RISCAuthority

administered by FPA Fire Protection Association

RC44: Recommendations for fire risk assessment of catering extract ventilation units

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Cover image: Getty/gerenme

Contents

Summary of key points

This document has been developed through RISCAuthority and published by the Fire Protection Association (FPA). RISCAuthority membership comprises a group of UK insurers that actively support a number of expert working groups developing and promulgating best practice for the protection of people, property, business and the environment from loss due to fire and other risks. The table below summarises the key points of the document.

Fire risk assessment	As part of the fire risk assessments undertaken to comply with fire safety legislation, a specific assessment of the extract ventilation system should be undertaken (6.1.2).
Extract ductwork	Extract ducting should be as short as practicable. The duct should preferably pass directly to the open and should not pass through, or be contained within, floor or ceiling voids, or roof spaces where exposed combustible materials are present. Ducts should not pass through fire compartment walls or floors.
Routing of ductwork	Filters, traps or other forms of grease removal devices should be provided as close to the range or fryer as possible (6.8.3). To minimise the risk of grease building up, ductwork should be taken by the shortest and most direct route to atmosphere with a minimum number of bends (6.8.4). Where kitchen extract ducts have to pass through other parts of the building they should be contained within a separate outer duct having the same standard of fire resistance as the kitchen, or the parts of the building through which it passes, if these are higher (6.8.6).
Grease filters	The type of grease filter utilised in the extract canopy can significantly impact on the risk of ignition and fire spread (Table 1a).
Appropriate suppression system installed	A suppression system suitable for the risk should be installed to protect deep fat fryers, cooking ranges extract canopy and ductwork (6.9).
Duct accessibility	All areas of the ducts should be accessible for cleaning. Although there are systems that can clean ductwork remotely, thus reducing the need for access, greater flexibility in cleaning methods is available if all areas of the ductwork are easily accessible (6.5.1).
Duct cleanliness	There should be periodic inspection and removal of grease deposits from the inside of ductwork and the extraction motor. The extract ductwork should be inspected and cleaned at periods as determined by a risk assessment based upon accurate historical levels of grease accumulation to maintain grease deposit levels below 200 microns as a mean across the system (6.7.1).
Competency of contractors	Confirmation by certification should be sought that the kitchen extract ductwork has been cleaned by a competent specialist contractor approved by either LPCB to their certification scheme LPS2084 Requirements for the LPCB approval and listing of companies carrying out inspection, cleaning and maintenance of ductwork systems or BESCA through their Vent Hygiene Elite scheme (6.7.9).

Symbols used in this guide


Good practice


Bad practice


Discussion topic

Frequently asked question

1 Introduction

The Regulatory Reform (Fire Safety) Order 2005 introduced the role of 'responsible person' and transferred the onus of fire safety in England and Wales to an approach based on risk assessment, where the person responsible for the premises needs to decide how to address the fire hazards in their premises. Similar legislation applies in Scotland and in Northern Ireland, paralleling the risk-assessment based approach.

Every business which employs people must carry out a fire risk assessment; if five or more people are employed it must be recorded. This record should include the significant findings of the fire risk assessment and any persons especially at risk.

This fire risk assessment should be conducted by the responsible person or a nominated competent person and should include potential fire hazards associated with kitchen extract ventilation and address those concerning inadequate cleaning regimes leading to an excessive build-up of cooking oil deposits. The hazards should be evaluated, with the findings being recorded. The assessment should be kept under review, particularly if there are any changes made to the ventilation system.

The observance of the guidelines presented here does not reduce the legal obligation to undertake and record a fire risk assessment for the premises as a whole.

Kitchen extract ductwork is potentially a serious fire hazard; if deposits of grease are allowed to build up, the introduction of an ignition source may lead to the deposits becoming ignited, causing fire to spread rapidly through the complete ducting system. Such fire can spread to other parts of the building and result in property damage leading to lengthy and costly remedial work, with considerable interruption to business operations.

Following all the measures presented here will assist in making the workplace a safer and more comfortable environment in which to work. It should also be remembered that if suitable precautions are not taken, then in the event of personal injury or death resulting from a fire associated with a poorly maintained system, charges of corporate liability or manslaughter may be brought against the responsible person.

Many insurance policies contain specific conditions relating to cleaning kitchen ductwork. If a fire involving kitchen extract ventilation can be shown to be associated with inadequate cleaning of ductwork then it could jeopardise the right to indemnity for loss or damage under the relevant policy.

In addition, failure to satisfy inspections by statutory enforcement authorities (such as fire and environmental health authorities) can lead to closure of your business and even prosecution.

Assessing the risk associated with the parameters in the sections below involves a simple ranking system to help rate the fire risk as being low, normal or high. The ranking in the tables in each section should not be compared, as the subjects are quite different. The ranking is indicative to help the process of reducing the overall risk. Where possible, measures should be taken to maximise the numbers of low ratings that apply to the various factors and minimise the number of high ratings.

This document does not present details of the technologies available for cleaning extract ductwork but is concerned with the application of the methods. Whilst the recommendations presented here focus on traditional methods of cleaning extract ventilation ductwork, other forms of grease removal technology are available, including those utilising ultraviolet light, enzymes and various bio fluids. In all cases the equipment must be designed, installed, commissioned and maintained by experienced, competent contractors and utilised strictly in accordance with the manufacturer's instructions.

2 Scope

This publication provides guidance for carrying out fire risk assessments of extract ventilation in catering kitchens together with supporting explanations. It is aimed principally at the person responsible for ensuring that such an assessment is performed. It also explains the legislative background to the need to carry out and record the findings of fire risk assessments.

The guidance is equally applicable to extract ventilation serving kitchens in all forms of occupancies and types of buildings.

3 Synopsis

Fires can start anywhere in kitchens; their consequences can be severe if the conditions permit fires to spread out of control as a result of the ignition of grease which has been allowed to build up within extract ductwork.

This document provides background information on grease residues that can result from different styles of cooking and on the main components of extract systems. It emphasises the importance of regular cleaning in order to minimise the build-up of grease deposits in kitchen extract ductwork. It gives guidance on carrying out a fire risk assessment of such ductwork as just one aspect of an evaluation of fire hazards in catering kitchens.

4 Definitions

Access door

A door providing access into ducts for maintenance or inspection.

Canopy

The outer part of a hood (see below).

Class F fires:

Fires involving cooking fats and oils such as in cooking appliances.

Cleaning schedule

A document containing information on how and when cleaning is carried out and what equipment and chemicals are used.

Competent specialist contractor

A specialist contractor with enough training, experience, knowledge and the necessary skills to enable them to certify their own work.

Duct

A circular or rectangular metal enclosure which connects the extract canopy, hood or grille with the outside of the building.

Extract plenum

The space in the canopy between the grease filters and the duct.

Extract ventilation

The movement of contaminated air to allow it to be discharged into the atmosphere.

Fat

A mixture of combustible organic compounds, containing about 50% saturated fat, that is solid or soft at room temperatures, and often originating from animal origins.

