Avoid the Hazards of Hot Work

Safety Talk

Numerous oil rig fires and explosions have killed many workers during the past 20 years. The moral: Don’t let “hot work” turn you into a statistic.

Working with ignition sources (welders or cutting torches) near combustible materials is a major hazard in the oil and gas industry.

A quick five-minute job done in the wrong place can cause a fire. Standards developed by the National Fire Protection Association call for hot work to be done only in designated or permit-required areas.

Designated areas for hot work are of noncombustible or fire-resistant construction, and are separated from adjacent facilities. Permit-required areas are made fire-safe by removing or protecting combustibles from ignition sources.

A permit for hot work is issued after an authorized person is satisfied that proper precautions have been taken.

Precautions include:

- Making sure all equipment is in good operating condition before work starts.
- Making sure the crew has the correct number of personnel to do the job and each member is properly trained for the tasks.
- Making sure all lockout/tagout devices are installed properly.
- Inspecting the work area thoroughly. Do any structures (partitions, walls and ceilings) contain combustible materials?
- Sweeping up any combustible materials. Combustible floors must be kept wet with water or covered with fire-resistant blankets or damp sand.
- Moving all combustible materials away from the work area. If combustibles cannot be moved, cover them with fire-resistant blankets or shields. Protect gas lines and equipment from falling sparks, hot materials and objects.
- Using fire-resistant material to block cracks between floorboards, along baseboards, walls and under door openings. Doors and windows should be closed.
- Covering wall or ceiling surfaces with a fire-resistant and heat-insulating material to prevent ignition and accumulation of heat.
- Inspecting the area following work to ensure that wall surfaces, studs or wires have not heated up.
- Vacuuming away combustible debris from inside ventilation or other service duct openings to prevent ignition. Prevent sparks from entering into the ductwork.

Cover duct openings with a fire-resistant barrier and inspect the ducts after work has concluded.
- Posting a trained firewatcher within the work area during welding and for at least 30 minutes after work has stopped.

All cutting and welding processes can produce sparks and spatter. So know how to recognize and avoid hazardous situations when performing this work.