

Burger Den
Reading, RG1 7UD
109A Oxford Road
Odour Risk Assessment Report

This report establishes the odour risk assessment for Burger Den, Reading.

This odour risk assessment identifies the possible impacts developing from odours released from the extraction systems in the kitchen. The report depicts the approach and findings of the odour risk assessment, and identifies the level of odour abatement that will be required to minimise the risk of odour impacts resulting from the kitchen.

Following Defra's Guidance on the 'Control of Odour and Noise from Commercial Kitchen Exhaust Systems' (Defra, 2005) we are able to determine the potential risk of odour impacts from commercial kitchen operations. The results of this risk assessment can be used to determine a suitable level of odour abatement to be installed into a commercial kitchen.

The risk assessment for odours is split into the following four parts:

- Dispersion
- Proximity to receptors
- Size of kitchen
- Cooking type

Each part is given a risk rating score and the total risk rating indicates the level of odour abatement which is likely to be required to prevent the kitchens from causing odour nuisance impacts.

The following sections of this report outline each part of the risk assessment in relation to the proposed restaurant.

Dispersion

The risk rating for dispersion relates to the conditions under which kitchen extraction emissions are discharged.

VERY POOR (20) – Low level discharge, discharge into courtyard, or restriction on stack

POOR (15) – Discharge not low level, but below eaves, or discharge rate below 10 m/s

MODERATE (10) – Discharging 1 m above eaves at a rate of 10-15 m/s

GOOD (5) – Discharging 1 m above ridge at a rate of 15 m/s or more.

Due to Burger Den situating in a conservation area only a low level discharge is possible, giving a rating of very poor (20)

Proximity to receptors

The risk rating for proximity to receptors is based on. How far away is the nearest receptor for the odour? For example, neighbours' openable windows, balconies or supply air inlets.

FAR - Closest sensitive receptor more than 100m from kitchen discharge

MEDIUM - Closest sensitive receptor between 20 and 100m from kitchen discharge

CLOSE - Closest sensitive receptor less than 20m from kitchen discharge

Burger Den has dwellings above the business which indicates the nearest receptors are less than 20m from the kitchen discharge. (10)

Size of Kitchen

The risk rating for size of kitchen relates to the volume of food prepared by the kitchen and is described in terms of the capacity of the restaurant or take-away. Based on number covers (seating) including outdoors or the size of take away. LARGE (5) – More than 100 covers or a large-sized take-away

MEDIUM (3) – Between 30 and 100 covers or a medium-sized take-away SMALL (1)

– Less than 30 covers or a small take-away.

This risk rating is small as it will not cater no more than 16. (1)

Cooking Type

The risk rating for cooking type relates to the type of cooking methods within the kitchen and the type of food prepared.

VERY HIGH (10) – Pubs (those serving a high level of fried food), fried chicken, burgers or fish and chips

HIGH (7) – Kebab, Vietnamese, Thai or Indian

MEDIUM (4) – Cantonese, Japanese or Chinese

LOW (1) – Most pubs, Italian, French, Pizza or Steakhouse.

The risk rating is very high as fried food will be prepared within the kitchen, although, high quality food will be served fried food has a high rating. (10)

Following the risk assessment the overall score is 41.

A very high level odour control may include, fine filtration or ESP followed by carbon filtration.

The ventilation canopy designed to DW 172 constructed from 304 stainless steel, with full length filter housing and the ductwork with access doors to meet TR/19 cleaning requirements. Fitted with complete with grease tap and grease pot. Electrostatic precipitator mounted internally to eliminate smoke and grease particles supplied from Purified Air is the first line of defence. Second line of defence includes an activated Carbon Filtration, the filters have been recommended to replace every 3 months and will be replaced every 3 months. (A record of this will be kept and made available to Council officers upon request). Purified Air being the supplier of both, are a leading supplier of odour control equipment and provide a top level of routine maintenance to guarantee the operation of the equipment. The System Air MUB kitchen fan has an easily removable access door for cleaning and has good air movement to sound level properties. Then, releasing the smoke into the silencer and out the extract. The plants used are believed to provide optimal odour abatement and minimise the risk of odour impacts at surrounding properties.

Following the specification, specific measures have been in place to control noise and odour. Management of these machines is very important and require constant care and attention. Daily checks are implemented to ensure grease and dirt is managed effectively. A weekly deep clean is required.

Professional maintenance will also take place and have been recommended every 3-6 months. This work will be carried out by pro active cleaners on a regular basis.

The electrostatic precipitator which eliminates smoke and grease has been supplied by purified air and will also be serviced by purified air. The carbon filters have also been supplied by purified air and have been recommended to replace after 3-4 months.

The odour control methods include:

1. Fine filtration or ESP followed by carbon filtration (carbon filter rated with 0.4 – 0.8 second residence time)
2. Fine filtration or ESP followed by carbon filtration and by counteractant / neutralising system to achieve the same level of control as 1
3. Fine filtration or ESP followed by UV ozone system to achieve the same level of control as 1

The maintenance must be carried out in accordance with the approved specifications document “Design and Specification for kitchen ventilation system at 109a Oxford Road, Reading RG1 7UD dated 12 January 2021.” To ensure effective odour control

The canopy must be externally cleaned on a weekly basis. All grease filters must be cleaned at least three times a week using hot soapy water, to avoid grease carry over.

Scheduled Daily Plan – End of Day Checks

The fans should be checked approximately every 3 months (or as per manufacturer recommendations) and cleaned to remove any grease deposits that have accumulated on the fans.

PROBLEM	CLEANING AGENT	COMMENTS
Routine cleaning, all finishes	Soap or mild detergent and water (such as washing up Liquid)	After application, use a sponge or clean cloth to rinse with warm, clean water and then wipe dry if necessary
Fingerprints, all finishes	Soap and water or organic solvent such as Alcohol	After application, use a sponge or clean cloth to rinse with warm, clean water and then wipe dry if necessary
Stubborn stains, discolouration, all finishes	Mild cleaning solutions such as abrasive free stainless steel cleaning creams.	After application, use a sponge or clean cloth to rinse with warm, clean water and then wipe dry if necessary
Oil/Grease marks, all finishes	Soap and water or organic solvent such as Alcohol	After application, use a sponge or clean cloth to rinse with warm, clean water and then wipe dry if necessary

Check and clean external surfaces - Daily

Fans Check and clean. 3-monthly

A log of all cleaning activities will be kept and a record will be made available to officers on request.