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Client Name: Clingcast Metals
Report Number: R007621-1
Date of Issue: 11 July 2019
Attention: Paul Clingan
Address: 98 Bath Rd
Kirrawee NSW 2232
Testing Laboratory: Ektimo Pty Ltd, ABN 86 600 381 413

Ektimo was engaged by Clingcast Metals Pty Ltd to confirm that the foundry building at 98 Bath Rd Kirrawee is under negative pressure conditions during the foundry pouring operations.

The outcome of monitoring performed confirmed that potential fugitive emissions are not emitted from the greater foundry enclosure when casting moulds are being poured. Confirmation that the foundry enclosure is negatively pressured demonstrates that potential emissions are effectively treated by the existing downstream pollution filtration system (baghouse).

Air flow rate measurements were taken at the NW factory doorway when all other doors and windows were closed. Flow rates were monitored with a NATA calibrated Testo vane anemometer. The doorway was divided into 6 equal horizontal traverses, and 4 points were sampled along each traverse. A total of 24 sequential points were sampled in total. A background wind speed sample was also obtained. A higher wind speed at the NW factory doorway threshold, compared to the background sample was observed (0.42m/s compared to 2.5m/s). The direction of the flow was from outside to inside. This indicated that the foundry enclosure was under negative pressure.

1 BACKGROUND SAMPLE:

Date/Time sample taken: 22/05/19 15:14	Location: 98 Bath Road Kirrawee Coordinates (approximate): 34° 1'37.26"S 151° 4'38.56"E
Wind Direction	330 degrees (NW)
Wind Speed (3 minute average)	0.42 metres per second

2 FACTORY NW DOORWAY SAMPLE:

Date	22/05/2019	Client	Clingcast Metals Pty Ltd
Report	R007621	Stack ID	Factory NW doorway
Licence No.	-	Location	Kirrawee
Ektimo Staff	Ryan Collins	State	NSW
Process Conditions	Please refer to client records.		19067

Sampling Plane Details

Sampling plane dimensions	885 x 2050 mm
Sampling plane area	1.81 m ²
Access & height of ports	Ground level 0 m
Duct orientation & shape	Vertical Rectangular
Downstream disturbance	Exit 0 D
Upstream disturbance	Inlet 0 D
No. traverses & points sampled	6 24



Comments

The discharge is assumed to be composed of dry air and moisture

Stack Parameters

Gas Flow Parameters

Flow measurement time(s) (hhmm)	1524
Temperature, °C	25
Temperature, K	298
Velocity at sampling plane, m/s	2.5
Volumetric flow rate, actual, m ³ /s	4.5