

# DAVID UTTING ENGINEERING

Established 1924

GOLDSMITH STREET  
NORWICH  
NR 4QE

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## EMMISSIONS REPORT

Reference: Smartshop Serial No. SS25071526 – Waterfront Accident Repair  
Smartshop Serial No. SS25071736 – Waterfront Accident Repair

Paint Particle Assessment in the Worst Possible Case.

- 1) Operator will spray at a maximum possible rate of 5lts per hour
- 2) Paint solids per litre sprayed will be 0.5kg
- 3) Paint transfer ratio will be 50%
- 4) Extract efficiency of the 2-stage Duplex filter will be 98%
- 5) Current booth airflow used is 8075 m<sup>3</sup>/hr 15% below commissioned @ 9,500m<sup>3</sup>/hr

Therefore Particle Discharge from Booths Will Be:

$$\frac{5 \times 0.5 \times 0.02 \times 10^6}{8075} = 6.19 \text{ Mg/m}^3$$

Efflux Velocity from Extract Flue.

- 1) Current booth airflow used is 8075 m<sup>3</sup>/hr 15% below commissioned @ 9,500m<sup>3</sup>/hr
- 2) Discharge area of accelerator cone is 0.144m<sup>2</sup>

Therefore, Efflux Velocity =

$$\frac{\frac{8075}{60 \times 60}}{0.144} = 15.57 \text{ m/sec}$$