Fire suppression system

An active system which operates to detect and suppress a fire (see paragraph 6.9.1).

Flashpoint

The minimum temperature at which a material gives off sufficient vapour to allow it to ignite momentarily on exposure to an ignition source under specific test conditions.

Grease

The viscous product of overheated animal fat.

Hood

A metal box containing filters, intended to collect contaminated air from above a cooking appliance.

IP55

Ingress protection as defined in BS EN 60529 (ref. 2) to a level that provides limited ingress against dust (the first digit) and protection against low pressure jets of water (the second digit).

Oil

A combustible organic substance, generally of vegetable origins, that contains about 10% saturated fat and is liquid at room temperature.

5 The nature of the problem

Many forms of cooking create droplets of oil and fat in the air that condense and form oily or greasy films on surfaces. Over a period of time these films become thick enough to cause a fire hazard. One of the areas that is most vulnerable to the formation of these deposits is a kitchen ventilation extraction system. Spitting of oil onto a hot surface, cooking that is not effectively monitored and defective cooking equipment can all lead to ignition of the layers of grease. If all components of the extraction system have not been cleaned diligently and effectively the resulting flames can travel along the length of the ductwork and lead to the ignition of roofs and other materials in the immediate vicinity.

Extract systems therefore need to be subject to a rigorous cleaning regime to address the unwanted effects of various forms of cooking, including:

- Asian style cooking, which creates a very sticky, syrup-like grease that can become firmly attached to metal surfaces. The grease cannot be broken down by normal scraping or with general purpose cleaning chemicals
- solid fuel cooked and charbroiled meat that creates large quantities of grease. A first layer of grease will bond to metal surfaces and then additional layers of thick, heavy black carbon will build up, containing ash and grease from the cooking process
- deep frying, which creates a grease similar to translucent creosote
- frying frozen foods containing large quantities of water creates a hard and shiny layer of grease

There is no difference in the hazard posed by different types of cooking oil or fat although the following should be borne in mind:

- Safe cooking with oils and fats is usually at temperatures below 200°C. Flammable vapours are given off at 200/300°C and spontaneous ignition occurs at 310-360°C.

- Subject cooking extract systems to a rigorous cleaning regime to remove oil and fat deposits that form due to the various forms of cooking.

- Repeated use of cooking oil causes progressive oxidation that both reduces the flashpoint and affects the taste of food. So regular changes of oil is good for business as well as reducing the fire hazard.

- The flashpoint of cooking oil is reduced by progressive oxidation through repeated use. The oxidation of the oil also affects the taste of the food so regular changing of the oil may be good for business as well as reducing the fire hazard.
- Deposits of some mixtures, such as chicken fat and vegetable oil, ignite quite readily.

Following the significant findings of the assessment and reducing the identified fire hazards will help:

- keep the build-up of grease deposits within the kitchen extract ventilation to an acceptable minimum
- provide a cleaner working environment and assist in meeting food safety standards as required by regulation
- reduce the risk of fire spreading through the kitchen extract ventilation system
- reduce the growth of bacteria and odour
- improve airflow through the kitchen
- reduce fire hazards which will avoid associated business loss and liabilities in the event of a fire
- find it easier to get affordable insurance

A kitchen extract system (see Figure 1) serves three separate and distinct functions:

- To act as a fire-protection device by removing the fuel source for fire, namely grease.
- To remove smoke, heat, vapours and odour from the cooking area.
- To provide safe and comfortable conditions for the kitchen staff.

The ventilation removes vapours from the cooking process, which have been contaminated by a fine mist of oil and grease. They initially travel upward propelled by thermal currents from the cooking process. They are then drawn by an extract fan through grease filters before passing through the ductwork system so as to be expelled safely into a clean environment outside the premises.

The key components of a system may therefore include the:

- hood or canopy
- baffles and filters
- extract plenum
- ductwork
- extract fan

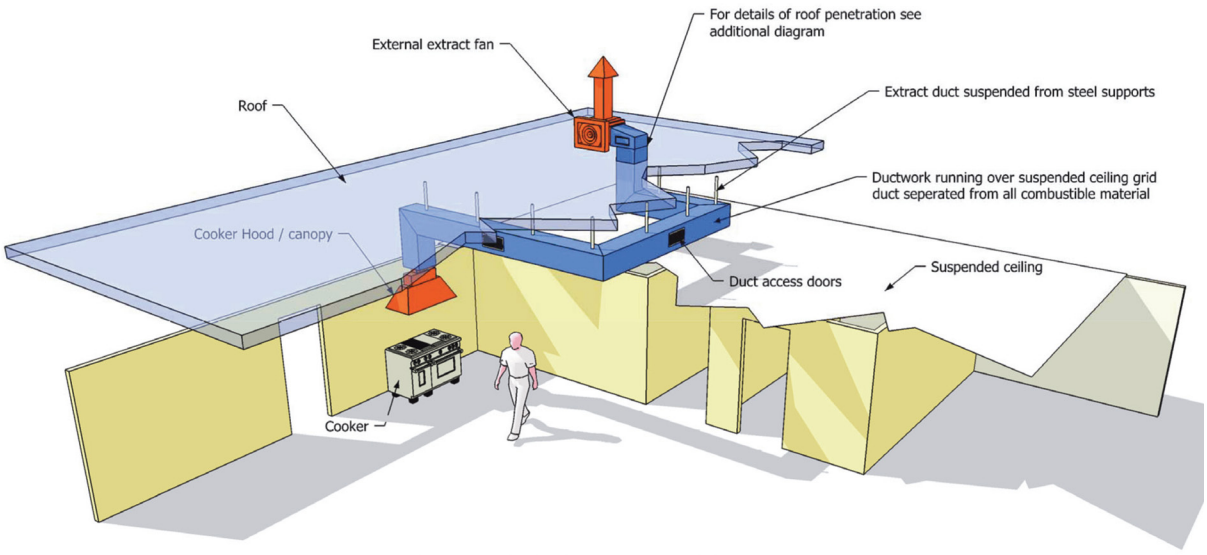

Figure 1: Typical kitchen extract system (Reproduced by courtesy of Hawkins & Associates Limited)

6 Recommendations

6.1 Compliance with fire safety legislation

6.1.1 A suitable and sufficient fire risk assessment should be undertaken by a competent person for all premises to which the Regulatory Reform (Fire Safety) Order 2005 (ref. 3) or equivalent legislation in Scotland and Northern Ireland (refs. 4-7) applies. Although kitchen ventilation ductwork is not provided in connection with general fire precautions, a build-up of grease in the ducts presents a fire hazard which should be monitored and minimised to reduce the hazard. The ducts should therefore be subject to an assessment that forms part of the fire risk assessment for the premises.

6.1.2 As part of the fire risk assessment undertaken to comply with fire safety legislation the good practice set out in Building Engineering Services Association (BESA) Guide TR19® (ref. 8), together with TR19® *Grease* (ref. 9) should be considered and a specific assessment of the extract ventilation undertaken based on the guidance set out in this document.

