Unit 13 and 14 Shaw Park Silver Street Response to Environmental Health 02.03.26

Good Morning Liz,

Thank you for your email.

The proposed spraybooth extraction ducts have been designed with a discharge stack terminating 3m above the roof apex. The initial stack height has been specified in accordance with industry best practice for dispersion and in alignment with the requirements of the Environmental Protection Act 1990.

In accordance with statutory guidance, we can undertake a detailed D1 dispersion assessment to determine whether a reduction in the proposed stack height would be acceptable. The purpose of this assessment would be to quantitatively demonstrate that emissions achieve adequate atmospheric dispersion, potentially addressing the Council's requirement for separate odour and noise survey submissions where risk can be demonstrated to be negligible.

The assessment would be completed in full accordance with Technical Guidance Note D1 (Dispersion), as issued by the UK environmental regulator and applied to air emissions risk assessments under the Environmental Protection Act 1990. This provides a recognised, evidence-based framework for determining minimum stack heights necessary to prevent adverse impacts at sensitive receptors, taking into account emission characteristics, building effects, efflux velocity, and local dispersion conditions.

The modelling would be based on a conservative worst-case operational scenario, assuming a maximum paint consumption rate of 5 litres per minute and a solvent content of 420 g/L.

Based on current throughput projections, the installation will operate well below the 1-tonne per annum solvent usage threshold associated with higher regulatory controls. The activity is therefore classified as a low solvent usage installation, presenting an inherently low environmental risk profile, particularly in respect of odour and solvent vapour emissions.

In addition, exhaust air will be discharged vertically at a minimum efflux velocity of 15 m/s. This is consistent with recognised dispersion best practice and ensures effective plume rise and atmospheric dilution. The combination of vertical discharge, appropriate efflux velocity, and stack positioning above roof apex level is specifically intended to minimise downwash, prevent localised recirculation, and safeguard nearby receptors.

Please do not hesitate to contact me should you require any further information or clarification.

Best regards

Kayleigh Burke

Head of Sales for Spraybooths

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