for some hazardous works.

Work shall not commence without an effective permit to work/authorization.



RULE # 3

Verify isolations and locks before work begins

(Refer to «Instruction No.102 for mechanical/process equipment and piping isolation», «Instruction No.103 for electrical equipment lock out / tag out»)

Repair and maintenance of energized equipment (electrical, thermal, hydraulic, pneumatic, mechanical or other energy) should be done subject to the following:

- all sources of energy have been identified;
- identified energy has been isolated and pressure has been relieved;
- all isolation points have been locked out, tagged out and verified;
- energy isolation is to be inspected periodically;
- when necessary, equipment **double lock-out** should be used.

De-isolation of equipment and removal of locks and tags shall be performed only by approved and authorized personnel.



Follow road safety requirements

(Refer to CPC Application of Road Transportation Safety Standard)

- **seatbelts** shall be worn at all times by driver and passengers while the vehicle is in motion;
- vehicle speed shall commensurate with established speed limits adjusted for traffic, road, weather conditions and road signs;
- **mobile phones** and other means of communication including hands-free devices shall not be used while driving;
- vehicles and heavy equipment are **suitable for the intended use**, inspected prior to use and appropriately maintained;
- driver shall undergo pre-shift medical assessment, be medically fit, drug and alcohol free as well as not tired or stressed and free of influence of any substance that may impair ability to operate the vehicle/equipment safely.
- operating parts, withdrawable, lifting parts of special equipment shall be in transport position whilst driving;
- transported load shall be appropriately secured and shall not exceed vehicle load capacity;
- special restrictions apply to access to and traffic in hazardous areas; vehicles shall be equipped with spark arrester;
- **pedestrians** shall use dedicated path within process facility, where available, or take additional precautionary measures.



RULE # 5

Protect yourself against a fall when working at height

(Refer to Instruction # 109 for safe working at heights works at CPC facilities)

If possible, eliminate the need to work at height. If the need cannot be eliminated ensure that:

- a task **risk assessment** is performed, work execution plan, **permit-to-work and rescue plan** are endorsed;
- personnel involved in the working at height activity are trained, competent and fit-for-duty;
- **full-body harness** is applied in absence of collative protective equipment;
- **100% tie-off** is maintained when using harness and secure anchor point is selected (preferably mounted overhead);
- all fall prevention systems are inspected (harness, ropes, anchor points etc.) for wear and tear before use;
- any scaffolding, ladders and mobile platforms are inspected and tagged prior to the work activity, regularly inspected and authorized for intended use by a competent person;
- no work is performed during adverse weather conditions (15 m/s wind speed, lightning and fog, etc.);
- tools and equipment are secured to reduce risk of dropped objects.



Obtain permit-to-work before entering a confined space or executing gas hazardous works and conduct gas test

(Refer to Instruction No.108 for safe gas-hazardous work at CPC sites)

If possible, eliminate the need for confined space

entry. Any work where flammable vapors, gases and other substances may be present or build up of, or lack of oxygen is possible, or in vessels, tanks, wells, tunnels, tranches, pits or in similar places cannot be done until the following is conducted:

- a risk assessment has been completed, a permit to work and an emergency response plan have been approved;
- all required isolations are in place and locked off;
- **air/gas testing** has been conducted and its frequency has been defined;
- a **properly trained watch** who has secure communication with workers in the confined space stays at a confined space entry;
- gas detectors, PPE and safeguards are used as intended, verified and fit for work;
- at the sites with a risk of H2S exposure rescue equipment in good working condition must be in place.



RULE # 7

Obtain permit-to-work before starting hot work and have firefighting equipment available

(Refer to Instruction No.105 for safe hot work arrangements at CPC explosive and inflammable facilities)

If possible, eliminate the need for hot work at CPC sites (hot work should be conducted outside gas-hazardous areas). If the need for hot work is still needed the following is required to complete the work in a safe and controlled manner:

- complete a **risk assessment** and have a permit to work endorsed;
- clear hot-work area of flammables and combustibles;
- adhere to air/gas testing requirements and frequency;
- place compressed gas cylinders at safe distance from the work area;
- wear fireproof special clothes and mandatory PPE;
- have **firefighting equipment** and, if necessary, a dedicated fire watch on site.

RULE # 8 Follow electrical safety rules

(Refer to Safety Rules at production activity of oil pipeline system of CPC)

If possible, minimize work on live electrical systems. The first choice is to de-energize the equipment.

To perform electrical work in a safe way:

- ensure a risk assessment has been completed and a Permit to Work (PTW) / authorization has been issued;
- involve only qualified and certified personnel;
- use applicable arc-flash and shock resistant PPE while working on electrical units;
- ensure required clearance to energized parts of electrical units;
- make sure that tools, accessories and safeguards are in good working condition.

While using electrical equipment exclude any contact with non-isolated energized parts.