6.1.3 The response by fire and rescue services to 999/112 calls and signals routed via fire alarm monitoring organisations varies widely throughout the UK and differs from day to nighttime. Fire safety managers should refer to the relevant fire and rescue service websites to make themselves aware of the levels of response in the areas in which their premises are located and consider this information when undertaking and reviewing fire risk assessments.

FAQ

- **Does fire and rescue service response to alarms vary across the UK?**
  The response by fire and rescue services to 999/112 calls and signals routed via fire alarm monitoring organisations varies widely throughout the UK and may differ from day to night time. Fire safety managers should refer to the relevant fire and rescue service websites to make themselves aware of the levels of response in the areas in which their premises are located and consider this information when undertaking and reviewing fire risk assessments.

6.2 Business continuity

Even a small fire can have a disproportionate effect on a business if it occurs in a critical area. Catering kitchens are hazardous areas with cooking, and in particular deep fat frying, presenting particular challenges to fire safety management to ensure the efficient functioning of the business.

Experience has shown that accidents in kitchens can result in widespread and costly fire damage with significant loss of business not only to the premises concerned but also to neighbouring organisations following a fire that has spread via deposits of grease and oil in kitchen extract ductwork.

6.2.1 All organisations should take steps to ensure the continued smooth running of their business by making a suitable emergency plan. Guidance for this is set out in *Business resilience: A guide to protecting your business and its people* (ref. 19). The emergency plan should address the implications of a fire, flood or other perceived disaster on all facets of the business model. It should indicate the lines of communication that should be followed and the contact details for specialist assistance, providers of alternative accommodation and suppliers and installers of equipment, including cooking appliances and kitchen extract ductwork.

6.2.2 Consideration may be given to applying commercially available computer programmes, such as the ROBUST software (Resilient Business Software Toolkit) that is available free of charge (ref. 10), or other appropriate product, to develop and check the adequacy of the plan. Consideration should also be given to utilising the free online RISCAuthority *Supply Chain Risk Management Toolkit* (ref. 11). Reference should be made to the RISCAuthority document: *A simple guide to supply chain management for small and medium-sized businesses* (ref. 12) which is available from the RISCAuthority website.

6.3 The kitchen extract system

In regular use, oil and grease particles condense and accumulate in the hood and filters which require regular cleaning. Despite this process, however, oil and grease do find their way past the filters and into the ductwork where without periodic removal they would build up to create a serious fire hazard. The complexity and potential inaccessibility of parts of the ductwork have resulted in a need for the design and management of commercial kitchens to be carefully controlled. Further information relating to this subject is set out in RC68 (ref. 13).

6.3.1 Although there are advantages in using proprietary recirculation equipment this is not suitable for use with gas or solid fuel appliances and cannot remove carbon dioxide and carbon monoxide from the atmosphere. Recirculation can, however, be effective in small kitchens without deep fat fryers and using electricity for powering cooking equipment. Equipment can be installed within the kitchen within ceiling voids or on a roof. Recirculating systems require a servicing contract and it is essential that grease filters are changed regularly and as required and that alarms reporting diminished airflow (indicating inefficient filtering) for example are not disabled but responded to effectively.

6.3.2 Lighting arrangements under canopies need to be selected for their suitability in the presence of steam, heat and grease.

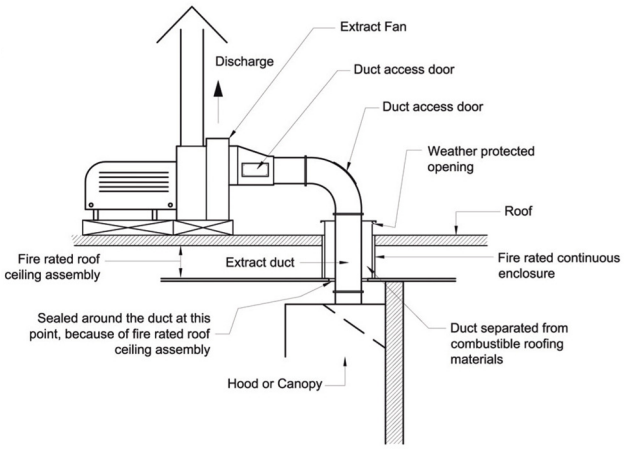

Figure 2: Typical section detail showing roof penetration for a cooker extraction system (Reproduced by courtesy of Hawkins & Associates Ltd)

- Avoid use of spiral ducting for cooking extraction, as its construction can allow condensed liquids to leak from the joints that runs its entire length.

6.3.3 Ducts, canopies, extract plenum and hoods should be constructed of (and be supported by) galvanised or stainless steel of a substantial gauge, having all seams and joints liquid-tight, with smooth surfaces to facilitate cleaning. Spiral ducting is only suitable for the extraction of combustion products and not for the extraction of oil/fat fumes and steam as its construction can allow condensed liquid to leak from the joints that run its entire length. Ducts should not be constructed from aluminium because of the low melting point of this material.

6.3.4 Extract ducting should be as short as practicable, and the design should comply with any local byelaws. The duct should preferably pass directly to the open and should not pass through, or be contained within, floor or ceiling voids, or roof spaces where exposed combustible materials are present. Ducts should not pass through fire compartment walls or floors.

- Provide an inspection and cleaning opening with a grease-tight cover at each change in direction in cooking extraction ductwork.

6.3.5 Bends or dips in the design of the ductwork where residues might collect are to be avoided and the whole of the ducting should be accessible for cleaning. At each change in direction of the duct an opening with a grease-tight cover should be provided for inspection and cleaning.

6.3.6 In those cases where it is not possible to install the ducting as indicated in paragraphs 6.3.4 and 6.3.5, it should be enclosed in a service shaft of non-combustible construction having a fire resistance of at least 60 minutes and with access points 2m apart to facilitate cleaning of the extract ductwork throughout its length.

6.3.7 Where ducts pass through any combustible material, it should be cut away for a distance of at least 150mm from the duct and the space filled with a proprietary sleeving system or non-combustible insulation. Ducts, hoods and canopies should have a clearance of at least 150mm from combustible material, including combustible partitions and floors and, where necessary, the space should be filled with non-combustible insulation. Work should be undertaken by competent persons having third party certification from a UKAS accredited third party certification body.

6.3.8 Emergency manual controls for fire suppression systems, ventilation systems and isolators for gas and electrical supplies should be located on escape routes from the kitchen, and away from equipment, so that they are safely and easily accessible.

6.3.9 Brick chimneys or flues should not be used to conduct grease fumes away from cooking equipment unless they are lined with an impervious, non-combustible material. It should be borne in mind, however, that the whole length of the ducting (including lined chimneys or flues) must be accessible for cleaning.

6.3.10 Kitchen extract ventilation systems should be designed, installed and maintained in accordance with the requirements of the BESA (Building Engineering Services Association) DW/172 *Specification for Kitchen Ventilation Systems* (ref. 14).

