Minutes of the 658th meeting of the State Level Expert Appraisal Committee held on 21st July 2023 through Video Conference (VC) on National Informatics Centre (NIC).

The agenda of the present meeting was mailed to expert Committee in advance and a Video conference meeting on NIC was organised in this regard on 21/07/2023 at 13.30 hrs.

The 658th meeting of the State Level Expert Appraisal Committee (SEAC) was held online by Video conferencing on 21st July 2023 at 13.30 hrs. Following members joined the meeting:

1.	Shri Akshay Kumar Saxena, Chairman, SEAC
2.	Dr. S. C. Pant, Vice Chairman, SEAC
3.	Shri D. C. Chaudhari, Member, SEAC
4.	Shri J. K. Vyas, Member, SEAC
5.	Shri Anand Zinzala, Member, SEAC
6.	Shri B. M. Tailor, Member, SEAC

The Committee considered the applications made by project proponents, additional details submitted as required by the SEAC/SEIAA and details furnished in the Form-1, PFR, EMP reports etc. The applicants made presentations on the activities to be carried out along with other details furnished in the Form-1, PFR, EIA-EMP reports and other reports.

1.	SIA/GJ/IND3/249245/2021	**M/s. Aries leboratry** 18, Natraj Industrial Estate, Vill., Iyava - Sanand, Dist, Ahmedbad.	EC-New
Category of the unit: **5(f)** Project status: **EC - New** 1) PP remained absent during SEAC meeting dated 21.07.2023. Also, PP has not submitted any email regarding remaining absent during meeting dated: 21.07.2023. 2) Committee noted that PP remained absent during meeting dated: 21.07.2023. **After deliberation, SEAC unanimously decided to defer the proposal and consider the same in one of the upcoming meeting of SEAC.**			
2.	SIA/GJ/IND3/416191/2023	**M/s. Maheshraj Chemicals Pvt. Ltd.** Plot No. D-2-CH-78, Industrial estate Dahej-II, Ta: Vagra, Dist. Bharuch.	EC-New
Category of the unit: **5(f)** Project status: **EC-New** 1) Details of application:			

1.1. Type of application:	New
1.2. Proposal no.	SIA/GJ/IND3/416191/2023
1.3. Category of Project :	5(f) – B1
1.4. Date of application:	01st February, 2023
1.5. Date of EDS by SEIAA *A) EDS RAISED* *B) REPLY BY PP*	 A) -- B) --
1.6. Date of EDS by SEAC *A) EDS RAISED* *B) REPLY BY PP* C) *ACCEPTED* BY SEAC	 A) 21ST FEBRUARY, 2023 B) 11TH APRIL, 2023 C) 15TH APRIL, 2023
1.7. TOR No. & Date :	SIA/GJ/IND/189812/2022 Dated 07th December, 2022
1.8. Date and place of Public Hearing	Not Applicable, as unit is situated in GIDC area
1.9. Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	M/s. Enviro Fluid Consultants
1.10. SEAC Meeting No. and Date:	658th SEAC Meeting dated 21st July, 2023.
1.11. ADS raised by SEAC meeting No & date :	--
1.12. Reply Submitted by PP dated:	--
1.13. Revised Consideration SEAC Meeting No. and Date:	--

2) This is a Greenfield project proposed for manufacturing of synthetic organic chemicals as mentioned below:

Sr. No.	Name of Products	CAS / CI number	Total Quantity (MT/Month)	End Use
Group- A				
1.	Ortho Nitro Chloro Benzene (1-Chloro-2-Nitrobenzene)	88-73-3	**2000.00**	Used in manufacturing of various Dyes and Pigments
2.	Para Nitro Chloro Benzene (1-Chloro-4-Nitobenzene)	100-00-5		
3.	Ortho Di Chloro Benzene	95-50-1		
4.	Para Di Chloro Benzene	106-46-7		
5.	2, 4 Di Nitro Chloro Benzene	97-00-7		
6.	Para Nitro Aniline	100-01-06		
7.	Ortho Nitro Aniline	88-74-4		
8.	Ortho Anisidine	90-04-0		
9.	Para Anisidine	104-94-9		
10.	Ortho amino Phenol	95-55-6		

