

No: CIP/PCB/2024/09/01
Date: 27.09.2024

To,
The Regional Officer (Anekal Division)
Karnataka State Pollution Control Board
'NisargaBhavan' 2nd Floor.
Timmiah Main Road, 7th D. Main,
Basaweshwaranagar
Bangalore-560001

Dear Sir,

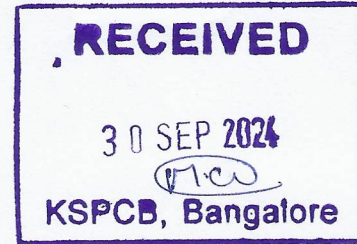
Subject: Submission of Environmental Statement in Form V for the year 2023-2024

We are herewith submitting Environmental statement in Form V under Environment (Protection) Act 1986 [Rule (14)] for the Year 2023-24 (April 2023 to March 2024).

Kindly accept and acknowledge the receipt of the same.

Thanking you
Sincerely Yours
For Cipla Limited

S. Rajamani
(Site Head)



Copy to:

- 1. The Senior Environmental Officer, 17 Category**
'Parisara Bhavan'
4th & 5th Floor, Church Street
Bangalore-560001.
- 2. Hazardous Waste cell**
Parisara Bhavan' 4th Floor,
Bangalore-560001.

Cipla Ltd.

Plot No. 285, 286 & 287, Bommasandra-Jigani Link Road Industrial Area, KIADB 4th Phase, Jigani Post, Bengaluru - 560 105
P +91 80 22059200 F +91 80 22059220 E-Mail adminbms@cipla.com

Regd. Office - Cipla House, Peninsula Business Park, Ganpatrao Kadam Marg, Lower Parel, Mumbai 400013, India.
P +91 22 24826000 F +91 22 24826120 W www.cipla.com E-Mail contactus@cipla.com Corporate Identity Number L24239MH1935PLC002380

**ENVIRONMENTAL
STATEMENT
(FORM-V)
2023-24**

**CIPLA LIMITED.,
PLOT NO.: 285,286 &287
KIADB IV TH PHASE
JIGANI-BOMMASANDRA LINK ROAD,
BOMMASANDRA, BANGALORE-560105**

GENERAL INFORMATION

1	A) Name of the Industry :	CIPLA LIMITED
	Address :	Plot No.285,286 & 287, 4 th Phase, KIADB Indl. Area, Bommasandra- Jigani Link Road, Anekal Taluk, Bangalore-560105.
	State :	Karnataka
	Phone :	080-22059200
	Email :	suresh.a1@Cipla.com
2	Ownership :	Public Limited Company
3	Products Manufactured :	Bulk Drugs 81.06 MT
	a) Consented Capacity :	
4	Year of establishment :	2007
5	OPERATION DURING THE PERIOD OF AUDIT	
	a) Working days per year :	365 Days
	b) Working days per week :	7 Days
	c) No. of working shifts :	3
6	No. of Employees :	275
7	Current Approvals :	Factory License: MYB-15789 Pollution Control Board CFO (Water & Air), Authorization for Hazardous Waste Storage & disposal
	Water Consent :	AW-336079 dated 07.02.2023 validity 30.06.2026.
	Air Consent :	
	Hazardous waste authorization :	308282 dated 21.12.2021 validity 30.06.2026.

INTRODUCTION

1. PREFACE:

M/s. Cipla Limited is a professionally managed Public Limited Company established in 1935. It manufactures and markets a wide range of Pharmaceutical Formulations and Bulk Drugs.

The Corporate headquarters are in Mumbai Central, where senior qualified corporate personnel are available for providing support to the manufacturing plants in the areas of Technology, Research and Development, Manufacturing, Quality Control, Quality Assurance and Health, Safety & Environment.

BRIEF DESCRIPTION OF THE SITE:

The Cipla manufacturing facilities at Bommasandra Industrial area was started in 2007. It is situated on the Bommasandra-Jigani Link Road at a distance of about 28 km from Bangalore City.

The total area of the site is 28.23 Acres. Currently no activity other than manufacture of bulk drug is carried out at the site. The factory has strength of about 275 employees, which are in the management category. Site is well laid out for providing safety to the employees and environment.

1.1 QUALITY MANAGEMENT:

The company's quality policy states that 'The Company is committed to ensure that every product it manufactures and distributes consistently meets with present standards of quality, purity, efficacy, and safety.'

Quality is a collective responsibility. Excellence in products, processes and systems is achieved through the team efforts of trained personnel of the company”.

Implementation of the Quality Policy is done through quality systems based on Current Good Manufacturing Practices in the conformity with national and international standards. The role of Quality Assurance is to co-ordinate the development and maintenance of the Company's quality procedures and systems. This is achieved by a combination of systematic sampling, testing, validating, monitoring and auditing of materials, facilities, systems and procedures which can influence the quality of the Company's products throughout their shelf-life.

There are authorized Standard Operating Procedures for all operations including production, quality control, materials management, warehousing and distribution, safety, environmental controls, housekeeping, sanitation and engineering. The role of Quality Assurance is to ensure that these procedures are adhered to and records maintained. Any deviation or discrepancy is investigated and documented. Corrective action is taken wherever necessary.

Periodic self-inspection and audits are conducted to monitor the effective implementation of quality, Safety and Environmental Management systems. The self-inspection and audits are conducted by designated personnel of the Company and / or by external agencies.

1.2 PROCESSING:

Manufacturing is done in batch quantities. Batches are planned as and when required for captive consumption or export. Reactions are carried out in closed reactors. Final stages of manufacture such as drying, milling or blending are carried out in closed cubicles under appropriate environmental controls.

1.3 SAFETY, HEALTH AND ENVIRONMENT:

Protecting the health of all personnel and others and ensuring safety at work is one of the prime objectives of the company.

Safety is the responsibility of individual departments supported by a team of specialists in Safety Management. The site is provided with firefighting facilities including fire hydrant systems. Personnel are continuously trained in all aspects of safety. Smoke detector, Heat detector, PA system, MCP, Central Communication systems are provided to tackle emergency situations.

The unit has a full-fledged Zero liquid discharge Effluent treatment plant with a conventional extended aeration activated sludge process followed by Reverse Osmosis effluent recycling plant.

High TDS effluent stream is completely segregated and is treated in a Stripper/Multiple effect evaporator and agitated thin film drier. (Refer Annexure-1 for Effluent treatment scheme).

Emissions are well within the permissible limits (Refer Annexure-2 for Emission Details) and statistical interpretation of the emissions is enclosed to this statement.

Water consumption is within the Limit (Refer Annexure-3 for Water Consumption Details) Water consumption from April-2023 to March-2024 enclosed to this statement.

ENVIRONMENTAL STATEMENT FORM-V
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024

PART-A

I. Name and address of the owner/ Occupier of the industry

Mr. Umang Vohra
Managing Director and Global CEO
Cipla Limited.,
Plot No: 285,286,287, KIADB Industrial Area, IVth Phase,
Bommasandra – Jigani link road
Bangalore - 560 105

II. Industry category Primary- (STC Code) Secondary- (STC Code)

Large scale-Red category

III. Production capacity (Units): **Bulk Drugs 81.06 MT/A**

IV. Year of establishment: **July -2007**

V. Date of the last environmental statement submitted: 30.09.2023

PART. B

Water and Raw Material Consumption:

I. Water consumption in m³/d

- **Process : 3.98 KLD**
 - **Cooling: 29.58 KLD**
 - **Domestic: 19.38 KLD**
-

Sl. No.	PRODUCT	Water consumption per unit of product	
		During the previous financial year	During the current financial year
		Process water consumption per unit of product output.	Process water consumption per unit of product output*
1	DASATINIB	220.8	489.1
2	ETOPOSIDE	0	2718.9
3	IMATINIB MESYLATE	0	0.0
4	LENALIDOMIDE	0	0.0
5	GEFTINIB	5760	5892.8
6	NILOTINIB	1152	0.0
7	POMALIDOMIDE	828	19666.3
8	SORAFENIB TOSYLATE	51500	0.0
9	VINCRIStINE SULPHATE	267.05	256.4
10	ABIRATERONE ACETATE	5138.5	44015.4
11	LETROZOLE	7762.5	17394.8
12	VINBLASTINE SULPHATE	238	391.8
13	IBRUTINIB	2.43	4.1

Name of the Raw materials	Name of Product	Consumption of Raw material Per unit of output	
		During the Previous financial Year	During the Current financial year
2-HEP	DASATINIB	36.57	81.0
METHANOL		1354.40	3000.0
ACETONE		103.84	230.0
N-BUTANOL		478.56	1060.0
2-HEP		36.57	81.0
DST CONDENSED COMPOUND		20.32	45.0
NE1 COMPOUND	ETOPOSIDE	0.00	96.3
TRIETHYLAMINE LR/AR GRADE		0.00	77.8
ETHYLENE DIAMINE LR/AR		0.00	46.2
METHYLENE CHLORIDE		0.00	962.8
HYDROCHLORIC ACID - CP		0.00	168.5
ETHANOL 99.9%		0.00	902.6
ACETONE		0.00	24.1
METHANE SULPHONIC ACID(ANHYD) LR GRADE	IMATINIB MESYLATE	361.26	163.2
ISOPROPYL ALCOHOL		41790.44	18877.6
IMT-3		1857.35	839.0
LN NITRO COMPOUND	LENALIDOMIDE	0.00	180.7
AMMONIUM FORMATE		0.00	197.1
PD ON CARBON 10% W/W/WET(RECOVERED)TYPE		0.00	18.1
PD ON CARBON 10% WET TYPE C-10210/A1		0.00	18.1
N-METHYL 2-PYRROLIDONE		0.00	1897.8
Methanol LR Grade		0.00	2349.6
GFT A	GEFITINIB	102.86	105.2
SODIUM HYDROXIDE FLAKES		22.83	23.4
POTASSIUM CARBONATE POWDER		88.05	90.1
ACTIVATED CHARCOAL COMMERCIAL		30.86	31.6
TOLUENE		2057.14	2104.6
DIMETHYL FORMAMIDE		1594.29	1631.0
METHANOL		1954.29	1999.3
4-(3-CHLOROPROPYL)MORPHOLINE		54.72	56.0

NTB AMINE	NILOTINIB	0.00	71.0
NTB ACID		0.00	90.7
THIONYL CHLORIDE		0.00	80.5
N-METHYL 2-PYRROLIDONE		0.00	1018.3
LIQUOR AMMONIA 25%		0.00	106.6
HYDROCHLORIC ACID (LR GRADE)		0.00	59.2
METHANOL		0.00	4736.4
ACETONE		0.00	6630.9
POM NITRO	POMALIDOMIDE	0.92	4.3
PD ON CARBON 10% W/W/WET(RECOVERED)TYPE		0.09	0.4
HYFLO SUPERCEL		0.80	3.7
DIMETHYL FORMAMIDE		15.08	70.1
TRIETHYLAMINE		0.83	3.9
FORMIC ACID (98-100%)		1.38	6.4
HYDROCHLORIC ACID - CP		19.60	91.1
ACETONE		18.12	84.3
SORAFENIB STAGE - 3	SORAFENIB TOSYLATE	327.38	219.6
ACTIVATED CHARCOAL COMMERCIAL		30.00	20.1
HYFLO SUPERCEL		142.86	95.8
PARA TOLUENE SULPHONIC ACID		214.29	143.7
ACETONE		5654.76	3792.3
HYDROCHLORIC ACID - CP		84.76	56.8
ETHYL ACETATE		16339.29	10957.8
DIMETHYL FORMAMIDE		3571.43	2395.1
ACTIVATED CHARCOAL COMMERCIAL		40.00	26.8
SODIUM BICARBONATE		119.05	79.8
SRF-METHYL CARBOXAMIDE		238.10	159.7
ETHANOL 99.9%	VINCRIStINE SULPHATE	69.44	11.7
SULPHURIC ACID AR GRADE		0.22	0.0
METHANOL HPLC GRADE		83.33	14.0
VINCRIStINE SULPHATE STAGE-I		1.39	0.2
ABIRATERONE	ABIRATERONE ACETATE	53.03	454.2
LIQUOR AMMONIA 25%		38.94	333.5
ACETIC ANHYDRIDE		23.15	198.3
ACETONITRILE		663.64	5684.6