RULE # 9

Obtain permit-to-work before starting excavation and identify underground utilities

(Refer to Instruction No.107 for safe earthwork at CPC sites)

Before conducting excavation either manually or with the use of machinery ensure that:

- a risk assessment has been completed and an Excavation Permit to Work has been approved;
- all underground utility lines (cables, pipelines) have been positively identified, marked and isolated as necessary;
- **safe distances are maintained** to underground utilities during mechanical excavation activities;
- measures preventing soil sliding and cave-ins have been undertaken;
- an additional authorization for confined space (to work in trenches/pits) with the sufficient number of access/ egress points has been issued;
- removed soil and heavy machinery are placed at least 1 m away from the edge of excavation;
- barriers and signs have been erected.



Follow prescribed work execution plan, permit to work, technological chart during lifting operations

(Refer to Safety Rules at production activity of oil pipeline system of CPC)

To lift loads by cranes, winches or other lifting equipment in a safe way ensure that:

- a risk assessment has been conducted and, if necessary, a lifting plan is in place, and a Permit to Work with consideration of the risk of load dropping has been obtained;
- the load weight should not exceed the maximum capacity of load lifting/gripping equipment;
- lifting equipment, devices and safeguards shall be in a technically sound condition, examined before use and cleared for operation;
- all lifting crew personnel have been appropriately trained, operators of cranes and other lifting equipment have been certified as required.
- barriers and signs have been installed around the work area to exclude entry/ access of unauthorized personnel;
- the distance from a lifting device/load at its full extension radius to the nearest overhead power line shall not exceed the minimum **safe distance** depending on the overhead power lines voltage.



RULE # 11

Follow process safety requirements

(Refer to «Safety rules at production activity of oil pipeline system of CPC», «Guidelines on technical operations of CPC oil transportation system»)

To prevent the loss of integrity of process equipment:

- maintain the integrity of protective systems such as detectors, alarms, shut-ins, relief devices and fire protection systems.
- follow procedure of overriding and disabling safety critical systems;
- follow operation and maintenance procedures;
- address condition changes that may affect process operations and equipment;
- pay attention to process changes and follow
 Management of Change procedures when appropriate;
- identify **abnormal conditions** and report them to supervisors, investigate their causes and prevent their recurrence.



Wear a personal flotation device when required

(Refer to Safety Rules at production activity of oil pipeline system of CPC, CPC-R Marine Terminal manual)

To ensure safe marine operations or safe work near water reservoirs:

- use individual flotation devices while working near the shoreline, at vessels and trunk pipeline off-shore facilities where required;
- conduct a risk assessment and prepare a detailed dive plan, a Permit to Work including rescue operations;
- use only **certified and verified** lifting, diving and personnel transportation equipment;
- anchor at the proper distance from pipelines or obstructions;
- adhere to a **boarding/landing plan**.



RULE # +1

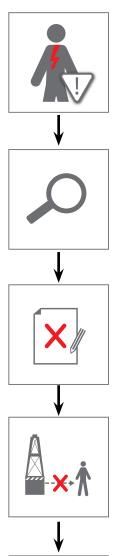
Safe work acknowledgement

- recognize safe behaviors;
- reward Near Miss reporting;
- celebrate safe performance

The main aim is not to blame employees but to drive a culture of compliance with continuous leaning, modifying worker and supervisor behaviors, enhancing personal safety commitment with the end **goal achieving and sustaining zero injuries and fatalities**.



Consequences of noncompliance with Rules



Employees not following rules expose themselves or others to a higher risk of injury or fatality





Ensure and verify that **your** and **your** sub-contractors personnel have been trained

Your role

purpose; application;

reporting;

investigation;

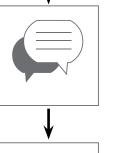
consequences.

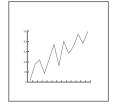
Follow the Life Saving Rules:

Keep your team engaged with the LSR, always recognize positive behavior



Lead through personal example. Ensure and verify that the Life Saving Rules are applied in a fair way





Verify, measure and continuously improve compliance

All human-factors and error cases will be investigated thoroughly for continuous improvement and prevention of repeated events



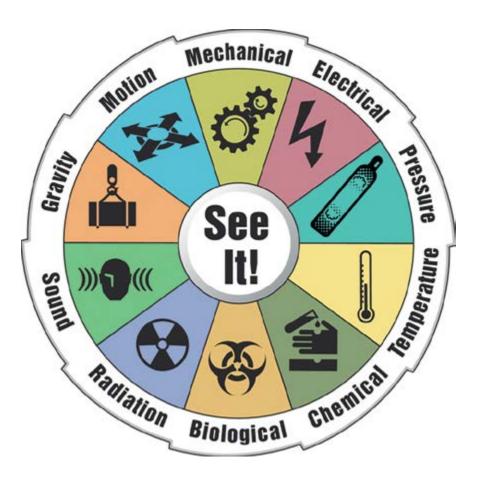




If a supervisor sets the conditions for rule breaking or fails to follow through if one is broken, appropriate disciplinary action will apply

Hazard Identification Tool – Energy Sources

Before beginning any activity, review significant potential hazards and associated mitigation measures to comprehensively assess the job. **Preventing serious injuries and fatalities requires operational discipline**. This means performing every task the right way every time, from initial hazard assessment through each step of the job, including post-activity review.



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