

OK

HIKAL

To

27th September 2021

Member Secretary
Karnataka State Pollution Control Board,
Hazardous Waste Cell, Parisara Bhavan, 4th floor,
#49, Church Street,
Bangalore - 560 001

Dear Sir,

Sub: Submission of **Environmental Statement in Form-V** of M/s Hikal Limited, 28,
KIADB Industrial Area, Anekal Taluk, Bangalore.

Ref: Combined Consent No.: AW-325853 dated-26/07/2021 and E (Protection) Act 1986

With reference to the above subject, we are hereby submitting the "**Environmental Statement**" in **Form -V** for the year of **2020-2021** with required attachments enclosed the copy of the same for your reference.

Kindly acknowledge the same.

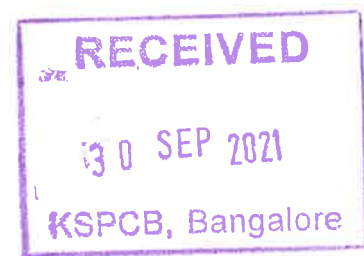
Thanking you,

Yours faithfully,

For **HIKAL LIMITED**



Dr. Ranganatha Rao.
Asst. Vice President.



Cc:

The Environmental Officer,
Karnataka State Pollution Control Board,
Regional Office (South)-Anekal."Nisarga Bhavan", Thimmaiah Main Road
7th 'D' Main, 3rd Stage, 2nd Block, Shivanagar, Basaveshwaranagar, Bangalore - 560 079

Hikal Ltd.

Factory Unit II : 28, KIADB Indl. Area, Jigani, Anekal Taluk, Bangalore - 560 105, India. Tel. : +91-8110-421000

Admin. Office : Great Eastern Chambers, 6th Floor, Sector,11, CBD Belapur, Navi Mumbai - 40Q 614, India. Tel. : +91-22-3097 3100 Fax : +91-22-2757 4277

Regd. Office : 717, Maker Chamber - 5, Nariman Point, Mumbai - 400 021, India. Tel. : +91-22-3926 7100, +91-22-6277 0477. Fax : +91-22-2283 3913

www.hikal.com info@hikal.com CIN : L24200MH1988PTC048028

FORM – V

ENVIRONMENT STATEMENT

April 2020 - March 2021

**M/s HIKAL LTD.,
No. 28, KIADB
JIGANI INDUSTRIAL AREA,
ANEKAL TALUK
BANGALORE – 560105**



FORM V

(Sec rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE
31ST MARCH 2021

PART A

i) NAME AND ADDRESS OF THE OCCUPIER:

MR. SAMEER HIREMATH
M/s HIKAL LTD,
No- 28, KIADB, JIGANI IND AREA
ANEKAL TALUK
BANGALORE – 560 105

ii) INDUSTRY CATEGORY : Red – Large

iii) PRODUCTION CAPACITY (Consented) : 72.45 TPA
Products Manufactured:

Sl. No.	Product Name	Quantity in MT
1	CF3 KETONE	0.683
2	OXYPENTIFYLLINE (PENTOXIFYLLINE)	2.650
3	QUETIAPINE	3.049
4	4-BENZYLOXY ANILINE HCl (PBA.HCl)	2.800
	Total	9.182

(iv) YEAR OF ESTABLISHMENT : December-2004

(v) DATE OF SUBMISSION OF
LAST ENVIRONMENTAL STATEMENT : 24th September-2020.

PART – B

WATER CONSUMPTION DETAILS

- (1) Water consumption Ltr/d
Process : 2000 LPD
Cooling and Boiler : 17000 LPD
Domestic : 980 LPD



Sl. No	Name of products	Process water consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
Annexure -1		Annexure -1	

(2) Raw material consumption:

Name of the Raw materials	Name of the Products	Consumption of raw material per unit of product	
		During the current financial year 2019-20	During the current financial year 2020-21
Annexure -2		Annexure -2	

PART C

Pollution discharged to environment/unit of output.

Pollution	Qty of pollutants Discharged (Mass/day) Kg/Day (Avg.)	Concentration of pollutants in discharges (mass/volume) mg/l (Avg.)	percentage of variation from prescribed standards with reason
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(a) Water:

Zero Discharge is maintained. Treated domestic water is being used in garden.

