WELDING AND METAL WORK

CARIBBEAN PROGRAMME ON OCCUPATIONAL SAFETY, HEALTH AND THE ENVIRONMENT
MAJOR HAZARDS OF WELDING AND CUTTING

Include:

• BRIGHT LIGHT AND RADIATION – burns, eye injuries;

• COMPRESSED GASES - fire and explosion;

• NOISE – hearing problems and deafness;

• FUMES – short- and long-term such as metal fume fever; and welder’s lung disease; and

• OTHERS – electrical safety, manual handling and ergonomic problems, etc.
Added: welders lung disease
Michael, 07/11/2011

Deleted: and gases
Michael, 07/11/2011

added bullet
Michael, 07/11/2011

delated: fire and explosion
Michael, 07/11/2011

added: and ergonomic
Michael, 07/11/2011
Too much light can blind you! All workers must have PPE – not just the welder.

The Caribbean welder has taken a piece of protective glass from the broken visor to protect his eyes.

Sunglasses offer little protection as is the case here. The proper visor is on the ground next to the welder.

Protection against the bright light and burns.
Excellent example from the Caribbean. He is sitting comfortably, has full PPE to avoid “arc-eye” and burns, and is outside with adequate ventilation. He even has an asbestos blanket to protect his lower body. Preferably asbestos should not be used at all – find a safer substitute.

Improper PPE – particulate respirator required for welding/cutting. He should also be wearing gloves.

A Caribbean worker “holding” the pipe with feet instead of securing same on a workbench; this would prevent awkward posture/bending, and burn hazard to feet.
Metal workers with no PPE at all. Note the assistant trying to shield his eyes.

Welding fumes are a hazard. Natural / mechanical ventilation, or respirator must be used.

Metal solder fumes in the breathing zone of the worker without respirator.

The welder lacks appropriate PPE. Note the fan behind him to blow fumes away from his breathing zone.
A diagrammatic representation of a LEV (local exhaust ventilation) system to remove welding fumes.
A neat and tidy metal workshop is a good indication that safety and health is taken seriously.

Gas bottles need to have the correct regulator, be tethered and stored safely to avoid falls and ensuring all valves remain free of oil or grease.

Trolleys are ideal ways of transporting gas cylinders around the workplace safely.

Welding equipment should have its own designated marked off area.
A neat and tidy metal shop with the welding equipment safely stored.

Other OSH issues include cleaning facilities for workers.

Hands covered in oil/grease can lead to dermatitis. Never use gasoline or diesel to clean it off. Use appropriate industrial hand cleaners/soaps.

And PPE including footwear. Workers in metal shops must be provided with the correct PPE. Safety shoes with metal toe caps are essential.

Razor sharp swarf on the floors can lead to cuts and infections if the footwear is inadequate.
PROTECTIVE MEASURES INCLUDE THE CORRECT PPE (Visors, goggles, respirators, aprons, gloves etc); VENTILATION (general and LEV) and BOOTH/SCREENS