



RULES TO LIVE BY



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RULES TO LIVE BY

API's Rules to Live By cover some of the most critical safety hazards that have caused worker loss of life within the industry. They are intended as simple, concise reminders to workers and supervisors of important safety guidelines and what steps can be taken to mitigate certain hazards.

The information contained in these Rules to Live By is pulled largely from API's *E&P Onshore Operations Safety Handbook*, *API Recommended Practice 54 – Recommended Practice for Occupational Safety for Oil and Gas Well Drilling and Servicing Operations*, and *API Recommended Practice 74 - Recommended Practice for Occupational Safety for Onshore Oil and Gas Production Operations*. It is intended to reinforce worker safety practices and promote a safe work place for oil and gas workers. API's Rules to Live By are not intended to replace or supersede existing regulations, standards or requirements set forth by a company or regulator.

For more detailed information on the below topics, we encourage workers to review their company's safety rules, relevant API safety standards and other materials as appropriate.



STOP WORK AUTHORITY

- 1** Safety is and will always be the Industry's primary focus.

- 2** As part of the oil and gas industry, you have a duty to work in a safe manner.

- 3** You have a personal responsibility to assure the safety of yourself and those around you.

- 4** Safety and safe practices should always be forefront when carrying out your job functions.

- 5** All workers have "stop work authority".

- 6** Stop and ask questions when in doubt about the safety of any operations.

- 7** Stop work at the jobsite if the working conditions or behaviors are considered unsafe.

- 8** If you are discouraged from exercising the "stop work authority" or are penalized for doing so, report this action to management immediately.



JOB SAFETY CHECK LIST

When arriving at a new worksite:

- 1** Obtain a site orientation.

- 2** Ask the operator what the hazards are at the site.

- 3** Understand which safety policies and procedures will govern.

- 4** Make sure you are trained in the tasks you are to perform prior to reaching the jobsite.

- 5** Identify any new employees who you will be working with.

- 6** Sign the visitor log at the jobsite, if available.

- 7** Conduct a Job Safety Analysis for the work to be done.

- 8** Know how to report unsafe conditions or incidents, and recognize your authority to **STOP WORK**.

- 9** Make sure you are aware of emergency reporting, evacuation and response procedures.

- 10** Identify the nearest location to receive medical aid.



HAZARD RECOGNITION AND COMMUNICATION

- 1** Before initiating work, conduct a Job Safety Analysis—a brief analysis of the work to be done—to identify potential hazards and determine ways to address hazards that may arise.

- 2** Identify potential hazards specific to the site, to the project and to the task before initiating work.

- 3** Identify ways to eliminate or mitigate potential hazards so that the task can be done safely.

- 4** Communicate the safety plan to all workers involved in the task.

- 5** Follow applicable work permit requirements.

Typical Hazards at Oil and Gas Worksites

- » **Chemical** – Potential presence of oil, gas and other petroleum products produced at worksite.
- » **Electrical** – Electricity to power machinery and systems could shock worker if proper procedures not followed.
- » **Walking/working surfaces** – Sites may have hazardous walking surfaces such as near by equipment, uneven terrain, or slippery areas.
- » **Ergonomic** – Lifting irregular shaped objects or heavy loads could cause one to position one's body in a manner that could put potential stress on the back.
- » **Fire** – Flammable liquids and gasses are often present in oil and gas operations. Cold vents, thief hatches, relief vents and leaks can be sources of fuel for fires.
- » **Mechanized Equipment** – Oil and gas sites use a wide range of mechanized equipment that may start at any time.
- » **Pressure** – Liquids and gasses may be found under pressure at oil and gas sites. Accidentally opening a pressurize line or vessel can cause serious injury to personnel.
- » **Temperature** – Temperature hazards may exist either because of process or ambient conditions. Many operational processes require either hot or cold temperatures, and workers often work outside and are exposed to weather extremes.
- » **Noise** – Workers may be exposed to high noise levels around mechanical equipment or processes.
- » **Hand Placement and Pinch Points** – Serious injuries are often caused by improper hand placement and equipment pinch points.
- » **Dropped Objects** – Must be controlled prevented to avoid potentially serious injuries.
- » **Impact Force** – Falls or being struck by equipment are common causes of serious injury.



