

Coming clean

Warning of the dangers posed by unclean grease extract systems in commercial kitchens, **Richard Norman** argues for better management of the risks and more effective inspections by regulatory agencies



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FIRE AND rescue services across the UK have reported a spate of recent fires in restaurants and bistros which have been linked to uncleaned, or inadequately cleaned, grease extract systems. Indeed, one fire authority spokesperson recently stated that: 'Uncleaned grease extract ventilation systems present probably the greatest potential fire risk in buildings with catering facilities.'

A kitchen extract ventilation system draws grease-laden air directly from the areas above cookers, grills and fryers via the cooker hood, and discharges it into the atmosphere. These grease deposits are easily ignited by even a small flash fire on or in the fryer, hob or grill. Flames and heat can then quickly spread through the building, causing substantial damage and endangering the lives of diners and staff. And, with many restaurants situated beneath

occupied residential and commercial premises, other members of the public can also be put at risk.

It is therefore essential that the fire risk assessment for the building should cover, among other things, any kitchen ventilation system in the premises and the need for it to be maintained and cleaned on a regular basis, as well as looking at whether it may contribute to the spread of fire. And yet it has been estimated that over 80% of kitchen extract systems in the UK are never cleaned and are in a hazardous state.

Internal cleaning

One of the latest reported incidents occurred at a Burger King fast-food outlet in Liverpool Street Station in June where, according to London Fire Brigade, a kitchen ventilation shaft in the restaurant caught fire. The blaze

left the rail and road networks in the surrounding areas at a standstill until it was brought under control after about three hours. Some 40 firefighters tackled the fire in the shaft, after it broke out just after 10pm.

The incident provides a timely reminder that catering premises owners and managers should review their assessment of fire risk, to ensure their grease extract systems are adequately cleaned. In many cases, the best approach is to call in a competent contractor. On this occasion, no-one was hurt, but if premises owners and managers fail to carry out internal cleaning of their ductwork, the chances of more serious fires remain a threat.

Indeed, owners and operators are legally required to assess and review fire risks and take appropriate preventative measures, in line with the Regulatory Reform (Fire Safety) Order 2005 in

England and Wales, and similar legislation in Scotland and Northern Ireland. Those that do not – both companies and individuals – face heavy penalties in court for failure to comply.

Non-compliance

In a number of recent restaurant fires, the owners or operators claimed that they had taken action and had in place a cleaning service to remove the flammable grease deposits in the extract system; only to find – following the incident – that grease had not been removed from the internal surfaces of the ducting and consequently supported a fire arising from a spark or flame in the kitchen. Forensic evidence of fire debris showed clearly that the ducting was not being cleaned properly.

'I thought it was being cleaned' is no defence. Insurers are disputing claims where there is evidence of non-compliance with the law. Furthermore, the country's leading property insurer is demanding in its policy warranties that grease extract systems are cleaned in their entirety, from the kitchen canopy to exhaust to atmosphere.

Perhaps only when owners or operators realise that not fully cleaning extract ducting can result in a ruined restaurant, loss of business, substantial repair costs, possible prosecution for non-compliance and refused insurance claims, will they call in a professional contractor to remove the grease and make sure that people are not put at risk.

Fire service inspections

It is not just premises owners and operators who have duties under fire safety law; so too do fire services, which are charged with enforcing the legislation. They have powers to ensure compliance through inspections to make sure all possible measures have been taken to protect occupants from fire, with premises closure and prosecution among the possible sanctions.

However, the spate of recent fires in kitchen grease extract systems arguably points to a disconnect between the frequency of incidents and the low inspection priority given to extract ductwork by fire services. Having seen their inspection protocols, there is no



doubt that grease extract systems are rarely given anything like the inspection importance that their potential to assist in developing the spread of a fire calls for.

Against a background where a fire authority spokesperson stated, as mentioned earlier, that 'uncleaned grease extract ducting presents probably the greatest potential fire risk in buildings with catering facilities', it is hard to understand the disconnect between words and inspection actions. Fire services must tighten their inspection procedures in this area.

Role of the HSE

Continuing with the inspection theme, one way of improving the situation might be for the UK Health and Safety Executive (HSE) to be given a clearer responsibility for the checking of kitchen extract systems.

At present, the HSE is responsible, under the Control of Substances Hazardous to Health Regulations, for the inspection of local exhaust ventilation (LEV) systems. However, for some reason, a kitchen extract ventilation system is not classified as an LEV system, even though it operates in essentially the same way.

As defined by the HSE, an LEV is a system that uses extract ventilation to prevent or reduce the level of airborne hazardous substances from being breathed by people in the workplace. Its function is to draw pollutants away from a process or operation that is

likely to release hazardous substances into the air. It consists of an inlet – for example, a hood placed around or close to the point of release of the substance. This device is connected via extract ducting to discharge to atmosphere.

That is exactly how one would describe a typical kitchen extract ventilation system, with its canopy that draws hazardous pollutants from gas burning units and hot grease-laden vapours away from the kitchen (the workplace), into extract ducting, where it is drawn by fan to exhaust to atmosphere.

Yet the HSE argues that kitchen extract systems are not classified as LEV systems, with a spokesperson explaining that this is because 'kitchen extract systems are general purpose equipment with a number of functions'. However, this explanation is far from clear, since many LEV systems installed for industrial processes perform more

Grease deposits can be easily ignited if allowed to build up in the extract system



than one function – removing both noxious fumes and substances which are harmful to health.

The HSE is responsible for health and safety, and the grease particles extracted from cooking operations unquestionably produce a hazard to safety as a result of accumulating in the extract ducting. One cannot resist speculating that a serious injury or death arising from a fire in a kitchen's extract might be the catalyst for making the checking of these systems a clear responsibility of HSE. Let us hope this is not required for proper health and safety governance to be put in place.

Competent contractors

Numerous fires in restaurants have been made more extensive and destructive by the support of flammable grease in the extract ducting and inadequate duct cleaning processes. Action is needed both to ensure owners and operators meet their legal obligations, particularly through undertaking and



Serious restaurant fires caused by unclean extract ducting can not only put lives at risk but also result in loss of business, major repair costs and possible prosecution

reviewing fire risk assessments to make sure they cover all ventilation systems, and to improve the inspection regime by regulatory authorities.

From experience, it appears that too many restaurants adopt a low-price extract duct cleaning process, where only areas that are 'accessible' actually get cleaned. It is vital that these extract systems are cleaned effectively. Premises managers and owners are urged to select a competent contractor, and ensure that their ventilation cleaning services are carried out in full accordance with

the acknowledged industry standard from the Heating and Ventilating Contractors' Association, TR19: *Internal Cleanliness of Ventilation Systems* – see www.hvca.org.uk ■

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