

GOVERNMENT TO TAKE ACTION TO REDUCE POLLUTION FROM FLUELESS GAS APPLIANCES

The Government announced today a series of proposals to improve indoor air quality by reducing pollution from flueless gas appliances such as gas cookers, water heaters and flueless gas fires.

New research, published today, suggests that under certain conditions, levels of some pollutants in homes may exceed outdoor air quality standards.

There is no immediate danger to users of these appliances, but certain pollutants are undesirable and the Government will now take action to reduce the concentrations released from these appliances.

The Government will:

- push for amendment of European standards for gas appliances to ensure reduced emissions of certain pollutants from flueless appliances;
- push for amendment of UK Installation Standards to ensure concentrations of these pollutants are reduced;
- work with British Standards Institute to ensure national standards and building regulations on safe installation of flueless combustion appliances reflect innovation in appliance and installation practice; and
- reinforce advice to the public on the safe use of flueless gas appliances.

Also published today is a statement by the Department of Health's Committee on the Medical Effects of Air Pollutants (COMEAP), advising that it is

undesirable for concentrations of carbon monoxide and nitrogen dioxide indoors to exceed outdoor air quality standards.

The research, commissioned by the DTI and HSE, tested a range of appliances under laboratory conditions. Tests were often carried out under 'worst case' conditions: with reduced ventilation, extended periods of operation and with safety devices disarmed.

The highest concentrations of carbon monoxide seen in the tests were considerably below the levels that could cause fatalities and did not exceed the outdoor air quality standards in most of the tests. The few exceptions were generally attributable to the abnormal operating conditions.

The health effects of carbon monoxide are well known and can be serious and these results highlight the importance of ensuring appliances are properly maintained and used only for their intended purpose, in accordance with manufacturers' instructions. The Government already has in place a long-standing policy for reducing the risk of carbon monoxide poisoning and this will continue.

The air quality standard for nitrogen dioxide was exceeded in several of the tests. This could result in a worsening of the condition of those with asthma similar to other triggers such as cold air, exercise and colds. Asthmatics who consider they are affected can use their 'reliever' inhaler in the usual way to lessen the symptoms. Healthy people are unlikely to be affected.

There is no outdoor air quality standard for nitrogen monoxide. However, the Health and Safety Executive recently issued advice that the average concentration of nitrogen monoxide in the workplace should not exceed 1000 ppb, averaged over an eight hour working day. Levels in excess of this were measured in some of the tests.

The Department of Health will be producing a leaflet for the public later this year explaining the possible health effects and what action the public can take to reduce exposure. These are:

- always make sure your appliance is installed by a CORGI registered installer with the required competence to do the particular work;
- always follow the manufacturers instructions for correct use of the appliance;
- never use your gas cooker for heating;
- always make sure your appliance is well maintained and serviced by a CORGI registered installer with the required competence to do the particular work; and
- always ensure that rooms in which flueless gas appliances are used are well ventilated.

Notes for Editors

1. The DTI is responsible for Regulations intended to ensure that products are safe, in this case the relevant Regulations are the Gas Appliances (Safety) Regulations (which implement the Gas Appliance Directive in UK), while HSE is responsible for appliance installation requirements under the Gas Safety (Installation and Use) Regulations 1998 (GSIUR). Therefore the question of safety standards for these appliances is a matter of joint responsibility. ODPM is responsible for the Building Regulations; these lay down requirements (amongst others) for building provisions such as air inlets, for combustion air, and the safe discharge of the products of combustion to the outside air.
2. Copies of Gas Appliances: Get Them Checked, Keep Them Safe (INDG238) are available free from HSE Books, PO Box 1999, Sudbury, Suffolk, CO10 2WA, tel 01787-881165 or fax: 01787-313995. <http://www.hse.gov.uk/pubns/gasindex.htm> By law anyone carrying out work on gas appliances or fittings as part of their business must be competent and registered with CORGI (the Council for Registered Gas Installers). More details from the CORGI website www.corgi-gas.com or by telephoning CORGI during normal office hours on 01256 372300.
3. Two research reports measuring concentrations of combustion products released from flueless gas appliances have been published in HSE's contract research series, accessible electronically on www.hse.gov.uk/research/rrhtm/index.htm The reports are:

- RR23 - Flueless gas appliances - concentrations of carbon monoxide, carbon dioxide and nitrogen dioxide, and particulate level produced in use prepared by Advantica Technologies Limited
- RR127- Measurement and modelling of combustion products from flueless gas appliances prepared by BRE Environment

These reports acknowledge that these trials often reflected a 'worst case' scenario, not representing ventilation conditions normally found in the domestic environment, nor normal appliance use. The present research included only limited monitoring in the domestic environment, from which it is not possible to draw firm conclusions, but this does indicate substantially lower concentrations of the emission products measured, when compared with the laboratory test house.

4. The Committee on the Medical Effects of Air Pollutants (COMEAP) has published a statement 'Assessment of the Health Implications of Concentrations of Nitrogen Dioxide and Carbon Monoxide Indoors – Advice to HSE and DTI' at www.advisorybodies.doh.gov.uk/comeap/statementreports/no2coindoors.htm. Although the Department of Health is currently working on a guidance document for indoor air quality, no published standards currently exist for UK (domestic) indoor air quality. COMEAP's assessment was against standards for nitrogen dioxide and carbon monoxide recommended for outdoor air by the Expert Panel on Air Quality Standards (EPAQS) and guidelines provided by the World Health Organisation.
5. The possible effects of carbon monoxide are much more serious than those of nitrogen dioxide or nitrogen monoxide. Carbon monoxide can cause coma and death at high concentrations. These lethal concentrations were not reached in any of the tests. However, the EPAQS air quality standard of 10 ppm eight hour running average (see www.defra.gov.uk/environment/airquality/aqs/co/index.htm) was exceeded to a certain extent during tests involving excessive use of a cooker oven and use of a gas fire with a faulty pilot light. These test results reinforce the importance of advice to use appliances in accordance with the manufacturer's instructions and to ensure that they are regularly serviced.
6. The EPAQS report on nitrogen dioxide is available at www.defra.gov.uk/environment/airquality/aqs/no2/index.htm
7. HSE has issued guidance on the health effects of nitrogen monoxide and advice on workplace control measures, available on HSE's website at <http://www.hse.gov.uk/pubns/chan28.htm>.

Further Information

Further information can be obtained from the appropriate Department see contact details below. The responsibilities of the Departments involved being; **The Department of Health** can provide further guidance on health aspects; the **Department of Trade & Industry** can provide guidance as to the safety of the appliances; the **Health and Safety Executive** can provide guidance with respect to installation issues; and the **Office of the Deputy Prime Minister** can provide further guidance on suitable building provision.

Contacting a relevant Department

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