

**Submission of half yearly Environment compliance report .-Hikal Limited- Unit-II- SEIAA
Karnataka, No.SEIAA 47 IND 2020 dated 03/09/2020**

Megharaj Mundeli to rosz.bng-mefcc

25-11-2022 13:19

Sub. : Submission of half yearly Compliance report to Environmental Clearance Conditions.
Ref. : Environmental Clearance received from SEIAA Karnataka, No.SEIAA 47 IND 2020 dated
03/09/2020

Dear Sir,

With reference to above referred Environmental Clearance received from SEIAA Karnataka No.SEIAA 47 IND 2020 dated 03/09/2020 for Modification of and Expansion of Active Pharmaceutical ingredients and intermediates at Plot No. 28, KIADB Industrial Area, Road No.4, Vaddarapalya, Jigani, Anekal Taluk, Bangalore Urban (Karnataka) by Hikal Limited unit II. As advised, we herewith enclosing the half yearly compliance report (April -2022 to September -2022) for the conditions given in Environmental Clearance referred above along with necessary enclosures.



EC Compliance UNIT II-2022 Apr-22 to Sep-22.pdf

Thanking you,,

Thanks & Regards,

Megharaj
Asst.Mgr-EHS.

Hikal Limited. Unit - II
No. 28, KIADB, Industrial Area,
Jigani, Anekal Taluk, Bangalore - 560105, (Karnataka, India)



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Email : megharaj_mundeli@hikal.com

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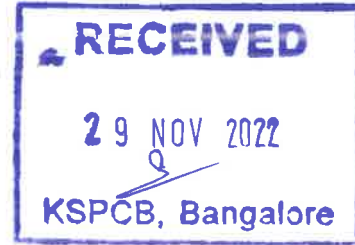
o/c

HIKAL

Date: 24/11/2022

To,

Additional Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change,
Regional Office (SZ), Kendriya Sadan,
4th Floor, E&F Wings, 17th Main Road,
Koramangala II Block,
Bangalore – 560034



Dear Sir,

Sub.: Submission of half yearly Compliance report to Environmental Clearance Conditions
Ref.: Our Environmental Clearance letter no. SEIAA 47 IND 2020 dated 03/09/2020 &
Corrigendum dated 20/04/2022

With reference to above referred Environmental Clearance received from SEIAA-Karnataka for Modification and Expansion of Active Pharmaceutical ingredients (APIs) & Intermediates at Plot no28, of KIADB, Road No 4, Vaddarapalya, Jigani, Anekal Taluk by Hikal Limited unit II. We are herewith enclosing the half yearly compliance report (April -2022 to September -2022) for the conditions given in Environmental Clearance referred above along with necessary enclosures.

We kindly request you to acknowledge receipt of the same.

Yours faithfully,

For **HIKAL LIMITED**

Dr. Ranganatha Rao.
Asst. Vice President & Site Head-Unit-2



Encl: As above

CC:

1. **Member secretary, Karnataka State Pollution Control Board, "Parisara Bhavan", #49, 4th & 5th Floor, Church Street, Bangalore – 560 001.**
2. **State Environment Impact Assessment Authority - (SEIAA)**
Member Secretary SEIAA Karnataka, (Ecology and environment) Dept of forest ecology and environment, Government of Karnataka, Room no 709, 7th floor, 4th gate, MS building,

Hikal Ltd. Bangalore 56001.

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 - 400 614, India. Tel. : +91-22-6277 0299, +91-22-6866 0300

Regd. Office : 717, Maker Chamber - 5, Nariman Point, Mumbai - 400 021, India. Tel. : +91 22-6277 0477, +91-22-6277 0500.

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

Date: 24/11/2022

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Half Yearly Compliance Report

For

Modification & Expansion of Active Pharmaceutical Ingredients (APIs) and Intermediates

At

Plot No 28 of KIADB Industrial area, Road No 4

Vaddarapalya Jigani

Anekal Taluk

Project Proponent

HIKAL LIMITED UNIT -II

Environmental Clearance vide letter no. SEIAA 47 IND 2020 on 20th April-2022

Period: April-2022 to September-2022

PROJECT OVERVIEW

S. No	Features	Description										
1)	Name of the Project	M/s. Hikal Limited –Unit 2										
2)	Proposed Development /Change	Expansion and modification for manufacturing of Bulk drugs										
3)	Total Land Area of the ProjectSite	The Plant facilities are spread over 8114 m ² KIADB Land which iscompletely fortified and protected on all four sides by boundary walls. This land has been allotted by KIADB in the Industrial area.										
4)	Geographical Location of theProject site	Village: Jigani, Tehsil: Anekal, District: Bengaluru, State:Karnataka <table border="1" data-bbox="792 604 1354 846"> <thead> <tr> <th>Latitude</th> <th>Longitud e</th> </tr> </thead> <tbody> <tr> <td>12.77254</td> <td>77.64189</td> </tr> <tr> <td>12.77217</td> <td>77.64211</td> </tr> <tr> <td>12.77155</td> <td>77.6411</td> </tr> <tr> <td>12.77199</td> <td>77.64085</td> </tr> </tbody> </table>	Latitude	Longitud e	12.77254	77.64189	12.77217	77.64211	12.77155	77.6411	12.77199	77.64085
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12.77254	77.64189											
12.77217	77.64211											
12.77155	77.6411											
12.77199	77.64085											
5)	Elevation	920 m above MSL										
6)	Nearest Villages	Vaddarapalya 558.7 mtr towards SE Vaderamanchanahalli 1.3 km Kalbalu 2.14 km towards SW Konasandra 1.82 km towards S										
7)	Nearest Railway station	Heelalige railway Station at a distance of 8.84 Km towards NE Anekal railway station at a distance of 9.24 Km towards SE										
8)	Highway	NH-7 Km Bengaluru to Hosur Highway at a distance of 7.86 km towards NE										
9)	Airport	Kempegowda International Airport 62 kms towards North, Bengaluru										
10)	Nearest major Town	Bengaluru 22.73 Kms towards North										
11)	Nearest Port	Port of Calicut (Kozhikode) at distance of 263 km towards SW Ennore Kamarajar Port, Chennai at distance 297.33 km towards E New Mangalore Port at a distance of 305.47 km towards W										
12)	Reserved Forest/Protected Forest/Notified Wildlife Sanctuary/Ecologically sensitive areas	Raagihalli at a distance of 6 km state forest towards West. Suddahalli at a distance of 5.2 Km State Forest towards West.										
13)	Nearest Tourist Places	Bannerghatta National Park at a distance of 6 km towards West										
14)	Water Bodies	Hennagara lake at distance of 2.12 km towards East										
15)	Type of soil	Reddish brown clay silt soil										

List of Products:

S No	Product list	UOM	Qty
1	Oxyptentifylline	Tons/Annum	5
2	PBA HCL	Tons/Annum	3.8
3	Pregabalin	Tons/Annum	3
4	Quetiapine	Tons/Annum	5
5	Corey lactone	Tons/Annum	0.3
6	CF3 Ketone	Tons/Annum	5
7	Thiabendazole (TBZ)	Tons/Annum	2
8	AS -16	Tons/Annum	1
9	Nitenpyram	Tons/Annum	0
10	AS -11	Tons/Annum	1
11	STA-31-0228	Tons/Annum	0.01
12	S199AR (Shionogi)	Tons/Annum	0.5
13	Venlafaxine Stg-1	Tons/Annum	1
14	Resi03	Tons/Annum	0.3
15	SCP-01	Tons/Annum	0.5
16	CFK02	Tons/Annum	0.5
17	Amaz	Tons/Annum	5
18	TFG01	Tons/Annum	0.25
19	Vildagliptin	Tons/Annum	10
20	MBOID-2	Tons/Annum	0.5
21	CF3 Chloretone	Tons/Annum	10
22	5-ABI	Tons/Annum	1
23	EPS-2	Tons/Annum	0
24	Favipiravir	Tons/Annum	3
25	Trityl Olmesartan	Tons/Annum	0
26	Di Boc Amine Int	Tons/Annum	0.5
27	HCA	Tons/Annum	0.075
28	MAP-01	Tons/Annum	0.05
29	MRF-08	Tons/Annum	0.5
30	ACT-01	Tons/Annum	0.5
31	T-3917	Tons/Annum	10
32	Fluralanar	Tons/Annum	1
33	Propentofylline	Tons/Annum	3
Total			74.285

List of Raw Materials:

Sl. No.	Raw Material	Consumption /Annum inKg
1	Theo bromine	6330
2	K2CO3	3903.5
3	Chlorohexanone	5401.6
4	Carbon	400.9
5	Hyflo Supercel	211
6	P nitro Phenol sodium salt	3150
7	Catalyst A	75.6
8	Caustic Soda	1386
9	PBNB	3887.5
10	Ferric chloride	233.25
11	Activated Carbon	388.75
12	Hydrazine Hydrate	3110
13	Hyflo supercel	155.5
14	HCL in IPA	3110
15	R- (-)-3-3(Carboamoyl methayl)-5 -methayl hexanoic acid	4250
16	Sodium hydroxide flakes	1003
17	Sodium hypo chlorite solution	1691.5
18	50% aq sodium hydroxide solution	5355
19	HCl	9214
20	Charcoal	33.66
21	QTP-2	4038
22	N,N Dimethyl aniline	1292.16
23	POCL3	3270.78
24	NaHCO3	40.38
25	NaCL	6057
26	Piperzine anhydrous	5370.54
27	Sodium Sulphate	403.8
28	Dicyclopentadiene	440
29	Dowtherm oil	220
30	Dichloroacetyl chloride	262.5

