

# WELDING



# Hazard Alert

## HAZARD SUMMARY

In September 2011, a small business operator was severely burned when his clothing caught fire while he was operating a gas cutting torch. The operator was a lone worker who was cutting metal bars of a conveyer chain when the torch hose ruptured and caught fire. The incident resulted in 3<sup>rd</sup> degree burns to 70% of the worker's body.

## HAZARD LOCATIONS

All welding shops, automotive repair shops, farms or workplace that use welding or cutting torches.

## CAUSE

The extent of the injuries sustained in this serious workplace incident may be attributed to the following factors:

- *Fire retardant clothing not worn.*
- *Working alone.*
- *Propane tank not equipped with an excess flow valve.*
- *Hot or molten metal contact with lower quality fuel lines caused a rupture in the fuel lines.*



*Burnt coveralls, glove and boot from actual incident.*

## LEGISLATED REQUIREMENTS

On Prince Edward Island, workplace safety is the law. Legislated requirements under PEI's Occupational Health and Safety Act related to this hazard include:

- OHS General Regulations section 37.9 state: The employer shall ensure that all employees engaged in welding or cutting operations wear, and all employees shall wear (a) adequate fire retardant work clothing; (b) fire retardant gauntlet type gloves and arm protection; (c) an apron of fire retardant or other adequate material; (d) adequate eye and face protection against harmful radiation, or particles of molten metal, or while chipping and grinding welds; and (e) safety boots which meet the requirements of section 45.15.

**To report a serious workplace incident or hazard,  
call the 24Hr OHS Emergency Line at 902-628-7513**

- OHS General Regulations section 37.24 states: All welding and cutting burners shall be equipped with reverse flow check valves installed as close as possible to the regulators.
- OHS General Regulations section 53.2(1) states: Where a worker is working alone, the employer shall develop and implement written procedures to ensure, as far as is reasonably practicable, the health and safety of the worker from risks arising out of, or in connection with, the work assigned.
- OHS Act Section 17 states: A self-employed person shall (a) take every reasonable precaution to protect the self-employed person's own occupational health and safety and that of other persons who may be affected by the self-employed person's undertaking.

## RECOMMENDATIONS

All employers and workers who work with welding or cutting torches, including self-employed operators, are advised to take the following precautions:

- Anyone involved in work with welding or cutting processes must wear fire retardant clothing.
- Hazard Assessments should be performed in hazardous workplaces.
- All propane tanks must be equipped with an excess flow valve (*see images on right*).
- All welding and cutting burners must be equipped with reverse flow check valves installed as close as possible to the regulators.
- Workers must be very attentive when using cutting or welding equipment, and be aware of the proximity of the fuel lines in relation to the torch and any hot materials. Hose hangers should be used to suspend the fuel lines above the work, if possible.
- Appropriate footwear should be worn for welding applications.
- Working alone should be avoided when working with hot work or cutting metal with gas. If this is not possible, establish safe work procedures to do so.
- Inspections of all welding and cutting equipment should be conducted daily.



*Only propane tanks with a triangular-shaped control handle have an **excess flow valve**.*



*The propane tank used in this workplace incident (star-shaped handle as shown here) was **not equipped** with an excess flow valve.*

## FOR MORE INFORMATION

Visit the Workers Compensation Board website at [www.wcb.pe.ca](http://www.wcb.pe.ca), or contact the WCB Occupational Health & Safety Division at 902-368-5680 or 1-800-237-5049 (Toll free in Atlantic Canada).

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