Annexure -3

(b) Air : Acid mist and SO₂

1) Process Scrubber- 0.03 kg/d 0.85 mg/m³ Nil
(CFO- 35 mg/Nm³)

(c) Ambient and Noise : Annexure-4

(AAQM monitoring, Noise, Stack & water monitoring compilation details has been attached)

PART - D

HAZARDOUS WASTES

Sl. No.	Description of waste	Total Quantity (kg)	
		During the current financial year 2019-20	During the current financial year 2020-21
A	From Process:	Please refer attached Annexure – 5	Pls. see the attached Annexure – 6
B	From pollution Control facilities:		



PART E
Solid waste

Sl. No.	Description of waste	Total Quantity (kg)	
		During the current financial year 2019-20	During the current financial year 2020-21
a	From Process:	Pls. see the attached Annexure – 5	Pls. see the attached Annexure – 6
b	From pollution Control facilities:		
c	i. Qty recycled or re-utilized within the unit	Nil	
	ii. Sold	6505	
	iii. Disposed	23954	

PART F

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

A focused approach to solid waste management is in place and waste is segregated at source

S. No	Type of waste & Sources	Physical & Chemical Characteristics	Mode of Treatment and Disposal adopted
1	5.1 Used Spent Oil	Liquid – Organic	Shall be collected in leak proof containers and handed over to authorized re-processors.
2	28.1 Process Residue and wastes	Solid – organic	Shall be stored in secured manner & handed over to authorized incinerator
3	28.2 Spent catalyst	Solid - Organic and Inorganic	Shall be stored in secured manner & handed over to authorized recycler/sent back to the supplier.
4	28.3 Spent carbon	Solid – organic	Shall be stored in secured manner & handed over to authorized incinerator
5	28.4 Off specification products	Solid/Liquid - Organic and Inorganic	Shall be stored in secured manner & handed over to authorized incinerator
6	28.5 Date-expired products	Solid/Liquid - Organic and Inorganic	Shall be stored in secured manner & handed over to authorized incinerator
7	28.6 Spent solvents	Liquid - Organic	Shall be stored in secured manner & handed over to authorized recycler.
8	33.1 Empty barrels/containers /liners contaminated with hazardous chemicals /wastes	Solid - MS/HDPE	Shall be stored in secured manner & handed over to authorized recycler.



9	33.2 Contaminated cotton rags or other cleaning materials	Solid – organic	Shall be stored in secured manner & handed over to authorized incinerator
10	34.1 Chemical-containing residue arising from decontamination.	Solid – organic	Shall be stored in secured manner & handed over to authorized incinerator
11	34.2 Sludge from treatment of wastewater arising out of cleaning / disposal of barrels/containers	Solid – organic	Shall be stored in secured manner & handed over to authorize TSDF.
12	35.3 Chemical Sludge from Wastewater Treatment	Solid – organic	Shall be stored in secured manner & handed over to authorize TSDF.
13	36.1 Any process or distillation residue	Solid/Liquid - Organic and Inorganic	Shall be stored in secured manner & handed over to authorize TSDF.
14	37.3 Concentration or evaporation residues	Solid - Inorganic	Shall be stored in secured manner & handed over to authorize TSDF.
15	B2020 Glass wastes in non-dispersible form	Solid - Inorganic	Shall be stored in secured manner & handed over to authorized actual user
16	B3050 Wood waste and scrap,	Solid – organic	Shall be stored in secured manner & handed over to authorized actual user
17	B4010 Wastes consisting mainly of water-based or latex paints, inks and hardened varnishes	Solid – organic	Shall be stored in secured manner & handed over to authorized actual user
18	B3020 Paper, paperboard and paper product wastes	Solid – organic	Shall be stored in secured manner & handed over to authorized actual user
19	DB1010 Metal and metal-alloy wastes	Solid - Inorganic	Shall be stored in secured manner & handed over to authorized actual user

PART G

Impact of the pollution abatement measures taken on conservational of natural resources and on the cost of production.

Following measures have been adopted for abatement of pollution, conservation of Natural resources:-

- LTDS and HTDS effluent stream are segregated at source and collected in separate storage tanks for holding & treated in ZLD Systems Effluent recycling systems comprising of Reverse osmosis plant, multiple effect evaporation and drying systems are installed in our unit to achieve Zero Liquid discharge to eliminate water pollution.
- For Boiler and thermic fluid heater Natural gas is used.
- VFD are fixed for conversing the energy.
- Developed the Konasandra village lake for conserving water and given life to flora and fauna the area nearby



- Natural gas is used as fuel to boilers.
- Low Sulphur diesel is used for DG set.

By installing the above systems and practices, we have totally avoided the effluent discharge and also the recovered water from effluent recycling plant is reused in our cooling towers as make up water which has resulted in conservation of natural resources i.e. fresh raw water intake to cooling tower make up is avoided.