Group- B					
11.	6 Acetyl OAPSA	40306-75-0	**500.00**	Used in manufacturing of various Dyes and Pigments	
12.	Meta Phenylene Diamine Sulfonic Acid (MPDSA)	88-63-1			
13.	Diamino Stilbene Disulphonic Acid (DASDA)	81-11-8			
14.	PAABSA	104-23-4			
15.	4-Sulpho Anthranilic Acid	98-43-1			
16.	4-Sulpho hydrozone	118969-29-2			
17.	Copper Formazone Baze	77840-01-8			
18.	Anthranilic Acid	118-92-3			
19.	Metanilic Acid	121-47-1			
20.	DNSDA	128-42-7			
21.	Mix Cleaves (1,6 and 1,7)	119-28-8			
22.	4-NADPSA	91-29-2			
23.	4-ADAPSA	91-30-5			
24.	N-Methyl J Acid	22346-43-6			
25.	N-Phenyl J Acid	119-40-4			
26.	J Acid Urea	854812-04-7			
27.	Dia J Acid	87-02-5			
28.	Sulpho J Acid	40492-14-6			
29.	5-NAP	121-88-0			
30.	4-NAP	99-57-0			
31.	4-NAPSA	96-67-3			
32.	Blue 49 Base	24124-40-1			
33.	Blue HEGN Stage I	17691-19-9			
34.	Blue HEGN Stage II	--			
35.	6 Chloro 4- NAP	5857-94-3			
36.	6 Nitro 4-CAP	95-85-2			
37.	PPDDSA	7139-89-1			
38.	PPDSA	--			
39.	PA3SA	13244-33-2			
40.	4-amino 2-carboxymethyl amino benzene sulphonic acid	133-78-8			
41.	Acetyl MPDSA	88-64-2			
42.	PA2SA	6470-17-3			
43.	4-4 DABA	785-30-8			
44.	EBAMSA	101-11-1			
45.	MPDDSA	137-50-8			
46.	PA25DSA	27327-48-6			
47.	Sulpho C Acid	27310-25-4			
48.	OT5SA	98-33-9			

49.	MAP	90776-59-3			
50.	6-CAPSA	887-76-3			
51.	4-CAPSA	88-23-3			
52.	Ortho di anisidine base	90-04-0			
53.	OAPSA	98-37-3			
54.	Meta Xylidene Sulfonic acid	88-61-9			
55.	PT-3 SA	14286-02-3			
56.	Blue HEGN Stage III	60316-87-2			
57.	OAVS	10079-20-6			
58.	Sulpho OAVS	42986-22-1			
59.	Sulpho	121-88-0			
60.	DMAVS	2986-22-1			
61.	PCVS	26672-24-2			
62.	NEPA Ester	21635-69-8			
63.	Samba Amine	84793-24-8			
64.	Bronner Acid	--			
65.	Benzanilide	93-00-5			
66.	OAPSAMIDE	93-98-1			
67.	CPC Blue	71215-81-1			
68.	Methyl OAPSAMIDE	147-14-8			
69.	Anthranilic OAPSAMIDE	80-23-9			
70.	Gama Acid	91-35-0			
71.	Sulpho Gama Acid	90-51-7			
72.	K-Acid	90-40-4			
73.	DMAP	118-03-6			
74.	DTPTSA	1122-58-3			
75.	3-5 DABA	130-17-6			
76.	Sodium Napthionate	535-87-5			
77.	NW acid	130-13-2			
78.	Quinizarin	84-87-7			
79.	FC Acid	81-64-1			
80.	DASA	119-70-0			
81.	6-NAPSA	16803-97-7			
82.	STA	96-93-5			
83.	Aniline 2-4 DSA	501919-59-1			
84.	Aniline 2-5 DSA	137-51-9			
85.	AMA (3-Amino-4-methoxy Acetanilide)	137-51-9			
86.	C-Acid	96-05-9			
87.	PCOSA	131-27-1			
88.	Red B Base	6471-78-9			
89.	Bordex GP Base	97-52-9			

90.	MNPT	96-96-8			
91.	PABA	89-62-3			
92.	Tobias Acid	150-13-0			
93.	J Acid	81-16-3			
94.	CLT Acid	87-02-5			
95.	3,3 DCB	90-20-0			
96.	Bromaminic acid	88-53-9			
97.	Remazol Black 5	91-94-1			
98.	Black 8	116-81-4			
99.	Orange 12	17095-24-8			
100.	Orange 13	12225-26-2			
101.	Red 195	35642-64-9			
102.	Yellow 145	12225-85-3			
103.	Orange 122	93050-79-4			
104.	Turcoise Blue 21	93050-80-7			
105.	Blue 198	12220-12-1			
106.	Blue 220	12236-86-1			
107.	Brilliant Blue 221	124448-55-1			
108.	Orange 4	128416-19-3			
109.	Yellow 22	89933-65-3			
110.	Blue-F-J1	12225-82-0			
111.	Reactive Black B	12226-49-2			
112.	Reactive Violet 1	--			
113.	Reactive Blue 19 Base	12225-25-1			
114.	Reactive Yellow ED	12239-45-1			
115.	Reactive Red ED	2580-78-1			
116.	Reactive Brilliant Red M5B	--			
117.	Reactive Yellow H4G	--			
118.	Disperse Blue 165	12226-03-8			
119.	Disperse Blue 183	12226-48-1			
120.	Disperse Blue 291	41642-51-7			
121.	Disperse Blue 366	2309-94-6			
122.	Disperse Blue 56	56548-64-2			
123.	Disperse Blue 60	84870-65-5			
124.	Disperse Blue 79	31810-89-6			
125.	Disperse Green 2B	12217-80-0			
126.	Disperse Grey BRS	3618-73-3			
127.	Disperse Orange 25	--			
128.	Disperse Orange 288	--			
129.	Disperse Orange 30	31482-56-1			
130.	Disperse Red 13	--			

