



सीएसआयआर-राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान

नेहरू मार्ग, नागपुर - 440 020

CSIR - National Environmental Engineering Research Institute  
Nehru Marg, Nagpur - 440 020



Er. Ankit Gupta

वैज्ञानिक / Scientist,

ऊर्जा एवं संसाधन प्रबंधन प्रभाग/Energy and Resource Management Division

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**TO WHOMSOEVER IT MAY CONCERN**

**Subject: Emission Test Results for GreenDispo – Improved Sanitary Pad Incinerator jointly developed by CSIR-NEERI, ARCI and Sowbal Aerothermics**

**Name & Model No.:** GreenDispo Model 1 : Improved Sanitary Pad Incinerator for unbleached/commercial pads

**Manufacturer:** Sowbal Aerothermics, Kushaiguda, Secunderabad, Telangana 500062

**Type:** Natural draft and top charged

**Operational Specification**

- Capacity: 30-35 pads/hr
- Feed Rate: 8 pads/15 min
- Combustion Chamber Temp.: 800 °C

**Test Method**

**Test Duration :** 1 hour  
**Feed Rate:** 8 pads/ 15 min with a batch of 2 pads every 3 minutes.  
**Repetitions:** 6 using 5mL of waste blood per sanitary napkin pad.

**Material of Construction**

**Pad Make:** Whisper: XL Size  
**Inner Chamber:** Stainless Steel(304/310): Min.1mm or Cast Iron: Min.6mm  
**Outer Body:** Mild Steel: Min. 1.5 mm  
**Insulation:** Ceramic wool: Min. 12 mm (Density 128 kg/m<sup>3</sup>)

*NOTE: The thicknesses of the material used for different component of community model are to be higher for providing adequate strength and life.*



Emission Parameters	Average Concentration at Source (Mean ± S.E.)			
	TPM (mg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	SO <sub>2</sub> (mg/m <sup>3</sup> )	NO <sub>2</sub> (mg/m <sup>3</sup> )
Quantified Values	42.1 ± 6.7 mg/m <sup>3</sup>	74.0 ± 4.5	38.6 ± 5.9	1.3 ± 0.4
Instruments Used	PEM-SMS 4 by M/S Polltech Instruments Pvt. Ltd.	ACE 9000 XT Multi Gas Stack Analyser by M/S Ace Gas Analysers Pvt. Ltd.		
Method of Measurement	Gravimetric at Isokinetic Flow	Electro-chemical Sensor		



*(Signature)*  
7.11.2019  
(Ankit Gupta)

अंकित गुप्ता / Ankit Gupta  
वैज्ञानिक / Scientist

ऊर्जा एवं संसाधन प्रबंधन प्रभाग  
Energy & Resource Management Division  
सी.एस.आई.आर.-नीरी, नागपुर-४४००२०  
CSIR, NEERI, Nagpur - 440020

Phone: (O) (+91) 0712-2249885-88 #304 Fax: (+91) 0712 2249900  
Gram: NEERI, Nagpur; E-Mail: a1\_gupta@neeri.res.in