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Stack/Point Air Emission Test from Generator and Boiler Exhaust of Pretty Sweaters Ltd.

Sent by	:	Md. Arif Hasan Jony Assistant Manager, Compliance. Pretty Sweaters Ltd. Plot no#222, Gacha, Chayadhana, Gazipur.
Ref. No.	:	PG/Co/Admin-0003/PSL/QUO-WO (193)
Name of Test	:	Stack/Point Air Emission test from generator and boiler exhaust
Date of Test	:	09/04/2017
Test due	:	08/04/2018
Test Performed by	:	Department of Mechanical Engineering, DUET, Gazipur
Report Memo No.	:	DUET/ME/CRTS/2017/04/38

A team of 5 members (Mr. Md. Khaled Khalil. Dr. Md. Kamruzzaman, Dr. Khurshida Sharmin, Mr. Md. Shahin Mia, and Mr. Md. Rashed Mia) from DUET visited the Pretty Sweaters Ltd. located at Plot no#222, Gacha, Chayadhana, Gazipur, Bangladesh on April 09, 2017. During their visit, air quality and sound levels were measured at exhaust point for generators and boilers of the factory by "AdvancedSense Environmental Test Meter (GrayWolf)" during the day time. Three different probes were used to perform air emission test for CO_2, CO, NO_2, NO, SO_2, TVOC, PM10 and TPM.

Table 1: Stack/Point sources Air Emission analysis result at Pretty Sweaters Ltd., Plot no#222, Gacha, Chayadhana, Gazipur

	Test Location	CO_2 (ppm)	CO (ppm)	NO_2 (ppm)	NO (ppm)	SO_2 (ppm)	*TVOC (ppb)	PM10 ($\mu g/m^3$)	*TPM ($\mu g/m^3$)	Temperature (^0C)	Remarks
SI. No.	OSHA Standard (Max. Limit)	5000	50	5	25	5	1000	5000	15000	**	Satisfactory
1	Generator-1	496	0.0	0.20	0.0	0.0	145	152.9	200	32.8	
2	Generator-2	514	0.0	0.12	0.5	0.3	135	203.75	217.62	32.5	
3	Generator-3	646	0.0	0.14	0.5	0.7	316	394.88	463.56	31.8	
4	Generator-4	620	0.0	0.13	0.5	0.6	350	402.23	470.15	32.5	
5	Boiler – 1	479	0.0	0.10	0.2	0.0	261	187.79	220.77	31.5	
6	Boiler – 2	468	0.0	0.10	0.3	0.0	276	190.56	218.45	31.2	

*TPM: Total Particulate Matter; *TVOC: Total Volatile Organic Compound
** OSHA has no regulations specifically addressing temperature, this is matter of human comfort.

Remarks: In this report "Occupational Safety & Health Administration (OSHA)" standards for "Government and Industry Guidelines" was followed to check the gaseous compounds. According to this standard, CO_2, CO, NO_2, NO, and SO_2 in ppm are found to be below the OSHA allowable limit in the locations tested above. In case of TVOC, it was measured in *ppb* and the result is also within the allowable range. For the particulate matter, both PM10 and TPM shows results below the OSHA allowable limit in the locations tested above.

Test Performed by-

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