TRIETHYLAMINE		21.21	181.7
METHYLENE CHLORIDE		972.73	8332.2
ACTIVATED CHARCOAL COMMERCIAL		6.06	51.9
ALUMINA NEUTRAL		15.91	136.3
SCAVENGER CARBON TYPE 2S		10.78	92.4
4 DIMETHYL AMINO PYRIDINE		0.91	7.8
SODIUM HYDROSULPHITE		26.52	227.1
LTR-02		81.18	181.9
ACTIVATED CHARCOAL COMMERCIAL		32.47	72.8
POTASSIUM TERTIARY BUTOXIDE		155.86	349.3
DIMETHYL FORMAMIDE (AR GRADE)		1733.12	3883.7
DIMETHYL FORMAMIDE		1733.12	3883.7
HYDROCHLORIC ACID - CP		105.53	236.5
METHANOL		6869.56	15393.8
LTR-02		81.18	181.9
4-FLUROBENZONITRILE		58.45	131.0
ETHANOL 99.9%		326.09	536.4
SULPHURIC ACID AR GRADE		2.17	3.6
LIQUOR AMMONIA 0.9 S.P GRAVITY		13.04	21.5
METHANOL HPLC GRADE		43.48	71.5
METHANOL		217.39	357.6
CHLOROFORM		434.78	715.2
DL TARTARIC ACID		9.78	16.1
SODIUM SULPHATE ANHYDROUS		7.39	12.2
VINBLASTINE TECHNICAL		6521.74	10728.3
DIMETHYL FORMAMIDE		188.18	318.7
IBRUTINIB		0.15	0.2
METHANOL		81.82	138.5
TOLUENE		613.64	1039.1
ACETONE		286.36	484.9
ETHYL ACETATE		409.09	692.7
METHYLENE CHLORIDE		572.73	969.8
CITRIC ACID (ANHYDROUS)		2.95	5.0
CYCLOHEXANE		65.45	110.8
ACRYLOYL CHLORIDE		7.58	12.8

NOX	17.46	80.00	0.000028	78.175
	Quantity of Air in m3/Min		1.1	
	Total run minutes		1440	
	Total Volume		1584	

Ambient Air Analysis- Near Material Security Gate (South Side)				
Parameters	Concentration of Pollutants discharged	KSPCB Limits	Quantity of pollutants discharged(mass/day)	Percentage of variation from prescribed standards with reasons
	mg/NM3	Limits	kg/day	% (Below Permissible limit)
PM ₁₀	49.14	100.00	0.000078	50.860
PM _{2.5}	20.32	60.00	0.000032	66.133
SO ₂	10.43	80.00	0.000017	86.963
Lead	-	1.00	0.000000	100.000
NOX	19.43	80.00	0.000031	75.713
	Quantity of Air in m3/Min		1.1	
	Total run minutes		1440	
	Total Volume		1584	

Ambient Air Analysis- Near Boiler Area (West Side)				
Parameters	Concentration of Pollutants discharged	KSPCB Limits	Quantity of pollutants discharged(mass/day)	Percentage of variation from prescribed standards with reasons
	mg/NM3	Limits	kg/day	% (Below Permissible limit)
PM ₁₀	43.32	100.00	0.000069	56.680
PM _{2.5}	18.43	60.00	0.000029	69.283
SO ₂	9.33	80.00	0.000015	88.338
Lead	-	1.00	0.000000	100.000
NOX	17.33	80.00	0.000027	78.338
	Quantity of Air in m3/Min		1.1	
	Total run minutes		1440	
	Total Volume		1584	

Ambient Air Analysis -Near ETP (North Side)				
Parameters	Concentration of Pollutants discharged	KSPCB Limits	Quantity of pollutants discharged(mass/day)	Percentage of variation from prescribed standards with reasons
	mg/NM3	Limits	kg/day	% (Below permissible limit)
PM ₁₀	44.73	100.00	0.000071	55.270
PM _{2.5}	17.82	60.00	0.000028	70.300
SO ₂	10.13	80.00	0.000016	87.338
Lead	-	1.00	0.000000	100.000
NOX	17.73	80.00	0.000028	77.838
Quantity of Air in m3/Min			1.1	
Total run minutes			1440	
Total Volume			1584	

Stack Emission – Boiler 2.0 TPH					
Parameters	mg/Nm3	Limits	kg/day	kg/ltr	%
	Concentration of Pollutants discharged	KSPCB Limits	Quantity of pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons
SPM	8.99	150.00	0.9174		94.007
Flue gas discharged flow nm3/hr.				4252.08	
Total flue gas discharged per day				102049.92	

Stack Emission – Boiler 1.5 TPH					
Parameters	mg/Nm3	Limits	kg/day	kg/ltr	%
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
SPM	10.01	150.00	1.0215		93.327
Flue gas discharged flow nm3/hr.				4272.11	
Total flue gas discharged per day				102530.64	

Stack Emission - DG Set (1500 KVA)

Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
SPM	27.09	150.00	2.7645		81.940
Flue gas discharged flow nm3/hr.				2239.49	
Total flue gas discharged per day				53747.76	

Stack Emission - DG Set (500 KVA)

Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
SPM	32.30	150.00	3.2962		78.467
Flue gas discharged flow nm3/hr.				2323.8	
Total flue gas discharged per day				55771.2	

Stack Emission - Scrubber System (SCB-201)

Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	6.97	35.00	0.1040		80.086
Flue gas discharged flow nm3/hr.				621.58	
Total flue gas discharged per day				14917.92	

Stack Emission - Scrubber System (SCB-202)					
Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	6.38	35.00	0.0953		81.771
Flue gas discharged flow nm3/hr.				622.11	
Total flue gas discharged per day				14930.64	

Stack Emission - Scrubber System (SCB-203)					
Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	6.89	35.00	0.3341		80.314
Flue gas discharged flow nm3/hr.				2020.74	
Total flue gas discharged per day				48497.76	

Stack Emission - Scrubber System (SCB-204)					
Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	6.94	35.00	0.1638		80.171
Flue gas discharged flow nm3/hr.				983.49	
Total flue gas discharged per day				23603.76	

--

Stack Emission - Scrubber System (SCB-101)					
Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	6.37	35.00	0.3699		81.800
Flue gas discharged flow nm3/hr.				2419.69	
Total flue gas discharged per day				58072.56	

Stack Emission - Scrubber System (SCB-17)					
Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	5.76	35.00	0.3476		83.543
Flue gas discharged flow nm3/hr.				2514.8	
Total flue gas discharged per day				60355.2	

- These are the above average values for the monitoring done on the month of April-23 to March-24.
- Environment monitoring done through NABL/MOEF laboratory.

Stack Emission - Scrubber System (SCB-205)

Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	6.19	35.00	0.1595		82.314
Flue gas discharged flow nm3/hr.				1073.63	
Total flue gas discharged per day				25767.12	

Stack Emission - Scrubber System (SCB-206)

Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	7.37	35.00	0.1856		78.943
Flue gas discharged flow nm3/hr.				1049.15	
Total flue gas discharged per day				25179.6	

Stack Emission - Scrubber System (SCB-207)

Parameters	mg/NM3	Limits	kg/day		% (Below permissible limit)
Pollutants	Concentration of Pollutants discharged (mass/volume)	KSPCB Limits	Quantity of Pollutants discharged (mass/day)		Percentage of variation from prescribed standards with reasons.
Acid Mist	7.25	35.00	0.1831		79.286
Flue gas discharged flow nm3/hr.				1052.37	
Total flue gas discharged per day				25256.88	

**PART-D
HAZARDOUS WASTES**

as specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

Hazardous Wastes	Total Quantity (Kg)			
	During the previous financial year		During the current financial year	
	Disposal		Disposal	
1. From Process	Used oil (Ltrs)	0.750 KL	Used oil (Ltrs)	1.0 KL
	Oil-soaked Cotton Waste	0.01 MT	Oil-soaked Cotton Waste	0.08 MT
	Distillation residue	4.67 MT	Distillation residue	6.50 MT
	Process Residue	31.57 MT	Process Residue	28.68 MT
	Spent organic solvent	416.64 MT	Spent organic solvent	320.25 MT
	Date of Expired Products	Nil	Date of Expired Products	0.15 MT
	Off-Specification Products	Nil	Off-Specification Products	0.15 MT
	Discarded containers contaminated with HW/chemicals	4.67 MT	Discarded containers contaminated with HW/chemicals	3.5186 MT
2. From Pollution Control Facilities	Chemical sludge from Wastewater Treatment	5.77 MT	Chemical sludge from Wastewater Treatment	11.17 MT
	MEE salts	3.90 MT	MEE salts	5.50 MT

**PART -E
SOLID WASTES**

	Total Disposal Quantity (Kg)	
	During the previous financial year	During the current financial year
	Disposal	Disposal
a. From process	1. Recyclable Fiber Drums–880 No's 2. Plastic waste- 1040.3 Kgs 3. Paper waste – 4655.76 Kgs	1. Recyclable Fiber Drums–956 No's 2. Plastic waste- 4062.2 Kgs 3. Paper waste – 146705 Kgs
b. From Pollution Control Facility	--	--
c. Quantity recycled or re-Utilized within the unit.	Nil	Nil

PART – F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Sr. No	Category number	Waste description	Collected in	Characterization	Disposal option
1	28.6	Spent solvents/ recovered organic solvents	Tankers/MS drums	Liquid, Flammable & Recyclable	KSPCB authorized recyclers
2	5.1	Used oil	MS/PVC Drums	Liquid & reusable	CPCB & KSPCB authorized Re Processors
3	5.2	Oil-soaked cotton waste	Leak proof bags	Solid & Flammable	CPCB & KSPCB authorized Incinerator
4	33.1	Discarded containers (MS drums/HDPE Drums/ barrels/carboys)	-	Recyclable	authorized recyclers
5	20.3	Distillation Residue	MS Drums	Semi solid & Flammable	CPCB & KSPCB authorized Incinerator
6	28.1	Process Residue and waste	LDPE/HDPE Bags	Solid & Flammable	
7	28.4	Off-Specification Products	LDPE/HDPE Bags	Solid & Flammable	CPCB & KSPCB authorized Incinerator
8	28.5	Date of Expired Products	LDPE/HDPE Bags	Solid & Flammable	CPCB & KSPCB authorized Incinerator
9	31.1	Electronic waste	-	Solid & Non- Flammable	KSPCB authorized. E-waste handlers
10	35.3	Salts from evaporator	Leak proof Bags	Solid, organic and inorganic	TSDF
		Chemical sludge from Wastewater Treatment		Biological sludge	
11	-	Paper waste	LDPE Bags	Solid & Non- Flammable	Authorized Recycler
12	-	Plastic waste	LDPE bags	Solid & Non- Flammable	Authorized recyclers

PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

S. No.	Particulars of the investment on environment /Audit	Gross block Value Rs. (in Lakhs)
1.	Recertification Audit ISO:14001 & ISO :45001	0.65
2.	RO Membrane Replacement	6.0
3.	Green belt area Development	1.0
4.	Online Ambient air quality monitoring station	1.5
5.	Discarded containers shed	10.0
6.	Measurable instrument (Flow meters)	5.0
7.	Maintenance and fabrication work at ETP	5.0
Grand Total		29.15

Conservation of natural resource:

The company being practicing several natural conservation programs like.

- 1) Installation of Energy Efficient Inline vertical pumps.
- 2) All lights fixture at Outside Block to be segregated and operated Based on Day Light Intensity and solar Power.
- 3) 90 % solar & wind power purchase form Group captive to reduce the carbon emission.
- 4) 1500 KVA DG dual-fuel kit Emission control device installation done to reduce the HSD consumption to control the emission.
- 5) As a part of Greenery development, 100 saplings were planted on world environmental day on 5th June 2023.

PART-H

Additional measures/investment proposal for environmental protection including abatement of pollution.

- 1) Environmental awareness training programs are conducted for all the Employees to minimize wastage and consumption of water.
- 2) The effluent analysis and air emission checks are carried out every month and submitted to the board as per the consent conditions and they are within the limits.

PART-I

MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution.

1. Environment Management System (ISO 14001:2015) and Occupational Health and Safety Assessment System (ISO 45001:2018) implemented and Re-certified.
2. Retrofitting of the DG sets done with partial gas & HSD
3. 95.4% renewable energy used for the manufacturing operations.
4. Water conservation initiative started to reduce the intake water.
5. ETP sludge dryer installed at ETP with screw conveyor.

