

Proposed Kitchen Extraction & Odour Control Statement

Site: The Constitution, 42 St Pancras Way, London, NW1 0QT

The proposed kitchen redevelopment and associated extraction system has been designed with reference to industry technical guidance: CIBSE Guide, DW172, DEFRA & BS6173

The proposed style, type, duration and usage of the commercial cook line together with combustion air requirements dictate the method and capacity of extraction volume required.

A Pre-Development Odour Control Risk Assessment has been completed, based upon the design brief and site-specific criteria.

Subsequently a significance score of 25 was attained which dictates the site requires Odour Control within the High Impact Risk Category.

Noise Generating Equipment.

By virtue, the plant is noise generating and measures shall be taken to reduce & mitigate noise break out to local residential receptors / premises to meet recommended level of 10dB below the minimum measured background level at the nearest residential receptor in accordance with BS4142 type assessment.

RBA acoustic consultants have been appointed and their report/recommendations will be complied with.

Measures to associated mechanical services shall be taken to reduce this breakout noise in-line with the guidance notes provided via the retained acoustic consultant report.

These measures shall be in the form of and not limited to;

1. Podded Melinex Lined Attenuators (Atmosphere & Room side)
2. Extract Fan Enclosure
3. Extract Ductwork Damping & Cladding
4. Anti -Vibration Components / Ancillaries
5. Low - Velocity Ductwork

Grease removal. (Primary)

The primary form of grease removal and flash protection will be provided via the canopy mounted non-grease loading (negligible grease accumulation), and interlocking "DUO" high performance baffle filters. These filters are constructed from type 304 stainless steel. The design of the baffle filter is such that each vertical stainless-steel vane is strategically aligned to change the direction of the grease-laden air.

This action causes the deposition of the grease quickly, without re-entrainment onto the baffles whilst the grease-free air passes through the filter. The baffle's smooth surface enables deposited grease to run off via the drainage holes to collecting trays in the housing, minimising grease build-up.



Filter classification: Typically G2 to EN779
Recommended face velocity: 1.5 m/s
Grease removal. (Primary)

Odour Abatement.

Odour control for the cook line operation will be provided via the means of combined ESP/UV-c (Electrostatic Precipitation & Photolysis) 4 Stage filtration system consisting of :

1. Aluminium pre-filter.
2. Combined Electronic Ioniser / Electrostatic collector cells.
3. Aluminium post filter.
4. UV-C Lamp frame containing high output UV-c lamps.

The unit positioned at the closest possible location to the cookline canopy to counteract grease and gaseous odours at source with maximum system contact time.

Discharge to Atmosphere.

The system has been designed to facilitate discharge to atmosphere of the cook line exhaust at ridge level. The discharge terminal will be vertical is compliant with specification DW172 and has an open terminal with an efflux velocity of 15 m/s.

Post Installation / PPM Regime.

To ensure that the proposed system complies with Best Practicable Means under statutory nuisance provision the following is recommended as a minimum standard for regular PPM.

In-house & external contractor's compliance will ensure the grease control measures will operate at maximum efficiency and improve longevity of service.

Filter Description	Filter Location	PPM Frequency
Canopy Baffle Filter	Stainless Steel Baffle Filter(s) Located Within The Canopy Rear Plenum	Daily
Canopy & Baffle Plenum	Stainless Steel Canopy Located Within Trade Kitchen Above Cook line Appliances	Weekly
ESP / UV-c Unit	First Floor Plant Room.	Monthly