



Precautions at manually ignited gas-fired catering equipment

Catering Sheet No 3

Introduction

This information sheet has been produced by the Health and Safety in Catering Industry Liaison Committee consisting of trade and professional associations, unions and enforcement authorities. It is intended that it will be reproduced through the members' associations and other avenues to reach catering establishments. The guidance is issued by the Health and Safety Executive.

Summary

This information sheet informs caterers of the high number of accidents occurring when manually igniting gas-fired equipment - chiefly ovens. New equipment is required by European Directives, as specified in Standards, to have safety devices which should prevent these incidents. This guidance asks caterers to assess the risks in older equipment and sets out the Committee's recommendations for such ovens and similar equipment.

Recommendations

These recommendations are restricted to ovens and similar enclosed compartments, where the risks have been found greatest. To achieve compliance caterers should assess their own risks and institute a programme of work for retro-fitting for the flame failure safeguards or the gradual replacement of older equipment with new equipment which has such devices. To avoid the possibility of enforcement action you should:

- (a) give training and instructions on safe systems of work at catering equipment, and adequate supervision;
- (b) where it is reasonably practicable fit flame failure devices to older equipment which does not have such components. The flame failure safeguards should be of a design approved by the manufacturer of the equipment;
- (c) if it is not reasonably practicable to fit such flame failure devices institute a programme of work for the gradual replacement of such equipment by equipment which does have flame failure devices. In the meantime, it is particularly important to train and supervise staff in a safe system of work.
- (d) have appliances serviced regularly in accordance with manufacturers' instructions, and with due regard to safe working procedures.

Suppliers of second-hand equipment also have duties to ensure that such articles are as safe as reasonably practicable when supplied. Purchasers of such second-hand equipment are recommended to ensure that it complies with these recommendations.

Background

Accident statistics of fire and explosion incidents investigated by HSE Inspectors for the period 1988-1991 showed an appreciable number of incidents (130) occurred during the manual ignition of gas-fired catering equipment. A significant proportion of these incidents (52) involved ovens, most being located in school and hospital kitchens.

Minor Injuries (112) were sustained in the majority of incidents, however, there were also a number (10) of major burn injuries to hands and faces.

While fire and explosion incidents accounted for only 1.6% of the total accidents in catering: as 80% of these occurred while manually igniting gas-fired equipment, this justifies particular attention.

The main causes of the incidents were attributed to the delay between turning the gas on and applying the ignition source. This allowed sufficient gas to accumulate, eg in an oven, to ignite explosively.

The incidents could be prevented by flame failure safeguards, eg a thermo-electric valve, where gas is turned on and the ignition source applied simultaneously. Unfortunately, the overwhelming majority of the appliances involved were quite old and most were manufactured before Standards (BS 5314:Part 1: 1976) required the provision of such safeguards. It is also probable that modifications to introduce such safeguards would not now be practicable. However, the problem should eventually disappear as the older appliances are replaced by modern ones which do have such devices.

Modern equipment should now be designed to comply with the essential requirements of Gas Appliance (Safety) Regulations 1992, which requires large-scale kitchen appliances (ie all catering equipment) to be fitted with flame failure safeguards. There is also the possibility that existing equipment, used at work, may also require such safeguards to comply with the Health and Safety at Work etc Act 1974 and, from the 1 January 1997, the Provision and Use of Work Equipment Regulations 1992.

This information sheet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

This publication may be freely reproduced, except for advertising, endorsement or commercial purposes. The information it contains is current at 2/95. Please acknowledge the source as HSE.