Effluent Treatment Plant (ETP) will consist of the following

I. For High TDS Effluent streams

- Collection Tank with pumps for High TDS effluents from RO Reject stream and HTDS stream.
- Reactor with Agitator for High TDS Effluent neutralization act as feed to MEE
- MEE Feed Tank with pumps for treated High TDS effluents
- HTDS effluent evaporated in MEE plant.
- MEE concentration dried in ATFD system.

II. For Low TDS Effluent Streams

- Effluent Collection tank with transfer pump
- Neutralization Tanks with Agitators and dosing tanks with gravity flow
- Anaerobic tank with gravity flow
- First Stage aeration tank with diffused aeration system and effluent transfer pumps
- Second Stage Aeration Tank with diffused aeration system and effluent transfer pumps
- Sludge Holding Tank with diffused aeration system and effluent transfer pumps and filter press feed pumps
- Filter Press for Sludge De-watering
- Polishing Tank with filter feed pumps
- Pressure Sand Filter
- Activated Carbon Filter
- Treated Holding Tank with treated effluent transfer pumps
- RO plant 1st and 2 stage.
- RO Permeate Holding Tank with RO Permeate Transfer Pumps

HIGH TDS EFFLUENTS:

Approximately 20 m³ capacity (High TDS Collection Tank) for holding RO rejects and HTDS from process. Pumps are provided for pumping to Reactor for neutralization after neutralization HTDS effluent feed to the MEE System and partially dried salt is collected in bags.



LOW TDS EFFLUENTS: Batch System

ETP Primary Treatment

Floating material will be removed manually. The clear effluent is directed to the Equalization cum Neutralization tanks in batch wise. Operation is by fill and draw method. Tank in which agitator is provided for proper mixing. Dosing tanks are provided for HCl and Caustic addition based on pH of incoming effluent.

After neutralization effluent coagulants/flocculants will be added and then it will be allowed to settle in the same tank for solid-liquid separation. Solids settle at the bottom of the tank, which will be pumped to Sludge holding tank. The equalized / neutralized clarifier overflow shall be directed to anaerobic tank.

ETP Biological Treatment (Secondary Treatment)

After neutralization effluent will be directed to Aeration tank -1. Diffused Aerators are provided in aeration tanks to provide oxygen to the aerobic bacteria. The microbial culture developed in the Aeration tank is of semi solid nature and is normally known as Mixed Liquor Suspended Solids (MLSS), having a concentration in the range of 3,500 to 4,500 mg/lit. The Aeration Tank and the oxygenation system sized on the efficiency of BOD removal so that the sludge to be wasted will be less compared to conventional system and shall be non-putrescible. Domestic sewage will be pumped to the aeration tank. Then Aeration effluent is allowed to settle and clear top liquid is pumped to Aeration tank-2 again aeration is provided to wastewater for 4-5 hrs and allowed to settled for 1- 2 hrs, biomass settles and is partly recycled to the aeration tank -1 in order to maintain the required concentration of MLSS. The excess sludge shall be directed to Sludge Holding Tank and dewatering shall be done by Filter Press.

ETP Tertiary Treatment

The supernatant clear liquid taken into treated water tank holding tank. Then treated water is pumped through feed pumps to Pressure Sand Filter and Activated Carbon Filter for further reduction of the suspended solids. The filtrate from these filters is collected in the Treated Holding Tank. Backwash from the filters and filtrate from the filter press is directed to sludge tank. Treated effluent shall be pumped to the RO system. Permeate from RO System is collected in a RO Permeate Holding Tank and RO Permeate Transfer Pumps are provided for transfer

III. SEWAGE TREATMENT PLANT Batch System

Sewage Treatment Plant which comprises of:

- Collection cum equalisation Tank
- Aerator blower with Aeration Tanks
- Pre filtration tank
- Pressure Sand Filter and
- Activated Carbon Filter
- Chlorine Dosing Tank
- Final treated holding Tank.

The capacity of sewage treatment plant is 5 KL per day. The sewage is being collected in raw sewage tank where blowing is being done for homogenization of raw sewage water. Then this



homogenized sewage water comes to Aeration tank (SBR) for sufficient aeration of sewage and then aerated sewage is allowed settle for MLSS. After this supernatant water collected in intermediate holding tank called pre filtration tank and sludge settled at the bottom of SBR is transferred to dewatering system in case excess. Now the water from the intermediate tank is passed through pressure sand filter and then activated carbon filter and ultimately collected in the final holding tank. The treated water is being reused in green belt development & STP sludge is being used as manure for Green Belt Development.