ENCLOSURE:

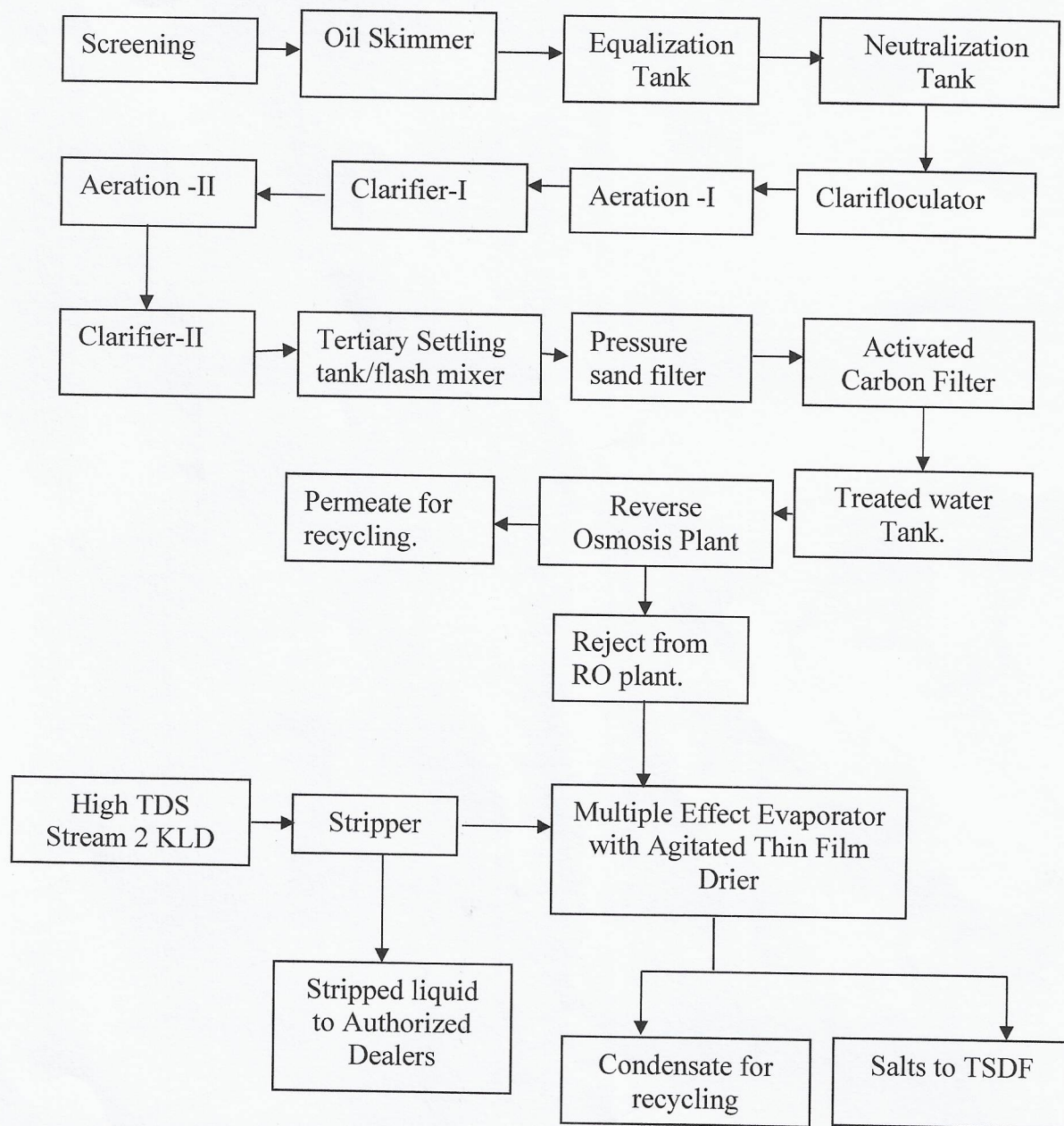
Annexure-1: ETP Flow scheme

Annexure-2: Statistical Interpretation of Ambient air quality and stack monitoring data's

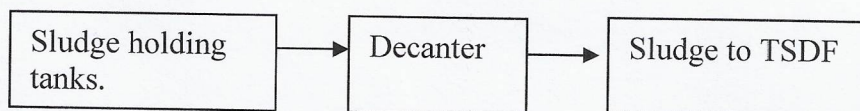
Annexure-3: Water consumption pattern from April 2023 to March 2024

Annexure-1

EFFLUENT TREATMENT PLANT-FLOW SCHEME

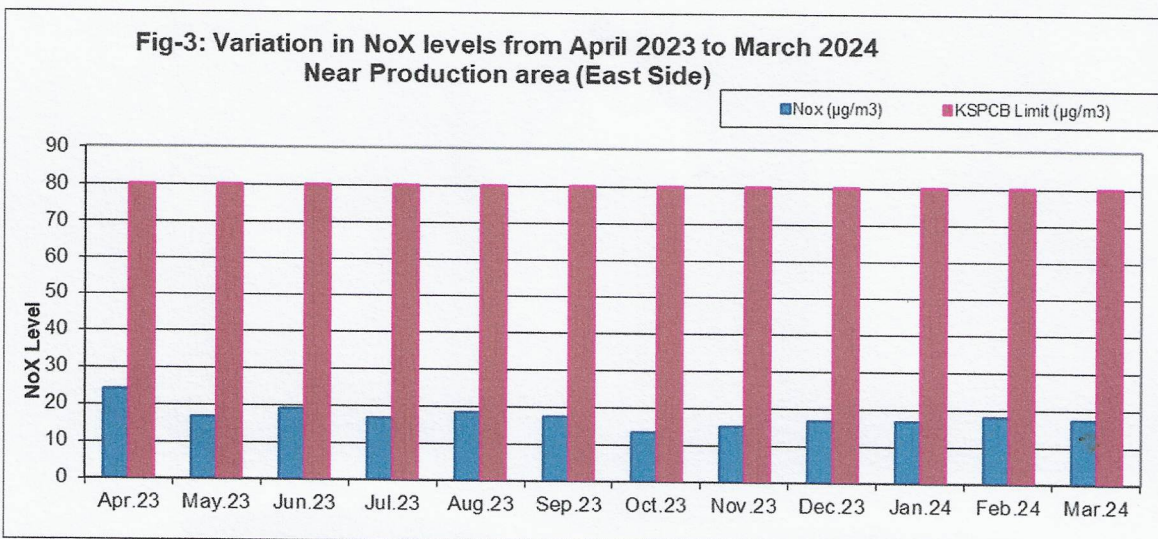
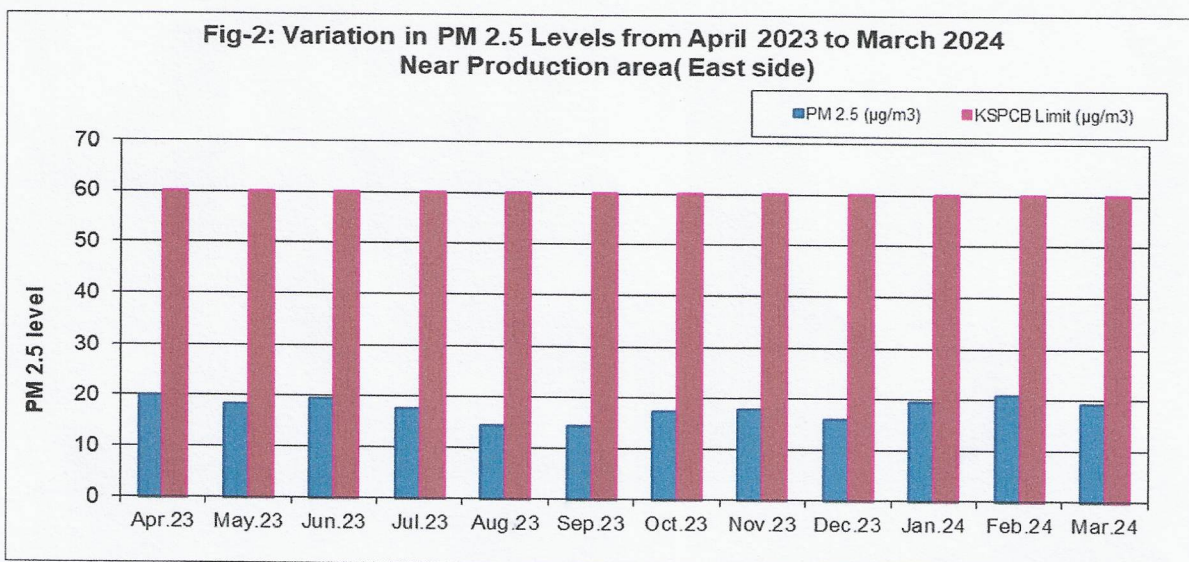
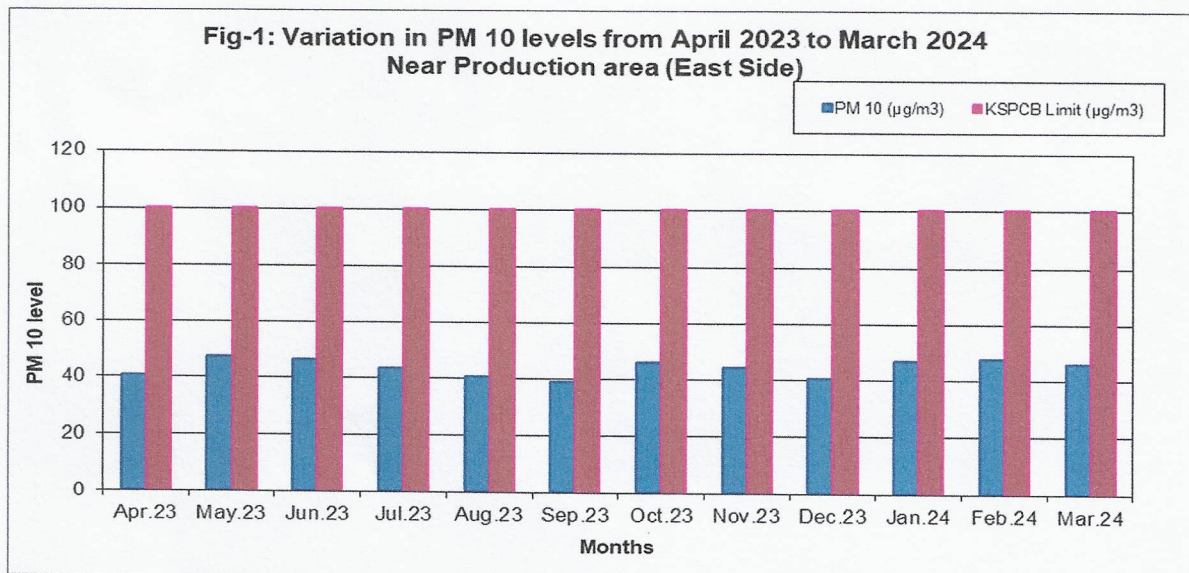


Sludge from Clariflocculator and Clarifiers:

