 CBU - EPD	PURCHASE SPECIFICATION FUME EXHAUST KILLER SYSTEM	Spec. No	EP:PVM:EQS:20
		Rev. No	00

**TECHNICAL SPECIFICATION FOR
 Fume Exhaust Killer System**

**ELECTROPORCELAINS DIVISION, BHARAT
 HEAVY ELECTRICALS LTD., IISc POST,
 BANGALORE, INDIA 560012**

REVISION DETAILS: (00)	PREPARED	<i>Ankur Kh</i>	DATE
	APPROVED	<i>[Signature]</i>	12.05.2016

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SL. NO.	SPECIFICATION	VENDOR'S CONFIRMATION
1.	Fume Exhaust Killer System with 1000 cubic Meter per hour capacity	
2.	Quantity : 8 nos	
3.	<p>Application System: The system Should have a two stage electrostatic precipitator, electrostatic filter module which can handle the air flow rate of 1000 cubic meter per hour.</p> <p>The filter should be able to be used for removal, capture and control of fumes, smoke, oil mist, dust and fine powders from the Laminators used in manufacturing of SPV modules having EVA particles and fumes as the normal pollutant. Filters should have capability to capture particles from 0.01 to 20 micros.</p> <p>The system shall have provision for fume intake from two sources through a common plenum and suitable dampers / valves for individual intake isolation. Bidders to indicate the details in the techno-commercial offer.</p> <p>Bidders are requested to visit BHEL – EPD, Bengaluru for assessing the actual requirement before submission of offers.</p>	
4.	The two stage filters with Pre and Post filters be suitably provided in the enclosures with suitable meshes. Pre Filters should process sucked air and the large particles have to be removed. The finer particles should be electrostatically precipitated and captured.	
5.	Filter Module efficiency should be min 90 % for airborne particles. Filter modules should be reusable after cleaning and washin. Bidders to indicated the constructional features and life of modules under normal operating conditions.	
6	Power pack high voltage for Ionization of the particles should be minimum from 8KV DC. The voltage for collection of particles at the filters should be min 4kV DC.	
6.	Safety Features: Should be equipped with High Voltage fault Trip circuitry. Other Safety features like motor protection, limit switches etc., shall be indicated.	

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7.	Mounting: Provision for a trolley mounted with wheel arrangement should be provided.	
8	Suction should be provided with a suitable centrifugal fan , at the exit of the air through the system the activated carbon granules provision to control the odour and smell should be available. Draining Arrangement should be provided for the particles and air.	
9	System voltage at input will be : 415 V \pm 5% 50 Hz	
10.	Bidder should have service and spare supports available in Bengaluru, India for the fume killer offered. Details of the establishment with facilities and personnel for carrying out the service support and spares management shall be described in the Techno-commercial bid.	
11.	INSPECTION, SUPPLY, COMMISSIONING & TRAINING AT BHEL SITE: <ul style="list-style-type: none"> • Bidders shall offer the equipment for pre-dispatch inspection at their works. • The supply & commissioning of should be at BHEL EPD, Bengaluru • Transit Insurance shall be in the scope of Supplier. • Training for Operation & maintenance should be provided to BHEL persons during commissioning. 	

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12	<p>Pre - Qualification Criteria :</p> <ol style="list-style-type: none">1. Should have supplied the similar equipment for industrial applications and preferably for PV module manufacturing. There should be minimum 3 references and should be satisfactorily working for minimum one year2. Bidder should be original equipment manufacturer (OEM) or their authorized dealers. Bidder to submit company registration certificate as a manufacturer or any other document to establish the bidder as OEM. In case of authorized dealers, the valid authorization certificate indicating the scope of representation shall be provided.3. The bidder shall submit audited balance sheet or tax returns or profit loss account for the last 3 years.4. Offer shall be for new equipment and not for any refurbished or used equipment.	
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