- IV. Recycling of steam condensate from header lines to boiler.
- V. Adequate stack height for all emission's so that ground level concentrations are well within the permissible limit.
- VI. Surface run off water is being collected in a separate 30 KL tank and reused after filtration in garden.
- VII. Roof rainwater is being collected and used for gardening.
- VIII. All hazardous wastes that are generated are stored separately and sold to only those Vendors registered with KSPCB as Recyclers and having Consents/Authorization from State Pollution Control Boards.
- IX. Online Continuous Emission Monitoring System for STP outlet station have been installed. Monitoring data being transmitted to CPCB/KSPCB server and
- X. Online monitoring system comprising digital flow meter to measure the quantity of trade effluent recycled and PTZ camera for monitoring the operation of same and data being transmitted to CPCB/KSPCB server.

PART H

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

Additional measures being taken for prevention of Pollution are as follows:

1. Scheduled maintenance and monitoring of all Air Pollution Control Device's (APCD's) being regularly undertaken to ensure their efficient operations in order to keep emissions level within the prescribed limit.
2. The STP treated water is being reused in green belt development and & STP sludge is being used as manure for Green Belt Development.
3. Awareness programs like plantation activities, Slogan competition, Speech competition was organized for employees for awareness on environment protection/ water conservation on 5th June -2021(World Environment Day).
4. We continuing to spread awareness among all employees on conservation practices.



5. Slogans on Safety and Pollution control, environmental protection, tree plantation and energy conservation to be displayed in prominent location.
6. Effluents collection will be made above ground tank.
7. Process optimisation is followed to reduce our energy and water consumption.
8. Recycling of Treated water in boilers.
9. Increasing of steam condensate recovery purpose and reduction of effluent generation invested around 1.50 lakhs
10. Hydro Jet cleaning of MEE plant to improve efficiency of the plant - 0.38 Lakhs.

PART I

Any other particulars for improving the quality of the environment.

1. Green belt is maintained and planned to continuously improve the greenery in the plant.
2. Around 400 number of saplings has been planted nearby Konasandra Lake area and another 100 number of sapling plantation is planned for this financial year 2021-2022
3. We carry out environmental quality monitoring for process stack emissions & ambient air quality once in a month and reports are being submitted monthly.
4. We are ensuring segregation at source.
5. We have continuously ensured that reduce, reuse and recycle and dispose the waste responsibly.
6. Wherever possible water and electricity consumption reduction measures will be adopted.
7. Every effort is made to reduce the generation of effluent/emission/wastes at the source itself and to explore the possibility of reusing/recycling of the wastes that are generated
8. Hikal Limited has been certified to ISO-14001 -2015 and ISO-45001 2018.



Annexure-1

Process Water Consumption per unit of product output

Sl. No.	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
1	CF3 KETONE	-	2.75
2	OXYPENTIFYLLINE (PENTOXIFYLLINE)	0.56	0.56
3	QUETIAPINE	-	9.1
4	4-BENZYLOXY ANILINE HCl (PBA.HCl)	-	12.4



Annexure-2

Consumption of Raw Materials per unit of the product

Name of the Raw materials	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
DMF	Oxypentifylline	2.67	2.67
Theo bromine		0.83	0.83
K ₂ CO ₃		0.51	0.51
Chlorohexanone		0.71	0.71
Methanol		6.1	6.1
Carbon		0.052	0.052
Hyflo supercell		0.028	0.028

Name of the Raw materials	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
QTP-2	QUETIAPINE	-	0.81
N,N Dimethyl aniline		-	0.26
POCL ₃		-	0.66
Toluene		-	9.03
NaHCO ₃		-	0.01
NaCL		-	1.22
Water		-	14.77
Piperzine anhydrous		-	1.08
IPA HCl		-	0.68
Acetone		-	1.27
Sodium Sulphate		-	0.08
Hyflow		-	0.04
Water		-	9.12
NaHCO ₃		-	8.60

Name of the Raw materials	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
Piperidine	CF ₃ KETONE STAGE-I	-	0.52
Ethyl Trifluoro Acetate (ETFA)		-	1.04



Name of the Raw materials	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
CF Ketone Stage-I	CF3KETONE STAGE-II	-	1.37
THF		-	0.98
Ary Bromide		-	1.37
Magnesium turnings		-	0.17
Hydrochoric acid		-	0.89
Water		-	2.75
Toluene		-	4.12

Name of the Raw materials	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
Crude CF Ketone Stage-2	CF3KETONE STAGE-III	-	1.44

Name of the Raw materials	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
P nitro Phenol sodium salt	PBA HCl STAGE -I	-	0.83
DMF		-	0.49
Catalyst A		-	0.02
Benzyl Chloride		-	0.80
Water		-	9.35
Caustic Soda		-	0.37