Sl. No.	Raw Material	Consumption /Annum inKg
131	Charcoal	120.6
132	Hyflo	9.0
133	Sodium hydroxide	2.02
134	Sodiumborohydride	28.5
135	Sulphuric acid	234.5
136	Cyclohexanone	14000
137	Sodium Methoxide	20800
138	Acetic Acid	80
139	NaHMDs solution in THF	676.8
140	Pyrrrole	90
141	Chlorotriisopropylsilane	266.4
142	MTBE	140.4
143	Sodium chloride	76.95
144	Sulfuryl chloride	255.04
145	Methylcyclohexane	651.2
146	NaCl	67.2
147	NaOH	384
148	Ethyl benzene	988.8
149	Trimethyl phosphano acetate	413.6
150	30% w/w sodium methylate	423
151	Silica gel	120
152	2-Chlorobenzaldehyde	374
153	Isobutyraldehyde	411.4
154	Potassium Hydroxidepowder	173.16
155	Ammonium chloride	374
156	Sodium chloride	187
157	Phosphorous oxy chloride	379.2
158	Sodium hydroxide	264
159	R-(+)-alpha methyl benzylamine(AMBA)	690
160	Conc. HCl	921.5

31	Cyclopentadiene	215.33
32	Triethylamine	189
33	0.1 N aq. HCl	1311.9
34	DCK	428.4
35	sodium carbonate	15.33
36	30 % hydrogen peroxide	384.83
37	5N aq. NaOH	608.79
38	6N aq. HCl	259.98
39	DCL	336
40	d-ephedrine	307.92
41	d-ephedrine HCl	363.4
42	28 % Aq. NaOH	300.84
43	Conc HCl	307.8
44	<i>l</i> -DCL	482.3
45	Zinc powder	479.57
46	Conc HCl	794.89
47	celite	182
48	<i>l</i> -Lactone	148.4
49	Acetic acid	1004.08
50	98% sulphuric acid	220.22
51	Para formaldehyde	77.17
52	Sodium acetate	663.6
53	Sodium chloride	230.3
54	Diacetyl lactone	774
55	35 % HCl	46.44
56	Piperidine	2040
57	Ethyl Trifluoro Acetate (ETFA)	4080
58	Ary Bromide	5404
59	Magnesium turnings	656.2
60	Hydrochoric acid	3512.6
61	4-Cyanothiazole	159.5
62	Aniline	136.3
63	Ortho Dichlobenzene	800.4
64	Sodium hydroxide	14.5
65	Sodium carbonate	1595
66	Sodium hypochlorite	1218
67	Activated carbon	79.75
68	Liquor ammonia	290
69	Dimethyl formamide	2444.96
70	Bromo benzene	3885
71	Potassium Carbonate	669.52

161	3,5 Di chloro aniline	90
162	HBr (48%)	670.5
163	Cu(I)Br	31.86
164	Sodium Nitrate	42.12
165	NaCl	45
166	Sodium bi carbonate	36
167	Magnesium turnings	13.8
168	Iodine	0.09
169	Isipropyl bromide	70
170	Weinreb amide	66.4
171	MTBE	272
172	KRM	2100
173	H ₂ SO ₄	576.46
174	NaHCO ₃	733.6
175	Br ₂	2656.5
176	Sodium thiosulphate	632.5
177	Sodium bicarbonate	632.5
178	Sodium chloride	1265
179	NaOH	1135.05
180	Hyflo	23.5
181	TFEA HCl	44
182	Potassium carbonate	67.32
183	Chloroacetyl chloride	44
184	MTBE	325.6
185	Phthalamide	38.12
186	Sodium methoxide	14.73
187	Hydrazine hydrate	21.62
188	Ethyl acetate	1063.14
189	IPA.HCl	50.76
190	L-Prolinamide	4225
191	CAC	4598.15
192	Cyanuric chloride	2729.35
193	Hyflo	16.9
194	Sodium carbonate	1690
195	Potassium carbonate	2784
196	Potassium iodide	99.53
197	Sodium metabisulphite	114.84
198	BHT	34.8
199	Hyflo	11.6
200	BHT	63.3
201	Activated charcoal	158.25

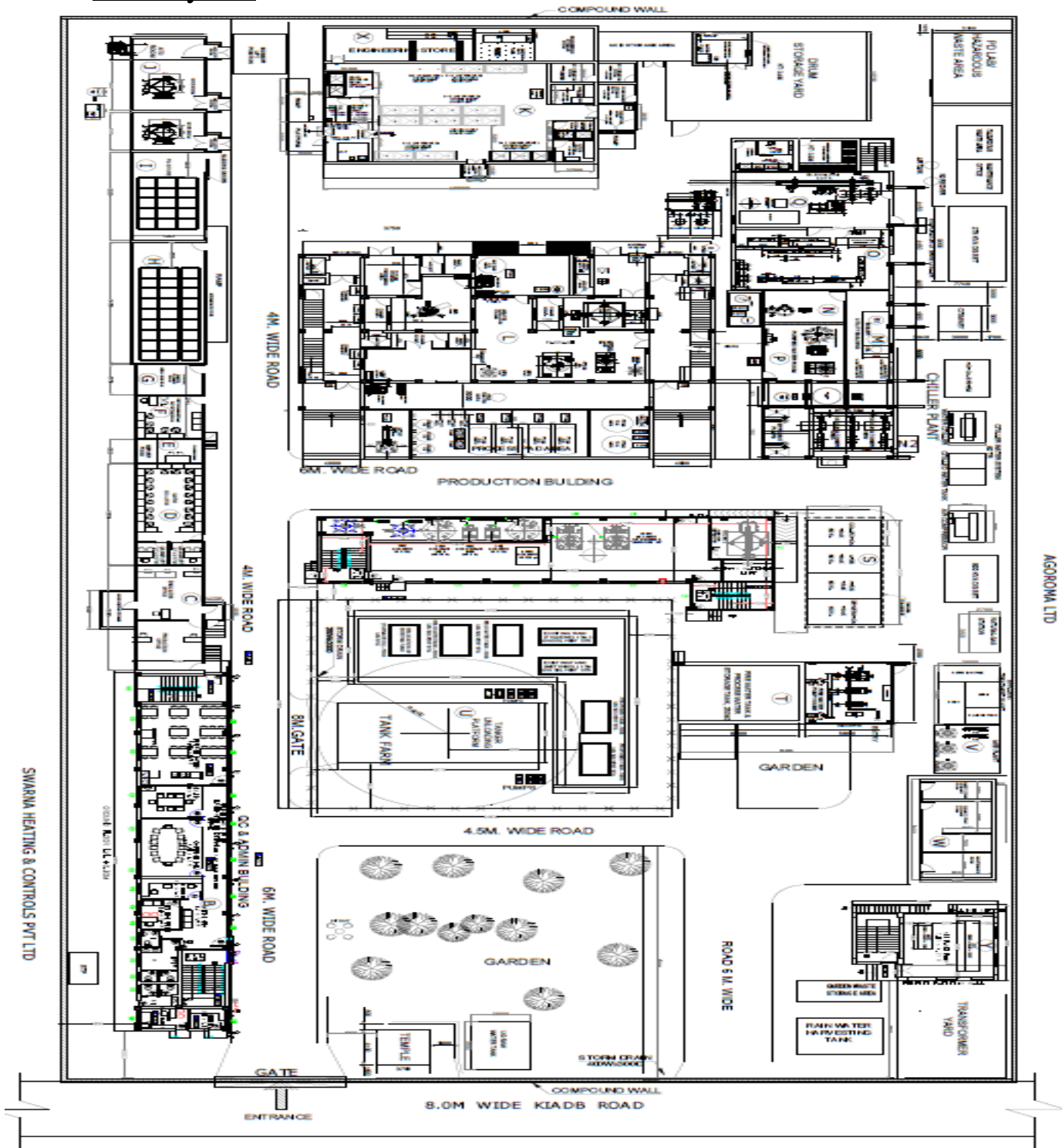
72	Copper Iodide	61.51
73	Sodium chloride	3237.5
74	Borane Dimethyl Sulfide	343.95
75	Caustic Soda flakes	388.5
76	Hyflo	74
77	EDTA	259
78	Sodium bisulphite	1350
79	Sodium bicarbonate	2980.8
80	Hyflo	108
81	Sodium thiomethoxide	386.1
82	Methyl iodide	311.85
83	Hyflo	67.5
84	Sodium sulphide	378
85	Concentrated HCl	1350
86	Conc Hydrochloric acid	538.56
87	Nitric acid	425.92
88	1,1-Dichloroethylene	352
89	2-C5MCP	309
90	Ethyl amine	726.15
91	Sodium carbonate	133.2
92	40% mono methyl amine	489.6
93	Cbz-D-phenyl glycine	1000
94	Glycine-tert-butyl ester hydrochloride	620
95	2,6-Lutidine	450
96	EDC HCl	810
97	Citric acid monohydrate	700
98	Tert – Butyl 4-(2-hydroxyethyl) piperidine – 1 – Carboxylate	13
99	Trimethyl amine	8.6
100	Methane sulfonyl chloride	7.8
101	Sodium chloride	18.2
102	5-Nitroindole	6
103	Potassium carbonate	7.7
104	NaCl	9
105	Hyflo	5
106	Pd/C	0.56
107	Hyflo	0.5