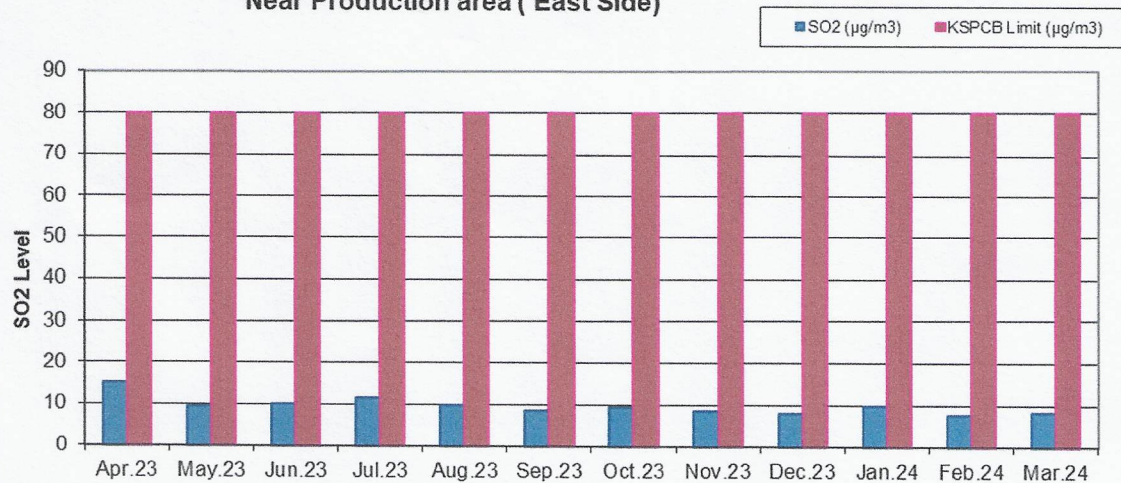


Annexure-2

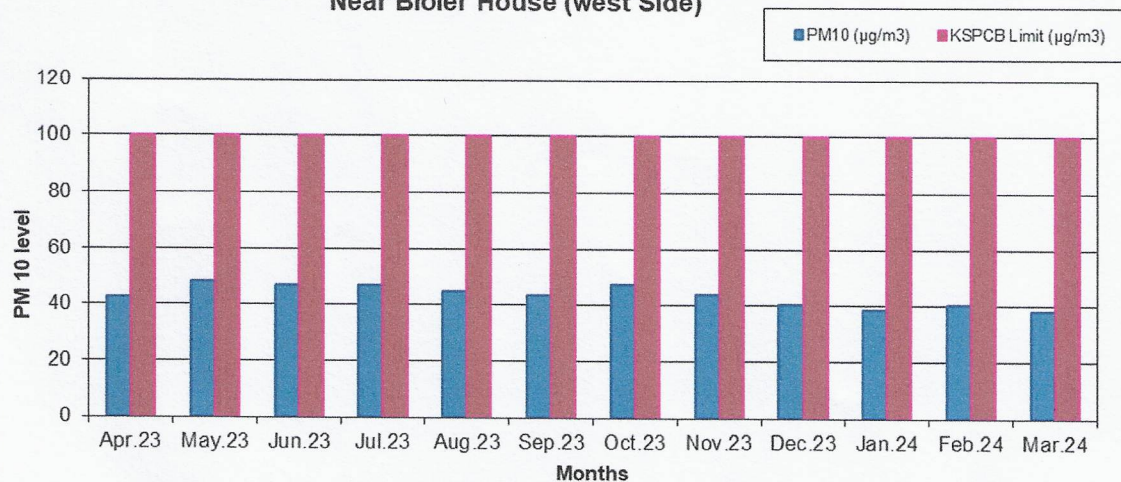
Statistical interpretation of Ambient air quality, stack emission results with standards stipulated



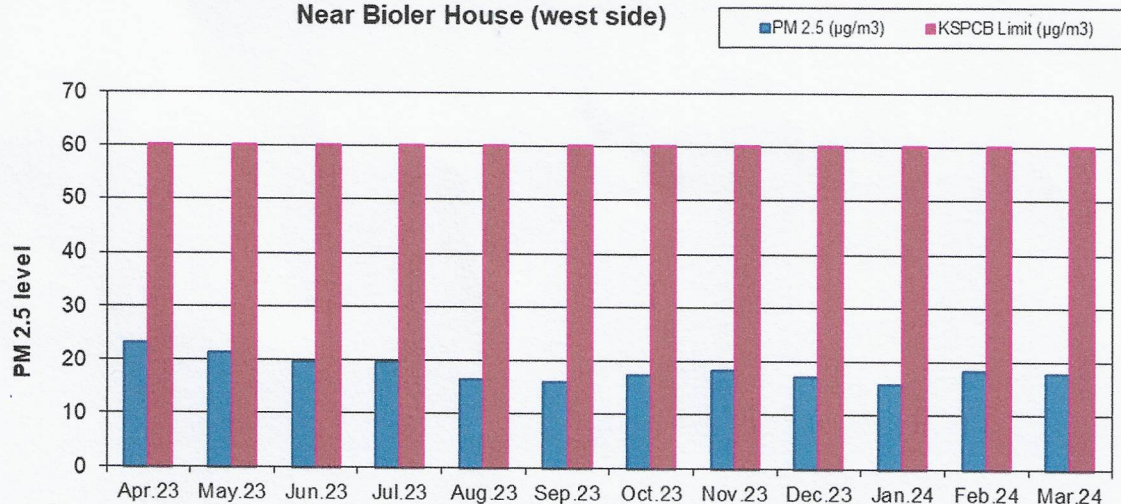
**Fig-4: Variation in SO₂ levels April 2023 to March 2024
Near Production area (East Side)**



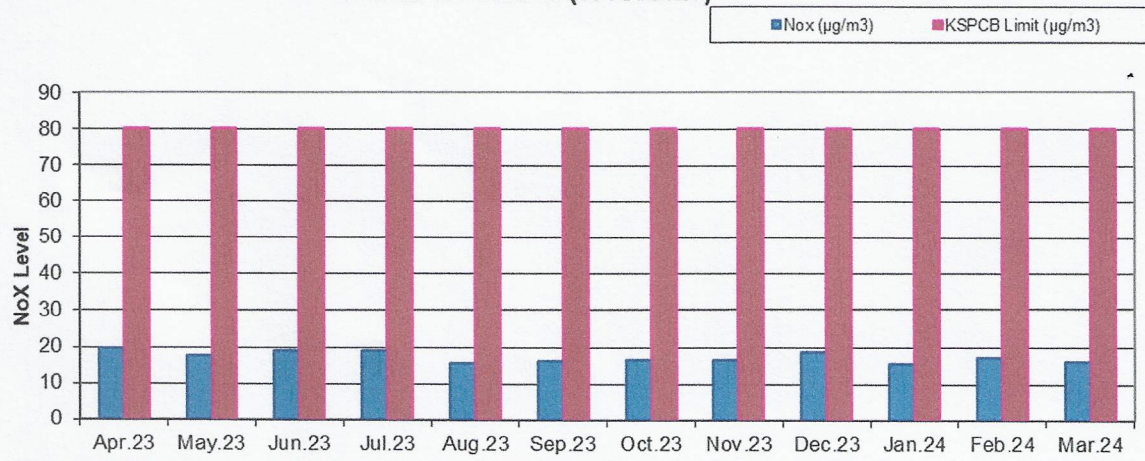
**Fig-1: Variation in PM 10 levels from April 2023 to March 2024
Near Bioler House (west Side)**



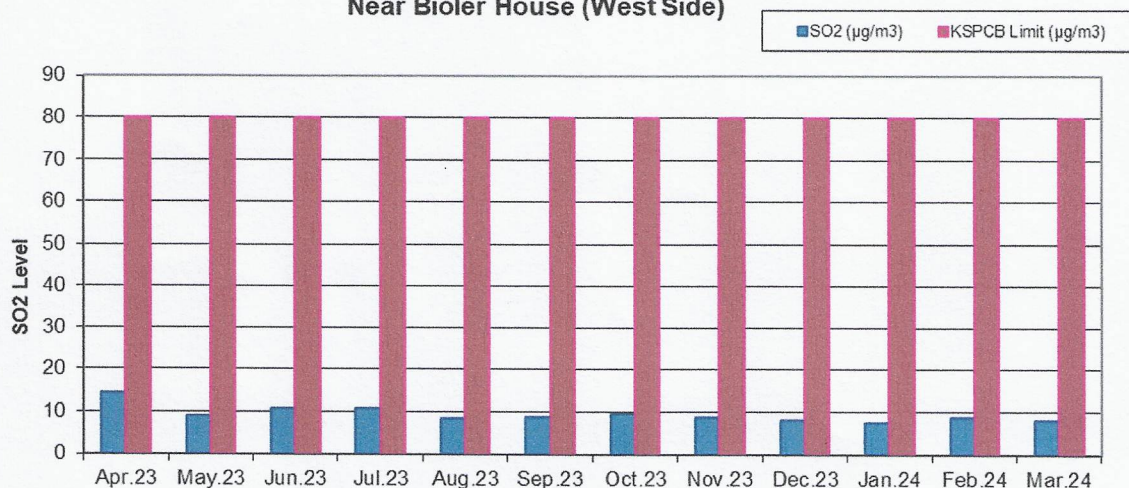
**Fig-2: Variation in PM 2.5 Levels from April 2023 to March 2024
Near Bioler House (west side)**



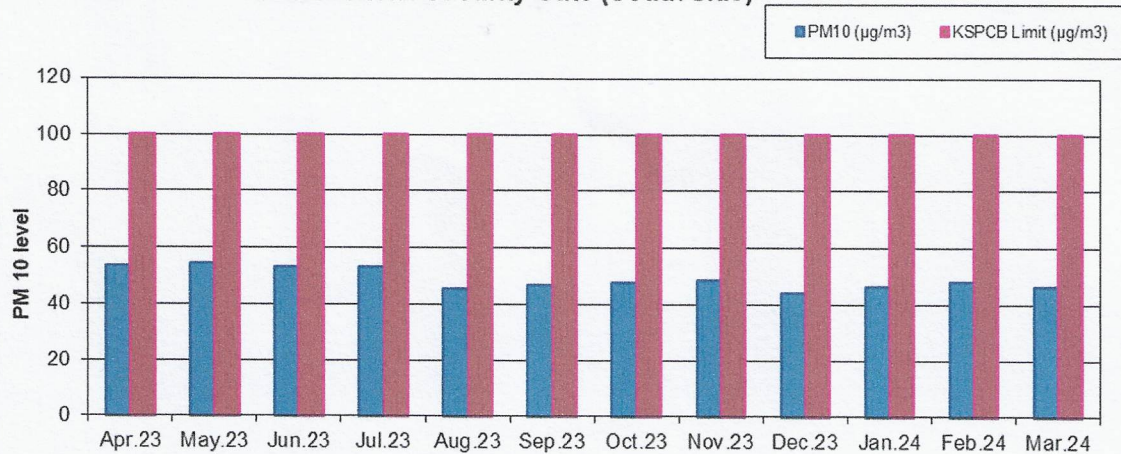
**Fig-3: Variation in NoX levels from April 2023 to March 2024
Near Bioler House (West Side)**



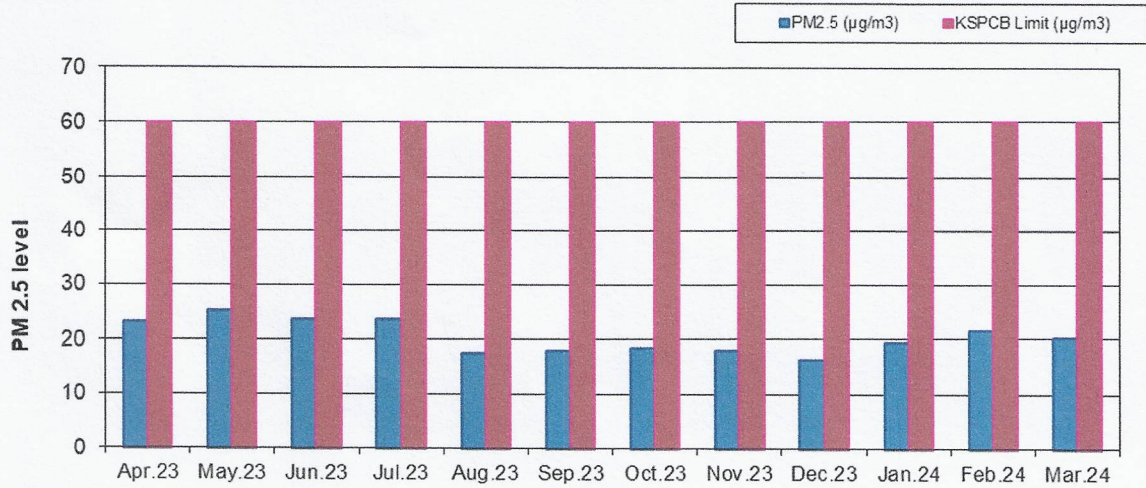
**Fig-4: Variation in SO2 levels from April 2023 to March 2024
Near Bioler House (West Side)**