Name of the Raw materials	Name of the Product	Process Water Consumption per unit of product output	
		During the current financial year 2019-20	During the current financial year 2020-21
PBNB	PBA HCl STAGE -II	-	1.02
Ferric chloride		-	0.06
Activated Carbon		-	0.10
Toluene		-	3.59
Hydrazine Hydrate		-	0.82
Hyflo supercel		-	0.04
HCL in IPA		-	0.82
Iso Propyl alcohol		-	0.64
Water		-	3.07



Annexure -3
STP Treated water

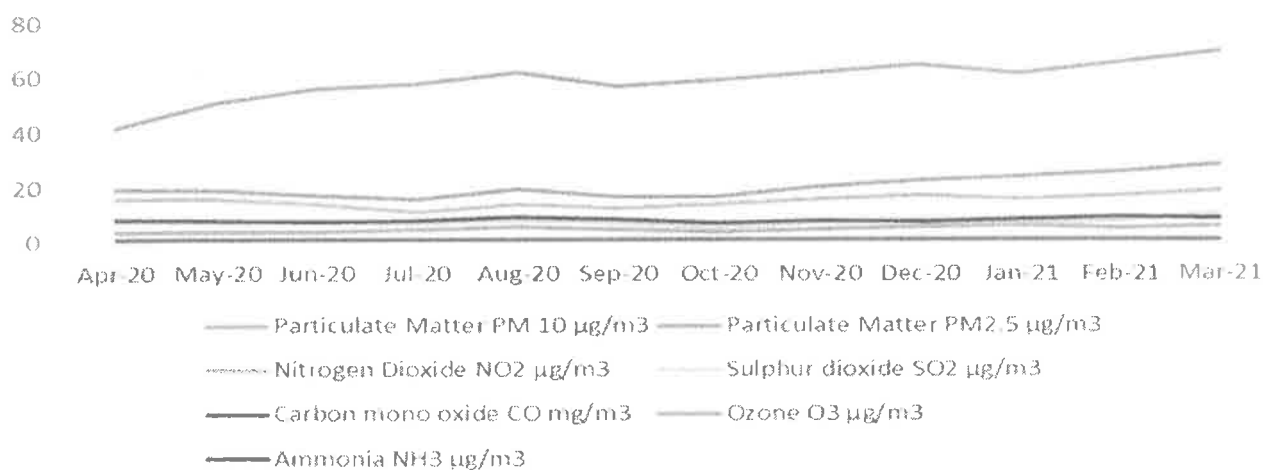
Parameter/ Month	pH	Total Suspended Solids, mg/L	Total dissolved Solids, mg/L	Chemical Oxygen Demand, mg/L	Bio chemical oxygen demand (3 days @ 27°C)	Total Nitrogen mg/L	Ammoniacal Nitrogen, mg/L	Fecal Coliform /100ml
Apr-20	7.5	8.0	156.0	31.7	5.7	3.9	2.7	12 cfu
May-20	7.0	8.0	542.0	23.9	4.8	6.2	3.8	10 cfu
Jun-20	7.7	6.0	416.0	15.7	3.6	5.4	3.1	7 cfu
Jul-20	7.95	6.0	422.0	23.9	3.9	3.3	4.9	11 cfu
Aug-20	6.6	12.0	792.0	46.3	5.4	3.7	5.4	10 cfu
Sep-20	7.6	10.0	33.0	23.2	5.7	3.8	5.8	18 cfu
Oct-20	7.1	12.0	326.0	39.5	5.4	3.6	6.9	22 cfu
Nov-20	7.3	18.0	570.0	31.3	6.9	4.0	7.1	21 cfu
Dec-20	7.2	6.0	464.0	15.85	3.0	2.7	6.1	17 cfu
Jan-21	7.2	16.0	344.0	25.6	6.8	2.9	7.4	22 cfu
Feb-21	7.5	12.4	406.0	34.8	7.0	3.5	7.2	24 cfu
Mar-21	7.4	5.0	434.0	33.0	7.3	3.2	6.5	18 cfu
Limits (KSPCB)	6.5 – 9.0	Max 20	-	50	Max 10	10	5	<100.0