202	Hyflo	15
203	4-Methoxy phenyl acetic acid	133
204	Cyclohexyl ethyl amine	100
205	Phosphorus oxychloride	100
206	sodium hydroxide	116
207	Conc HCl	20
208	sodium chloride	20
209	sodium borohydride	16
210	Mandelic acid	79
211	Sodium hydroxide	266
212	Sodium chloride	114
213	Triethylamine	70.3
214	Boc anhydride	111.34
215	Conc HCl	42.18
216	m-PCBA	131.1
217	Sodium bisulphite	68.4
218	Sodium bicarbonate	81.7
219	Sulphuric acid	271.7
220	Magnesium	1120.14
221	Iodine	191.1
222	Isopropylbromide	5203.8
223	Weinreb amide	6468
224	Conc HCl	11227.51
225	5-Nitrobenzimidazole	1688.4
226	Hyflo	12.6
227	Activated Charcoal	12.6
228	MTBE	4997.66
229	LiHMDS	5718.57
230	Aceton Cyanohydrin	990.44
231	Sodium hypochlorite	2164.5
232	O,O-diethylthiophosphate	1506
233	Sodium hydroxide	600
234	Sodium chloride	750
235	Sulphuric acid	264
236	Bromopyrazie (Intermediate-D)	2820
237	POCl3	7929

108	MTBE	59.2
109	4-Isopropyl Resorcinol	7.5
110	Conc HCl	12
111	Pure PEX	11.8
112	Sodium bicarbonate	12.5
113	Sodium 2-chloroacetate	4.8
114	Anhydrous sodium sulphate	112
115	CDI	7.3
116	Sodium chloride.	14.4
117	Hydrazine hydrate	3.37
118	Activated charcoal	1.7
119	Diisopropylamine	275.28
120	2.4 M n-BuLi in Hexane	2331
121	N,N-Dimethyl Formamide	473.6
122	Conc. HCl	1320.9
123	Camphor sulphonic acid	85.1
124	Thiophenol	297.48
125	NaOH	134.68
126	AlCl ₃	427.35
127	Tetramethyldisiloxan	573.5
128	Sulphuric acid	518
129	Polyphosphoric acid	1463.4
130	Sodium bicarbonate	90

238	Diisopropyl ethylamine (N,N-DIPEA)	5019
239	Chlorobenzene	14088
240	5% NaHCO ₃ solution	6204
241	10% NaCl solution	13341
242	DMSO	17070
243	Potassium fluoride anhydrous	6213
244	TBAB	1377
245	Aq. HCl	2040
246	Sodium acetate	807
247	Conc. H ₂ SO ₄	1896
248	28% Aq. Sodium hydroxide solution	1341
249	(Ethyl 4-hydroxy-1-methyl)-2-propylimidazole-5-carboxylate)	190
250	5-(4'-Bromomethyl-1'1-biphenyl-2-yl)1-triphenylmethyl-1H-tetrazole	503.5
251	K ₂ CO ₃	266
252	Tetra butyl ammoniumbromide	45.6
253	5-Chloro-2-nitroaniline	290
255	Di- <i>tert</i> -butyl dicarbonate	881.6
256	4-Dimethylaminopyridine	14.5
257	Triethylamine	316.1
258	Potassium carbonate	278.4
259	N-Methyl-2-pyrrolidone	1194.8
260	N-Ethylpiperazine	230.26

Site Layout:



ENVIRONEMNT CLEARANCE CONDITION WISE COMPLIACE

No: SEIAA 47 IND 2020 Dated:03/09/2020

Address:
M/s HIKAL LIMITED,
Plot No: 28, KIABD Industrial Area, Jigani, Anekal Taluk,
BANGALORE-560 105

Condition No	I. Statutory Compliance	Compliance
I	The project proponent shall obtain the forest clearance under the provision of Forest (Conservation) Act. 1986, in case of the diversion of the forest land for non-forest purpose involved in the project.	This project is under the notified area of KIADB. Govt. of Karnataka.
II	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Noted and Under progress
III	The project proponent shall prepare a site-specific conservation plan and wildlife management plan and approved by the Chief Wildlife warden. The recommendations of the approved site-specific plan/ wildlife management plan shall be implemented in consultation with the state forest department. The implementation report shall be furnished along with the six-monthly compliance report. (in case the presence of schedule -1 species in the study area)	Noted and Under progress po released.
IV	The project proponent shall obtain the consent to establish / operate under the provisions of Air (Prevention and Control of pollution) Act, 1981 and the water (Prevention and Control of pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.	We have already obtained
V	The project proponent shall obtain the authorization under the Hazardous and other waste Management Rules, 2016 as amended from time to time.	Under Progress and Application Submitted.
VI	The Company shall comply with the rules and guidelines under Manufacturer, Storage, and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall as per the Motor Vehicle Act (MVA), 1989.	Noted and complying as per the rules and guidelines

Condition No	II. Air Quality Monitoring and Preservation	
I	The project proponent shall install 24/7 continuous emission monitoring system at process stacks to monitor the stacks emission with respect to standards prescribed in Environment Rules 1986 and connected to SPCB and CPCB online servers and calibrate this system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL Accredited Laboratory.	Noted, IP under preparation for stack and ambient
II	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment Protection Act, 1986.	Noted, being monitored in ambient and scrubber quarterly

III	The project Proponent shall install system to carry out Ambient Air Quality Monitoring for common/criterion parameters relevant to the main pollutants released (e. g. PM10 and PM2.5 in reference to PM emission and SO2 and NOX in reference to SO2 and NOX emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each), covering upwind and downwind directions	Manually monthly once being done for 2 stations within the plant premises. submitted every month Annexure- I
IV	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Sulphur contents should not be exceeded 0.5% in the coal firedboilers to control particulate emissions shall be dispersed through the stack of adequate height as per the CPCB/SPCB Norms.	Noted fugitive emissions are monitored through scrubber and for boiler PNG being used Annexure- II
V	Storage of Raw materials, coal etc. shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.	Noted, Raw materials stored in dedicated warehouse
VI	National Emissions Standards for organic Chemicals Manufacturing Industry issued by the ministry vide G.S.R. 608(E) dated 21 st July 2010 and amended from time to time shall be followed.	Noted and being followed
VII	National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R No. 826 (E) dated 16 th November, 2009 Shall be compiled with.	Noted and monitored. Annexure- I & IV
Condition No	III. Water Quality Monitoring and Preservation	
I	The project proponent shall provide online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying the effluent within the Premises (applicable in case of the projects achieving the ZLD).	Noted and provided the web camera with night vision capability and flow meters
II	As already committed by the project proponent, Zero Liquid Discharge shall be ensured, and no waste/treated water shall be Discharged outside the premises (applicable in case of the projects achieving the ZLD).	Noted and being followed.
III	The effluent discharge shall confirm to the standards prescribed under the Environment (Prevention) Act, 1986, or as specified by the State Pollution Control Board while granting Consent Under the Air/Water Act, whichever is more stringent.	Noted Annexure-III
IV	Total freshwater requirement shall not exceed the proposed quantity or as specified by the committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.	Noted, Freshwater requirement being met with local tanker suppliers.
V	Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall collected and Discharged through separate conveyance system.	Noted and dedicated wastewater streams provided with collection tanks
VI	The company shall harvest rainwater from the roof tops of the Buildings and storm water drains to discharge the ground water and utilize the same for different industrial operations within the plant.	Noted and collected in tank.

VII	The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity With the extant regulations and guidelines in this regard.	Noted and Acoustic provided
Condition No	IV. Noise Monitoring and Prevention	
I	Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Noted and provided
II	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise Generation.	Noted,Noise level are within the limit
III	The Ambient Noise Levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75dB(A) during daytime and 70dB(A) During nighttime.	Noted Annexure-IV
Condition No	V. Energy Conservation Measures	
I	The energy sources for lighting purposes shall preferably by LED Based.	LED lights are being used and energy efficient motors are replaced with IE1 & 2 to IE3
Condition No	VI. Waste Management	
I	Hazardous Chemicals shall be stored in tanks, tank farms, drums, Carboys etc. Flame arresters shall be provided on tank farm and solvent transfer through pumps.	Noted and provided
II	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic and evaporation salt shall be disposed-off to the TSDF.	Noted and being followed as per conditions of CFO and HWA
III	The company shall undertake waste minimization measures as below: <ol style="list-style-type: none"> a. Metering and control of quantities of active ingredients to minimize waste. b. Reuse of by-products from the process as raw materials or as raw materials substitutes in other processes. c. Use of automated filling to minimize spillages d. Use of Close Feed System into batch reactors e. Venting equipment through vapor recovery system. f. Use of high-pressure hoses for equipment clearing to reduce wastewater generation. 	Noted and being followed.
Condition No	VII. Green Belt	
I	The green of 5-10 m width shall be developed in more than 33% of the total project area, mainly total project area, mainly along the plant periphery, in downward wind direction, and along roadsides etc. Selection of plant species shall be as per the CPCB guidelines in	Noted and provided.
Condition No	VIII. Safety, Public Hearing and Human Health Issues	
I	Emergency Preparedness Plan based on the Hazard Identification and Risk Assessment (HIRA) and disaster management Plan shall be implemented	Noted and Approved Onsite Emergency Preparedness Plan is Available.

