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HSE issues Safety Alert on Scalding risk from domestic hot water systems

The Health and Safety Executive (HSE) is today issuing a safety alert aimed at homeowners, tenants, landlords and the plumbing industry following two strikingly similar fatal incidents in the last four years where a large volume of near boiling water poured through bedroom ceilings onto occupants sleeping below.

The purpose of the alert is to raise awareness of a rare but potentially serious scalding risk from domestic hot water systems which include a fixed all-electric or part-electric immersion heater in conjunction with a plastic cold water storage cistern or 'tank' located in the roof space.

Homeowners and landlords should pay particular consideration to those systems over ten years old, or where they may have concerns over the quality of the installation or repair work carried out.

An overheating immersion cylinder will normally show warning signs so serious incidents are likely to be extremely rare. There are also a number of steps that can be taken to reduce the risk:

- Occupants should be aware of warning signs (such as excessive noise from the hot water cylinder) indicating possible thermostat failure and overheating of the water in the cylinder;
- Storage cisterns should be installed on an adequate supporting base. The incidents that prompted this alert occurred primarily because the plastic storage cisterns were not supported across their entire area. In other words, the base of the cistern protruded over the edge of the base support board. (See the alert for further information.)

- A safety cut-out feature, independent of the immersion heater thermostat, can be fitted to limit the temperature of the stored water, should the thermostat fail.

The risk is greatest when cisterns are located above bedrooms. This is most likely in houses built between 1945 and 1975. Often these homes have, or used to have, a back boiler. If the cylinder is located in a bedroom it is probable that the cistern may be directly above it. Whenever a galvanised (metal) cistern is replaced by a plastic one, the thermostat to the immersion heater should be examined and preferably replaced by one with a safety cut-out.

Specific information on British Standards for domestic cisterns and advice on warning signs, such as excessive noise coming from the hot water system, are included in the alert. It can be found on the HSE website at <http://www.hse.gov.uk/services/localgovernment/alert.htm>

Notes to editors

1. A 30-year old woman died on 30 May 2002 after an incident on 10 June 2002 in Penzance, Cornwall. An HSE investigation took place as the incident occurred in housing association managed property. A coroner's inquest was held 1/2 July 2003 - Verdict: accidental death. HSE decided not to take any formal enforcement action.

2. A ten month-old baby died on 12 December 2006 after an incident on 19 November 2006 in Taunton, Somerset. The HSE investigation is ongoing as the incident occurred in local authority managed housing stock. As a result of the investigation HSE served an Improvement Notice on Taunton Deane Borough Council. The Notice requires the Council to undertake action in relation to hot water systems at other similar council properties to verify that they comply with the relevant safety standards. The Council has been co-operating with HSE at all stages of its investigation and the Improvement Notice builds on some of the Council's own proposals for improvement.

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www.hse.gov.uk/

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