

Gas Protection for Household Extensions

Planning Requirements

When Gas Protection Is Required And Why?
What Criteria Is Used To Assess Gas Protection Measures?
How To Validate Gas Protection Measures?

When Gas Protection Is Required?

The planning department will on advice of contaminated land officer place a gas protection condition on extensions of houses.

Gas Protection is required on new build extensions but excluding small porches or conversion of garages when the property is within a high risk coal referral area or within 250 metres of former landfill or unknown fill ground.

Why Is Gas Protection Required?

Gas Protection is required when there is a risk of gas migration to minimise risk to human health. It is considered necessary as a precautionary measure.

The local authority has a duty under Part 2A of the Environmental Protection Act 1990 to risk assessed inspect their area for contaminated land. The planning regime is used to prevent risk by ensuring no source- pathway- contaminant linkage is introduced.

Contaminated land is defined under Section 78A(2) of the Environmental Protection Act 1990 as:

“Any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that –

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) significant pollution of controlled waters or there is a significant possibility of such pollution”

The planning regime is used to ensure land use is remediated to protect against gas risk.

High Risk Coal Referral Areas

Coal Referral High Risk Area is created by the coal authority to provide developers and planning consultant's information on land condition.

It is considered high risk based on a number of coal mining related features which have the potential for instability or a degree of risk to the surface from the legacy of coal mining operations. The combination of features included in this composite area includes mine entries; shallow coal workings (recorded and probable); recorded coal mining related hazards; recorded mine gas sites; fissures and breaklines and previous surface mining sites.

Former Landfill or Unknown Fill Ground

Historical information on previous land uses has been mapped to allow appropriate levels of protection to be provided.

Landfill or unknown fill ground sites are known to have the potential to generate gas however this will be dependant on the type of fill material, the age of the landfill, the underlying geology and any changes to the land which can have an effect on gassing. The local authority has limited information on landfills and therefore it is necessary to raise the level of risk to ensure any new developments are protected

Criteria Used to Assess Gas Protection Measures

It is necessary for the developer to consider the site as either Amber 1 site in accordance with the NHBC (Guidance on Evaluation of Development Proposals on Sites Where Methane and Carbon Dioxide are Present, 2007) or Characteristic Site 2 of modified Wilson and Card (Table 8.5 Ciria c665 2007).

CIRIA 665 "Assessing risks posed by hazardous ground gases to buildings" standard provides details of protection against potential gas migration while CIRIA c735. 2014 provides guidance on validation.

Validation Requirements- What information is required for discharge?

The developer must provide the following minimum information:

- a schematic drawing of the foundations to be installed
- provide gas membrane specification.

This information would be reviewed to ensure compliance with the CIRIA c665.

Enhanced Validation Service—Charge applicable

CIRIA recommends additional measures for validation of gas membrane installations.

The main additional service would be to provide a site visit during the installation of the gas membrane to ensure it has been laid correctly by reviewing the condition of the membrane, the seals or joints and the integrity of the membrane.

Such a site visit should be carried out by a "competent" person. A competent person as defined by CIRIA 735 is trained in the installation of the gas membrane system. Capita's Contaminated Land Officer can provide this service on behalf of the council; at fixed charge of £100.

Such a service will ensure total confidence in the integrity of the membrane and provides an independent audit of the installation

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