

Project : NuCarb CVD Extension, Holbrook Lane, Coventry

Project No. : 190598

Date : 9th July 2019

Ventilation and Extract Statement

1.0 Introduction

The proposed works consist of the extension of the existing NuCarb CVD facility within the Meggitt works on Holbrook Lane in Coventry. The proposed works include a new build extension covering a footprint of approx. 900m². This brief scoping report is intended to provide an overview of the proposed ventilation strategies for the spaces to support a detailed planning submission.

The initial design proposals have been developed to maximise opportunities for energy efficiency and deliver a comfortable environment that meets the requirements of Approved Document Part F of the Building Building Regulations.

The development is to comprise ventilation strategies with dedicated systems and equipment as detailed below.

2.0 Furnace Areas

The general ventilation proposal utilises roof mounted extract fans to draw air through the space to maintain indoor air quality and temperature control.

Fresh air intakes will also be roof mounted to ensure no potential for low level pollutant ingress and will be ducted to low level to generate cross ventilation across the space to the high level roof extract fans. The spacing of fresh air intakes and extract fans at roof level will be considered to ensure no recirculation of vitiated air.

The system will be designed to provide up to 4 air changes per hour, employing variable speed fans to vary the ventilation volume to the space dependent upon the internal CO₂ and temperature readings. A wall mounted controller will also allow the user to manually operate and override the ventilation system to provide simple and effective control over the immediate environment.

At this stage no requirement for fume extraction systems to the furnace area has been highlighted by the Client.

The discharge of the extracted air is considered to be clean – as indicated within the air quality report, however the locations of all discharges shall be arranged in accordance with Approved Document Part F and is therefore considered not to have any adverse environmental impact. However, the ventilation design and installation should proceed in line with good practise and recommendations of the Chartered Institute of Building Services Engineers (CIBSE).

3.0 VibreVAC / Needle Loom

As with the furnace areas, the general ventilation proposal utilises roof mounted extract fans to draw air through the space to maintain indoor air quality and temperature control.

Fresh air intakes will also be roof mounted to ensure no potential for low level pollutant ingress and will be ducted to low level to generate cross ventilation across the space to the high level roof extract fans. The spacing of fresh air intakes and extract fans at roof level will be considered to ensure no recirculation of vitiated air.

The system will be designed to provide up to 4 air changes per hour, employing variable speed fans to vary the ventilation volume to the space dependent upon the internal CO₂ and temperature readings. A wall mounted

controller will also allow the user to manually operate and override the ventilation system to provide simple and effective control over the immediate environment.

At this stage no requirement for fume extraction systems to this area has been highlighted by the Client.

The discharge of the extracted air is considered to be clean – as indicated within the air quality report, however the locations of all discharges shall be arranged in accordance with Approved Document Part F and is therefore considered not to have any adverse environmental impact. However, the ventilation design and installation should proceed in line with good practise and recommendations of the Chartered Institute of Building Services Engineers (CIBSE).

4.0 Conclusion

The risk of any adverse environmental impact due to the ventilation of the proposed building can be considered low, as the required ventilation provision detailed within the client brief. The extract associated with the ventilation systems considered can be classified as that of a clean nature.