II	The unit shall make the arrangement for the protection of possible fire hazards during the manufacturing process in material handling. Fire Fighting System shall be as per the norms.	Noted, Site is having networked firefighting system with all accessories and portable fire Extinguishers.
III	The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Noted and being followed.
IV	Training shall be imparted to all employees on safety and health aspects of Chemical handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Noted and Training retraining on EHS topics is practiced & Pre-employment and routine periodical medical examinations for all employees on regular basis being carried out? Annexure-V
V	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure facilities such as fuel for cooking, mobile toilets, Mobile STP, Safe drinking water, medical health care, Crèche etc. The housing may be in the form of temporary Structures to be removed after the completion of the project.	Noted and site is at notified industrial area.
VI	Occupational health surveillance of the workers shall be done on regular basis and records maintained as per the Factories Act.	Noted, and records maintained as per the Factories Act
VII	There shall be adequate space inside the premises earmarked for Parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.	Noted
Condition No	IX. Corporate Environment Responsibilities	
I	The project authorities shall undertake activities under corporate environment responsibilities (CER) with a total cost of not less than Rs. 10 lakhs towards contributions of CM Care Fund, in accordance with the O.M.F.No.22-26/2017-IA,III dated 01 st May 2018 and report Be submitted to the authority.	Under CER Rs. 25 Lakh to Karnataka Chief Minister's Relief Fund is donated. CSR activities will be carried regularly and planned in the month of November
II	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental Policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlif norms/conditions. The company shall have a defined system of reporting infringements/deviation/ violation of the environmental/forest/wildlife norms/conditions and / or shareholders/stake holders. The copy of the board resolution in this Regard shall be submitted to the MoEF and CC as a part of Six-monthly report.	Noted and environmental policy available.
III	A separate environmental cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior executive, who will directly to the head of organization.	Noted and committee is made for monitoring

IV	An action plan for implementing EMP and environmental conditions along with responsibilities matrix of the company shall be prepared and shall be duly approved by a competent authority. The years wise funds earmarked for environmental protection measures shall be kept in separate accounts and not to be diverted for any other purposes. Yearwise progress of implementation of the action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report	Noted.
V	Self-Environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Noted.
Condition No	X. Miscellaneous	
I	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the district or state, of which one shall be in the Vernacular language within seven days and in addition this shall also be displayed in the project proponents' website permanently.	Noted, Published in local newspaper Indian express in English and in Kannada Vishwaavani, Annexure - VI
II	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of the Local Bodies, Panchayats and Municipal Bodies on addition to the relevant offices of the Government who in turn has to display the same for 30 days from the Date of receipt.	Noted and submitted
III	The project proponent shall upload the status of the Compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half yearly Basis.	Noted and being followed
IV	The project Proponent shall monitor the criteria pollutants namely: PM10, SO2, Nox (Ambient levels as well as stack emissions) or critical sectorial parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Display board is provided at main gate to disclose to the public and put on the website of the company. Annexure- VII
V	The project Proponent shall submit the Six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of environment, Forest and Climate change At environmental Clearance Portal.	Noted and being submitted
VI	“The HYCRs with its contents of a covering letter, compliance reports and environmental monitoring data has to be in PDF format merged into a single document. The email should clearly mention the name of the project, EC No and date, period of submission and to be sent to the Regional Office of MoEF & CC by email only at email ID: ros.z.bng-mefcc@gov.in. Hard copy of HYCRs shall not be acceptable,	Noted and being submitted
VII	The project proponent shall submit the environmental statement for each financial year in Form – V to the concerned State Pollution Control Board as prescribed under Environment (protection) Rules, 1986, as amended subsequently and put on the website of the company.	Form-V for FY2021-2022 is submitted RO-KSPCB Annexure- VIII
VIII	The project proponent shall inform the regional office as well as the Ministry, the date of financial closure and final approval of the project	Noted,

	By the concerned authorities, commencing the land development work and start of production operation by the project.	
IX	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Noted
X	The project proponent shall abide by all the commitments and recommendations made in the EIS/EMP Report, Commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Noted
XI	No further expansion or modifications in the plant shall be carried out Without prior approval of this Authority of the Ministry of Environment, Forests and Climate Change (MoEF & CC).	Noted
XII	Concealing factual data or submission of False/Fabricated data may result in revocation of this Environmental Clearance and attracts Action under the provisions of Environment (protection) Act, 1986.	Noted
XIII	The SEIAA may revoke or suspend the clearance, if implementations of any of the above conditions is not satisfactory.	Noted
XIV	The SEIAA reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall Implement these conditions.	Noted
XV	The regional office of the MoEF & CC shall monitor compliance of the stipulated conditions. The project Authorities should extend full cooperation to the officer (S) of the regional Office by furnishing the Requisite data/information/monitoring reports.	Noted
XVI	The above conditions shall be enforced, inter-alia under the provisions of the water (Prevention and Control of Pollution) Act, 1974, the air (Prevention and Control of Pollution) act, 1986, Hazardous Waste and Other Waste (Management and Trans boundary Movement) Rules, 2016 and the public Liability Insurance Act, 1991 along with their amendments and rules and any others passed by the Hon'ble Supreme Court of India/ High Courts and any other courts of law relating to the subject matter.	Noted
XVII	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 Of the National Green Tribunal Act, 2010.	Noted
XVIII	The project proponent shall adopt and comply with all the mechanism included by the MoEF & CC which is given in the Annexure – II and shall abide by the conditions there on. The project Proponent shall undertake all necessary steps to bring down the CEPI score of the industrial area and the improve the environment condition in accordance with the mechanism evolved by MoEF & CC.	Noted
XIX	The project proponent shall submit the map duly authenticated by chief wildlife warden showing the boundary of Bannerughatta National Park vis-s-cis the project location before undertaking construction activity and shall be adhered to the recommendations or Comments of the chief wildlife warden thereon as committed.	Noted and under progress.

Annexure -II Additional conditions

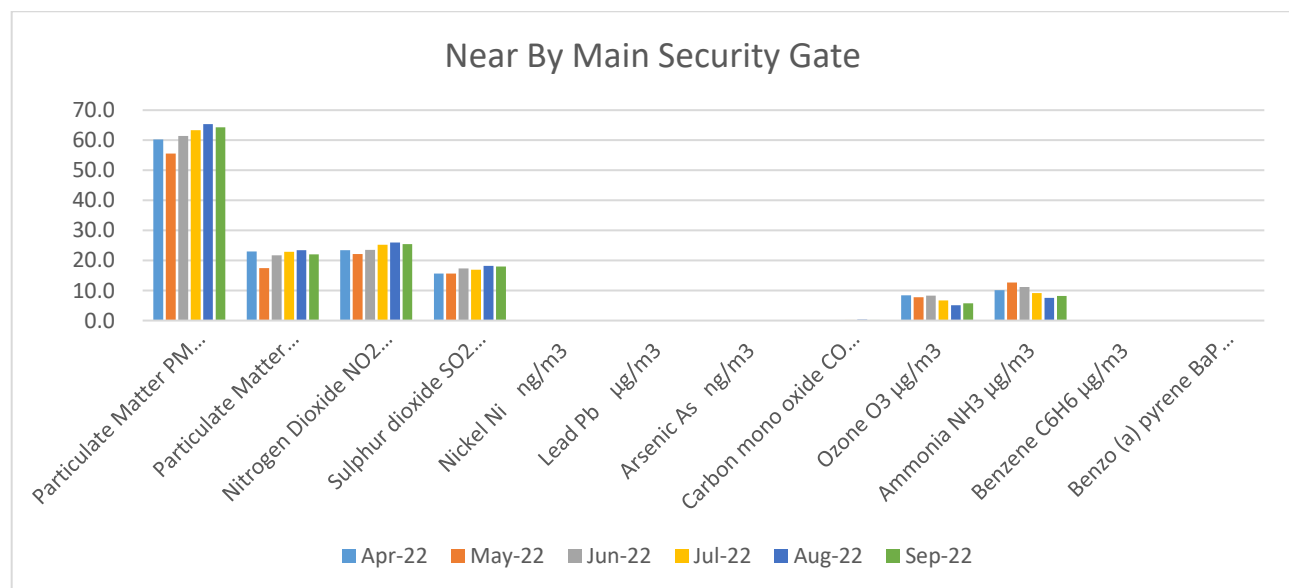
Additional conditions as per the Mechanism evolved by MOEF&CC as compliance to the orders of Hon'ble NGT dated 19/08/2019 in O.A. No.1038 of 2018