6.3.11 The cleaning regime for kitchen extract ventilation systems should be in accordance with TR19® *Guide to Good Practice – Internal Cleanliness of Ventilation Systems* (ref. 8) and an associated publication, TR19® *Grease* (ref. 9).

6.3.12 When consideration is being given to the installation of charcoal ovens and other solid fuel burning devices in a kitchen advice should be sought from the manufacturer of the equipment and insurer of the premises. Wood fired appliances should be located under a dedicated canopy with independent ductwork designed so that the fan motor is located out of the airstream. The canopy should overhang the open door (and the rear and sides in some instances) of the oven by 300mm. Any build-up of carbon monoxide should be monitored and controlled by suitable interlocks installed on controls as necessary.

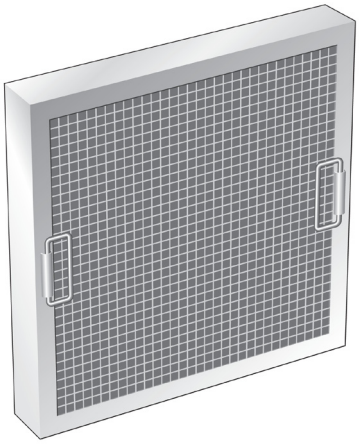

Figure 3: A mesh filter

Figure 4: A baffle filter

Figure 5: A cartridge filter

Figure 6: A water wash filter

6.4 Grease filters

The primary purpose of grease filters is to reduce the amount of grease passing through into the ductwork. Better filters may therefore reduce the frequency and extent of cleaning. It is essential that all grease filters are in place whenever cooking appliances are operated.

There are four types of grease filters that are commonly used within the cooker hood:

- Mesh filters (Figure 3) are low cost and contain a number of layers of material in a stainless steel or aluminium frame. Grease is deposited on the mesh and such filters are only suitable where low quantities of grease are produced. They have a limited life and need to be cleaned at least once a week. Having no flame protection, they should not be used where there is a high risk of fire.
- Baffle filters (Figure 4) comprise a number of interlocking vanes, which form a two-pass grease removal device and a barrier in the event of a flash fire. Grease-laden air passes through the filter by a series of forced changes in direction and speed; some of the grease becomes separated in the air stream and is deposited on the vertical vanes. Deposited grease is drained off into a collection drawer which has to be regularly cleaned.
- A cartridge filter (Figure 5) has a slot opening onto a series of baffles that cause multiple direction changes to the air flow. Trapped grease falls through a drain to a grease tray.
- Water wash filter (Figure 6) systems clean by spraying the interior of the canopy extraction chamber with pressurised hot or cold water sometimes automatically injected with a predetermined amount of detergent. Some have continuous cold water spraying to change the characteristics of the grease so that it drops into a drainage system. These systems can reduce fire risk in solid fuel appliances where hot embers could be drawn up into the hood.

6.4.1 Cooking should only be undertaken with all filters in place.

6.4.2 Cleaning regimes must be carefully designed and strictly adhered to.

6.4.3 Where cooking is undertaken for lengthy or continuous periods, two sets of grease filters should be available to allow clean filters to be fitted while dirty ones are removed for cleaning.

6.4.4 Filters should be fitted in compliance with the instructions of the manufacturer of the equipment and comply with a recognised performance standard such as LPS 1263 (ref. 15).

Types of grease filters		
Low risk	**Normal risk**	**High risk**
• Water wash filter	• Baffle filter	• Mesh filter
• Cold water mist filter	• Cartridge filter	

Table 1a: Fire risk associated with different forms of filters

Grease filters	
Normal risk	**High risk**
All filters are in place	A filter is missing
Filters comply with a recognised performance standard	Filters do not comply with a recognised performance standard
Where there may be lengthy or continuous periods of usage, two set of filters are available	A second set of filters is not available to allow filters to be cleaned during lengthy or continuous periods of cooking

Table 1b: Fire risk associated with the use of filters

- Where cooking is undertaken for lengthy or continuous periods, two sets of grease filters should be available to allow clean filters to be fitted while dirty ones are removed for cleaning.

6.5 Duct accessibility

6.5.1 All areas of the ducts should be accessible for cleaning. Although there are systems that can clean ductwork remotely, thus reducing the need for access, greater flexibility in cleaning methods is available if all areas of the ductwork are easily accessible.

6.5.2 Unless remotely controlled cleaning has been used, it should be assumed that inaccessible areas of ductwork have not been cleaned and are therefore dirty.

Duct accessibility		
Low risk	**Normal risk**	**High risk**
All areas of the ductwork can be safely reached	The majority of the ductwork can be safely reached	Large lengths of the ductwork cannot be safely reached
There are no services beneath the ductwork that hinder access for cleaning	There are services beneath some areas of the ductwork that hinder access for cleaning	There are services beneath most areas of the ductwork that hinder access for cleaning

Table 2: Fire risk associated with accessing the ductwork

- Inaccessible areas of cooking extraction ductwork can normally be assumed to have built up grease and oil deposits (unless remotely controlled cleaning has been used). It is therefore essential that all areas of the ducts are accessible for cleaning.

6.6 Duct access doors

6.6.1 Access doors should be as large as possible (to a maximum size of 460mm × 610mm in most circumstances) and made to the same acoustic, thermal and fire insulation properties as the ductwork.

6.6.2 To prevent grease from leaking out, duct doors should be fitted to the side of ductwork, not the base.

6.6.3 Access doors should be fitted to both horizontal ducts and risers at a maximum of 2m centres. They should also be provided on both sides of any internal equipment, and at changes of direction of the ductwork.

6.6.4 The initial cleaning operation may require the cutting of openings in the ductwork if insufficient access doors have been provided to allow thorough cleaning of all areas to be undertaken. The cutting of openings should only be carried out by a suitable method after an appropriate risk assessment.

6.6.5 Where extracted air is routed through an ultraviolet (UV) reaction chamber to break down organic material using a combination of photolysis and ozonolysis, leaving a final discharge of cleaned air with a trace of ozone, this should be located well away from eyesight level, and be protected with safety interlocks.

- Provide adequately sized access doors in cooking extraction ductwork, with a maximum of 2 metres spacing, throughput the length of all ducts to reach all parts of the interior for inspection and cleaning.

Duct access doors	
Normal risk	**High risk**
There are enough access doors (at a maximum of 2m centres) throughout the length of all ducts to reach all parts of the interior	Insufficient access doors are provided
The doors are free of leaking grease	Grease is leaking from the doors

Table 3: Fire risk associated with duct access doors

6.7 Duct cleanliness

- The cleaning of filters does not remove the need for periodic inspection and removal of grease deposits from the inside of ductwork and the extraction motor.

Your insurer and local environmental health officer will expect you to have a routine of regular cleaning. This will also reduce the likelihood of grease deposits baking and hardening on duct surfaces.

6.7.1 The cleaning of filters does not remove the need for periodic inspection and removal of grease deposits from the inside of ductwork and the extraction motor. The extract ductwork should be inspected and cleaned at periods as determined by a risk assessment based upon accurate historical levels of grease accumulation to maintain grease deposit levels below 200 microns as a mean across the system. Further details are set out in the BESA Guide TR19® *Grease* (ref. 9).

