Hazard alert

Urgent warning to licensed plumbers working on hot water systems

Serious risks associated with working on hot water systems connected to uncontrolled heat sources

Following two significant incidents in Tasmania in as many years, Consumer, Building and Occupational Services (CBOS) is issuing an urgent warning to plumbers about the dangers of working on hot water systems connected to uncontrolled heat sources, such as wood heater water jackets and solar thermosiphon systems.

The Risk

Incorrect installation, alteration or repair of systems connected to uncontrolled heat sources can result in catastrophic system failure, including:

- Superheated water and steam release
- Explosion of water heating systems
- Severe burns and scalding injuries
- Significant property damage
- Serious injury or death to occupants and workers.

Critical compliance requirement

Flow and return pipework associated with an uncontrolled heat source must **never** have provision for being isolated or capped off. This requirement is clearly set out in section 7 of **AS/NZS 3500.4**.

Any modification that prevents the safe circulation of water through an uncontrolled heat source can create extremely dangerous pressure and temperature conditions.

Know your limits

Plumbers undertaking work outside their level of competence risk causing serious injury or death to occupants. In addition to the safety risks, such work may constitute a breach of licence conditions and can result in substantial penalties, including fines and suspension or cancellation of a plumbing licence.

Stop and seek advice

If you are unsure about the design, installation or modification of a system involving an uncontrolled heat source, stop work and seek specialist advice before proceeding. Asking for help could save a life.

Consumer, Building and Occupational Services
Department of Justice

Tasmanian Government

Recent Tasmanian Incidents

The photographs below show the aftermath of two recent incidents in Tasmania involving defective plumbing work on systems connected to uncontrolled heat sources. Both incidents highlight the severe consequences that can result when fundamental safety requirements are not followed.

Before and after: A slow-combustion stove with wetback water jacket (note the isolation valve)

A capped off flow and return from a water jacket in a wood heater that has exploded; causing serious injury

Sealed off flow and return pipework

A large fragment of cast iron lodged in a ceiling