

Indoor Noise Level Inspection

**ACS Textiles (Bangladesh) Ltd. &
ACS Towel Limited**

Inspection Ref. No.: **B/N 11599**

Contact Us

Corporate Head Office:

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General Information			
Invoice Reference No: GB/2024/08/80		Inspection Date: 09.09.2024	
Inspection Reference No: B/N 11599		Inspection Duration: 11am-5pm	
Report Generation Date:	15.09.2024	Inspection Description: Indoor Noise Level	
Report Submission Date:	22.09.2024	Inspection Location: Inside Factory Building	
Inspection Standards: 2004/108/EEC			
<u>Company Name:</u> ACS Textiles (Bangladesh) Ltd. & ACS Towel Limited <i>Address: Tetlabo, Barpa, Rupgonj, Narayangonj.</i>		<u>Contact Person:</u> Md. Ruhul Alam Sharif <i>GM, Compliance</i>	
On Site Inspection Team			
Md. Shaharia Ahmed <i>Executive (Operation)</i> <i>B.Sc. in Environmental Science</i>		Tanzir Hosen <i>Chemist (Operation)</i> <i>B.Sc. in Chemistry</i>	
Report Prepared by		Quality Checked	
			
Md. Shaharia Ahmed <i>Executive (Operation)</i> <i>B.Sc. in Environmental Science</i>		Mosharof Hossain <i>Assistant Manager (Operation)</i> <i>M.Sc. & B.Sc. in Environmental Science</i>	
Report Approved by			
			
Engr. Syed Tasnem Mahmood <i>Chief Environmental Engineer & CEO</i> <i>B.Sc. & M.Sc. (Civil and Environmental Engineering)</i> <i>MIEB No.: M/35960</i>			

Introduction:

Noise pollution or noise disturbance is the disturbing or excessive noise that may harm the activity or balance of human or animal life. The main source of indoor noise pollution for an industry is the machineries and activities for production, power generation within house captive power plant, raw material and goods loading, unloading etc.

Recently, noise pollution has been of increasing concern worldwide, particularly in most garment factories. The noise problems of the modern industrial societies seem incomparable to the past given the larger sources of noise now present outdoors and indoors. According to the World Health Organization, industrial machineries and activity noise is one of the main sources of environmental noise exposure.

Noise levels are measured in decibels (dB). One decibel is the threshold of hearing. Approximately 60 dB is the level of normal talking. According to National Institute for Occupational Safety and Health (NIOSH), the permissible noise level in industrial environments should not exceed 85 dB. Exposure for more than six hours a day to noise level in excess of 85 dB is potentially hazardous to health. Bangladesh Labor Rules categorized the working area as hazardous where noise level exceeds the limit of 80dB.

GREENBUD Testing & Inspection Services Private Limited has been hired to inspect the indoor noise level of **ACS Textiles (Bangladesh) Ltd. & ACS Towel Limited**. GREENBUD operation team has covered all the production sections to inspect their noise level and generated report according to the activity of the area.

Method of Analysis:

Measurement of noise level was done using direct reading instruments. During the analysis, a standard work instruction stated in the TP-GB-02 was followed.

Indoor Noise Level Inspection Result: (ACS Textiles (Bangladesh) Ltd.)