6.7.2 In addition to regular ductwork cleaning, particular attention needs to be given to filters, hoods and associated drains and traps, which should be cleaned regularly and at least as frequently as recommended by the manufacturers.

6.7.3 The frequency of cleaning may reflect the degree of use of the cooking equipment:

- **Heavy use** (12-16 hours per day): three-monthly
- **Moderate use** (6-12 hours per day): six-monthly
- **Light use** (2-6 hours per day): 12-monthly (ref. 9)

6.7.4 Other factors that affect the frequency of the kitchen cleaning regime include vulnerability to ignition, hygiene, vermin and mechanical hazards.

6.7.5 When considering the ductwork, the frequency of cleaning the internal surfaces of the entire length of the extract ductwork should be based on a considered risk assessment. The best way of doing this is by measuring the quantity of grease deposited on the duct surface and establishing the rate of build-up (ref. 9). (Technology is now available to measure the build-up of grease to micron levels in the ductwork.)

6.7.6 Where this is impractical, the initial cleaning frequency should depend on the level of use, as discussed above. Thereafter, 'before and after' dirtiness and cleanliness measurements will permit the frequency to be adjusted to suit the actual observed hazard and may reduce expenditure on unnecessary cleaning.

6.7.7 Notwithstanding the recommendations made in section 6.7.6:

- All metal surfaces should be checked regularly for accumulated grease or dirt.
- The frequency of local visual inspections behind grease filters will depend on the cooking process and hours of operation, but should be at least weekly.
- The insides of all filter housing and grease collection trays should be cleaned weekly.
- Cartridge filters having integral grease collection reservoirs should be cleaned at least twice a week.
- An extract plenum behind filters is part of the design and grease collected in this area should be removed by regular cleaning at least twice a week.
- Extract ducts should be cleaned by a competent specialist contractor.
- It is ineffective to create so-called 'fire breaks' by cleaning small areas around access panels. This should not be attempted; all areas should be properly cleaned.
- Only suitable metal cleaning products should be used. Caustic or abrasive materials may damage metal surfaces and provide a breeding ground for bacteria.
- Where removable filters are fitted, they should only be removed when the system has been shut down, to prevent unfiltered air entering the ducts. These filters may then be put in a dishwasher. or hand washed to remove grease.

6.7.8 Seasonal catering establishments should have the entire system cleaned at the end of the season. It is particularly important to ensure fans do not become jammed against solid grease. It is advisable to check systems before restarting at the commencement of the season.

6.7.9 Confirmation by certification should be sought that the kitchen extract ductwork has been cleaned by a competent specialist contractor approved by either LPCB to their certification scheme LPS2084 *Requirements for the LPCB approval and listing of companies carrying out inspection, cleaning and maintenance of ductwork systems* (ref. 16) or BESCA through their Vent Hygiene Elite (VHE) scheme (ref. 17).

6.7.10 Flammable solvents or other combustible based cleaning aids should not be used to clean filters or ductwork.

6.7.11 Electrical equipment such as motors in fans used in ductwork have an Ingress Protection (IP) rating which tells you how resistant it is to the ingress of dust and moisture. The IP Rating is a simple encoding that covers a range of international standards. A rating of IP55 (Protected from limited dust ingress and low pressure water jets from any direction), limited ingress protection) or greater will ensure the fan is suitable for the cleaning process using spray applications. Care should be taken not to flood the fan as the ingress of excessive water can cause malfunction.

6.7.12 The policy for cleaning the kitchen extract system should address the following issues:

- How frequently do you clean the whole system?
- How frequently do you clean parts of the system?
- How is complete cleanliness verified (eg by dated photographic evidence)?

- **How often should my cooking extraction filters and ductwork be cleaned?**
  The frequency of cleaning the internal surfaces of the entire length of the extract ductwork should be based on a considered risk assessment, referencing the rate of build-up of deposits.
  The frequency of local visual inspections behind grease filters will depend on the cooking process and hours of operation, but should be at least weekly.

Extract system cleanliness and cleaning regime	
Normal risk	**High risk**
Cleanliness of ducts is established and compared with published best practice benchmarks by:	
Physical measurement	Internal visual inspection
There are enough access doors to allow the entire length of the internal surfaces of the ductwork, including the fans, to be cleaned	There are insufficient access doors to allow the entire length of the internal surfaces of the ductwork and the fans to be cleaned
There is a kitchen extract cleaning schedule	There is no kitchen extract cleaning schedule
Staff are trained to clean grease and oil from the hoods, filters and grease trays on a regular schedule	Staff are not trained to regularly clean grease and oil from the hoods, filters and grease trays
A competent specialist contractor is employed to clean the extract ventilation system	A competent specialist contractor is not employed to clean the extract ventilation system
A report is produced after cleaning has been carried out	No report produced after cleaning has been carried out
An inspection is made of the effectiveness of the contractor's cleaning of the ducts via the filter housings and access doors. (Dated photographic evidence of the contractors cleaning is obtained.)	No inspection is made of the effectiveness of the contractor's cleaning of the ducts via the filter housings and access doors

Table 4: Fire risk associated with the cleaning regime

6.8 Routing of ductwork

6..8.1 Mechanical extract ventilation should be provided for all cooking equipment producing heat, fumes and products of combustion. Extraction should be via an overhead filter and canopy arrangement with a ducting system that discharges to the open in such a manner that grease will not be deposited on the building or adjoining properties.

6.8.2 Where heating is by gas, the heat and fume extraction ducting should be separate from the ducting used to extract combustion products from the burners.

6.8.3 Filters, traps or other forms of grease removal devices should be provided as close to the range or fryer as possible. These should include a residue trap at the base of any vertical riser or be incorporated into the extract unit. They should not be sited where they may be exposed to direct flame impingement or hot flue gases or be nearer than 500mm to the heat source unless suitably protected, for example by a 250mm high steel baffle plate.

6.8.4 To minimise the risk of grease building up, ductwork should be taken by the shortest and most direct route to atmosphere with a minimum number of bends.

6.8.5 Kitchen extract ductwork must remain separate from other ventilation systems.

6.8.6 Where kitchen extract ducts have to pass through other parts of the building they should be contained within a separate outer duct having the same standard of fire resistance as the kitchen, or the parts of the building through which it passes, if these are higher.

6.8.7 The length of ductwork installed outside the building should be kept to a minimum because the effect of cold weather will increase the rate of grease and fat condensing and solidifying inside the duct. Where this is unavoidable, ducts should be vertical and insulated.

6.8.8 Fire-resisting dampers must not be installed in kitchen extract ductwork. Grease deposits will prevent damper operation and the dampers will prevent proper cleaning.

- Don't install fire-resisting dampers in kitchen extract ductwork, as grease deposits will prevent damper operation and prevent proper cleaning.

