



Air Emission and Noise Level Test of Columbia Apparels Limited

Sent by : Major Zahid Moksud Khan (Retd)
General Manager
Columbia Apparels Ltd.,
228/1, Tin Sarak, Laxmipura
Joydebpur, Gazipur-1700
E-mail (Dated 09/04/2016)

Ref No :
Name of Test : Air Emission and Noise Level Test
Date of Test : 24/04/2016
Test Due : 23/04/2017
Test Performed by : Department of Mechanical Engineering, DUET
Report Memo No. : DUET/ME/CRTS/2016/04/06

Air Emission test result:

| SI. No. | Air Quality Parameters | Unit | Measured concentration | | | | OSHA/LEED-NC 2009 Standard (Max. Limit) | Remarks |
|---------|------------------------|-------------------|------------------------|-------------------------------------|-------------------------------------|----------------|---|--------------|
| | | | Cutting Area | Sewing Area (2 nd Floor) | Sewing Area (3 rd Floor) | Finishing Area | | |
| 01. | CO ₂ | ppm | 529 | 564 | 570 | 482 | 5000 | Satisfactory |
| 02. | CO | ppm | 1.3 | 1.7 | 1.3 | 2.3 | 50 | |
| 03. | NO ₂ | ppm | 0.22 | 0.20 | 0.13 | 0.12 | 5 | |
| 04. | NO | ppm | 0 | 0 | 0 | 0 | 25 | |
| 05. | SO ₂ | ppm | 0.3 | 0.3 | 0 | 0 | 5 | |
| 06. | TVOC | ppb | 474 | 507 | 685 | 562 | 1000 | |
| 07. | PM10 | µm/m ³ | 714.01 | 761.51 | 1825.19 | 359.79 | 5000 | |
| 08. | TPM | µm/m ³ | 1001.54 | 1012.52 | 2523.22 | 474.43 | 15000 | |

Noise Level test result:

| SI. No. | Test Locations | Unit | Measured Noise/Sound Level | Permissible Noise Exposures according to OSHA | | Remarks |
|---------|-------------------------------------|------|----------------------------|---|---|--------------|
| | | | | Decibels (dB) | Hours per Day (employees are permitted to work) | |
| 01. | Cutting Area | dB | 76.6 | 90 | 8 | Satisfactory |
| 02. | Sewing Area (2 nd Floor) | dB | 79.7 | 90 | 8 | |
| 03. | Sewing Area (3 rd Floor) | dB | 78.7 | 90 | 8 | |
| 04. | Finishing Area | dB | 76.9 | 90 | 8 | |
| 05. | Generator Room (Running Mchine:2) | dB | 106.6 | 110 | 0.5 | |
| 06. | Generator Room (Running Mchine:1) | dB | 102.3 | 110 | 0.5 | |

Sharmi Mazumder
(Sharmi Mazumder)
Lecturer
Dept. of ME, DUET, Gazipur

M.S
(Md.Mahiuddin)
Assistant Professor
Dept. of ME, DUET, Gazipur

AD
(Professor Dr. Mohammad Asaduzzaman Chowdhury)
Head
Dept. of ME, DUET, Gazipur