Introduction

1. This statutory guidance is part of the Scottish Government Advice Pack for Private Landlords. It is issued under sections 13(1)(g) and 13(6) of the Housing (Scotland) Act 2006 (which were inserted by section 22 of the Housing (Scotland) Act 2014). Regard must be had to this guidance in determining whether a house meets the repairing standard in relation to the provision for giving warning if carbon monoxide (CO) is present in a concentration that is hazardous to health. This guidance takes effect from 1 December 2015.

2. Carbon monoxide is a colourless, odourless and tasteless gas. Low levels of CO gas can be present in the atmosphere, however it is highly toxic and dangerous to humans and animals in higher quantities. The gas is produced in high levels from appliances where incomplete combustion of a carbon based fuel occurs. Incomplete combustion could occur in appliance installations that are defective, lack proper maintenance or have inadequate provision for combustion air.

3. Every year in Scotland there are fatalities from CO poisoning directly attributed to combustion appliances installed in buildings. In addition to these deaths there are also a considerable number of incidents where people are treated in hospital for the effects of CO poisoning. In some cases CO poisoning can result in serious and permanent injury to persons affected. Where CO gas may occur within a building early detection and warning can play a vital role in the protection and safety of the occupants. This is particularly important in buildings with sleeping accommodation.

Repairing Standard

4. Private landlords in Scotland are required by law to ensure that a rented house meets the repairing standard at the start of a tenancy and throughout a tenancy. One part of the repairing standard is that the house has satisfactory provision for giving warning if CO gas is present in a concentration that is hazardous to health.

5. More information about the repairing standard and the other elements that need to be met is available in the Advice Pack for Private Landlords.¹ Tenants have a right to refer any landlord not complying with this new carbon monoxide duty or any other element of the repairing standard to the Private Rented Housing Panel (PRHP). Regulations are expected to come into force in December 2015 which will also enable local authorities to apply to the PRHP in respect of the repairing standard.

¹ The Advice pack is available on line at http://www.prhp-scotland.gov.uk/prhp/137.26.33.html.
6. Combustion appliances such as boilers, fires (including open fires), heaters and stoves fuelled by solid fuel, oil or gas all have the potential to cause CO poisoning if they are poorly installed or commissioned, inadequately maintained or incorrectly used. Inadequate ventilation or a lack of the correct maintenance of appliances, flues and chimneys are the main causes of CO poisoning. Poisonous CO gas is produced when fuel does not burn properly. Incidents of poisoning can also occur through deterioration of the structure of the flue or chimney.

7. The installation of CO detectors is intended to reduce the risk of CO poisoning and the consequent loss of life and serious injury. The repairing standard sets a high benchmark for CO detection, matching the standard required for new building. Private landlords should make every effort to ensure that all the properties they let to tenants meet this standard regardless of when the tenancy started and what previous requirements have already been met.

8. As stated in section 13(6) of the 2006 Act, in deciding whether this standard is met in relation to giving warning when a hazardous level of CO gas is present, regard must be had to any building regulations and any guidance on the subject issued by Scottish Ministers.

9. Landlords should bear in mind that there are other standards that may need to be met in addition to the repairing standard such as those relating to Houses in Multiple Occupation (HMOs) which must meet physical standards set by the licensing local authority. Detection of carbon monoxide is covered in section 4.5 of the Scottish Government guidance for local authorities on licensing of HMOs.

Landlord’s Responsibilities

10. Landlords should be aware of what the building regulations say in relation to CO detection and have regard to those regulations in assessing what level of CO detectors are needed to ensure that the home has satisfactory provision for detecting and warning of the presence of CO gas in a concentration that is hazardous to health.

11. In order to alert occupants to the presence of levels of CO gas which may be harmful to people, private landlords must ensure that a detection system is installed in all dwellings they rent to tenants where there is:

   - a fixed combustion appliance (excluding an appliance used solely for cooking) in the dwelling or
   - a fixed combustion appliance in an inter-connected space, for example, an integral garage
   - a combustion appliance necessarily located in a bathroom (advice would be to locate it elsewhere) - the CO detector should be sited outside the room as close to the appliance as possible but allowing for the effect humid air might have on the detector when the bathroom door is open.
12. A CO detection system is not required in an attached out-building or garage where there is no inter-connection with the house e.g. a door. To be clear, if there is no way that CO could reasonably be expected to find a path into the house there is no need for a detector.

13. CO detectors should be powered by a battery designed to operate for the working life of the detector which is usually between five and seven years. The detector should incorporate a warning device to alert the users when its working life is due to expire and should be replaced on or before the expiry date. Hard wired mains operated CO detectors with fixed wiring (not plug in types) may be used as an alternative, provided they are fitted with a sensor failure warning device. CO detectors must comply with BS EN 50291-1+A1:2002 and, where hard-wired or wireless installations are adopted, applicable European directives.

