

Personal Protective Equipment

# Oil Rig Safety Gear: PPE Worn Across On-Shore Drilling and Production Operations

Brought To You By MCR Safety | Aug 01, 2019

Drilling for oil and natural gas has always been a dangerous occupation. From the first day of rigging up until the final depth is reached, workers on a drilling rig face the possibility of a safety incident every step of the way. Every job requires its own set of skills - and faces its own kind of danger.

OSHA sets *safety recommendations* for six different phases of drilling operations. Each phase has its own potential hazards, but having the right personal protective

MCR Safety provides the PPE and safety gear drillers require to make it home in one piece.

## Rigging Up

Rigging up is the placement and assembly of the rig itself, and preparing it for drilling. This phase involves the use of cranes, trucks, forklifts, and other heavy machinery to position equipment for assembly, offering plenty of opportunities for workers to be hit by moving vehicles or swinging equipment.

Assembling the rig can mean pinched fingers or the occasional falling tool. With so much in motion, high-visibility clothing and impact protection gloves can help keep the rigging up process on track.

Here are the seven steps *OSHA's eTool* identifies as being a part of rigging up. Click on each to see how MCR Safety can assist in protecting against potential hazards:

- *Substructure setup*
- *Rig floor setup*
- *Handrail installation*
- *Power system installation*
- *Circulating system rigging*
- *Auxiliary equipment installation*
- *Rig inspection*

## Drilling Ahead

Once the rig is built, it's time for drilling ahead. In addition to the constant risk of being struck by tongs, spinning chain, or pipe, drilling workers also face the possibility of flash fire. **Sixteen percent of all oil and gas fatalities** are the result of exposure to flash fires. Although they last just seconds, flash fires can cause devastating burns to an unprotected worker. **Flame-resistant garments** can greatly reduce injury because they do not continue to burn after a flash fire has gone out.

Here are the 10 tasks *OSHA's eTool* identifies as part of the drilling process. Click on each link to see the PPE options that MCR Safety can provide:

- *Tubular/pipe handling*

- *Drilling fluid preparation*
- *Drilling begins*
- *Preparing to break out pipe*
- *Breaking out pipe*
- *Making up pipe*
- *Raising the kelly*
- *Adding pipe*
- *Drilling resumes*
- *Coring*

## Tripping Out and In

Eventually, the bit or some other piece of the drill string is going to need to be replaced. Removing or replacing pipe from the well is known as tripping, runs the risk of exposing workers to excess drilling mud. This fluid may contain chemicals that can cause burns when it comes in contact with skin or eyes. PVC gloves and safety glasses can help prevent this type of injury.

*OSHA's eTool* identifies eight activities completed during the tripping out/in process. Click on each link to see how MCR Safety can help protect your workers:

- *Setting slips*
- *Setting back the kelly*
- *Elevator attachment*
- *Latching elevators*
- *Monkeyboard work*
- *Breaking out pipe*
- *Pipe to racking area*
- *Tripping in*

## Casing Operation

Casing is used to line the well hole with pipe longer and bigger in diameter than the drill pipe. Casing operations happen periodically during drilling, with hazards similar to that of drilling or tripping. Gloves with impact protection help safeguard hands and are a key piece of PPE when running casing.

Here are four operational activities *OSHA's eTool* identifies while casing. Click on each one to see how MCR Safety can assist in protecting against potential hazards:

- *Casing tools installation*
- *Running casing*
- *Casing accessories installed*
- *Circulating and cementing*

## Maintenance Activities

Maintenance is a constant activity on any drilling rig. Inspecting, adjusting, and servicing equipment on every part of the rig brings maintenance workers into contact with all kinds of possible hazards. The right PPE can prevent chemical exposure while cleaning out the mud circulating system or cuts from wickers or loose strands during wire rope maintenance.

Here are the seven activities *OSHA's eTool* identifies as taking place during maintenance. Just click

each link to start viewing the PPE options available to you from MCR Safety:

- *Rig floor*
- *Line maintenance*
- *Rope maintenance*
- *Mud circulating*
- *Electrical*
- *Engines*
- *Derrick maintenance*

## Well Control

Keeping the right pressure in the rig to prevent blowouts is the vital job of well control workers. Monitoring and maintaining the mud circulatory system is an important part of this function, as is testing blowout preventers, accumulators, and the choke manifold.

Well control also includes maintaining the surface control system. Physically checking these components requires workers to navigate a veritable maze of pipes and protruding objects. Steel-toed PVC boots can help prevent foot impact injuries while also offering protection from chemical spills or hydraulic leaks.

Here are the five activities *OSHA's eTool* identifies as being a part of well control. Follow each link to view the potential hazard MCR Safety can assist in protecting against:

- *Blowout prevention*
- *Monitoring and maintaining*
- *Installation*
- *Bops, accumulators, and choke manifold*
- *Surface control*

## Impact Protection

You've most likely noticed there are a lot of hazards in oil and gas drilling that require impact protection. The oil and gas industry has helped pioneer revolutionary impact protection and is now guided by the new ISEA/ANSI 138 Impact Standard. Download *MCR Safety Impact Glove Protection Buying Guide* to browse the numerous glove options available to you.

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