Routing of ductwork		
Low risk	**Normal risk**	**High risk**
There are no vertical extract ducts more than 4m high.	Extract ductwork is more than 4m high	
All bends in ductwork are accessible		There are bends in ductwork that are not accessible.
	All ductwork outside of the building is included in the cleaning regime	There is ductwork outside the building that is not included in the cleaning regime
	There is non-combustible easily cleanable protection to the roof covering at the duct termination	There is no non-combustible easily cleanable protection to the roof covering at the duct termination
In the case of large buildings or those under multiple occupancy:		
Drawings are available showing the extract ventilation	No drawings of the extract ventilation are available	
Drawings are available if required by the fire and rescue service	Drawings are not available for fire and rescue service use	

Table 5: Fire risk associated with the routing of ductwork

6.8.9 Where ducting systems run within areas not controlled by the operator the responsible person must ensure that they liaise with the responsible persons for those other areas, make them aware of any associated risks and inform them when cleaning and maintenance activities are planned and access is required.

6.8.10 Combustible materials should not be stored within 1m of extract ductwork.

6.9 Fire suppressions systems

- A properly designed and installed fire detection and suppression system can help prevent the spread of fire into a duct, and thereby prevent secondary fires from breaking out elsewhere.

A properly designed and installed fire detection and suppression system can help prevent the spread of fire into a duct, and thereby prevent secondary fires from breaking out elsewhere. If good means of escape and other fire precautions are provided, the primary purpose of an automatic fire suppression system will be to reduce property damage. Nevertheless, a risk assessment of the specific circumstances might indicate that an automatic fire suppression system would also help to protect people in the kitchen or in rooms through which ductwork passes. The risk assessment should be specific to the circumstances and system proposed and consider in particular the nature and extent of the extract ductwork. Typical systems commonly have only a single suppression nozzle directed into the mouth of the extract ductwork regardless of its length and complexity. This may be suitable for shorter ductwork runs which vent to the outside in only a few metres. However, in circumstances where the ductwork is required to run through walls and floors before its termination at an external wall, is complex in layout with turns and bends or if passing through combustible elements of construction it is anticipated that detection/suppression be provided throughout the entire extent.

6.9.1 Automatic fire suppression systems designed to control fires in kitchen extract systems shall be designed, installed, commissioned and maintained to an appropriate standard, such as LPS 1223 (ref. 1). This shall be done by a competent contractor such as one certified to BAFE SP206 (ref. 18) by an independent, third-party certification body.

6.9.2 During any cleaning process, care should be taken not to damage fire suppression operating mechanisms (such as fusible links) located in the ductwork.

6.9.3 Liquid chemical agent fire suppression systems and portable fire extinguishers (Class F) are preferable since they give a greater level of cooling, seal the oil surface and prevent re-ignition.

6.9.4 Care in cleaning is necessary to protect nozzle covers while ensuring that any blockages are removed.

6.9.5 Weekly checks should be made to ensure that all nozzle covers are in place.

6.9.6 Dry powder systems are suitable in only a few special circumstances and are not commonly used for the protection of kitchen cooking ranges or equipment as discharge of dry powder extinguishant within a building can cause a sudden reduction in visibility and can also impair breathing, jeopardizing escape and rescue. Where the use of a dry powder system is proposed, specialist advice should be sought to ensure the adequacy and safety of the system.

6.9.7 Carbon dioxide systems are suitable in only a few special circumstances and should not normally be fitted.

6.9.8 Special water mist systems are available for use in kitchen extract ductwork. However, under no circumstances should any other water system be used.

6.9.9 A maintenance contract in accordance with manufacturer's instructions should be in place for the system.

Protection provided by fire suppression system	
Low risk	**High risk**
A fire suppression system is fitted to the cooking range, hood and extract ventilation (see 6.9.1)	A fire suppression system is not fitted to the extract ventilation
A water mist or wet chemical system is installed	
The system approved to a recognised performance standard	The system is not approved to a recognised performance standard
Portable fire extinguishers suitable for use on cooking oil fires are provided	No portable fire extinguishers suitable for use on cooking oil fires are provided
There is a service and maintenance contract for the fire suppression system and portable fire extinguishers	There is no service and maintenance contract for the fire suppression system and portable fire extinguishers

Table 6: Fire risk associated with the fire suppression system

6.10 Inspections

6.10.1 Regular inspections of the whole extract ventilation system should be made periodically by a competent person.

6.10.2 The inspections and any necessary remedial actions should be recorded.

Frequency of visual checks of the whole extract ventilation system by a competent person		
Low risk	**Normal risk**	**High risk**
Monthly	Six-monthly	Annually or less often

Table 7: Fire risk associated with visual checks of the system

7 The risk assessment

Stage 1: Identify the ignition hazards

Many cooking appliances represent a potential source of ignition. These include gas-fired equipment with an immediate source of flame, deep fat frying apparatus, and also electric appliances such as toasters, fryers and griddles.

The primary fire hazards in a kitchen include:

- cooking equipment left unattended during operation
- items of equipment not switched off, especially at the end of a cooking session
- poor maintenance of all equipment and systems
- flames, sparks or hot gases from cooking which can ignite combustible deposits inside extract ducts
- overheated oils, leading to spontaneous ignition
- fan-motor failure or overheating caused by hardened grease when restarting in seasonal catering establishments, or non-24-hour operations
- thermostats not working correctly and/or the absence of a second, high-level safety thermostat. All thermostats should react to create a safe condition
- metal extract ducts, being good conductors of heat, igniting adjacent materials or litter
- catalytic converters decompose grease but operating at 1000°C are a potential source of ignition
- solid fuel cooking equipment such as barbecues and charcoal grills
- the use of burning pieces of paper to light equipment such as Tandoori and pizza ovens
- the absence of flame failure or safety shut-off device in appliances
- gas torches used to brown some dishes

Fuel is available in a number of forms including:

- overcooked food
- cooking oils and fat
- combustible materials adjacent to exhaust ducts
- the gas, electricity or other form of fuel for appliances such as charcoal ovens

Air is supplied in large quantities by the inlets of the ventilation system. Extract ducts can act as chimneys, increasing the intensity of a fire.

Human factors include:

- lack of a competent person on site
- changes in staffing levels and areas of responsibility
- human error
- inadequate training leading to a lack of knowledge concerning the extract ventilation
- inadequate training leading to the actions necessary in the event of fire not being fully understood or rehearsed

Additional hazards include:

- combustible food debris trapped in a grease filter
- faulty or non-tested electrical appliances
- remnants of paper napkins or other combustible waste oddments which may have been inadvertently left in cooker hoods or inside the extract ducting
- changing cooking practices and the introduction of new equipment

Hazards relating to the extract ductwork include:

- grease filters left out during cooking
- the design of the extract ventilation failing to meet the requirements of best practice. This may concern the form of the ducts, length of horizontal ducts, type of fan, type and number of duct access panels etc
- unsuitable ductwork for a kitchen environment
- an insufficient number of access doors in the ductwork to permit effective inspection and cleaning
- inaccessibility of the extract ducts and their access doors, for example in older buildings where some duct systems may be routed inside masonry chimney breasts
- cleaning contracts which may only cover hoods and easily accessible or visible areas, such as only those areas inside the ducting which are within arm's reach
- an unacceptable level of competence of the cleaning contractor
- poor cleaning and maintenance practice compromising fire protection cladding or fire rated access panels on ducts
- absence, poor siting or lack of maintenance of a fire suppression system

Based on the ignition hazards discussed above, assess the risk for each of the cooking processes used in the kitchen using the table below.