14. Private landlords may install combined Fire / CO detectors providing they meet the appropriate requirements of BS EN 50291-1:2010+A1:2012 with regard to CO detection/alarm activation. It will however be a requirement that the detectors be hard wired to ensure compliance with the guidance on satisfactory provision for detecting and warning of fires. As outlined above single CO detectors can be battery powered.

15. Audibility levels in adjoining rooms and the effect of CO gas moving throughout the building should be taken into account. CO detectors should include an integral sounder.

16. A CO detection system to alert occupants to the presence of CO gas should consist of at least:

- 1 CO detector in every space containing a fixed combustion appliance (excluding an appliance used solely for cooking) and
- 1 CO detector to provide early warning in high risk accommodation, that is, a bedroom or principal habitable room, where a flue passes through these rooms.

Unless otherwise indicated by the manufacturer, CO detectors should be either:

- ceiling mounted and positioned at least 300 mm from any wall or
- wall mounted and positioned at least 150 mm below the ceiling and higher than any door or window in the room.

17. CO detectors in the space containing the combustion appliance should be sited between 1 and 3 metres from the appliance.

- If the combustion appliance (primarily boilers) is located within a small space, usually a cupboard, the detector should be sited outside the space /
cupboard with the appropriate distance between appliance and detector of between 1 and 3 metres.

- If the combustion appliance (primarily boilers) is located in an attic, the detector should ideally be sited between 1 and 3 metres from the appliance in the attic and another interlinked detector sited outside the attic near the attic hatch. Where this is not possible, a detector sited outside the attic as near the attic hatch as possible is acceptable.

18. A carbon monoxide detector should not be sited:
   - in an enclosed space (for example in a cupboard or behind a curtain)
   - where it can be obstructed (for example by furniture)
   - directly above a sink
   - next to a door or window
   - next to an extractor fan
   - next to an air vent or similar ventilation opening
   - in an area where the temperature may drop below -10°C or exceed 40°C, unless the detector is designed to do so
   - where dirt and dust may block the sensor
   - in a damp or humid location or
   - in the immediate vicinity of a cooking appliance

19. Landlords should be mindful that the provision of a CO detection system should not be regarded as a substitute for the correct installation and regular servicing of all combustion appliances. For example, under the Gas Safety (Installation and Use) Regulations 1998 landlords are legally responsible for the safety of their tenants in relation to gas safety – by law landlords must:
   - Repair and maintain gas pipework, flues and appliances in safe condition
   - Ensure an annual gas safety check is done on each appliance and flue
   - Keep a record of each gas safety check

20. Whilst landlords are entitled to rely on professional advice from a suitably qualified person, for example, a Gas Safe Registered engineer, they should be aware of their personal responsibility to ensure any house they rent meets the repairing standard which now includes this new duty in relation to carbon monoxide detection.

21. It is recognised that in tenement flats with multiple owners, flues may pass through neighbouring properties - this is most likely where there are deteriorating old chimneys but can also occur where gas fires are present. It is not the responsibility of a landlord to install CO detectors in neighbouring properties, however landlords should be aware of any potential risk which could result in gas escaping into other living spaces. If in doubt, landlords should always seek professional advice to ensure the safety of their own tenants and minimise risk to neighbouring properties.
Additional guidance

22. The Health and Safety Executive website provides useful information on how to manage gas appliances / equipment safely [http://www.hse.gov.uk/gas/domestic/](http://www.hse.gov.uk/gas/domestic/) It also gives good advice on what action should be taken if you think an appliance is spilling CO gas.

23. Shelter Scotland website looks at how gas safety can be improved in your home including minimising the risk of CO poisoning. [http://scotland.shelter.org.uk/get_advice/advice_topics/repairs_and_bad_conditions/home_safety/gas_safety](http://scotland.shelter.org.uk/get_advice/advice_topics/repairs_and_bad_conditions/home_safety/gas_safety)

24. Although this guidance does not take effect until 1 December 2015, the Scottish Government would expect landlords to be taking steps now to bring their properties up to the required standard in relation to CO detection as outlined in this guidance. It is expected that landlords will have regard to this guidance immediately and ensure CO detection is installed by 1 December 2015. However, if a landlord has a scheduled annual gas safety check it is reasonable to arrange work to install CO detectors at the same time. This will mean that no more than one year from the date of this guidance, all private rented properties should have adequate CO detectors installed.

Scottish Government
Directorate for Housing and Welfare

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