

Pipeline Industry Safety Alert - 2009

Acetylene cylinder penetrated by welding electrode

A pipeline welding truck was instructed to move approximately 2 kms further upstream and recommence work with another crew. The truck was fitted with a hiab lifting arm carrying a welders shade canopy. The welding machines were left running and as the welders shade canopy was moved onboard the truck tray to clear power line catenaries, a live electrode (the handpiece fitted with the electrode was hanging inside the shade canopy) made contact with an acetylene cylinder, resulting in it penetrating the 4mm thick cylinder wall and igniting the escaping gas. No injuries were sustained.

The truck tray also contained 2 full G size oxygen cylinders and a 75kg propane cylinder. Contact with any of these other cylinders would almost certainly have resulted in a significant explosion.

Control measures identified include:

1. No electrodes to be left in welding handpieces.
2. All Welding machines to be turned off if moving any reasonable distance and/or moving the shade canopy onboard the truck tray.
3. Earth clamp to be placed in a non-conductive holder when not in use on the rear of the truck tray.
4. Gas cylinders to be placed on rubber matting to insulate the cylinders from the truck tray.
5. Task risk assessment to be updated to include the above mentioned controls.