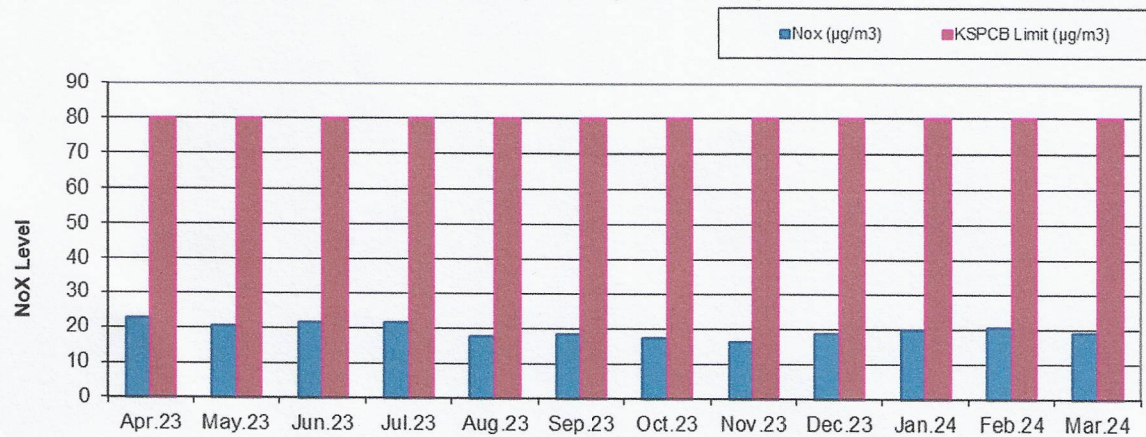
**Fig-1: Variation in PM 10 levels from April 2023 to March 2024
Near Materail Security Gate (South Side)**



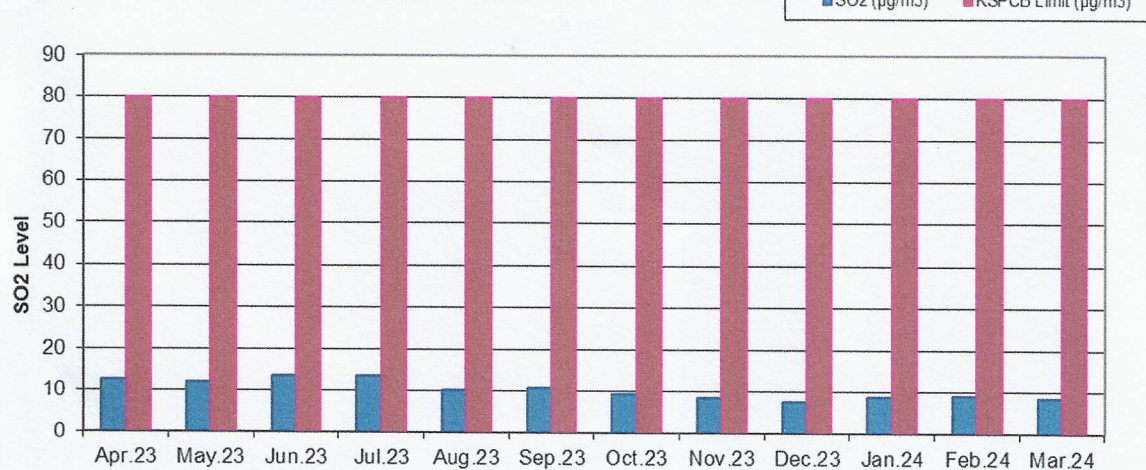
**Fig-2: Variation in PM 2.5 Levels from April 2023 to March 2024
Near Materail Security Gate (South side)**



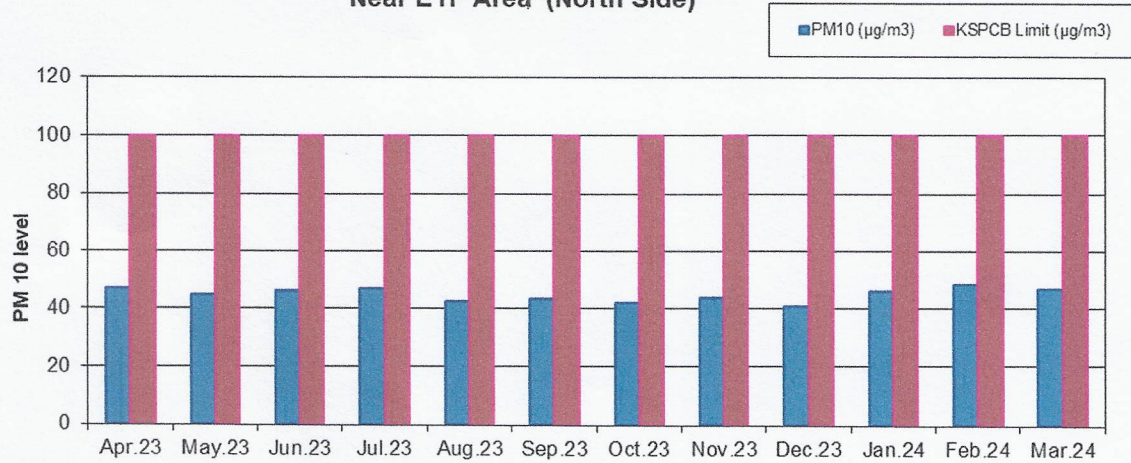
**Fig-3: Variation in NoX levels from April 2023 to March 2024
Near Materail Security Gate (South Side)**



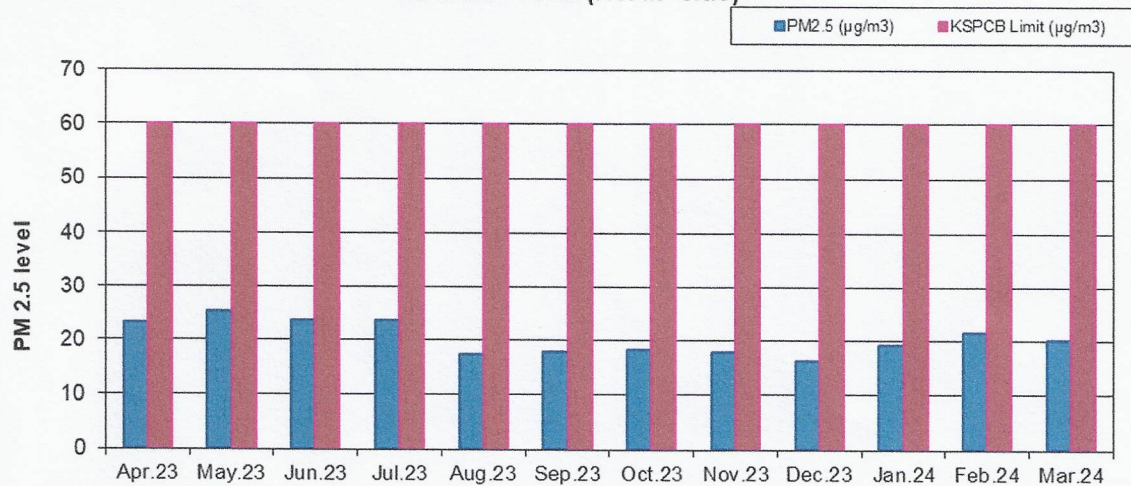
**Fig-4: Variation in SO2 levels from April 2023 to March 2024
Near Materail Security Gate (South Side)**



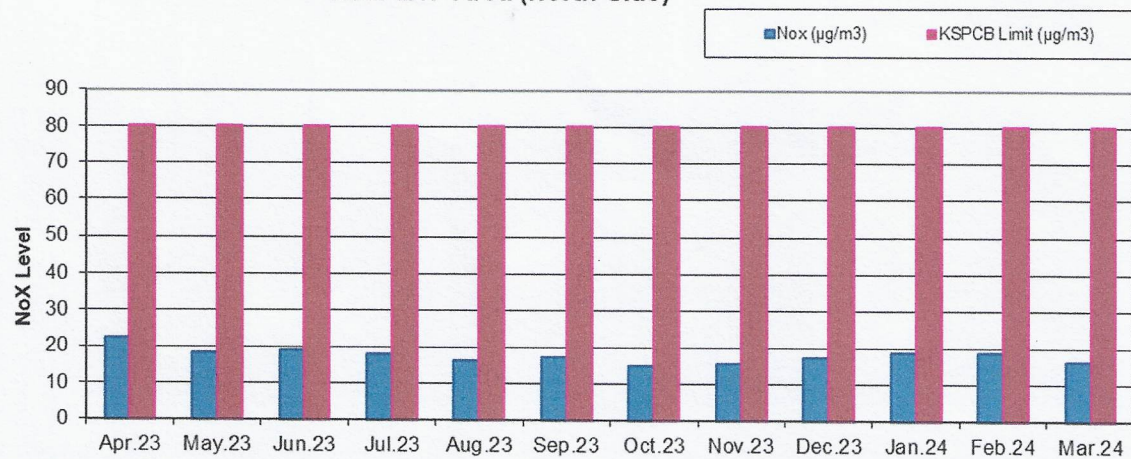
**Fig-1: Variation in PM 10 levels from April 2023 to March 2024
Near ETP Area (North Side)**



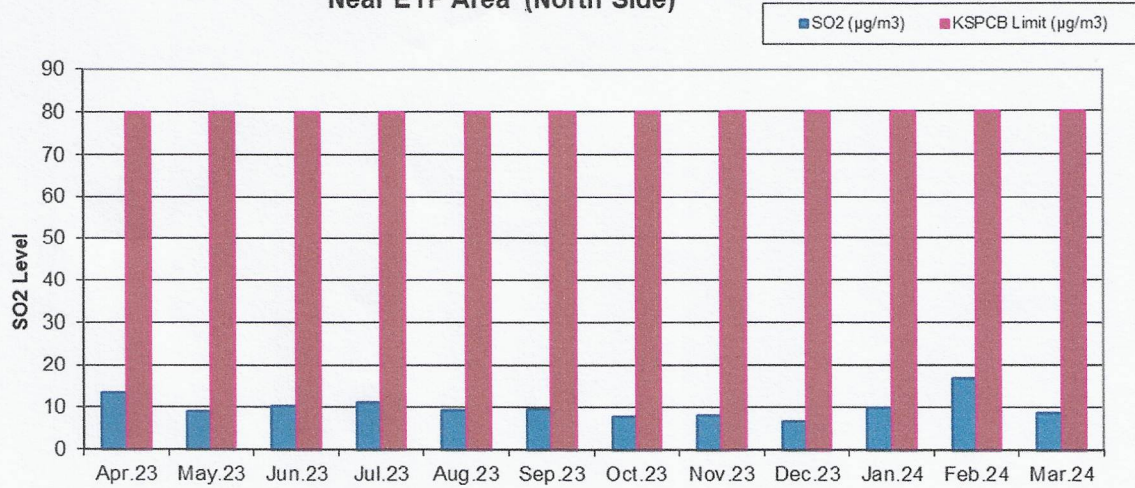
**Fig-2: Variation in PM 2.5 Levels from April 2023 to March 2024
Near ETP Area (North side)**



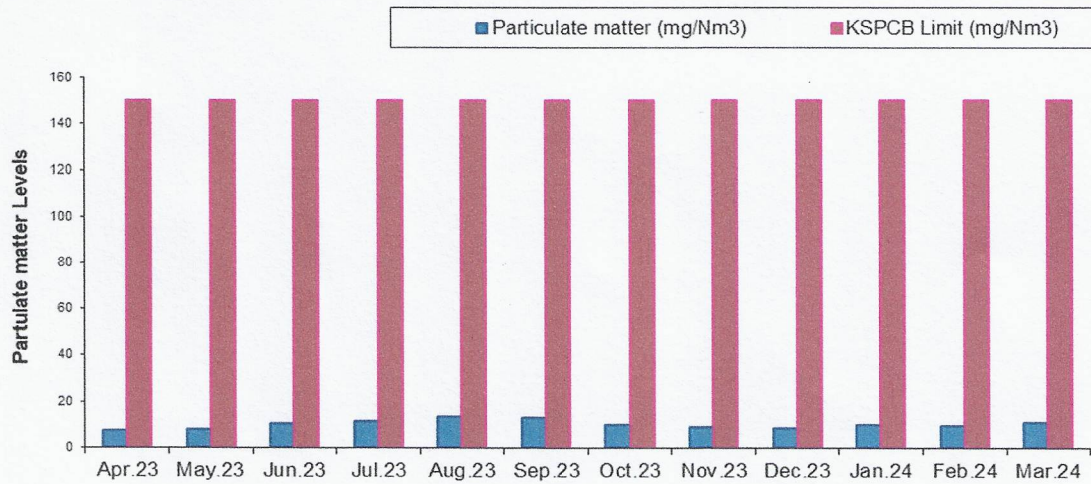
**Fig-3: Variation in NoX levels from April 2023 to March 2024
Near ETP Area (North Side)**



**Fig-4: Variation in SO₂ levels from April 2023 to March 2024
Near ETP Area (North Side)**



**Fig-01: Variation in emission of Particulate matter Levels of stack
attached to Boiler 1.5 TPH from April 2023 to March 2024**