Environment	Mitigation Measure	Compliance
Air	Stipulation of conditions such as:	
	i. Stack emission levels should be stringent than the existing standards in terms of the identified critical	Being followed mentioned in CFO
	ii. CEMS may be installed in large/medium red category industries (Air polluting) and connected to SPCB and CPCB server	STP CEMS and ETP flow meter and Camera Connected to CPCB server
	iii. Effective fugitive emission control measures should be imposed in the process. transportation, packing etc.	Being followed
	iv. Transportations of materials by rail/conveyer belt wherever feasible	Noted
	v. Encourage use of cleaner fuels (pet coke/ furnace oil/I.SHS may be avoided)	PNG is being used
	vi. Best available technology may be used. For example: usage of EAF/SAF/RF in place of Cupola furnace. Usage of supercritical technology in place of sub critical technology.	Not Applicable
	vii. Increase in green belt cover by 40% of the total land area beyond the permissible requirement of 33% wherever feasible.	Noted
	viii. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	Noted
	ix. Assessment of carrying capacity of transportations load on roads inside the industrial premises. if the roads required to be widened shall be prescribed as conditions	Noted
Water	Stipulation of conditions such as:	
	i. Reuse/recycle of treated wastewater, wherever feasible	Being practiced
	ii. Continuous Monitoring of effluent quality/quantity in large/medium red category industries (Water polluting)	Provided for STP and ETP ZLD
	iii. A detailed water harvesting plan may be submitted by the project proponent	Noted
	iv. ZLD- wherever techno economically feasible	ZLD is adopted
	v. In case, domestic wastewater generation is more than 10 KLD, the industry may install STP.	STP is provided and operational
Land	Stipulation of conditions such as:	
	i. Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.	Noted
	ii. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	Noted
	iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.	Noted and following the PCC guidelines
	iv. More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co- processing	Noted
Other Condition (Additional)	i. Monitoring of compliance of EC conditions may be Conditions may be submitted with third party audit every year.	Noted
	ii. The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	Noted And done being regularly

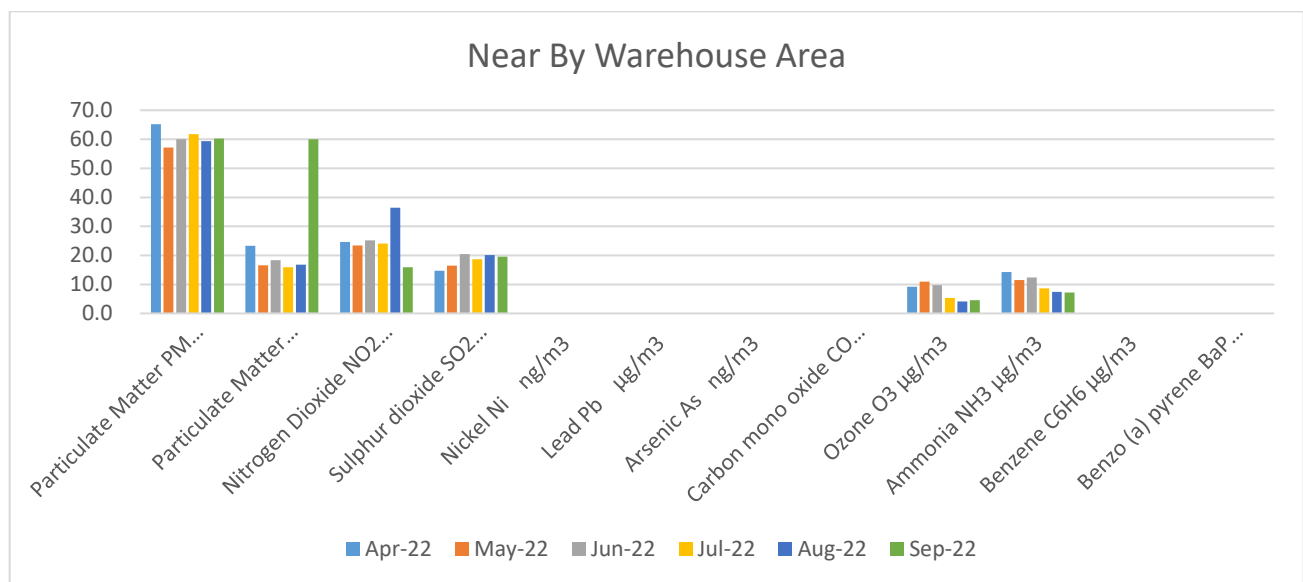
Annexure- I

Ambient Monitoring

Location: Near By Main Gate Security area								
Sl. No	Parameter	Limits (As per NAAQS)	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
1	Particulate Matter PM ₁₀ µg/m ³	100	60.3	55.61	61.38	63.39	65.32	64.27
2	Particulate Matter PM _{2.5} µg/m ³	60	23.0	17.5	21.75	22.84	23.45	21.98
3	Nitrogen Dioxide NO ₂ µg/m ³	80	23.4	22.2	23.48	25.17	26	25.47
4	Sulphur dioxide SO ₂ µg/m ³	80	15.6	15.6	17.35	16.95	18.24	17.93
5	Carbon mono oxide CO mg/m ³	20	BDL	BDL	BDL	BDL	BDL	BDL
6	Ozone O ₃ µg/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL
7	Ammonia NH ₃ µg/m ³	6	BDL	BDL	BDL	BDL	BDL	BDL
8	Carbon mono oxide CO mg/m ³	4	BDL	BDL	BDL	0.2	0.3	0.2
9	Ozone O ₃ µg/m ³	180	8.4	7.7	8.34	6.74	5.05	5.69
10	Ammonia NH ₃ µg/m ³	400	10.1	12.6	11.21	9.15	7.52	8.24
11	Benzene C ₆ H ₆ µg/m ³	5	BDL	BDL	BDL	BDL	BDL	BDL
12	Benzo (a) pyrene BaP ng/m ³	1	BDL	BDL	BDL	BDL	BDL	BDL



Location : Near By Ware house area								
Sl. No	Parameter	Limits (As per NAAQS)	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
1	Particulate Matter PM ₁₀ $\mu\text{g}/\text{m}^3$	100	65.2	57.1	60.03	61.8	59.35	60.18
2	Particulate Matter PM _{2.5} $\mu\text{g}/\text{m}^3$	60	23.3	16.6	18.34	15.95	16.78	60
3	Nitrogen Dioxide NO ₂ $\mu\text{g}/\text{m}^3$	80	24.6	23.4	25.14	24.08	36.46	15.91
4	Sulphur dioxide SO ₂ $\mu\text{g}/\text{m}^3$	80	14.7	16.5	20.47	18.62	20.05	19.57
5	Carbon mono oxide CO mg/m^3	20	BDL	BDL	BDL	BDL	BDL	BDL
6	Ozone O ₃ $\mu\text{g}/\text{m}^3$	1	BDL	BDL	BDL	BDL	BDL	BDL
7	Ammonia NH ₃ $\mu\text{g}/\text{m}^3$	6	BDL	BDL	BDL	BDL	BDL	BDL
8	Carbon mono oxide CO mg/m^3	4	BDL	BDL	BDL	0.1	0.2	0.2
9	Ozone O ₃ $\mu\text{g}/\text{m}^3$	180	9.1	10.9	9.75	5.36	4.15	4.59
10	Ammonia NH ₃ $\mu\text{g}/\text{m}^3$	400	14.3	11.5	12.36	8.65	7.39	7.18
11	Benzene C ₆ H ₆ $\mu\text{g}/\text{m}^3$	5	BDL	BDL	BDL	BDL	BDL	BDL
12	Benzo (a) pyrene BaP ng/m^3	1	BDL	BDL	BDL	BDL	BDL	BDL



ANNEXURE-II

Stack Monitoring

250 KVA DG						
MONTH	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
Area of cross section of stack. m²	0.028	0.028	0.028	0.028	0.028	0.028
Stack Top °C	Round	Round	Round	Round	Round	Round
Temperature °C	135	126	135	139	131	131
Stack gas velocity m/s	10.3	9.8	10.1	10.3	10.0	10.1
Rate of discharge of gas Nm³/hr	722.74	731.57	737.3	744.6	737.3	739.2
Particulate matter mg/Nm³	45.3	40.55	43.7	40.2	37.6	38.4
Oxides of sulphur (SO₂)mg/Nm³	18.28	16.5	12.4	14.4	10.9	11.7
Oxides of Nitrogen (NO₂) mg/Nm³	31.9	35.4	31.6	28.6	25.3	21.9
Carbon monoxide (CO) mg/Nm³	17.8	19.7	22.4	20.5	19.0	17.9

Process stack(Scrubber -1)						
MONTH	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
Area of cross section of stack. m²	0.08	0.08	0.08	0.08	0.08	0.08
Stack Top °C	Round	Round	Round	Round	Round	Round
Temperature °C	42	40	42	40	37	39
Stack gas velocity m/s	8.7	8.3	8.5	8.3	7.8	8.1
Rate of discharge of gas Nm³/hr	2291.16	2256.68	2296.38	2256.68	2141.26	2209.36
Acid Mist mg/Nm³	3	2.8	3.4	3.1	2.7	3.1
Oxides of sulphur (SO₂)mg/Nm³	7.65	6.85	9.5	6.91	7.92	8.41