Annexure -4
Ambient Air Quality Results for the year 2020-2021

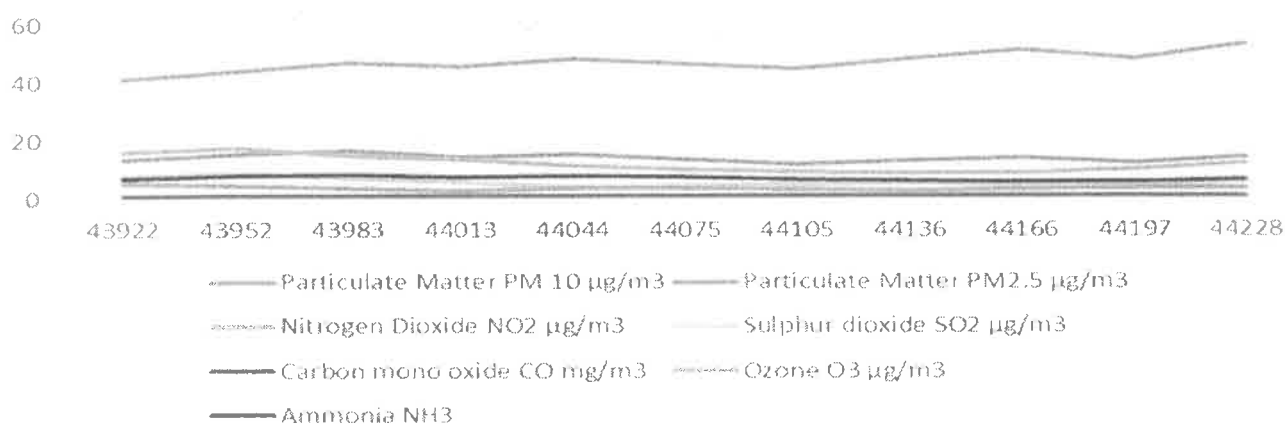
Near Security Main Gate							
Parameter	Particulate Matter PM ₁₀ µg/m ³	Particulate Matter PM _{2.5} µg/m ³	Nitrogen Dioxide NO ₂ µg/m ³	Sulphur dioxide SO ₂ µg/m ³	Carbon mono oxide CO mg/m ³	Ozone O ₃ µg/m ³	Ammonia NH ₃ µg/m ³
Apr-20	41.9	19.7	16.0	8.3	1.0	4.2	8.7
May-20	51.3	19.2	15.7	7.8	1.0	3.9	8.2
Jun-20	56.2	17.5	13.9	8.3	1.0	4.2	7.5
Jul-20	58.2	16.0	11.2	7.4	1.0	5.0	8.1
Aug-20	62.3	19.5	14.1	8.0	1.0	5.8	9.5
Sep-20	57.3	16.8	12.5	7.2	1.0	4.9	8.4
Oct-20	59.6	17.0	14.2	6.0	1.0	4.0	7.2
Nov-20	62.4	20.7	15.9	7.1	1.0	4.8	8.2
Dec-20	64.8	22.6	17.4	7.9	1.0	5.7	7.8
Jan-21	61.7	24.3	15.8	7.4	1.0	6.2	8.4
Feb-21	65.8	26.1	17.4	8.2	1.0	5.4	9.6
Mar-21	70.2	28.6	19.3	11.0	1.0	6.2	8.8
Limits (As per NAAQS)	100	60	80	80	4	180	400

Ambient Air Quality Monitoring - Near security Main Gate



Location: Nearby Warehouse area							
Parameter	Particulate Matter PM ₁₀ µg/m ³	Particulate Matter PM _{2.5} µg/m ³	Nitrogen Dioxide NO ₂ µg/m ³	Sulphur dioxide SO ₂ µg/m ³	Carbon mono oxide CO mg/m ³	Ozone O ₃ µg/m ³	Ammonia NH ₃ µg/m ³
Apr-20	41.7	13.8	16.2	8.1	1.0	5.4	7.2
May-20	44.3	15.4	17.6	8.9	1.0	4.8	8.0
Jun-20	47.2	17.0	15.1	7.3	1.0	3.7	8.6
Jul-20	45.8	14.6	13.7	6.0	1.0	3.0	7.5
Aug-20	48.3	15.7	11.4	4.2	1.0	4.0	8.1
Sep-20	46.9	13.7	10.5	4.8	1.0	3.7	7.6
Oct-20	44.8	11.9	9.6	5.2	1.0	3.2	6.8
Nov-20	48.3	13.5	8.9	5.7	1.0	3.0	6.5
Dec-20	51.3	14.1	9.0	4.8	1.0	3.5	5.9
Jan-21	48.6	12.6	10.2	5.1	1.0	3.8	6.0
Feb-21	53.7	14.8	12.5	6.0	1.0	4.0	6.7
Mar-21	56.8	16.7	15.0	7.8	1.0	3.3	7.3
Limits (As per NAAQS)	100	60	80	80	4	180	400

