



Safety alert 2/2011

Cutting metal drums with an angle grinder

The purpose of this Safety Alert is to highlight the dangers of using angle grinders to cut metal drums.

Background

There have been two recent incidents in workplaces where angle grinders have been used to cut open metal drums.

- A worker died when a 205 litre metal drum he was cutting with an angle grinder exploded. The drum had previously contained methylated spirits and had both bungs in place. The worker had been instructed to cut the drum in order to make a scrap metal bin. A spark from the angle grinder ignited residual vapours in the drum, which exploded.
- A worker at a chemical disposal plant sustained serious burn injuries to both forearms and an injury to his right wrist after being instructed to use an angle grinder to cut holes in the tops of 205 litre metal drums to prepare the drums to be crushed for recycling. The sparks and heat from the angle grinder ignited the residual vapours causing drum to explode.

Contributing factors

- When operating an angle grinder it produces ignition sources such as heat and sparks.
- The drums had previously contained a highly flammable liquid and there was still chemical residue left in the drums.
- In one of the incidents there was no labelling on the drum. In the other incident the worker had not been informed about the hazards associated with the use of angle grinders and had limited understanding of English, therefore did not understand the risk or comprehend the safety instructions on the drum itself.

Action required

1. Angle grinders, or any other heat producing equipment, should not be used to cut metal drums that have contained flammable or combustible liquids or gases, or where there is any doubt about the previous contents of the drum.
2. Empty drums should be recycled through specialist cleaning companies.
3. All drums should be labelled and Material Safety Data Sheets (MSDS) should be available for all hazardous substances at the workplace.
4. Adequate training and instruction must be provided in a way that ensures that all workers, including those with limited understanding of English, understand the MSDS information and risks associated with the work to be performed.

Further information

Further information can be obtained from WorkSafe's website www.worksafe.wa.gov.au, by contacting customer service on 1300 307 877 or email safety@commerce.wa.gov.au

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