**Fig-02: Variation in emission of SO₂ Levels of stack attached to Boiler 1.5
TPH from April 2023 to March 2024**

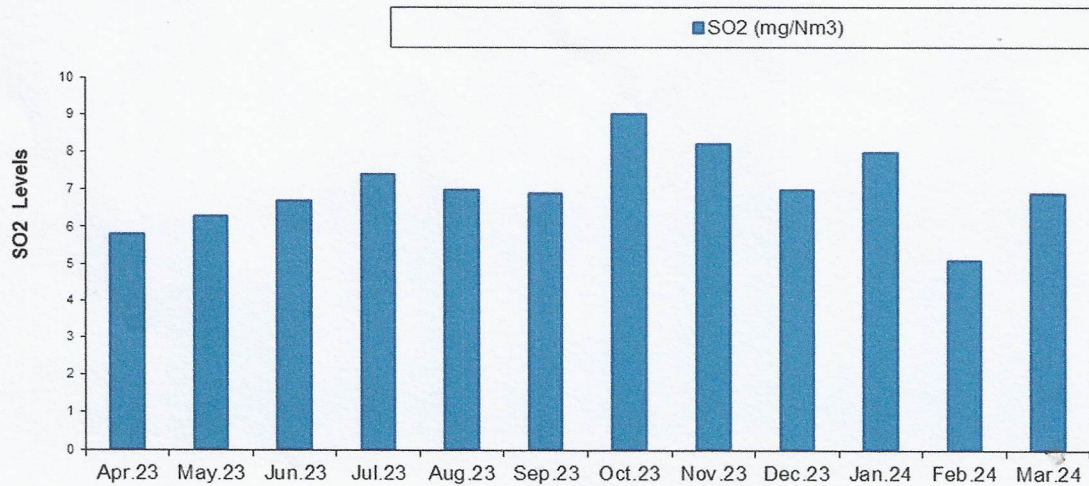


Fig-03: Variation in emission of NOx Levels of stack ttached to Boiler 1.5 TPH from April 2023 to March 2024

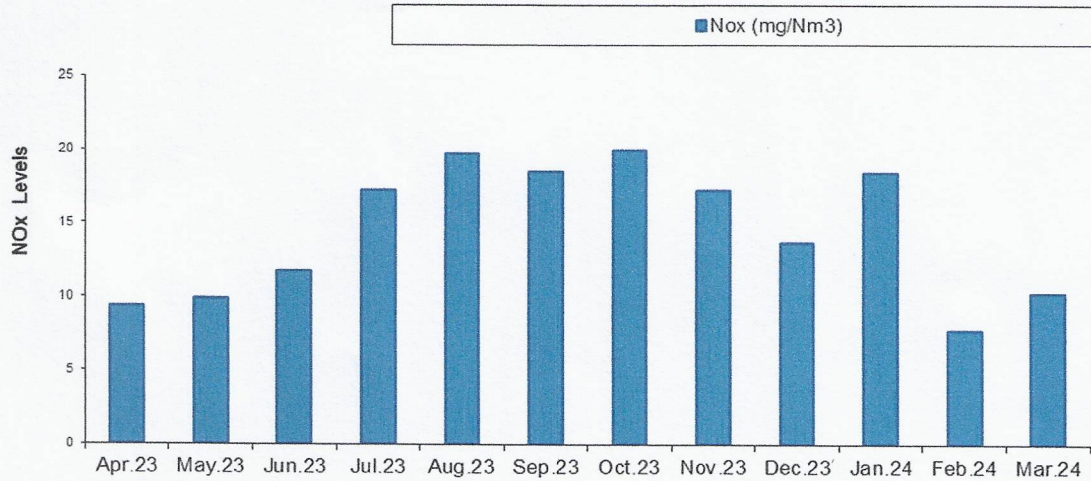


Fig-01: Variation in emission of Particulate matter Levels of stack attached to Boiler 2.0 TPH from April 2023 to March 2024

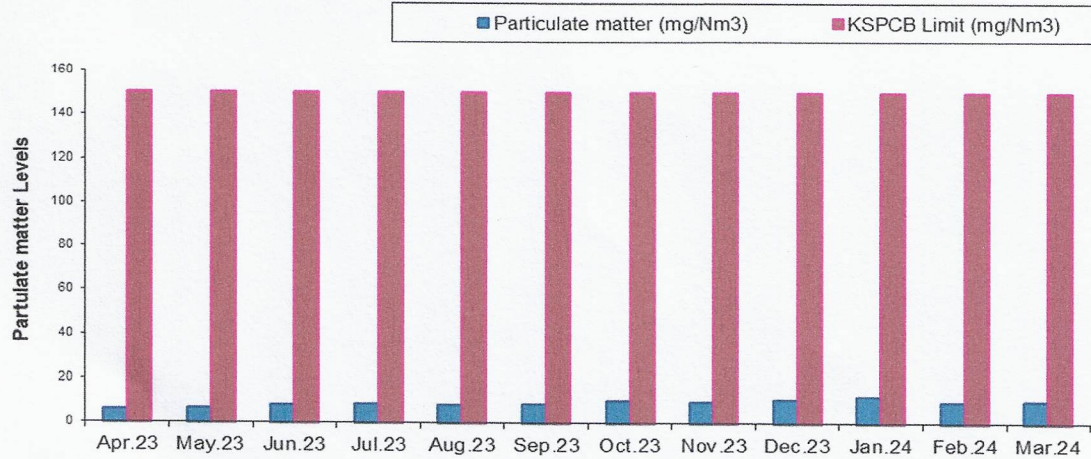


Fig-02: Variation in emission of SO2 Levels of stack ttached to Boiler 2.0 TPH from April 2023 to March 2024

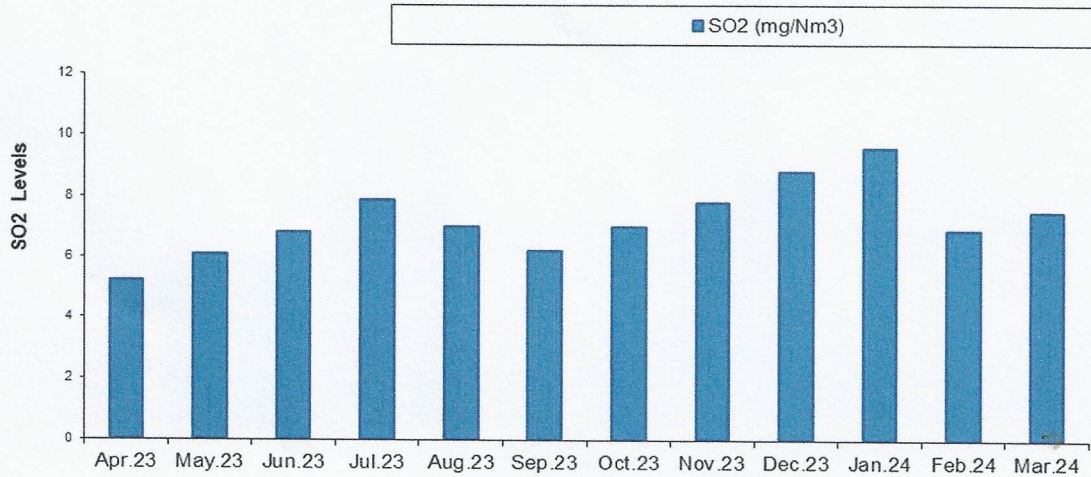


Fig-03: Variation in emission of NOx Levels of stack attached to Boiler 2.0 TPH from April 2023 to March 2024

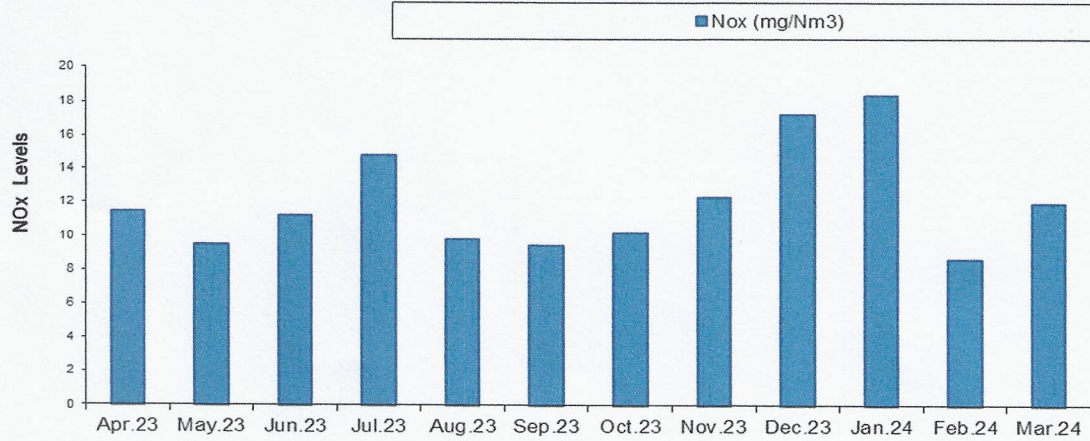


Fig-01: Variation in emission of Particulate matter Levels of stack attached to DG set (1500KVA) from April 2023 to March 2024

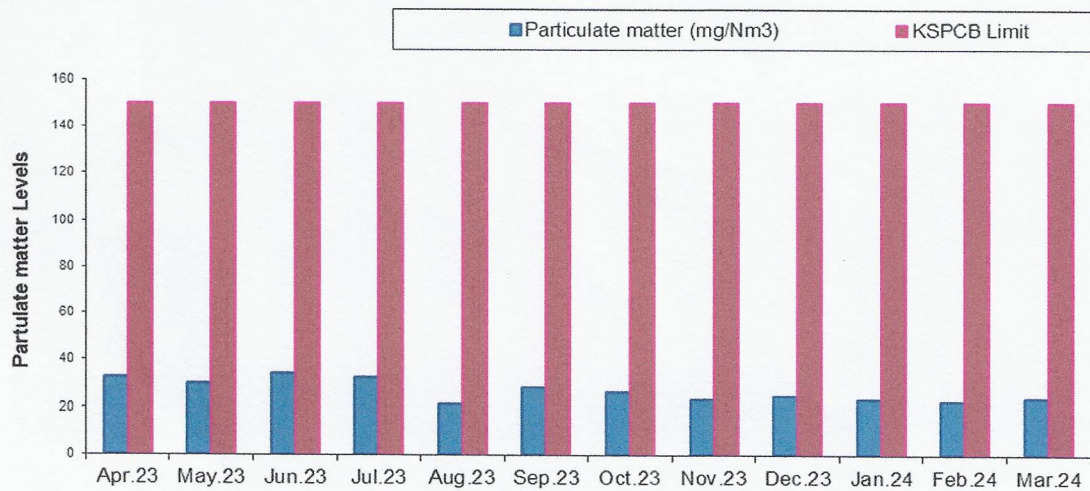


Fig-02: Variation in emission of SO2 Levels of stack attached to DG set (1500KVA) from April 2023 to March 2024

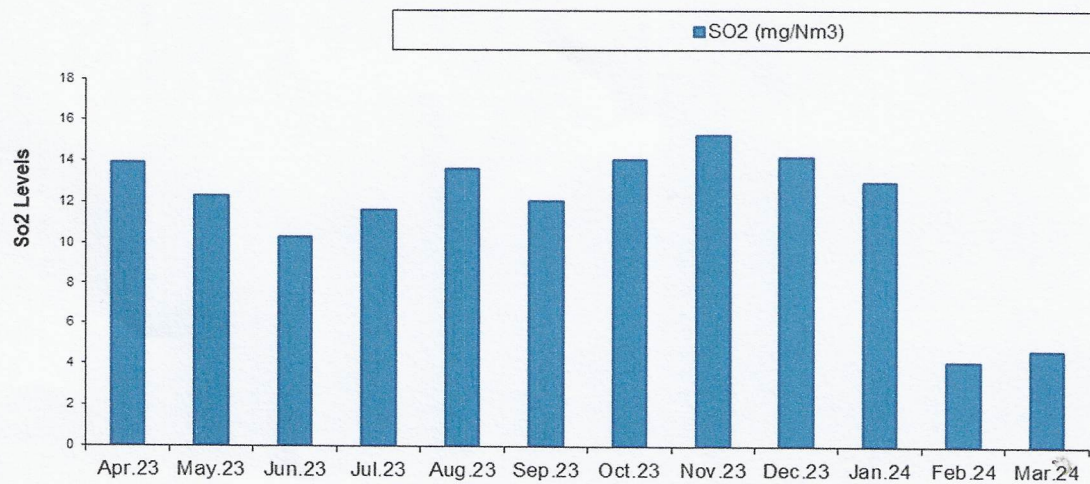


Fig-03: Variation in emission of Nox Levels of stack attached to DG set (1500KVA) from April 2023 to March 2024

