



INCIDENT ALERT

General Information

Date of Incident	21 st April 2016
Type of Incident	Non-compliant HPWJ equipment

About the Person

Occupation of Person	High Pressure Water Jetting Operation Trainer (IFAP/AUSJET endorsed)
Experience of Person	15 years plus
HPWJ Training Level	HPWJ Operator
Other Training	Cert IV in Training and Assessment
No. of Hours Completed	6 hours

About the Incident

Time of Incident	14:00hrs
Result of Injury/Damage	N/A
Lost Days	N/A
Description of Incident	Practical assessment for a HPWJ Assistant training course could not be completed due to equipment that was to be used with the newly purchased HPWJ unit having a lower pressure rating than the HPWJ pump.
What Equipment Category	Class "B"
Equipment Used	Drain Cleaning unit
What happened unexpectedly	During the pre-start equipment check it was identified that the new HPWJ pressure hose was rated at 4,000psi (275 bar) and the new HPWJ pump was rated at 4,300psi (300 bar). Additionally it was identified that there was no "E-Stop" or hold to activate device (foot pedal) supplied with the new unit. It was further identified that the pressure relief valve had been set at 4000psi (275 bar), which is below the HPWJ pumps maximum operating pressure of 4,300psi (300 bar). This had been done to match the pressure rating of the fitted hose.
What Was Person Doing	Pre-start equipment check.

Corrective Action

What Immediate Action	Practical assessment stopped, contact made with company that owned the newly purchased HPWJ equipment. AUSJET followed up issues with pump supplier.
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Preventative Action

Elimination	
Substitution	Upgraded 4,000psi (275 bar) hose to 5,000psi (350 bar) to match or exceed pump pressure rating.
Isolation or barriers	Supplied "hold to activate" device (foot pedal) and fitted "E-Stop".
Engineering	Pump unloader set to 4,300psi (300 bar), and safety valve re-set to max pump pressure +10% 4,730psi (330 bar).
Administration	Supplier reviewing equipment specifications to make the changes standard on "B" class products sold, ensuring an AS/NZS 4233 compliant product offering.
PPE	

LEARNINGS

The supply of new HPWJ equipment must be compliant with AS/NZS 4233. Parts 1&2.

AS/NZS 4233.1 3.6 COMPATABILITY

When assembling equipment, all component parts and fittings shall be checked to ensure that as a minimum they are compatible in form and function with the maximum operating pressure/flow combination of the water jetting unit being used.

AS/NZS 4233.1 - 3.2.7 FOOT CONTROL DEVICES

All foot control devices shall be protected by a guard or cover to prevent inadvertent or accidental actuation of the device. All foot control devices shall be checked prior to the task with particular attention being given to the actuating mechanism and guard to ensure correct operation. Class "B" foot control devices shall be fitted with a double action safety trigger mechanism to prevent inadvertent operation. Where the hose connects the jetting foot control device it shall be restrained using a braided stocking and also covered by a hose shroud.

AS/NZS 4233.2 - 2.6 SAFETY AND PRESSURE RELIEF DEVICES.

2.6.1 General.

High pressure water jetting systems shall be protected by a safety relief device to prevent the pressure of the system from exceeding its maximum allowable working pressure.

The high pressure water jetting system shall have a safety relief device which prevents the pumps maximum allowable working pressure from being exceeded. Where a pressure relief valve is fitted the valve shall actuate at 10% above the pump maximum working pressure. Where a burst/rupture discs are fitted it should be rated in accordance with the manufacturers specifications for such a device.

AS/NZS 4233.2 - 3.3 CONTROLS AND SHUTDOWN DEVICES.

3.3.1 Emergency stop (E stop).

In Class B operations the high pressure water jetting unit shall be equipped with stop and lock off emergency stop devices. Upon re-setting the emergency stop the system shall not start automatically.

The positioning of these devices shall be in accordance with the specific hazards and shall be based on the risk assessment carried out. In particular, the high pressure water jetting unit shall be equipped with at least one emergency stop adjacent to the control panel and one fixed to the external of the unit. Refer AS 4024.1202, AS 4024.1301, AS 4024.1501, AS 4024.1604, AS 60204.1.