Process stack(Scrubber -2)						
MONTH	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
Area of cross section of stack. m²	0.196	0.196	0.196	0.196	0.196	0.196
Stack Top °C	Round	Round	Round	Round	Round	Round
Temperature °C	42	39	39	38	39	41
Stack gas velocity m/s	8.2	8.5	8.7	8.4	7.9	8
Rate of discharge of gas Nm³/hr	5463.58	5680.24	5740.3	5631.46	5279.28	5312.05
Acid Mist mg/Nm³	2.9	3.2	3.5	2.8	3	2.8
Oxides of Sulphur (SO₂)mg/Nm³	8.35	9.32	7.54	6.32	8.61	8.24

Common Chimney -2 Lakh Caloric/850/600Kg/hrs Steam Boiler						
MONTH	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
Area of cross section of stack. m ²	0.23	0.23	0.23	0.23	0.23	0.23
Stack Top C ⁰	Round	Round	Round	Round	Round	Round
Temperature C ⁰	159	149	161	152	156	152
Stack gas velocity m/s	11.6	11.3	11.5	11	10.7	10.9
Rate of discharge of gas Nm ³ /hr	6569.74	6551.49	6483.09	6332.54	6102.4	6274.97
Particulate matter mg/Nm ³	69.59	62.52	45.3	39.48	36.3	39.41
Oxides of Sulphur (SO ₂)mg/Nm ³	135.22	113.14	12.67	13.85	19.01	28
Oxides of Nitrogen (NO ₂) mg/Nm ³	93.25	84.5	79.35	48.65	41.35	44.98
Carbon monoxide (CO) mg/Nm ³	7.9	0.32	0.35	1.2	1.63	1.87
Carbon dioxide (CO ₂) %	7.9	6.5	7.1	8.62	7.35	6.97

VOC in Ambient June-22				
No.	Parameters	Near Warehouse area	Near Security Main gate area	Protocol
1	Benzene, ppm	BDL	BDL	OSHA-7
2	Carbon tetra chloride, ppm	BDL	BDL	OSHA-7
3	Methanol, ppm	0.19	BDL	OSHA-7
4	Toluene, ppm	BDL	BDL	OSHA-7
5	Methyl chloride, ppm	BDL	BDL	OSHA-7
6	Acetone, ppm	0.16	BDL	OSHA-7
7	Mercapten, ppm	BDL	BDL	OSHA-7
8	Hydrogen sulphide, ppm	BDL	1.43	OSHA-7

VOC in Ambient Sep-22				
No.	Parameters	Near Warehouse area	Near Security Main gate area	Protocol
1	Benzene, ppm	BDL	BDL	OSHA-7
2	Carbon tetra chloride, ppm	BDL	BDL	OSHA-7
3	Methanol, ppm	0.26	BDL	OSHA-7
4	Toluene, ppm	BDL	BDL	OSHA-7
5	Methyl chloride, ppm	BDL	BDL	OSHA-7
6	Acetone, ppm	0.19	BDL	OSHA-7
7	Mercapten, ppm	BDL	BDL	OSHA-7
8	Hydrogen sulphide, ppm	BDL	1.4	OSHA-7

VOC in Scrubber

No.	Parameters	Process Scrubber 1 – June-2022	Process Scrubber 1- Sep-2022	Protocol
1	Area of cross section of stack, m ²	0.08	0.08	IS 11255(Part-3):2008
2	Stack Top.	Round	Round	IS 11255(Part-3):2008
3	Temperature, °C	42	39	IS 11255(Part-3):2008
4	Stack gas velocity, m/s	8.5	8.1	IS 11255(Part-3):2008
5	Rate of discharge of gas, Nm ³ /hr	2296.38	2209.36	IS 11255(Part-3):2008
6	Benzene, ppm	0.018	0.019	USEPA M0030
7	Carbon tetra chloride, ppm	BDL	BDL	USEPA M0010
8	Methanol, ppm	BDL	BDL	USEPA M308
9	Toluene, ppm	0.38	0.42	USEPA M0010
10	Methyl chloride, ppm	BDL	BDL	USEPA M0040
11	Acetone, ppm	0.82	0.76	USEPA M0010
12	Mercapten, ppm	ND	ND	USEPA M0016-A
13	Hydrogen sulphide, ppm	ND	ND	USEPA M0015

No.	Parameters	Process Scrubber 2 - June-2022	Process Scrubber -2 Sep-2022	Protocol
1	Area of cross section of stack, m ²	0.196	0.196	IS 11255(Part-3):2008
2	Stack Top.	Round	Round	IS 11255(Part-3):2008
3	Temperature, °C	39	41	IS 11255(Part-3):2008
4	Stack gas velocity, m/s	8.7	8	IS 11255(Part-3):2008
5	Rate of discharge of gas, Nm ³ /hr	5740.3	5312.05	IS 11255(Part-3):2008
6	Benzene, ppm	0.16	0.14	USEPA M0030
7	Carbon tetra chloride, ppm	BDL	BDL	USEPA M0010
8	Methanol, ppm	BDL	BDL	USEPA M308
9	Toluene, ppm	0.33	0.39	USEPA M0010
10	Methyl chloride, ppm	BDL	BDL	USEPA M0040
11	Acetone, ppm	0.67	0.72	USEPA M0010
12	Mercapten, ppm	ND	ND	USEPA M0016-A
13	Hydrogen sulphide, ppm	ND	ND	USEPA M0015

No.	Parameters	Process Scrubber - June-2022	Process Scrubber - Sep-2022	Protocol
1	Area of cross section of stack, m ²	0.126	0.126	IS 11255(Part-3):2008
2	Stack Top.	Round	Round	IS 11255(Part-3):2008
3	Temperature, °C	38	38	IS 11255(Part-3):2008
4	Stack gas velocity, m/s	8.6	7.9	IS 11255(Part-3):2008
5	Rate of discharge of gas, Nm ³ /hr	3706.42	3426.77	IS 11255(Part-3):2008
6	Benzene, ppm	0.021	0.025	USEPA M0030
7	Carbon tetra chloride, ppm	BDL	BDL	USEPA M0010
8	Methanol, ppm	BDL	BDL	USEPA M308
9	Toluene, ppm	0.56	0.54	USEPA M0010
10	Methyl chloride, ppm	BDL	BDL	USEPA M0040
11	Acetone, ppm	0.89	0.76	USEPA M0010
12	Mercapten, ppm	ND	ND	USEPA M0016-A
13	Hydrogen sulphide, ppm	ND	ND	USEPA M0015

ANNEXURE-III
WATER SAMPLE ANALYSIS

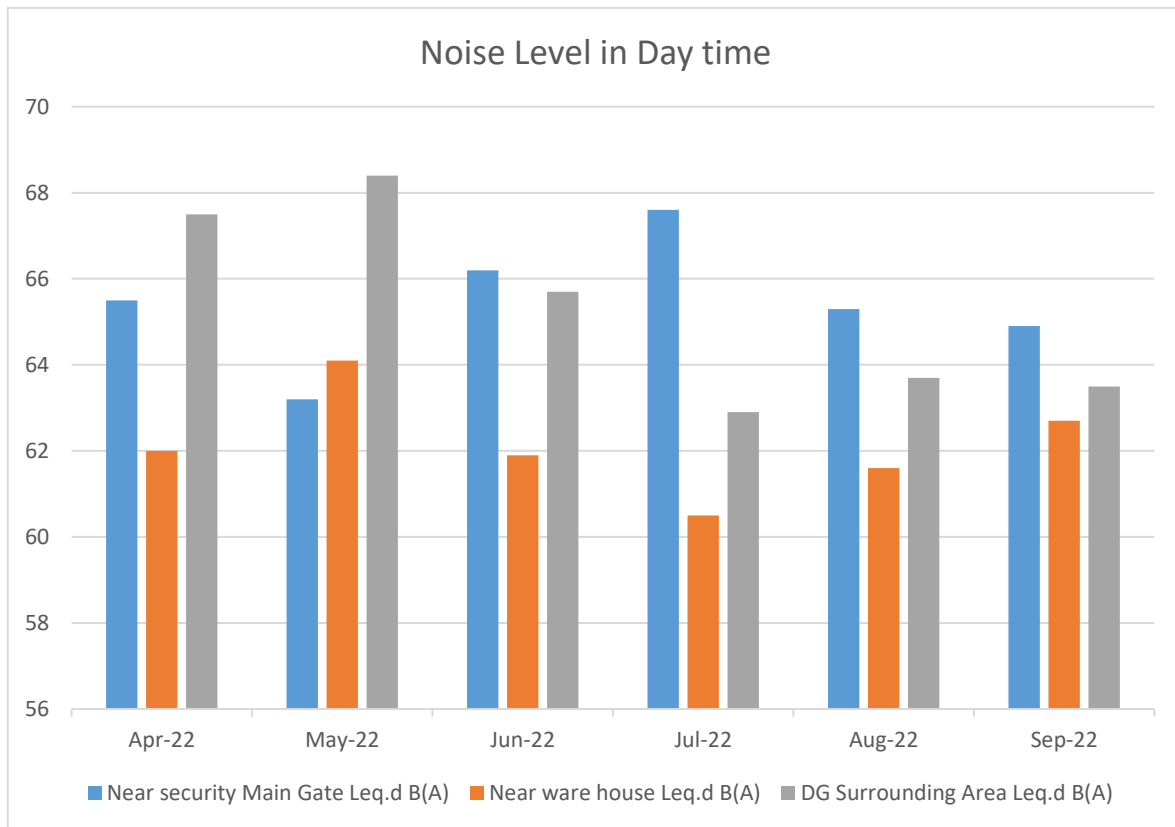
ETP Treated RO Permeate Water								
Parameter/Month	Protocol	Limits (KSPCB)	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
pH	IS 3025 (Part11): 1983 Reaff.2017	6.0 – 9.0	7.34	7.51	7.09	7.25	7.52	8.08
Total suspendedsolid mg/L	IS-3025(Part-17) : 1984 (RA2003)	Max 100	28.6	12	BDL	14	10	18
Bio chemical oxygen demand(3 days @ 27°C)	IS-3025(Part- 44) : 1993 Reaff.2019	Max 30	12	10	BDL	BDL	BDL	14
Chemical oxygen demand mg/L	APHA 23 rd Edition	Max 250	105.4	92.21	BDL	13.3	BDL	74.5
Ammonical Nitrogen, mg/L	IS 3025 (Part-34) : 1988 Reaff.2019	Max 50	20.6	18.06	BDL	3	BDL	13.4
Total dissolvedsolid mg/L	IS 3025 (Part-16): 1984 Reaff.2017	2100	169	429.4	64.96	79.2	22.84	436.5
Total Nitrogen, mg/L	IS 3025 (Part-34): 1988 Reaff.2019	Max 100	57	50	17	20	BDL	44.7
Fecal Coliform/ 100ml,cfu	IS 1622-1981	<100.0	28	24	BDL	BDL	BDL	BDL