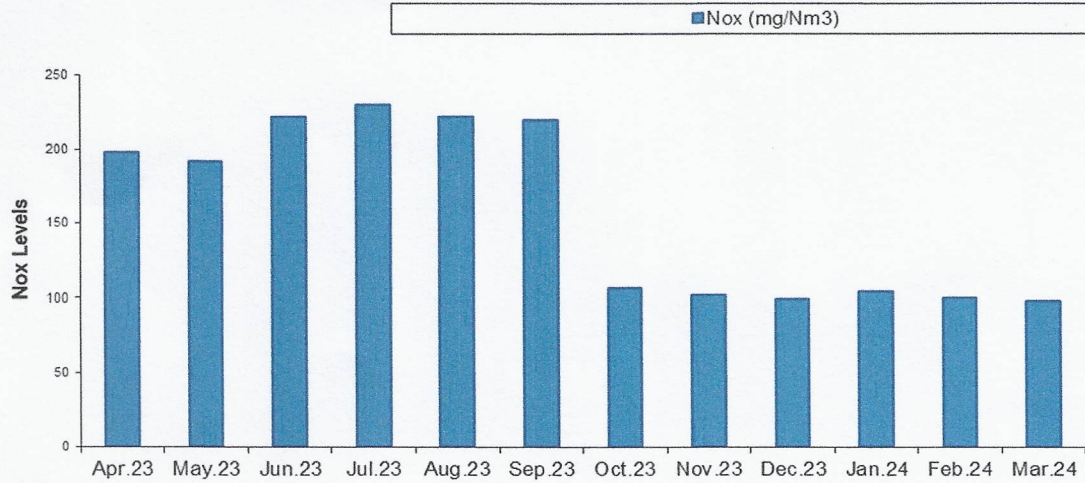


Fig-01: Variation in emission of Particulate matter Levels of stack attached to DG set (500KVA) from April 2023 to March 2024

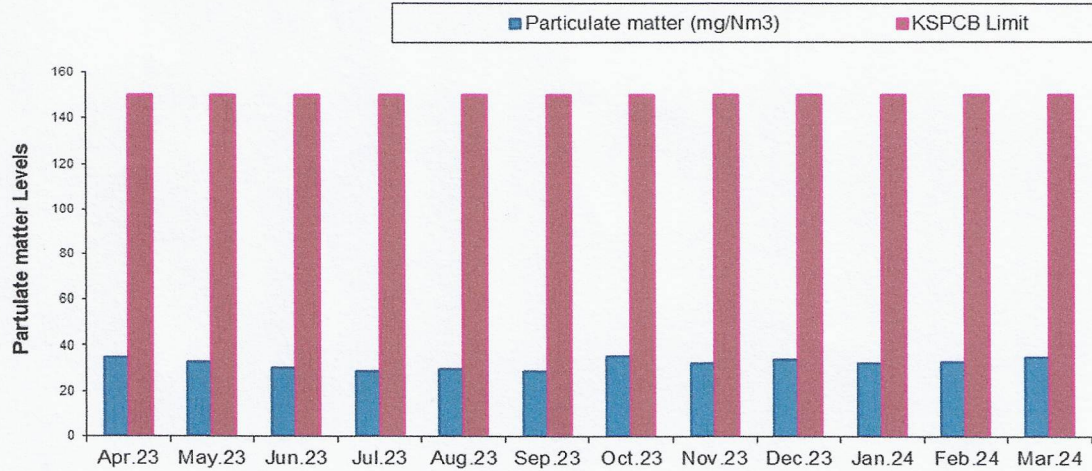


Fig-02: Variation in emission of SO2 Levels of stack attached to DG set (500KVA) from April 2023 to March 2024

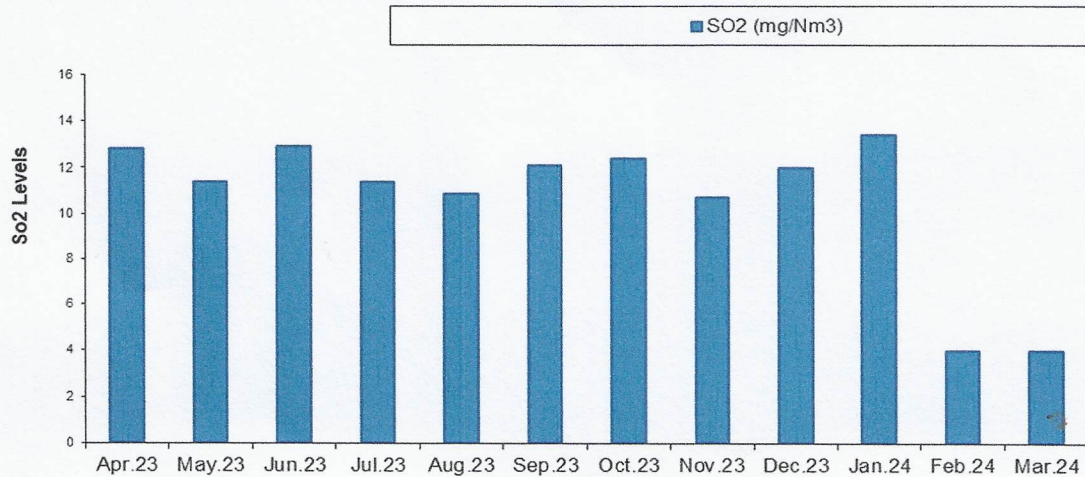


Fig-03: Variation in emission of Nox Levels of stack attached to DG set (500KVA) from April 2023 to March 2024

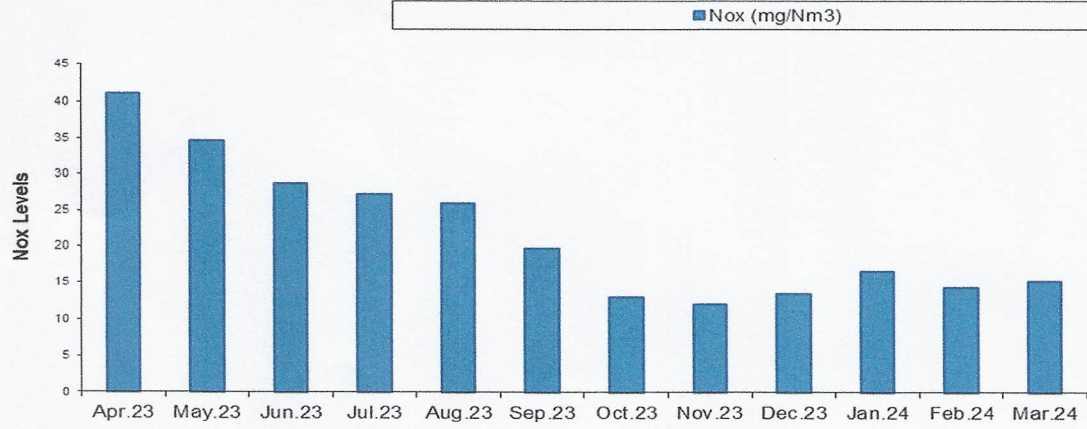


Fig-01: Variation in emission of Acid mist in stack attached to Scrubber 201 from April 2023 to March 2024

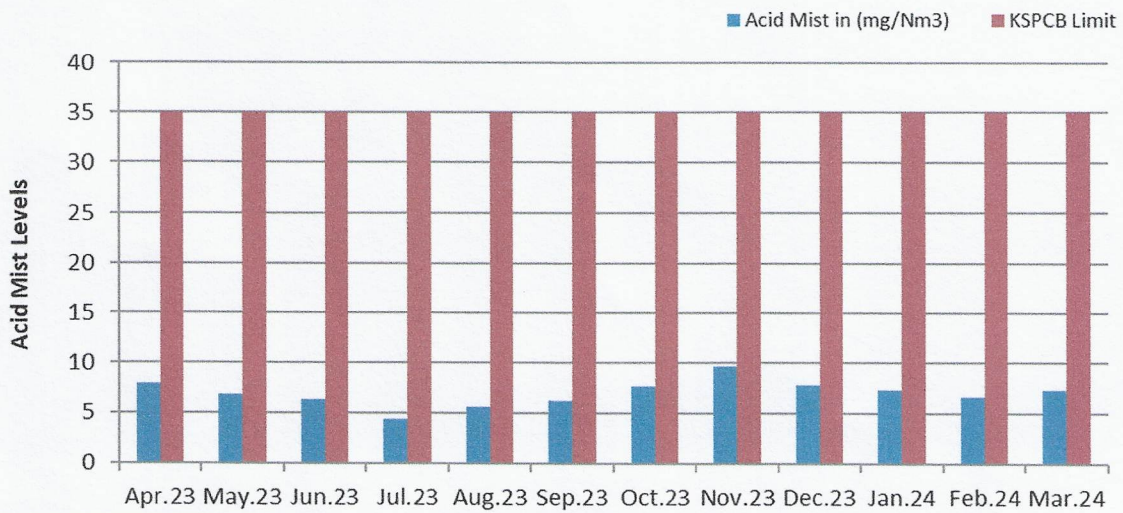


Fig-02: Variation in emission of Acid mist in stack attached to Scrubber (SCB-202) from April 2023 to March 2024

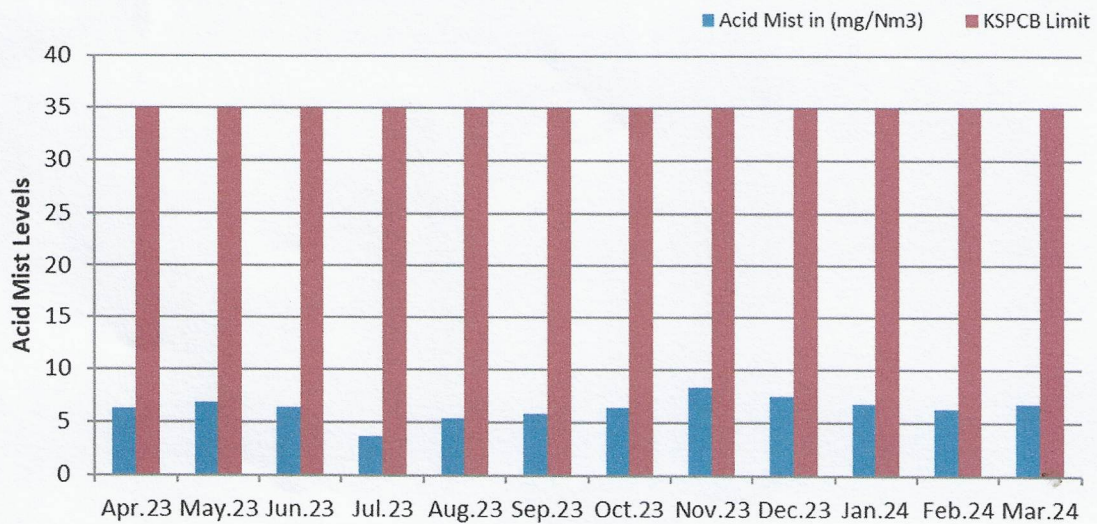


Fig-03: Variation in emission of Acid mist in stack attached to Scrubber (SCB-203) from April 2023 to March 2024