ENERGY ISOLATION

1

Follow **LOCK OUT/TAG OUT** procedures to safely isolate or discharge energy sources protecting you from unexpected releases of energy.

2

Energy sources that need to be locked and tagged include:

- Process fluids
 - Hydraulic
 - Pneumatic
 - Thermal
 - Chemical
 - Electrical
 - Mechanical systems
 - Radiation
-

3

Before work starts, do an initial evaluation to identify potential exposures and properly isolate them on the equipment.

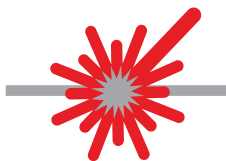
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Locks or tags should be removed by the person who installed them. If the worker who installed the lock or tag is not available, then the supervisor should check the equipment for complete repairs and assume full responsibility to remove the lock or tag.

-
- 5 Before returning the equipment to normal operations, notify the worker responsible for the area.
 - 6 An inspection of lockout/tagout procedures should be conducted at least annually to ensure that the requirements are being followed.
 - 7 Assure those involved are authorized, trained and competent.

Lock, Tag, Clear, Try

- » **LOCK** equipment, circuits or devices being worked on.
- » **TAG** the lock with a dated and signed tag the includes a "**DANGER, DO NOT OPERATE**" statement and the reason for the lockout.
- » **CLEAR** the area of personnel and tools prior to attempting to start the equipment.
- » **TRY** to energize the equipment locally to ensure the proper circuit is de-energized and an override does not exist.



HOT WORK PERMITTING

1

Use hot work permits when conducting work that may lead to a fire, explosion or release

Such permits may be needed when:

- Close by or near to flammable or combustible equipment with an open flame
- Welding,
- Burning,
- Hot tapping,
- Grinding,
- Near equipment capable of generating a spark

2

A Fire Watch needs to understand how to:

- Watch for fire,
- Sound an alarm,
- Use a fire extinguisher properly,
- Watch for slag or sparks that may result in a fire or injure nearby worker.

3 Assure those involved are authorized, trained and competent.

4 Periodically monitor hot work for compliance with permit requirements.

Hot Work Permit Procedures

- » Determine which permit form to use.
- » Fill out the permit form and have it signed by all required parties (operator/supervisor, firewatch or line watch, person doing the work).
- » Determine how many fire or line watches are needed.
- » Conduct a safety meeting to discuss the hot/safe work to be conducted.
- » Post copies of the permit at the worksite and at the control room/field office until work is completed.



DRIVING SAFELY

1

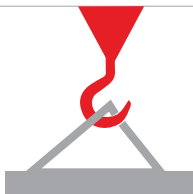
When operating a vehicle on company business:

- Operating under the influence of intoxicating beverages or drugs is strictly prohibited.
- Drivers shall maintain a valid driver's license at all times.
- Inspect the vehicle for proper operating conditions (e.g. tires, horn, mirror alignment, lights, etc.) prior to driving.
- All occupants must wear seatbelts and the driver is responsible for ensuring that all passengers do so.
- Do not park or drive in the blind spot of another vehicle.
- Always drive a safe distance from other vehicles.
- Always abide by the legal speed limit. The speed at which vehicles on company business are driven shall be governed by such factors as traffic regulations, road and weather conditions, traffic density and proximity to schools.
- Picking up hitchhikers is prohibited.
- Drive courteously and defensively.

2 Personnel shall devote their full attention to driving when operating a vehicle. Cell phone use or fatigue can interfere with the ability to drive a vehicle in a safe manner.

3 If you are involved in a driving incident, properly report it and handle it according to the following guidelines:

- STOP
- Set out emergency reflectors or flares.
- Get help for injured persons
- Give first aid to the extent that you are trained or qualified.
- Notify police and your supervisor as soon as possible.
- Obtain necessary information at the scene to the best of your ability.