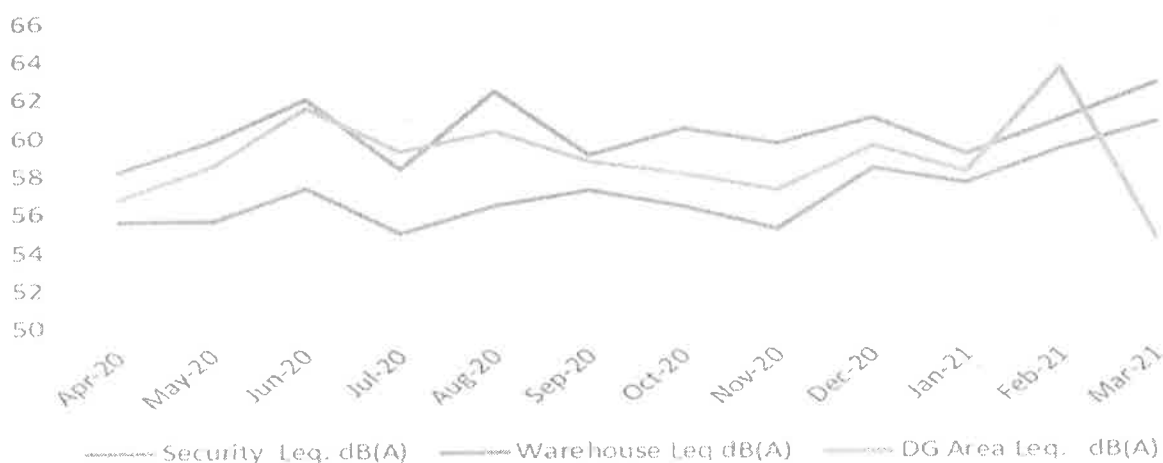
Ambient Air Quality Monitoring - Near Warehouse



NOISE LEVEL MONITORING DATA (dB (A))

MONTH	Noise -Day								
	Near security Main Gate			Near warehouse			DG Surrounding Area		
	L min dB(A)	L max dB(A)	Leq. dB(A)	L min dB(A)	L max dB(A)	Leq. dB(A)	L min dB(A)	L max dB(A)	Leq. dB(A)
Apr-20	53.7	63.1	58.2	51.3	60.3	55.6	52.4	61.6	56.8
May-20	55.3	64.7	59.8	50.6	61.2	55.6	54.5	62.8	58.5
Jun-20	57.3	67.1	62.0	53.4	61.5	57.3	58.1	65.2	61.5
Jul-20	53.2	63.8	58.3	50.1	60.1	54.9	55.2	63.5	59.2
Aug-20	56.9	68.4	62.4	52.6	60.4	56.4	55.8	65.1	60.3
Sep-20	54.5	63.8	59.0	52.1	62.7	57.2	55.3	62.4	58.7
Oct-20	56.3	64.8	60.4	51.5	61.5	56.3	53.1	63.4	58.0
Nov-20	55.9	63.5	59.6	51.7	58.7	55.1	52.1	62.7	57.2
Dec-20	58.6	63.2	60.9	54.3	62.5	58.3	57.6	61.4	59.5
Jan-21	56.3	61.9	59.0	54.8	60.3	57.5	55.4	61.0	58.1
Feb-21	57.3	64.6	60.8	56.9	61.8	59.3	59.2	68.2	63.5
Mar-21	55.6	70.8	62.7	57.8	63.8	60.7	59.8	69.8	54.6
Avg	55.9	59.6	60.25	53.09	61.23	57.01	55.7	63.92	58.82
Min	53.7	61.9	59	50.1	60.1	55.1	52.1	61	54.6
Max	58.6	70.8	62.7	57.8	63.8	60.7	59.8	69.8	63.5
Limits	75 dB(A)								

Noise Level During Day Time



NOISE LEVEL MONITORING DATA (dB (A))

Noise -Night									
MONTH	Near security Main Gate			Near Warehouse			DG Surrounding Area		
	L min dB(A)	L max dB(A)	Leq. dB(A)	L min dB(A)	L max dB(A)	Leq. dB(A)	L min dB(A)	L max dB(A)	Leq. dB(A)
Apr-20	44.6	52.4	48.3	42.2	49.6	45.7	43.7	51.3	47.4
May-20	42.7	50.9	46.6	40.5	48.6	44.4	41.8	49.2	45.3
Jun-20	46.5	55.2	50.7	43.2	52.4	47.6	42.8	51.7	47.0
Jul-20	43.8	52.6	48.0	41.6	49.9	45.6	40.7	46.8	43.6
Aug-20	45.6	54.7	50.0	43.3	50.2	46.6	41.4	48.0	44.6
Sep-20	42.5	52.8	47.4	44.2	53.6	48.7	42.0	51.2	46.4
Oct-20	44.1	55.3	49.4	41.3	53.8	47.1	43.8	54.1	48.7
Nov-20	46.7	50.4	48.5	41.5	47.2	44.3	42.6	52.9	47.5
Dec-20	48.2	51.4	49.8	43.7	49.2	46.4	45.8	50.5	48.1
Jan-21	47.6	53.6	50.5	42.7	49.1	45.8	44.8	49.3	47.0
Feb-21	49.8	52.3	51.0	50.3	58.1	54.1	52.7	64.3	58.2
Mar-21	43.6	58.6	50.5	44.2	53.8	48.8	47.3	57.5	52.2
Avg	41.98	49.25	45.44	39.90	47.35	43.47	40.72	48.22	44.31
Min	49.8	58.6	51	50.3	58.1	54.1	52.7	64.3	58.2
Max	42.5	50.4	46.6	40.5	47.2	44.3	40.7	46.8	43.6
Limits	70 dB(A)								