STP Treated Water								
Parameter/Month	Protocol	Limits (KSPCB)	Apr-22	May-22	June-22	July-22	Aug-22	Sep-22
pH	IS 3025 (Part11): 1983 Reaff.2017	6.5 -9.0	8.37	7.61	7.2	7	7.2	7.84
Total suspendedsolid mg/L	IS-3025(Part-17) : 1984 (RA2003)	Max 20	10	14	12	10	13	14
Bio chemical oxygen demand(3 days @ 27°C)	IS-3025(Part- 44) : 1993 Reaff.2019	-	522	397.06	601.6	594.6	494.9	569.4
Chemical oxygen demand mg/L	APHA 23 rd Edition	50	26.34	13.17	BDL	26.6	26.4	37.2
Ammonical Nitrogen, mg/L	IS 3025 (Part-34) : 1988 Reaff.2019	Max 10	6	4	BDL	6	5	6
Total dissolvedsolid mg/L	IS 3025 (Part-16): 1984 Reaff.2017	10	8.6	7	8	1.5	6	5
Total Nitrogen, mg/L	IS 3025 (Part-34): 1988 Reaff.2019	5	1.92	1.51	3.01	7	BDL	BDL
Fecal Coliform/ 100ml,cfu	IS 1622-1981	<100.0	20.6	19	12	11	10	13

ANNEXURE-IV

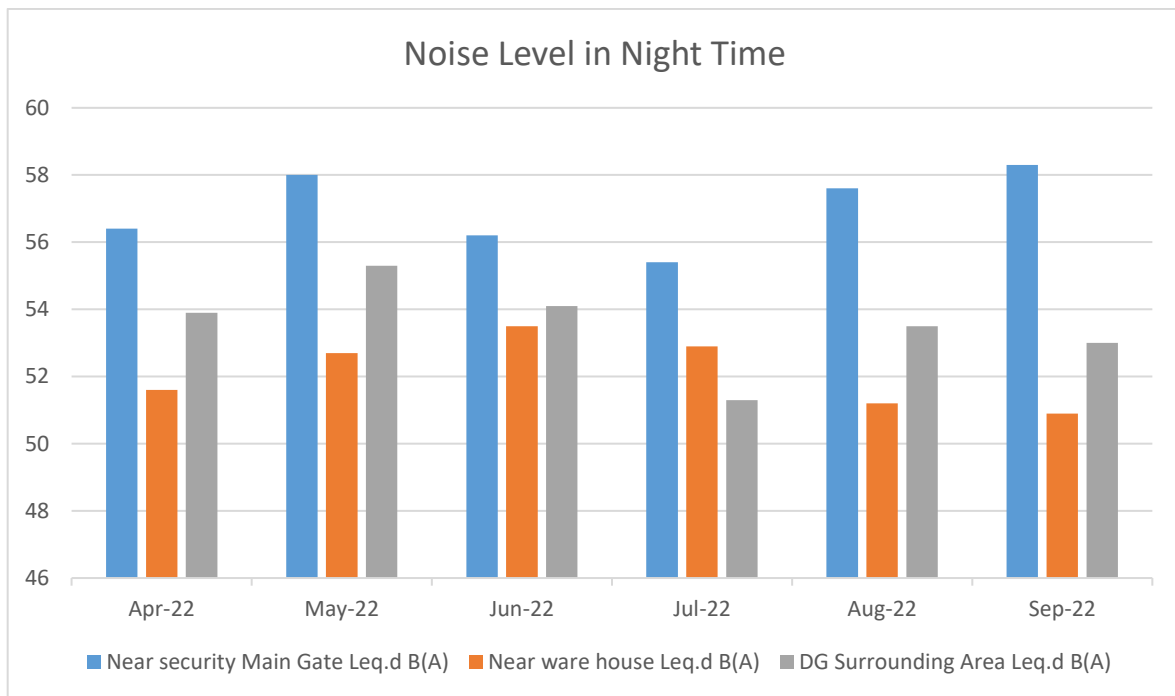
NOISE MONITORING- Day Time

	Near security Main Gate	Near warehouse	DG Surrounding Area	Protocol
MONTH	Leq. dB(A)	Leq dB(A)	Leq. dB(A)	IS 9989:1981
Apr-22	65.5	62	67.5	
May-22	63.2	64.1	68.4	
Jun-22	66.2	61.9	65.7	
Jul-22	67.6	60.5	62.9	
Aug-22	65.3	61.6	63.7	
Sep-22	64.9	62.7	63.5	



NOISE MONITORING- Nighttime

	Near security Main Gate	Near warehouse	DG Surrounding Area	Protocol
MONTH	Leq. dB(A)	Leq dB(A)	Leq. dB(A)	IS 9989:1981
Apr-22	56.4	51.6	53.9	
May-22	58	52.7	55.3	
Jun-22	56.2	53.5	54.1	
Jul-22	55.4	52.9	51.3	
Aug-22	57.6	51.2	53.5	
Sep-22	58.3	50.9	53	



Annexure-V
Training Records

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Unit-II, Bangalore
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Page 01 of 01

EHS - TRAINING RECORD

DATE & TIME	TRAINING AREA/TOPIC	TRAINER(S) SIGNATURE
27/09/2022	Procedure for Plant Safety Inspection	[Signature] 27/09/2022

Attendance:

Sl.No.	Name	Department	Sign.	Remarks
01.	D. Ramesh	Production	[Signature]	-
02.	M. Karthikeyan	TSR	[Signature]	-
03.	Shivamogou	Production	[Signature]	-
04.	Kadana gouda	EHS	[Signature]	-
05.	J. Manu Selvam	Production	[Signature]	-
06.	S. Mohamed Saleem	Production	[Signature]	-
07.	M. Srinivasan	Production	[Signature]	-
08.	Pratikumar Loganathan	EHS	[Signature]	Lead
09.	Nayana K	Production	[Signature]	-
10.	R. Venasiddappa	EAM	[Signature]	-
11.	Prasanth R	Production	[Signature]	-
12.	P. N. Srinivas Reddy	Production	[Signature]	-
13.	M. Srinivas T.G	Stores	[Signature]	-
14.	P. Prashant Kumar	Production	[Signature]	-
15.	Madhur L	Production	[Signature]	-
16.	P. Praveen Kumar	QC	[Signature]	-
17.	Chandrasekhar	HR & Admin	[Signature]	-
18.	Chandrasekhar	Production	[Signature]	-

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Date of Issue	29/08/2022
Signature of Issuing Person	[Signature]
Signature of Receiver	[Signature]

EHS - TRAINING RECORD

29/08/2022
HIKAL
Unit-II, Bangalore
FORMAT No.: ES01011/F/01-00
Page 01 of 01

DATE & TIME	TRAINING AREA/TOPIC	TRAINER(S) SIGNATURE
29/08/2022	Procedure for Half yearly, Yearly Medical Examination of Employees & Contract Employees	[Signature] 29/08/2022

Attendance:

Sl.No.	Name	Department	Sign.	Remarks
01	Ranjith T	production	[Signature]	-
02	M. Saravanan	production	[Signature]	-
03	R. Thimmayyalam	production	[Signature]	-
04	Manjunatha T.G	store	[Signature]	-
05	A. Chinnadurai	production	[Signature]	-
06	Prasanth R	production	[Signature]	-
07	Ashwath Kumar	HR & Admin	[Signature]	-
08	B. Kiran Kumar	production	[Signature]	-
09	R. Thimmayyalam	TSD	[Signature]	-
10	Manojkumar	production	[Signature]	-
11	G. Neelakrishna	production	[Signature]	-
12	Prashant Kumar	warehouse	[Signature]	-
13	Madhua L	warehouse	[Signature]	-
14	Ashwath Kumar	production	[Signature]	-
15	Vishnu K. Nay	EAM	[Signature]	-
16	Sankar Kumar Maricher	EAM	[Signature]	-
17	Kedari Gowda	EAM	[Signature]	understand
18	Kishore Y	QA	[Signature]	Good.