LIFTING AND HOISTING

- 1** It is the worker's responsibility to STOP an operation if there are any safety concerns.
- 2** Only trained and credentialed workers may operate rigging, hoisting or lifting devices.
- 3** Place cranes on a firm, level foundation.
- 4** Properly secure the crane in place before operating.
- 5** Never start machine movement until the signalman is in sight and hand signals are understood.
- 6** Always obey an emergency stop signal given by anyone.
- 7** Personnel should not stand under or near the load being lifted or lowered.
- 8** **Before a lift begins, the crane operator should:**
 - Assess the lift and the lift method and equipment,
 - Assure that the crane and load are properly configured,
 - Assure that the outriggers and cribbing are being used at all times while performing lifts.

9 Never ride on a load being hoisted.

10 Barricade around cranes to restrict personnel and traffic flow from accidental contact.

11 Workers should conduct a pre-job safety meeting before executing the lift plan.



CONFINED SPACE ENTRY

1

A confined space is:

- Large enough and so configured that a person can bodily enter and perform assigned work
- Has limited or restricted means for entry or exit
- Is not designed for continuous occupancy.

2

A permit is typically required for entry into confined spaces.

3

Before entering a permit-required confined space:

- Be trained in the proper use of equipment to be used
- Be trained on confined space entry procedures
- Sign the permit

4

Wear lifelines, harnesses and other appropriate rescue equipment while in a confined space.

5

Always have a standby person/Hole Watch posted outside the hole who remains in direct communication with the workers inside and maintains a list of those that entered. The standby person should never leave the confined space while someone is in it.

- 6 Always hold a pre-entry safety meeting to review details of the job, precautions and concerns.
- 7 Contact the operator's safety coordinator for help in confined spaces if there are any questions or uncertainties.
- 8 Conduct atmospheric testing before and during entry.
- 9 Assure that an effective rescue plan is in place.
- 10 Periodically monitor confined space entry work for compliance with permit requirements.

Examples of Confined Spaces

- | | |
|-------------------|--------------------------|
| » Storage Tanks | » Ducts |
| » Frac Tanks | » Flues |
| » Tank Trucks | » Manholes |
| » Mud Pits | » Valve Boxes |
| » Bulk Tanks | » Cellars |
| » Process Vessels | » Pipelines |
| » Furnace Boxes | » Pits |
| » Sewer Systems | » Excavations >4 ft deep |

Confined Space Entry Completion Checklist

- » Are all personnel out of the confined space?
- » Are all blinds removed, using the blind list?
- » Are all equipment and tools removed?
- » Are all manways and flanges closed and sealed?
- » Has the atmosphere been purged?
- » Have start-up procedures been removed?



TRENCHING AND EXCAVATION

- 1** Contact the “dig alert” service before starting any trenching or excavation work.

- 2** Make sure that all buried lines have been located and marked before you start digging. **CALL 811.** Markings should remain in place throughout digging operations.

- 3** Keep excavated soil, materials and equipment more than 2 ft away from the edge of excavations.

- 4** A trained and competent person needs to make daily inspections of the excavation work site prior to the start of the work shift.

- 5** If you notice any evidence of possible cave-ins or slides, **STOP WORK** in the excavation immediately.

- 6** Excavations should be planned by a person who is familiar with trench design and designed according to the type of soil.

- 7** Cave-ins are the primary hazard associated with excavation and trenching. Precautions must be taken to ensure that excavations and trenches are designed properly and that escape routes are in place.

8 Provide proper access/egress.

9 Assure those involved are authorized, trained and competent.

10 Prevent contact with overhead powerlines (e.g. signs, spotter).



WORKING AT HEIGHTS

- 1** Use appropriate fall protection safety devices when working above a certain height (typically > 4 to 6 ft above working surface) or when immediate fall hazards are present
- 2** Always inspect fall protection equipment for visible defects before use and do not use equipment again once it has arrested a fall.
- 3** Workers should be trained in the use of, and inspection of, fall protection devices before using.
- 4** Secure all tools and equipment before ascending.
- 5** Wear a full body harness.
- 6** Assure that the anchor point can withstand a 5,000 lb load.

Types of Fall Protection Safety Devices at Oil and Gas Worksites:

- » Scaffolds or wheeled scaffolds
- » Scissors lift
- » Aerial lift, cherry picker or bucket truck
- » Ladders
- » Guardrail systems
- » Safety net systems
- » Personal fall arrest systems



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