chapman ventilation

01707 372 858 • info@chapmanventilation.co.uk • www.chapmanventilation.co.uk

Chapman Ventilation Limited
15-20 Woodfield Road
Welwyn Garden City
Hertfordshire
AL7 1JQ

Popeyes UK ltd

26/01/2023

Ref: Odour assessment for proposed popeyes restuarant at 122 High Road Kilburn, London

Dear Sirs,

Please find below our assessment of the potential for nuisance Odour arising from the cooking processes for a proposed Popeyes Chicken Restaurant site with no more than 100 covers, proposed for installation at 122 High Road Kilburn, London.
Although recently withdrawn and in the absence of any other document, we have based our assessment on using EMAQ+ Control of Odour and Noise from Commercial Kitchen Exhaust Systems 05-9-2018

Dispersion

The kitchen extract ductwork is to pass from the kitchen through to an external riser and terminate 1.5m above the ridge line of the building to which it serves. This air will discharge at a minimum 15 m/s velocity at point of discharge

Assessment score of 5

Proximity of Receptors

The location of the discharge gives the nearest sensitive receptor within 20m

Assessment score of 10.

Size of Kitchen

This restaurant is medium sized between 30 and 100 covers

Assessment score of 3.

Cooking Type (odour and grease loading)

The type of foods Cooked are Fast Food (Fried Chicken)

Assessment score of 10

Total Assessment Score = 28

Chapman Ventilation Limited
15-20 Woodfield Road
Welwyn Garden City
Hertfordshire
AL7 1JQ

Based on the above score, and following Emaq+ guidance, this site requires a high level of odour control to be installed on this extraction system. As such we would propose to install a system comprising of the following:

Specification of odour control:

1. Canopy baffle filters used as primary filters within canopy
2. 2 no. single ESP
3. 1no. UVO 1000 Ozone unit
4. G4 Pre filters
5. F8 bag filters
6. Carbon filtration

Filtration Specification

Based on the latest catering layout provided, using method 1 of DW/172:2017 we have determined a Specific Extract flow rate for the cooking operation of 1.35 m3/s. With this flow rate in mind, the factors of dispersal, operation type and the report result of requiring a very high level of filtration we recommend the following extract filtration system is provided for installation:

Primary canopy filtration

50mm deep Heavy-duty, Stainless-steel Baffle filters fitted as primary filtration on the Kitchen extract canopy

ESP/ UV

2 x single ESP 3000 filtration unit for the capture and ionisation of larger grease particulate capable of flowrate volumes of 2.083m3/s

1no. UVO-1000 ozone generating odour control unit for reduction in airborne microbials and introduction of ozone for odour dilution capable of flow rates up to 2.5m3/s

Media Filtration

A media filtration housing containing, G4 pre filters and F8 bag filters designed to removed fine grease and for an extraction volume of 1.35m3/s

Carbon odour filtration

$$\frac{\text{Volume of carbon in m3}}{\text{SEFR in m3/s}} = \text{dwell time}$$

Extra duty carbon filters – 3no. 24”x24” x24”

Volume of carbon (1194mm x mm w x 894mm h x 597mm deep) = 0.637 m3
SEFR = 1.35 m3/s

.

chapman ventilation

01707 372 858 • info@chapmanventilation.co.uk • www.chapmanventilation.co.uk

Chapman Ventilation Limited
15-20 Woodfield Road
Welwyn Garden City
Hertfordshire
AL7 1JQ

0.637 = 0.47second dwell time
1.35

Maintenance

The washable stainless-steel grease baffle filters and secondary mesh canopy filters will be cleaned daily as part of a cleaning regime.

The ESP system will be cleaned, and filters replaced based on monitored schedule with a minimum change of 6 weekly services however with a possible reduction between service periods depending on trading level

The UVO system will is to be inspected on a minimum quarterly basis with a standard full service (complete tube replacement) carried out at annually, however sooner if heavy trading or component failure requires it.

The media filtration system will form part of the site planned preventative maintenance program, with minimum recommended replacement strategy as follows:

Activated carbon panels – to be physically inspected quarterly and replaced at a minimum on an annual basis, but sooner if issues in flow rates deteriorate

As well as maintenance to the filtration, the fan unit which will be maintained and cleaned as per the manufacturer's recommendations, and this should form the basis of a service contract.

The ductwork cleaning will be provided in accordance with TR19 as published by the HVCA.

We hope that you find this proposal to your satisfaction, please contact us with any queries.

Yours Sincerely

Adam Moran