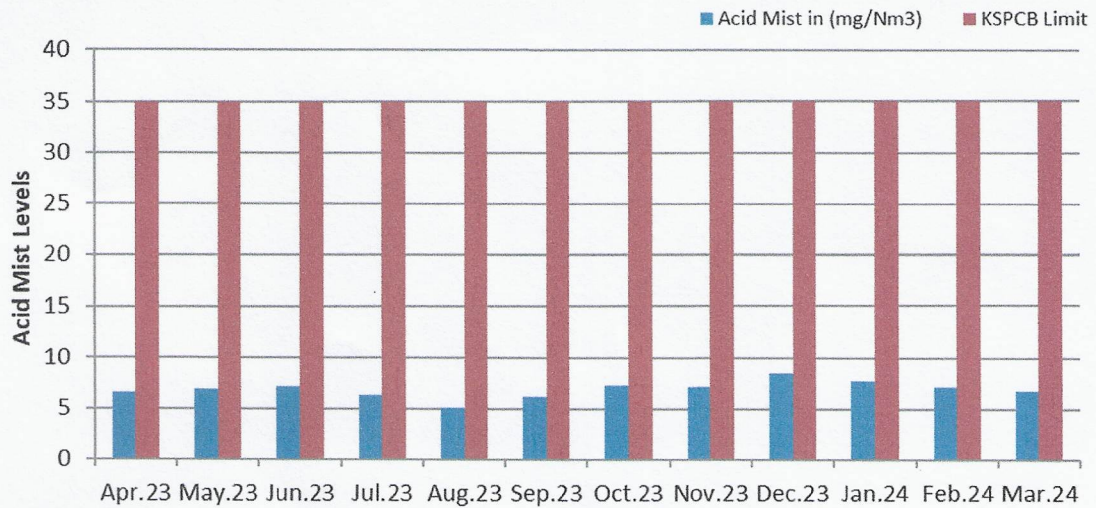


Fig-04: Variation in emission of Acid mist in stack attached to Scrubber (SCB-204) from April 2023 to March 2024

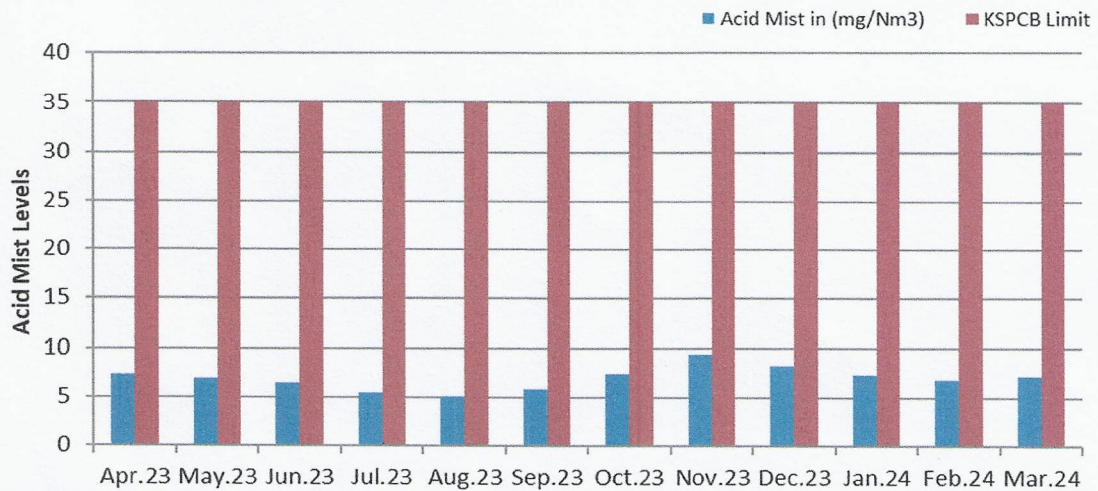
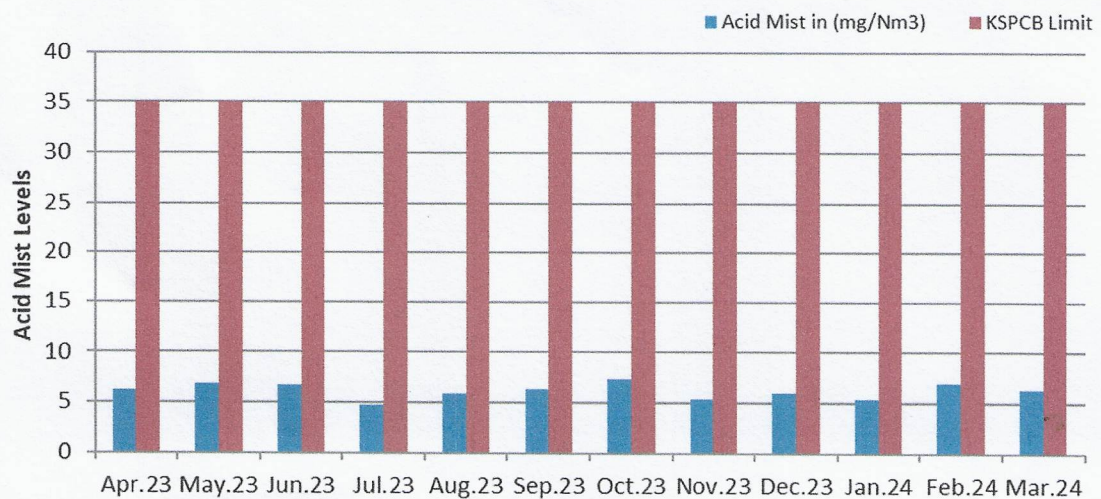
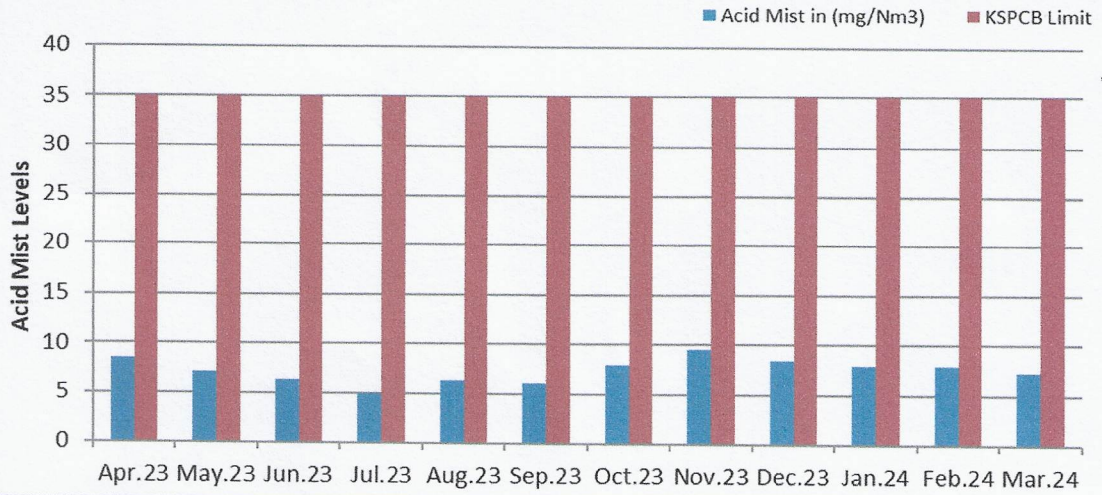


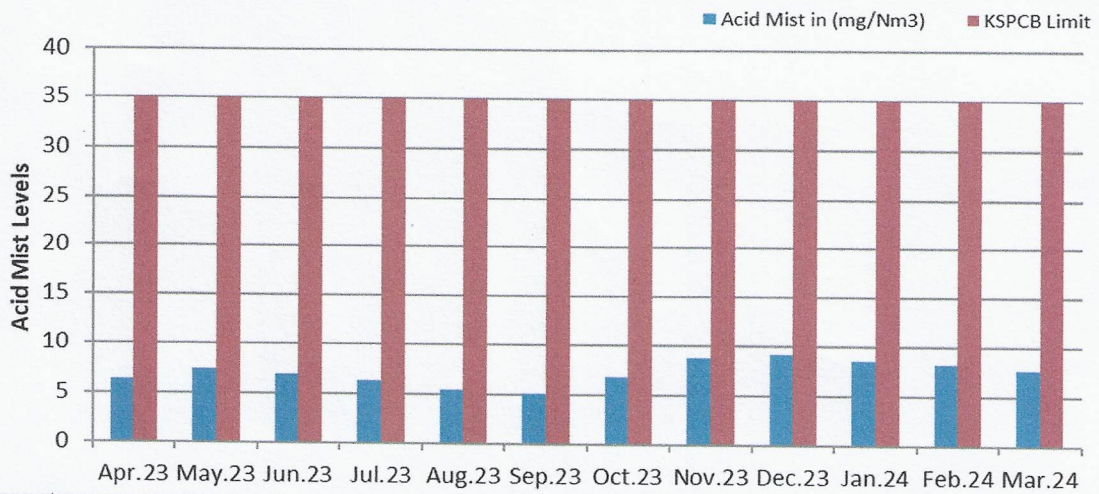
Fig-05: Variation in emission of Acid mist in stack attached to Scrubber (205) from April 2023 to March 2024



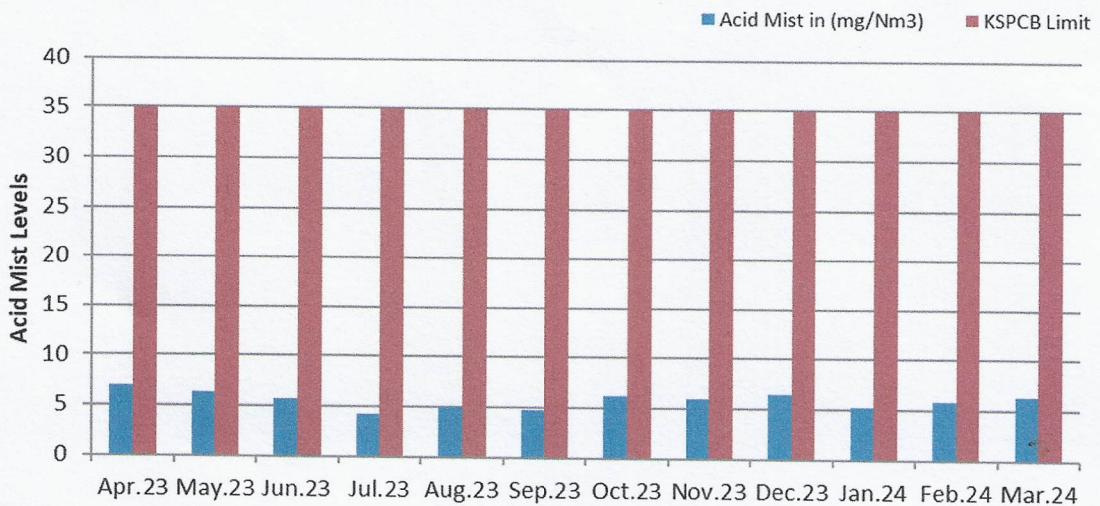
**Fig-06: Variation in emission of Acid mist in stack attached to Scrubber (206)
from April 2023 to March 2024**



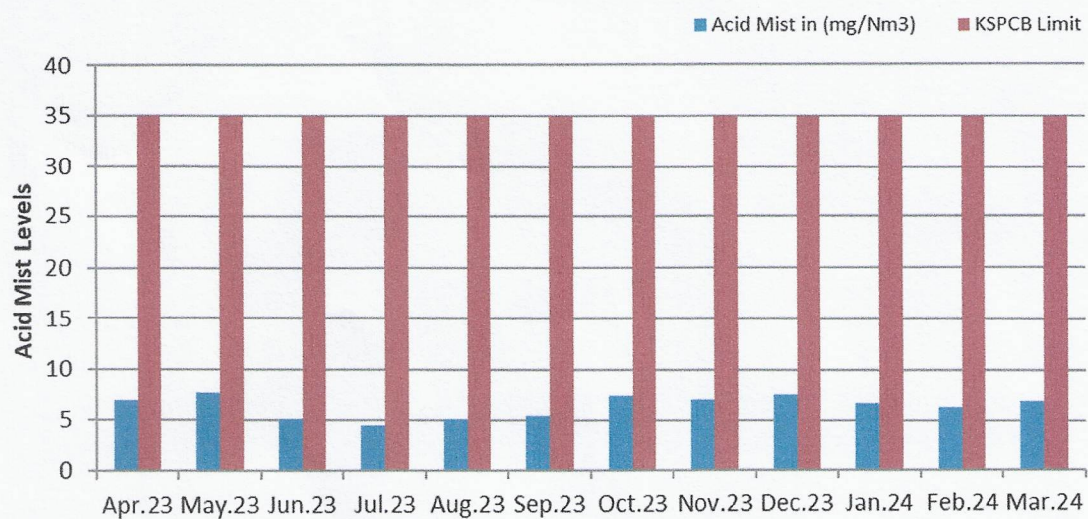
**Fig-07: Variation in emission of Acid mist in stack attached to Scrubber (207)
from April 2023 to March 2024**



**Fig-08: Variation in emission of Acid mist in stack attached to Scrubber (SCB-101)
from April 2023 to March 2024**



**Fig-09: Variation in emission of Acid mist in stack attached to Scrubber (SCB-17)
from April 2023 to March 2024**



Annexure-3
Water consumption Details

