

Safe storage of wood pellet and wood chip fuel - Alert and Notice of Action

Dear Colleagues,

The Health & Safety Executive (HSE) issued a safety notice for all those who use, install, maintain, or distribute wood pellet (biomass) boilers, or manufacture/store/distribute wood pellets.

Wood pellet boilers are used in homes and businesses, as an alternative to oil, or, gas fired boilers. They are also being installed to replace coal-fired boilers, particularly in schools.

What does this mean?

Since 2002, there have been nine fatalities in Europe caused by carbon monoxide poisoning following entry into wood pellet storage areas.

Carbon monoxide can kill quickly without warning. It is a colourless, odourless and tasteless gas that is highly toxic. When carbon monoxide enters the body, it prevents the blood from bringing oxygen to cells, tissues, and organs.

Although there have not been any incidents so far in the UK, the use of wood pellets is increasing and awareness of this danger is required.

Whilst the HSE Safety Notice had raised awareness generally, not all of its recommendations had been taken up at individual sites.

Photo below: Example of a wood chip store access hatch in a boiler room



What do I need to do?

WCC is advising all those who use, install, maintain, or distribute wood pellet boilers and/or manufacture/store/distribute wood pellets at WCC premises, to consider the following:

- 1) Ensure that wood pellet hoppers/tanks/storage rooms and boilers are installed and commissioned by a competent person, normally approved by the manufacturer/supplier. This is particularly important if the installation involves the replacement of a coal-fired boiler, where existing boiler room and storerooms are often utilised.
- 2) Ensure that the boiler and pellet feed mechanism etc. is cleaned and serviced by a competent person as specified by the manufacturers' instructions.
- 3) If any problems are encountered with the unit, such as the system not heating correctly, or flue gas is flowing into the boiler room, turn the unit off and contact the supplier and/or manufacturer and request assistance.
- 4) Ensure that manufacturers, suppliers and distributors of wood pellets provide adequate health and safety information to the user in their materials safety data sheet.
- 5) For any sites where wood pellets are stored, the site responsible person must ensure that there is a risk assessment and safe systems of work in place.
- 6) The Risk Assessment should include controls as follows :
 - o Do not enter the pellet storage area, or place your head into a wood pellet hopper as they can contain toxic gases.
 - o Ensure that the storage area is adequately ventilated and check carbon monoxide and oxygen levels with an appropriate device prior to entry.
 - o The store room is ventilated at all times, either mechanically or by being designed to have a through draught.
- 7) Ensure warning signs are placed on the pellet storage area access door, ideally on both sides, so it can be seen when the door is open. The warning sign should include the following information:

- o **DANGER - RISK OF CARBON MONOXIDE POISONING** - There is a danger to life from odourless carbon monoxide and lack of oxygen. Check atmosphere before entry with an appropriate device. No entry for unauthorised persons. Keep children away from the storeroom.
- o No smoking, fires or naked flames.
- o The room should be adequately ventilated before entering. Keep the door open whilst inside.
- o There is a danger of injury from movable parts.
- o Filling procedures should be carried out accordance to the instructions of the heating installation company and the pellet suppliers.

If you have any further queries, or concerns regarding this, please contact your appropriate Property Surveyor.

For more technical energy related queries, please contact Jacky Lawrence from the Energy Team, on (01926) 476623.

For further information, please go to the links at the following website:

<http://www.hse.gov.uk/research/rrhtm/rr1077.htm?ebul=hsegen&cr=12/20-dec-16>
& <http://www.hse.gov.uk/safetybulletins/co-wood-pellets.htm>