



SAFETY ALERT

On May the 22nd 2008 a High Pressure Water Jetting Operator was fatally injured when he lost control of a ridged steel lance resulting in a water penetration injury to the chest region. The NSW Deputy Coroner recently concluded the inquest into this death and there are valuable learnings for all industry participants from his report.

OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS

Employers are required to ensure plant is used for the purpose it was designed and to provide adequate training and supervision.

Due to the inherent risks associated with high-pressure water systems, a comprehensive risk assessment should be carried out prior to the operation of this equipment. This should be carried out by a competent person to ensure that safe systems of work are developed and implemented, taking into consideration the manufacturer's instructions and the AS/NZS 4233.1:1999 High pressure water (hydro) jetting systems Part 1: Guidelines for safe operation and maintenance.

The Coroner said that there were a number of factors that led to the tragedy. Consequently it is appropriate to re-iterate the key control measures associated with HPWJ activities.

The control measures should consider but are not limited to the following:

- Ensure that the water jetting system is being used according to the manufacturer's specifications
- Attachments such as lances and lance extensions should be fitted and used in accordance with the Manufacturer's instructions and in a manner that will not affect the safe operation of the system.
- Operators should have safe and easy access to the work area or item they are cleaning.
- The work area should be defined and suitably cordoned off or barricaded to prevent unauthorised access.
- All systems should be "fail safe" in order to comply with the Standard. Fail safe means that the water stops immediately if the operator loses control of the hand-held gun or lance.
- The operator should have the physical capacity to handle the gun barrel or lance safely and comfortably.
- The operator should be allowed to feel the reaction force of the water jet progressively, if possible, until the required operating pressure is reached.
- When using a lance or hand-held gun the person operating the lance or gun should have direct control of the water flow.
- Ensure operators are appropriately trained in the operation of the water-jetting unit and fully instructed on the safe systems of work.
- Ensure the personal protective equipment as specified in the safe system of work is worn.
- Where water jetting is a multiple person operation, the team members should agree on a code of signals or means of communication to be used during the operation of the equipment.

Coroner Findings

- Tragically, the coroner found that this accident was avoidable.
- The fatality has led to a review of AS/NZS 4233:1 and 2:1999 plus a planned introduction of an industry Code of Practice for High Pressure Water Jetting from Safe Work Australia.

The Employer

The employer of the deceased has since overhauled its work practices, removing all rigid lances from water jetting work, upgrading training packages & introducing Kevlar PPE for all water jetting work.

Family

The employee's widow said that she was grateful that her husband's death would not be in vain, & meant that other water jet operators had a greater chance of making it home safely at the end of their shifts.