Inspection Area					Inspection Status			
Sl. No	Building No	Floor/Level	Section	Condition	Reference Standard	Obtained Result (dB)	NIOSH	BLR
1	Building-01	Ground Floor	Embroidery Section	Working	NIOSH (REL) = 85dB (8 hours TWA) Bangladesh Labor Rules, 2015 (Sec: 68) = 80dB	81	✓	x
2			Accessories Store	Working		60	✓	✓
3		1st Floor	Finished Goods Store	Working		53	✓	✓
4			Wastage Store	Working		54	✓	✓
5		2nd Floor	prayer Room	Working		59	✓	✓
6	Building-02	Ground Floor	Sizing & Weaving	Working		59	✓	✓
7		1st Floor	Cutting Section	Working		77	✓	✓
8			Feeding Section	Working		66	✓	✓
9			Stitching Section	Working		78	✓	✓
10			Fabrics Inspection	Working		59	✓	✓
11			Fabrics Folding	Working		62	✓	✓
12			Packing Section	Working		64	✓	✓
13			Metal Free Zone	Working		57	✓	✓
14	Building-03	Ground Floor	Medical Center	Working		59	✓	✓
15		1st Floor	Child Care	Working		55	✓	✓
16			Fire Control Room	Working		58	✓	✓
17	Building-04	Ground Floor	Warping Section-01	Working		87	x	x
18			Warping Section-02	Working		88	x	x
19			Twisting & Doubling	Working		89	x	x
20		1st Floor	Finishing Folding Section	Working		59	✓	✓
21	Building-05	Ground Floor	Generator Room	Working		95	x	x
22			Boiler Room	Working		85	✓	x
23			Compressor Room	Working		84	✓	x
24			Sub-Station	Working		62	✓	✓
25		1st Floor	Office Room	Working		54	✓	✓
26			Technical Room	Working		61	✓	✓
27	Building-06	Ground Floor	Bleaching	Working		72	✓	✓
28			Dyeing	Working		73	✓	✓
29			Mercerizing	Working		61	✓	✓
30			Dyeing Finishing	Working		74	✓	✓
31			Chemical Sub Store	Working		57	✓	✓
32			Printing Section	Working		72	✓	✓
33			ETP	Working		61	✓	✓
34	Building-07	Ground Floor	Chemical Store	Working		66	✓	✓
35			Work-Shop	Working		78	✓	✓
36		1st Floor	General Store	Working		59	✓	✓
37			Officer's Dining	Working		61	✓	✓
38		2nd Floor	Worker's Canteen	Working		71	✓	✓
39	Building-10	Ground Floor	Washing Area	Working		81	✓	x
40			Dryer Machine	Working		79	✓	✓
41	Building-11	Ground Floor	Chemical Store	Working		61	✓	✓
42	Building-11	Ground Floor	Quilting Machine	Working		64	✓	✓
43		1st Floor	Fabric Store	Working		59	✓	✓
44		2nd Floor	Mending	Working		68	✓	✓
45	Building-12	Ground Floor	Weaving Section	Working		89	x	x
46			Sizing Section	Working		75	✓	✓
47			Warping Section-02	Working		77	✓	✓
48			Stenter Machine	Working		73	✓	✓
49			Rasing Section	Working		77	✓	✓

Inspection Area					Inspection Status			
Sl. No	Building No	Floor/Level	Section	Condition	Reference Standard	Obtained Result (dB)	NIOSH	BLR
50	Building-12	1st Floor	Quilting Section	Working	NIOSH (REL) = 85dB (8 hours TWA) Bangladesh Labor Rules, 2015 (Sec: 68) = 80dB	63	✓	✓
51			Cutting Section	Working		66	✓	✓
52			Feeding Section	Working		69	✓	✓
53			Stitching Section	Working		78	✓	✓
54			Fabrics Inspection	Working		66	✓	✓
55			Fabrics Folding Section	Working		69	✓	✓
56			Packing Section	Working		66	✓	✓
57			Metal Free Zone	Working		61	✓	✓
58			Finished Goods Store	Working		65	✓	✓
59	Building-13	Ground Floor	Compressor Room	Working		84	✓	x
60			Generator Room	Working		99	x	x
61			Office Area	Working		61	✓	✓
62	Building-14	Ground Floor	Digital Printing	Working		79	✓	✓
63		1st Floor	Tufting	Working		73	✓	✓
64		2nd Floor	Tufting	Working		77	✓	✓
65	Building-15	Ground Floor	Admin & Compliance	Working		63	✓	✓
66			Accounts & Finance	Working		68	✓	✓
67			Commercial	Working		67	✓	✓
68		1st Floor	Show Room	Working		57	✓	✓
69			Display Center	Working		55	✓	✓
70			Marketing	Working		61	✓	✓
71			Commercial	Working		63	✓	✓
72		2nd Floor	Sample Room	Working		58	✓	✓
73			IT Room	Working		55	✓	✓

****Abbreviations and Acronyms:** dB=Decibel, BLR= Bangladesh Labor Rules, NIOSH= National Institute for Occupational Safety and Health.