Noise Level During Night Time



Annexure-5

Hazardous Waste and Solid Waste Generation & Deposal Details and storage at the end of the year 2019-2020

Sl. No.	Hazardous Waste Description	Cat. No	Consent QTY	UOM	Opening Stock	Month	Total	Closing Stock
1	Used Oil	5.1	5 KL/A	Ltrs	0	Generation	305	305
						Disposal	0	
2	Organic Residue	28.1	115 MT/A	Kgs	0	Generation	3926	0
						Disposal	3926	
3	Spent Carbon / Catalyst	28.2	1 MT/A	Kgs	0	Generation	6405	0
						Disposal	6405	
4	Spent Organic Solvents	28.5	77 MT/A	Kgs	0	Generation	1150	0
						Disposal	1150	
5	Discarded Containers	33.3	8 MT/A	Kgs	0	Generation	24	0
						Disposal	24	
6	ETP Sludge	34.3	8 MT/A	Kgs	0	Generation	1125	485
						Disposal	640	



Annexure-6

Hazardous Waste and Solid Waste Generation & Deposal Details and storage at the end of the year 2020-2021

Sl. No.	Hazardous Waste Description	Cat. No	Consent QTY	Opening Stock	Month	Total	Closing Stock
1	Used Oil	5.1	5 KLT/A	305	Generation	0.445	0.110
					Disposal	0.335	
2	Process Residue and wastes	28.1	115 MT/A	0	Generation	5.568	0.890
					Disposal	4.678	
3	Spent Catalyst	28.2	1 MT/A	0	Generation	0	0
					Disposal	0	
4	Spent Carbon	28.3	77 MT/A	0	Generation	4.850	1.055
					Disposal	3.795	
5	Off Specification Products	28.4	8 MT/A	0	Generation	0.680	0.680
					Disposal	0	
6	Date Expired Products	28.5	8 MT/A	0	Generation	0.960	0.960
					Disposal	0	
7	Spent Organic Solvents	28.6	251.2 MT/A	0	Generation	8.480	0.639
					Disposal	7.841	
8	Empty Barrels/Containers/Liners contaminated With Hazardous Chemicals/Wastes	33.1	85 MT/A	0	Generation	3.745	0.525
					Disposal	3.220	
9	Contaminated Cotton Rags or Other Cleaning Materials	33.2	5 MT/A	0	Generation	0.410	0.410
					Disposal	0	
10	Chemical containing residue arising from decontamination	34.1	2 MT/A	0	Generation	1.940	0.080
					Disposal	1.860	
11	Sludge from treatment of waste water arising out of cleaning / disposal of barrels/ containers	34.2	1.2 MT/A	0	Generation	0	0
					Disposal	0	
12	Chemical sludge from wastewater treatment	35.3	50 MT/A	485	Generation	1.79	0.695
					Disposal	1.58	
13	Any process or distillation Residue	36.1	101.2 MT/A	0	Generation	0	0
					Disposal	0	
14	Concentration or evaporation residue	37.3	215 MT/A	0	Generation	7.150	2.948
					Disposal	4.200	
15	Glass wastes in non-dispersible form	B2020	2 MT/A	0	Generation	0	0
					Disposal	0	
16	Wood waste and scrap	B3050	30 MT/A	0	Generation	3.000	0.050
					Disposal	2.950	
17	Wastes consisting mainly of water based or latex paints, inks and hardened varnishes	B4010	1 MT/A	0	Generation	0	0
					Disposal	0	
18	Paper, Paperboard and paper product wastes	B3020	10 MT/A	0	Generation	0	0
					Disposal	0	
19	Metal and metal-alloy wastes	DB1010	30 MT/A	0	Generation	0	0
					Disposal	0	