Fire hazards: Cooking style and equipment		
Low risk	**Normal risk**	**High risk**
Boiling food	Shallow frying	Deep fat frying
Cooking in enclosed ovens	Cooking on a griddle	Open flame grilling
Processes involving no likelihood of the production of oil or fat vapours	Processes involving the production of a steady flow of oily vapour	Flame cooking (such as on a rotisserie)
		Use of a culinary blowlamp
		Processes which may result in sudden emissions of large volumes of hot oily vapours

Table 8: Fire risk associated with cooking styles and equipment

Stage 2: Staff knowledge and training

An important issue to bear in mind is that if staff are tired, overworked and undervalued, this can create an environment in which corners are cut and procedures are not fully observed. Long hours and late finishes can tempt staff to skimp on cleaning or to leave it until later, while a feeling of being undervalued can lead to indifference and poor performance. Staff will feel valued if they are well trained; staff training should include the following:

- Understanding the hazards of grease and other cooking deposits in ductwork.
- Understanding how oils and fats atomise.
- Knowing how to handle and use commercial cleaning chemicals.
- Familiarity with drawings showing the routing of extract ducts, if appropriate.
- Knowing the correct method and frequency for cleaning grease filters.
- Knowing how to isolate the extract fan.
- Knowing that grease filters should not be removed while the extract ventilation is operating.
- Knowing that all appliances should be switched off individually and not together at the mains.
- Instructing staff to report faulty controls, sensors and indicating devices.
- An understanding of how to fight cooking fires, especially the use of wet chemical extinguishers provided for fighting fires in deep fat fryers.
- Knowing the location of and how to operate emergency manual controls for suppression systems, ventilation systems and isolators for gas and electrical supplies. To include the circumstances in which the controls should be operated and where necessary the correct order in which they should be used.
- Understanding the mode of action and operation of any fire suppression system installed, such as those protecting deep fat fryers.
- Knowing the mode of action of the automatic fire detection and alarm system installed.
- Safe handling of cooking oils and fats.
- Safe operation of cooking appliances.
- Knowing how to switch off the gas or power supply to cooking appliances in an emergency.

Training should be given on employment in the kitchen and thereafter be repeated as necessary, Normally annually. Records of the training should be kept.

Staff knowledge and training		
Low risk	**Normal risk**	**High risk**
A competent person is always present in the cooking area	A competent person is always present in the cooking area	A competent person is not present in the cooking area
All staff understand the systems and processes with which they work	A supervisor understands the systems and processes that should be observed	No staff understand the systems and processes that should be followed, or no systems or processes have been formally adopted for use
All staff are fully trained in the purpose and the cleaning of the extract ventilation system	Key kitchen staff have received training in the purpose and cleaning of the extract ventilation system	No staff have received training in the purpose and cleaning of the extract ventilation system
All staff have received practical training in the use of the wet chemical fire extinguishers provided	Key kitchen staff have received practical training in the use of wet chemical fire extinguishers	No staff have been trained in the use of wet chemical extinguishers
All staff have received instruction and training in the actuation and operation of the fire suppression system	All staff have received instruction and training in the actuation and operation of the fire suppression system	

Table 9: Fire risk associated with knowledge and training

Stage 3: Evaluate the hazards

The essential stages of a fire risk assessment are to:

- identify all the fire hazards
- remove fire hazards where possible
- reduce fire hazards if possible
- replace hazards with safer alternatives
- manage the hazards that remain

You must decide whether enough has been done to reduce the hazards by evaluating the adequacy of existing fire safety measures.

Evaluating the fire hazards		
Low risk	**Normal risk**	**High risk**
The extract system is compliant with the requirements of DW172	The extract system can be upgraded to meet the specification of DW172	The extract system cannot be upgraded
An emergency plan is in place to protect the lives of staff and other people within the building	An emergency plan is in place to protect the lives of staff and other people within the building	There is no emergency plan in place
An automatic fire suppression system has been installed by a competent engineer	An automatic fire suppression system has been installed by a competent engineer	There is no provision for automatic fire suppression
The build-up of grease in the ductwork is evaluated by a risk assessment designed to ensure that periods between cleaning maintain grease deposit levels below 200 microns as a mean across the system	The build-up of grease in the ductwork is evaluated by a risk assessment designed to ensure that periods between cleaning maintain grease deposit levels below 200 microns as a mean across the system	The periods between cleaning the ductwork are not based on quantified information

Table 10: Evaluating the fire hazards

Stage 4: Keep records

It is recommended that records of system layout, risk assessments, inspection and cleaning reports are kept in a safe place. Without these, it will be impossible to assess the necessary frequency and extent of cleaning, particularly if new equipment or processes are introduced.

A schematic drawing of the installed ductwork, showing the locations of access doors, should be held by the kitchen operator to aid the cleaning process and to help the fire services in the event of a fire.

There is a legal responsibility to maintain staff training records. Should there be a fire or an accident, all these records may provide the only defence against criminal prosecution.

Records may also be helpful to demonstrate to an insurance company that the measures required in their insurance policy have been complied with; without them, and depending on the circumstances of a loss, you may lose your right to indemnity or payment for a claim.

Keep records	
Normal risk	**High risk**
Staff training records are kept	Staff training is not recorded
Service and maintenance records for fire protection equipment are kept	The service and maintenance of fire protection equipment is not recorded
Records are kept of the cleaning and maintenance of extract duct work	There are no records of the cleaning of the extract ductwork
Records are reviewed and maintained diligently	Records are not maintained as a priority

Table 11: Keeping records

Stage 5: Review and revise the assessment

It is a requirement to review and revise the fire risk assessment regularly and especially when changes are introduced to the kitchen.

Review and revise the assessment	
Normal risk	**High risk**
The risk assessment is reviewed periodically and revised as necessary	The risk assessment is not subject to regular review
Remedial actions identified at the time of the reviews are addressed in a timely manner	The risk assessment review is not analysed to identify incipient problems
The insurance policy has been checked for specific conditions relating to cooking	No check of the insurance policy has been made for conditions relating to cooking

Table 12: Reviewing and revising the assessment

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Annex A

Cleaning checklist

The following checklist should form part of an operating and maintenance schedule that will keep your system in a safe condition. Some of these tasks may be performed by competent kitchen staff; otherwise a competent specialist contractor should be employed. In any case the following best practice should be used.

Daily

- Check detergent container and fill if necessary.
- Clean parts of hood visible from within the kitchen.
- Check the grease drip tray, drain and clean as required.