Figure: Indoor Noise Level Monitoring Chart

Indoor Noise Level Inspection Result: (ACS Towel Limited)

Inspection Area					Inspection Status			
Sl. No	Building No	Floor/Level	Section	Condition	Reference Standard	Obtained Result (dB)	NIOSH	BLR
1	Building-1	Basement	Yarn Store	Working	NIOSH (REL) = 85dB (8 hours TWA) Bangladesh Labor Rules, 2015 (Sec: 68) = 80dB	53	√	√
2		Ground Floor	Warping Section	Working		72	√	√
3			Sizing Section	Working		79	√	√
4			Weaving Section	Working		87	x	x
5			Dyeing & Finishing	Working		77	√	√
6			Lab Room	Working		59	√	√
7			Flatbed Printing Section	Working		76	√	√
8		1st Floor	Cutting Section	Working		71	√	√
9			Stitching Section	Working		72	√	√
10			Inspection Room	Working		67	√	√
11			Folding Section	Working		62	√	√
12			Packing Section	Working		64	√	√
13	Building-2	Ground Floor	Medical Center	Working		59	√	√
14		1st Floor	Child Care	Working		61	√	√
15			Fire Control Room	Working		54	√	√
16	Building-3	Ground Floor	Chemical Store	Working		51	√	√
17			Work Shop	Working		66	√	√
18		1st Floor	General Store	Working		53	√	√
19			Officer's Dining	Working		61	√	√
20		2nd Floor	Worker's Dining	Working		64	√	√
21	Building-4	Ground Floor	Compressor	Working		78	√	√
22			Generator Room	Working		94	x	x
23			Boiler Room	Working		79	√	√
24			Technical Director Office	Working		58	√	√
25	Building-5	Ground Floor	Chemical Store	Working		52	√	√
26			Quilting Machine Room	Working		66	√	√
27		1st Floor	Fabric Store	Working		51	√	√
28		2nd Floor	Mending Area	Working		68	√	√
29	Building-6	Ground Floor	ETP	Working		61	√	√
30	Building-7	Ground Floor	Security Post	Working		64	√	√
31	Building-8	Ground Floor	Electrical Sub-Station	Working		56	√	√
32	Shed-01		Wastage Area	Working		52	√	√
33	Shed-02		Wastage Area	Working		53	√	√

****Abbreviations and Acronyms:** dB=Decibel, BLR= Bangladesh Labor Rules, NIOSH= National Institute for Occupational Safety and Health.