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Date of Issue	26/07/2022
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[Signature]
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Unit-II, Bangalore
FORMAT No.: ES01011/F/01-00
Page 01 of 01

EHS - TRAINING RECORD

DATE & TIME	TRAINING AREA/TOPIC	TRAINER(S) SIGNATURE
26/07/2022 10:00 hrs	Training on usage of Manual call point (MCP)	[Signature]

Attendance: 15

Sl.No.	Name	Department	Sign.	Remarks
1	Shivanagoud	Production	[Signature]	
2	Prasanth R	Production	[Signature]	under stand.
3	Suresh Borik	Production	[Signature]	
4	Kedari Gowda	E & M	[Signature]	understand
5	C. Sateesh	production	[Signature]	
6	J. Mani Babesam	production	[Signature]	understood
7	Mathu. L	Store	[Signature]	Understood.
8	S. MURTHY	MYNT	[Signature]	
9	Channasamy. S	Production	[Signature]	
10	Manjunatha T.G	Store	[Signature]	
11	Prasanna-nithi	production	[Signature]	Good.
12	Prasanna Jagannath	EM	[Signature]	Good
13	Jegannathan. P	E & M	[Signature]	Good.
14	Gowmodin Patil	EM	[Signature]	Good.
15	Bhaskar Kumar	EM	[Signature]	informative
			NA	
				[Signature] 26/07/2022

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Date of Issue	05/07/2022
Signature of Issuing Person	<i>[Signature]</i>

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Page 01 of 01

EHS - TRAINING RECORD

Date & Time	Training Area/Topic	Trainer(s) Signature
05/07/2022	Training On CMR Substances	<i>[Signature]</i> 05/07/2022

Attendance:

Sl. No.	Name	Department	Sign	Remarks
01.	D. Ramesh	Production	<i>[Signature]</i>	-
02	Prasanth R	Production	<i>[Signature]</i>	-
03	Shivanagoud	production	<i>[Signature]</i>	-
04	Debasish Panda	production	<i>[Signature]</i>	-
05	Madhu L	Stores	<i>[Signature]</i>	-
06	Prasanth Kumar	Stores	<i>[Signature]</i>	-
07	C. Sankarsh	production	<i>[Signature]</i>	-
08	Prasanth	Production	<i>[Signature]</i>	-
09	Chinnabasaiah	Production	<i>[Signature]</i>	-
10	Sajal Jain	PD LAB	<i>[Signature]</i>	-
11	Shahid Uddin Khan	PDLab	<i>[Signature]</i>	-
12	Mohan. G.S.	PDLab.	<i>[Signature]</i>	ok
13	Vinod Kumar	QC	<i>[Signature]</i>	-
14	S. Upendra	QC	<i>[Signature]</i>	ok
15	Abhishek Gowda HV	QC	<i>[Signature]</i>	ok
16	Sahana N.B	QC	<i>[Signature]</i>	understand
17	Ashwanya Hosamani	QC	<i>[Signature]</i>	good
18	Perumal Kumar	QC	<i>[Signature]</i>	Good
			<i>[Signature]</i> 05/07/2022	

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 Unit-II, Bangalore
 FORMAT No.: BS010119/01-08
 Page 01 of 01

EHS - TRAINING RECORD

DATE & TIME	TRAINING AREA/TOPIC	TRAINER(S) SIGNATURE
28/09/2022	Procedure for solid Hazardous @ then Waste Handling	Handwritten Signature 28/09/2022

Attendance:

Sl.No.	Name	Department	Sign.	Remarks
01	P. Pamesh	Production	A	understood
02	Sathyanarayanan	Production	Handwritten	understood
03	R. Nirmal	Production	R.N	good
04	D. Suresh Prathap	Production	D.S.P	good
05	J. Mani Chelvan	Production	J.M.C	good
06	P. Narendran Reddy	Production	N.Reddy	good
07	V. nandhan	Production	v.nam	good
08	C. Sathish	production	C	good
09	V. Suresh Kumar	production	V.S.K	good
10	Karthikeyan S	production	K.S	-
11	A. Balachandhar	Production	B.A	-
12	Rajesh Nair S	EHS	R.N.S	-
13	Gopinath P.V.	EHS	G.P.V	-
14	Srikanth M	EHS	S.M	-
15	Muthappa N.V	EHS	M.N.V	-

Annexure-VII
Display board provided at main gate

HIKAL LIMITED				
Plot No.28, KIADB INDUSTRIAL AREA, JIGANI, ANEKAL TALUK, BANGALORE-560 105				
DETAILS FOR THE MONTH OF <u>October-2022</u>				
1. WATER ACT:		Consent No.: <u>AW-325853</u>		
Water Consumption in KLD		Waste Water in KLD		
I. Domestic : <u>1.95 KLD</u>	I. Domestic : <u>1.45 KLD</u>		Valid Till: <u>30/06/2022</u>	
II. Industrial : <u>32.755 KLD</u>	II. Industrial : <u>19.16 KLD</u>		Mode Of Treatment : <u>ZLD</u>	
2. AIR ACT:		Consent No.: <u>AW-325853</u>		
Number of Sources: <u>03</u> <u>Boiler, Scrubber, DG</u>		Fuel Consumption		
		Valid Till: <u>30/06/2022</u>		
		Control Equipment Types & Nos		
		Emission Load, kg/Month		
		SOx : <u>14.8</u>		
		NOx : <u>25.95</u>		
		SPM : <u>10.50</u>		
		CO : <u>10.50</u>		
3. NON-HAZARDOUS WASTE DETAILS				
Generation Quantity Month :		Kgs		
4. HAZARDOUS WASTE MANAGEMENT & HANDLING RULES		Mode Of Disposal: <u>Recycle</u>		
Authorization No.: <u>322319</u>		Valid Till: <u>30/06/2022</u>		
Sl. No.	Waste Category	Quantity Generated in MT	Quantity Stored in MT	Quantity Disposed in MT
1	5.1 - Used Spent Oil	0	0	0
2	28.1 - Process Residue and wastes	<u>9.32</u>	0	0
3	28.2 - Spent catalyst	0	<u>1.446</u>	<u>10.43</u>
4	28.3 - Spent carbon	0	0	0
5	28.4 - Off specification products	<u>1.79</u>	<u>0.372</u>	0
6	28.5 - Date-expired products	0	0	<u>2.015</u>
7	28.6 - Spent solvents	0	0	0
8	33.1 - Empty barrels/containers /liners contaminated with hazardous chemicals /wastes	<u>3.80</u>	<u>0.3240</u>	0
9	33.2 - Contaminated cotton rags or other cleaning materials	<u>5.924</u>	<u>0.406</u>	<u>4.82</u>
10	34.1 - Chemical-containing residue arising from decontamination.	0	0	0
11	34.2 - Sludge from treatment of wastewater arising out of cleaning / disposal of barrels/containers	0	0	0
12	35.3 - Chemical Sludge from Wastewater Treatment	<u>0.825</u>	0	0
13	36.1 - Any process or distillation residue	<u>1.654</u>	0	<u>0.805</u>
14	37.3 - Concentration or evaporation residues	0	<u>0.04</u>	<u>2.27</u>
15	B2020 - Glass wastes in non-dispersible form	<u>8.91</u>	0	0
16	B3050 - Wood waste and scrap	0	<u>1.100</u>	<u>7.835</u>
17	B4010 - Wastes consisting mainly of water-based or latex paints, inks and hardened varnishes	0	0	0
18	B3020 - Paper, paperboard and paper product wastes	0	0	0
19	DB1010 - Metal and metal-alloy wastes	<u>0.295</u>	0	0
5. ELECTRONIC WASTES		Qty Stored: <u>NIL</u>	Quantity disposed: <u>NIL</u>	
6. NUMBER OF LEAD ACID BATTERIES		Qty Stored: <u>NIL</u>	No. of Batteries disposed : <u>NIL</u> No/Month	

Annexure-VIII
Form- V for year 2021-2022

OK

HIKAL

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

28th September 2022

Dear Sir,

Sub: Submission of **Environmental Statement in Form-V** of M/s Hikal Limited, 28,
KIADE Industrial Area, Anekal Taluk, Bangalore.
Ref: Combined Consent No.: AW-325853 dated-26/07/2021 and Environment
(Protection) Act 1986

With reference to the above subject, we are hereby submitting the "**Environmental Statement**" in **Form -V** for the year of **2021-2022** 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 & Site Head



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, Basaveshwara Nagar, Bangalore - 560 079

Factory Unit II: 28, KIADE Indl. Area, Jigani, Anekal Taluk, Bangalore - 560 105, India. Tel: +91 010 421000

Admin. Office: Great Eastern Chambers, 6th Floor, Secy-II, CSD, Bellary, New Mysore - 560 014, India. Tel: +91 22 0277 0329 +91 22 0100 0300

Regd. Office: 77, Astor Chambers, S. Narayan Point, Mysore - 560 021, India. Tel: +91 22 0271 0472 +91 22 0277 0500

www.hikal.com info@hikal.com CIB-124700MHKSRDF5128C28