Weekly

- Remove and clean grease filters (more frequently under heavy operation).
- Soak filters in a detergent solution, preferably overnight, and rinse with a pressure washer or clean in a dishwasher. Note that baffle filters must be replaced with the baffles running vertically.
- Check the grease tray for build-up and clean out using rags. Check for other debris.
- Remove access doors on hood and inspect the interior with a torch. Visible deposits should be removed as far as possible (but note that this is not a substitute for regular cleaning of the entire system).

Monthly

- Where fitted, inspect fire suppression operating mechanisms for grease build-up.
- Check all water nozzles for blockages.

Quarterly

- Clean the extraction fan blades.

Annually

Employ a competent specialist contractor to:

- Examine and report on the condition of the ductwork.
- Inspect the hood and fan for proper operation and air flow.
- Report on grease build-up detected.
- Advise on the perceived effectiveness of the cleaning regime.
- Provide a report and recommendations about the extent and frequency of localised cleaning.

Take account of the specialist contractor's recommendations and record the actions that have been taken. Revise the risk assessment, if appropriate, to positive effect for the safety of the premises.

Annex B

Site Checklist

The questions in the earlier sections are grouped together here in a table which can be referred to each time it is necessary to repeat the fire risk assessment. Remember that the aim is to try to increase the number of (L) scores that apply to your premises. Further advice, guidance or clarification may be available from the community/fire safety department of your local fire authority and from your insurer.

(L) Low (N) Normal (H) High

Subject/Question	Action required	Sign on completion
Cooking style and equipment		
• Boiling food, cooking in enclosed ovens, processes involving no likelihood of the production of oil and fat vapours (L)		
• Shallow frying, cooking on a griddle, processes involving the production of a steady flow of oily vapour (N)		
• Deep fat frying, open flame grilling, flame cooking (such as on a rotisserie), use of a culinary blowlamp, processes which may result in sudden emissions of large volumes of hot oily vapours (H)		
Staff knowledge and training		
How many of your staff understand the systems and processes they are working with?		
• A competent person is always present, and all staff understand the systems and processes (L)		
• A competent person is always present, and the supervisor understand the systems and processes (N)		
• None (H)		
Evaluation the fire hazard		
Is design, emergency planning, active fire protection and grease control adequate?		
• The extract system is compliant with the requirements of DW172 Emergency plans, suitable fixed protection and systems to control grease build-up are in place (L)		
• The extract system can be upgraded to DW172 Emergency plans, suitable fixed protection and systems to control grease build-up are in place (N)		
• The extract systems cannot be upgraded; other controls are inadequate (H)		
Keep records		
Is record keeping adequate?		
• Staff training records are kept, service and maintenance records for fire protection equipment are kept, records are kept of the cleaning and maintenance of extract duct work, records are reviewed and maintained diligently (N)		
• Staff training is not recorded, the service and maintenance of fire protection equipment is not recorded, there are no records of the cleaning of the extract ductwork, records are not maintained as a priority (H)		

Subject/Question	Action required	Sign on completion
Review and revise the assessment		
Is the extract ductwork risk assessment reviewed periodically and revised as necessary, with remedial actions identified and addressed in a timely manner?		
• Yes (N)		
• No (H)		
Has the insurance policy has been checked for specific conditions relating to cooking?		
• Yes (N)		
• No (H)		
Do you comply with these conditions?		
• Yes (N)		
• No (H)		
Grease filters		
Are grease filters in place?		
• Yes (N)		
• No (H)		
Types of grease filters:		
• Water wash, cold water mist (L)		
• Baffle normal, cartridge (N)		
• Mesh (H)		
Do the filters comply with a recognised performance standard, with two set of filters available (when cooking is continuous)		
• Yes (N)		
• No (H)		
Duct access doors and accessibility		
Are there enough access doors throughout the length of all ducts to reach all parts of the interior of the duct for cleaning?		
• Yes (N)		
• No (H)		
Are they leaking grease?		
• No (N)		
• Yes (H)		
Can these duct access doors be easily and safely reached?		
• All (L)		
• Some (N)		
• None (H)		
Are there other services beneath the ductwork that would hinder easy access for cleaning?		
• None (L)		
• Some (N)		
• Yes (H)		
Duct cleanliness and cleaning regime		
How is cleanliness/dirtiness established or measured and compared with published best practice benchmarks?		
• Physical measurement (N)		
• Internal visual inspection (H)		
Cleaning is supported by:		
• Adequate access doors, a suitable cleaning schedule, well trained staff, a competent specialist duct cleaning contractor, post-cleaning inspection and report (N)		
• Deficient access doors, deficient cleaning schedule, untrained staff, no competent specialist duct cleaning contractor, no post-cleaning inspection and report (H)		

Subject/Question	Action required	Sign on completion
Route of the ducts		
Do you have vertical extract ducts at elevations more than 4m?		
• No (L)		
• Yes (N)		
Are bends in ductwork accessible?		
• Yes (L)		
• No (H)		
Where there is ductwork installed outside the building is it included in the cleaning regime?		
• Yes (N)		
• No (H)		
Is there non-combustible easily cleanable protection to the roof covering at the duct termination?		
• Yes (N)		
• No (H)		
For larger buildings or those under multiple occupancy, do you have drawings showing the extract ventilation?		
• Yes (L)		
• No (N)		
The drawings available if needed by the local fire service?		
• Yes (L)		
• No (N)		
Fire suppression system		
Is fire suppression fitted to the extract ventilation?		
• Yes (L)		
• No (H)		
What kind of fire suppression system is installed?		
• Water mist or wet chemical (L)		
• Other, e.g. dry chemical agent system (H)		
If water mist or wet chemical, is the system approved under a recognised performance standard? (ref. 1)		
• Yes (L)		
• No (H)		
• N/A		
Do you have portable fire extinguisher(s) suitable for use on cooking oil fires?		
• Yes (L)		
• No (H)		
Do you have a service and maintenance contract for the fire suppression system and portable fire extinguishers?		
• Yes (L)		
• No (H)		
Frequency of duct system cleaning		
The level of use of the cooking equipment: • **Heavy use** (12-16 hours per day): at least three-monthly cleaning recommended • **Moderate use** (6-12 hours per day): at least six-monthly cleaning recommended • **Light use** (2-6 hours per day): at least 12-monthly cleaning recommended		
Frequency of cleaning		

	Normal risk (N)	High risk (H)
Heavy use	≤ 3-monthly	> 3-monthly
Moderate use	≤ 6-monthly	> 6-monthly
Light use	≤ 12-monthly	> 12-monthly

Subject/Question	Action required	Sign on completion
Frequency of visual checks of the whole extract ventilation system		
What is the frequency of visual checks of the whole extract ventilation system that are completed by a competent person?		
• Monthly (L)		
• ≤ 6-monthly (N)		
• ≥ 12-monthly (H)		

Assessment completed by: [Name]	
Signature:	
Date:	
Suggested date for re-assessment:	

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