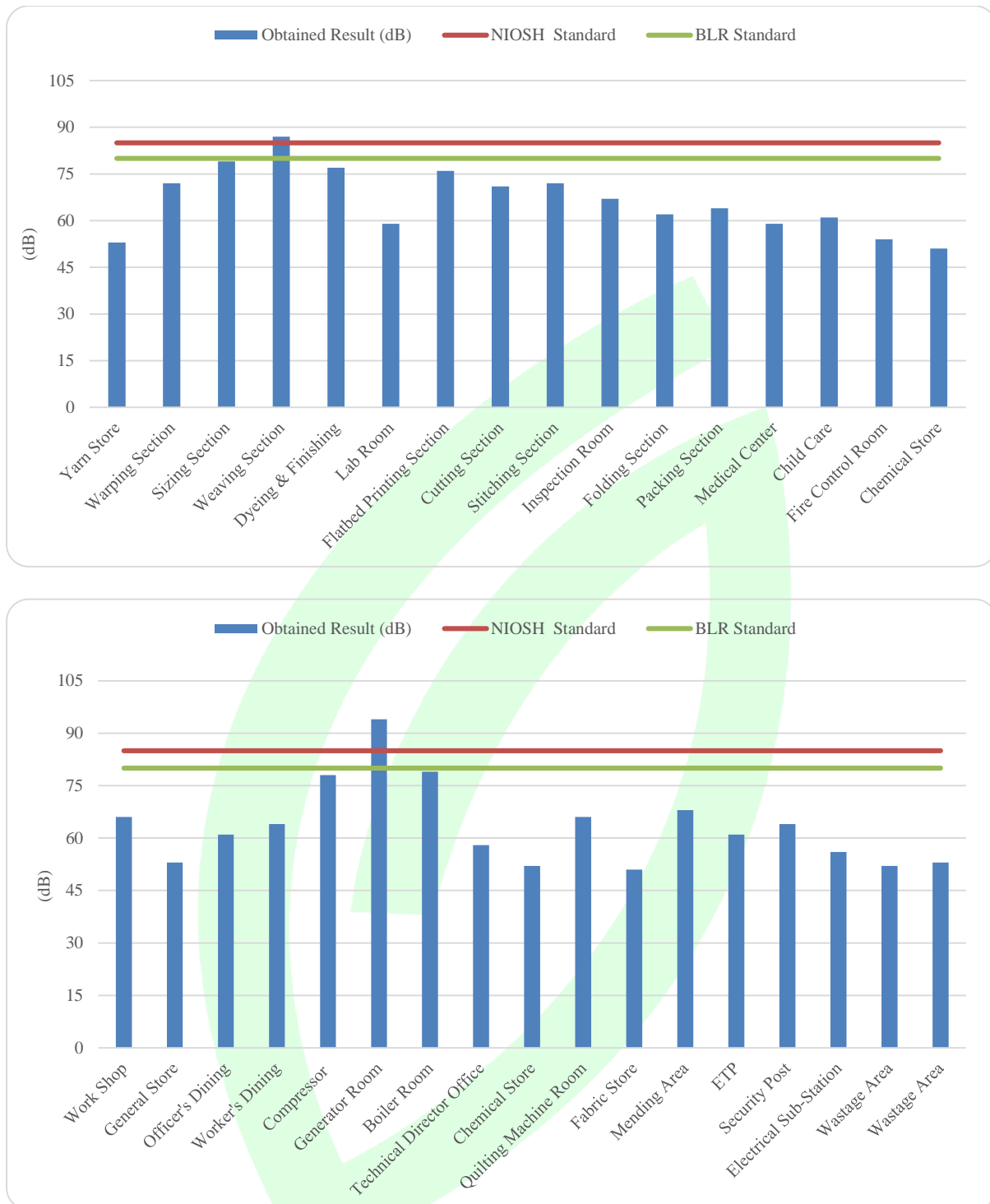


Figure: Indoor Noise Level Monitoring Chart

Discussion and Recommendation:

GREENBUD Testing & Inspection Services Private Limited has inspected the indoor Noise level of **ACS Textiles (Bangladesh) Ltd. & ACS Towel Limited.** ensuring all the production sections are covered. During inspection, noise level in most of the sections were found in compliance with both the NIOSH and Labor Rules standard limit. However, noise level in Generator, Embroidery, Warping, Twisting & Doubling, Boiler, Compressor, Washing and Weaving sections has been found higher compared to NIOSH and BLR standard. Use of ear plug/ear muff has been recommended here.

For further improvement of above-mentioned sections, following recommendations are suggested to reduce the adverse effect:

- ✓ Repair faulty equipment that pumps noise such as loose bolts and nuts from vibration.
- ✓ Change the activity related to the generated noise so that the sound level is reduced; for example, reducing motor power or speed of rotating drum of equipment.
- ✓ Employee who exposed to a noise level greater than 85 dB for duration of more than 8 hours per day must use hearing protection.
- ✓ Although hearing protection is preferred for any period of noise exposure in excess of 85 dB, an equivalent level of protection can be obtained, but less easily managed, by limiting the duration of noise exposure. For every 3 dB increase in sound levels, the 'allowed' exposure period or duration should be reduced by 50 percent.
- ✓ Use of acoustic insulating materials, isolation of the noise source, and other engineering controls should be investigated and implemented where feasible.

Factory is suggested to assess the indoor noise level at least once annually if all other setups remain constant.



Engr. Syed Tashem Mahmood
CEO and Chief Environmental Engineer
GREENBUD

MIEB No.: M/35960

ISO 14001 certification Number.: EA/15/IN/16050

ISO 50001 certification Number.: ENMS/16/IN/533

Appendix



Figure: Indoor Noise level Inspection

Instrument Description:

In Bangladesh noise pollution (also termed as NOISE pollution) is a major health hazard. In fact, due to noise pollution millions of people in Bangladesh are exposed to a number of health risks - from deafness to heart attack. On city streets noise pollution can be caused by hydraulic horns of vehicles, microphones and cassette players. The hydraulic horns used by buses, trucks and scooters in the crowded city streets are dangerous for human being. This is also how noise pollution in Bangladesh is affecting the hearing power of thousands of children every day. The horns especially cause serious damage to children. Experts say, if a child below three years of age hears a horn emitting 100 dB of noise from a close range, he or she might lose his or her hearing power.

GREENBUD Testing & Inspection Services Private Ltd. high quality equipment is available to assess your NOISE Level. We have used “SLM-25”, GREENBUD is also committed to assess your NOISE inside the factory premises with transparency & Quality. To assess this NOISE level, we have to follow some standards, such as NIOSH and BLR etc.



