



RADON GAS

Radon is a radioactive gas that occurs in some parts of the UK. It is produced when uranium in rocks, such as granite, decays. This information sheet highlights its dangers and preventative measures that can be taken to avoid fatalities from exposure.

Radon is a radioactive gas that occurs in some parts of the UK. It is produced when uranium in rocks such as granite decays. It can be a major cause of lung cancer if allowed to build up in workplaces.

The National Radiological Protection Board estimates that radon in the workplace is the cause of 250 lung cancers every year. That is about the same number as those killed by injury at work. Like most fatalities, death as a result of radon exposure is easily prevented.

All employers in areas affected by radon should ensure that they regularly monitor radon levels within all buildings. These areas are mainly parts of Devon and Cornwall, but high concentrations are also found in Somerset, Derbyshire, Northamptonshire, pockets of Wales and Northern Ireland and North and North East Scotland. However not every part of these areas are affected. Although radon gas is most common in areas where granite occurs, other parts of the country can also have high levels.

Where there is a likelihood of risk the employer has a legal responsibility to monitor radon. There are several ways of detecting and measuring radon, but all of those require readings to be taken over a long period as radon levels vary depending on the season, and even the time of day. Levels are usually highest in the

winter and the gas is most likely to accumulate when a building is not sufficiently ventilated.

If your employer fails to measure radon levels, and there is a foreseeable risk, then they could be breaking both the Management Regulations, and the Ionisation Radiation Regulations (1999).

Employers must act if there is a reading of 400Bq m³. However branches should seek action if there are readings of above 100Bq m³. This is because UNISON believes that long term exposure of radon at levels of above 100Bq m³ can be dangerous in some cases. The level at which the government recommends action for radon within households is 200Bq m³ and even that level is believed to carry a 3 – 5% risk of lung cancer of a lifetimes exposure. Amongst smokers the risk at that level is even higher at 10 – 15%. Branches are therefore recommended to seek action if long term readings of more than 100Bq m³ are obtained within any workplace.

Action to remove radon is relatively simple. A sump and fan will reduce radon levels by an average 90% and is relatively cheap to install. Sealing cracks in floors, introducing positive ventilation or under floor ventilation can also be effective in considerably reducing levels of radon.

Although it does not get the same level of attention

as other risks, radon gas is probably one of the biggest killers of UNISON members within those areas where there is high exposure. For that reason all branches within those areas where there is a likely risk are strongly urged to seek copies of both risk assessments and radon level readings for all workplaces covered. By taking simple precautionary measures it will be possible to prevent a considerable number of members dying needlessly.

For more information on radon, including a map of those areas most affected in England, visit the website of the National Radiological Protection Board at www.nrpb.org.uk