Technical Specification

Microphone	½ inch Electret Condenser Microphone
Measuring Range	30~130dB
Accuracy	±1.5dB
Frequency Range	31.5Hz ~ 8.5kHz
Frequency Weighting	A&C
Low Battery Indication	Yes
Over Range Indication	Yes
Digit & Resolution	5 Digits & 0.1dB



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Accredited to ISO 9001:2015 & ISO/IEC 17025:2017



CERTIFICATE OF CALIBRATION

Calibration Performed For :

GREENBUD
F14A,L14, Confidence Center(Building 2),Kha-09,
Shajadpur,Gulshan,Dhaka,Bangladesh
Phone : +880 1711084732
Mail Address : jesan@greenbudbd.com
Contact Person : SYEED JESAN MAHMOOD

Calibration Statics:

Received on : 06 Dec 2023
Date Serviced : 07 Dec 2023
Due on : 06 Dec 2024
Issued on : 07 Dec 2023
Received Condition : Good
Returned Condition : Good
Interval : 12 Months
Performed By : Md. Mahin Saruar Suton
Performed At : Caltech Laboratory
Environmental Conditions : Temp: 20.3 °C & RH% : 56.1
CalTech Procedure : CTPL-WI-025

Certificate No. CTPL(23-24)-6175

Equipment Details :

Description : Sound Level Meter
Manufacturer : Teckoplus
Model No. : SLM-25
Serial No. : 89022L
Asset /ID No : GB-120-019-002
Range (dB) : 30~130
Readability (dB) : 0.1

Comments/Notes

Uncertainty taken into account for declaration of result as per
ANAB AR 2251 and ILAC-G8:2019 (Binary).
The result of calibration is satisfactory.
Any section marked
N/P= Not Provided,
N/S= Not Submitted.
UUC= Unit Under Calibration.
Tolerance is taken from manufacturer specification

CalTech hereby certifies that...

The above described instrument met or exceeded all established specifications at the time of calibration specified above; and the calibration results published in this certificate obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI) or have been derived from accepted values, physical constants, by ratio or self calibration techniques. All Calibration activities performed are in compliance with IEC 61672:2013 and ISO 17025:2017 when specified as well as national/ international system guidelines. The quality system is ISO 9001:2015 certified. This report shall not be reproduced, except in full, without the written permission of CalTech.

All Calibrations, unless otherwise noted, are performed using accuracies of less than or equal to one quarter of the specification of the unit under calibration. The measurement uncertainties include a coverage factor of K=2, having a confidence level of 95%.

Calibration Points Result Column : P= Pass, F= Fail, A= Adjusted, D= No Result drawn due to tolerance N/S

Sound "A" Weighting

Sl. No.	Description	Nominal (dB)	Standard Value (dB)	As found (Corrected) UUC (dB)	Error (dB)	Tolerance (±) (dB)	Result	Uncertainty (±) (dB)
01	Sound	94	94	94.0	0.0	1.5	A	0.46
02	Sound	104	104	104.0	0.0	1.5	A	0.46
03	Sound	114	114	114.0	0.0	1.5	A	0.46



CALIBRATION TECHNOLOGY PVT. LIMITED

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CERTIFICATE OF CALIBRATION

Certificate No. CTPL(23-24)-6175

Sound "C" Weighting

Sl. No.	Description	Nominal (dB)	Standard Value (dB)	As found (Corrected) UUC (dB)	Error (dB)	Tolerance (±) (dB)	Result	Uncertainty (±) (dB)
01	Sound	94	94	94.0	0.0	1.5	A	0.46
02	Sound	104	104	104.0	0.0	1.5	A	0.46
03	Sound	114	114	114.0	0.0	1.5	A	0.46

Standard Used to Calibrate Equipment

Sl. No.	Description	Manufacturer	Model	Serial	Calibrated from	Cal. Due on
01	Sound Calibrator	Lutron	SL-4010	Q662278	MSME	10 Dec 2023

Calibration Performed By :
Calibration Engineer

Authorized By :
Laboratory Manager



Md. Reza Hossain

[END]



ACCREDITATION CERTIFICATE

Issued under the authority of Bangladesh Accreditation Act, 2006
by Bangladesh Accreditation Board (BAB), Ministry of Industries to

GREENBUD Testing & Inspection Services
14A, Level-14, Building 2, Confidence center
Kha-09, Sahajadpur, Gulshan, Dhaka-1212, Bangladesh


This is to certify that this

Inspection Body(Type-A)
is accredited in accordance with the international standard

ISO/IEC 17020:2012
in respect of the associated scope, subject to the terms and
conditions governing the relevant conformity assessment
body (CAB) accreditation.

Certificate Number : 05.003.18
Accreditation Date : 28 June 2018
Date of Issuance : 18 Aug 2024 (2nd Renewal)
Date of Expiration : 27 June 2027



 18. 08.2024
Md. Anwarul Alam
Director General

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