	131.	Disperse Red 153	5261-31-4			
	132.	Disperse Red 167	3180-81-2			
	133.	Disperse Red 277	78564-87-1			
	134.	Disperse Red 343	26850-12-4			
	135.	Disperse Red 54	70294-19-8			
	136.	Disperse Red 60	NA			
	137.	Disperse Red 73	6657-37-0			
	138.	Disperse Red 74	17418-58-5			
	139.	Disperse Violet 63	16889-10-4			
	140.	Disperse Yellow 114	61703-11-5			
	141.	Disperse Yellow 119	64294-88-8			
	142.	Disperse Yellow 184_1	61968-669			
	143.	Disperse Yellow 211	57308-41-5			
	144.	Disperse Yellow 54	164578-37-4			
	145.	Vat Black UNXF	70528-90-4			
	146.	Vat Blue 20	7576-65-0			
	147.	Vat Green 9	--			
	148.	Gold	116-71-2			
	149.	Silver	6369-65-9			
	150.	Metallic	13463-67-7			
	151.	Interference	12001-26-2			
	152.	Direct Black 80	--			
	153.	Direct Black 168	--			
	154.	Direct Black 19	8003-69-8			
	155.	Direct Black 22	85631-88-5			
	156.	Direct Red 23	6428-31-5			
	157.	Direct Red 80	6473-13-8			
	158.	Direct Red 81	3441-14-3			
	159.	Direct Red 239	08-10-10			
	160.	Direct Orange 39	09-11-10			
	161.	Direct Blue 71	60202-35-9			
	162.	Direct Blue 86	1325-54-8			
	163.	Direct Blue 199	4399-55-7			
	164.	Direct Yellow 147	1330-38-7			
	165.	Direct Yellow 157	12222-04-7			
	166.	Direct Yellow 11	71838-49-8			
	167.	Direct Yellow 86	72705-26-1			
	168.	Direct Violet 35	1325-37-7			
	169.	Solvent Black 46	50925-42-3			
	170.	Solvent Blue 122	6227-20-9			
	171.	Solvent Green 7	65113-55-5			

	172.	Solvent Red 119	67905-17-3			
	173.	Solvent Yellow 124	6358-69-6			
	174.	Basic Violet 1	12237-27-3			
	175.	Basic Violet 4	34432-92-3			
	176.	Basic Green 1	8004-87-3			
	177.	Basic Yellow 90	2390-59-2			
	178.	Basic Yellow 96	633-03-4			
	179.	Basic Orange 60	6359-90-6			
	180.	Basic Red 12	167973-11-7			
	181.	Basic Red 18	263016-66-6			
	182.	Basic Violet 2	6320-14-5			
	183.	Basic Violet 3	25198-22-5			
	184.	Basic Violet 7	3248-91-7			
	185.	Basic Violet 11	548-62-9			
	186.	Basic Red 13	6441-82-3			
	187.	Basic Blue 1	73398-89-7			
	188.	Basic Blue 3	3648-36-0			
	189.	Acid Black 210	3521-06-0			
	190.	Acid Black 194	33203-82-6			
	191.	Acid Orange 142	157577-99-6			
	192.	Acid Red 357	61931-02-0			
	193.	Acid Yellow 42	61901-39-1			
	194.	Acid Blue 193	61901-39-1			
	195.	Acid Brown 161	6375-55-9			
	196.	Acid Brown 282	12392-64-2			
	197.	Acid Brown 355	61724-13-8			
	198.	Acid Brown 432	12219-65-7			
	199.	Violet 23	60181-77-3			
	200.	Violet 19	119509-50-1			
	201.	Pigment red 122	215247-95-3			
	202.	Pigment red 210	1047-16-1			
	203.	Carbazole Dioxazine Violet Pigment (Pidilite)	980-26-7			
	204.	Yellow 138	61932-63-6			
	205.	Yellow 139	215247-95-3			
	206.	Yellow 151	30125-47-4			
	207.	Yellow 180	36888-99-0			
	208.	Yellow 183	31837-42-0			
	209.	Orange 36	77804-81-0			
	210.	Orange 64	65212-77-3			
	211.	Yellow 74	12236-62-3			
	212.	Red 112	72102-84-2			

213.	Orange 34	6358-31-2		
214.	Red 8	6535-46-2		
215.	Yellow 12	15793-73-4		
216.	Yellow 13	6410-30-6		
217.	Yellow 14	6358-85-6		
218.	Yellow 83	5102-83-0		
219.	Yellow 191.1	5468-75-7		
220.	Red 2	5567-15-7		
221.	Red 3	129423-54-7		
222.	Red 4	6041-94-7		
223.	Red 48	2425-85-6		
224.	Red 53	2814-77-9		
225.	Red 57	7023-61-2		
226.	Red 63	01-02-60		
227.	Red 170	09-04-81		
228.	Vat Red 1	6417-83-0		
229.	Orange 5	2786-76-7		
230.	Orange 13	2379-74-0		
231.	Green 7	3468-63-1		
232.	Blue 15.0	3520-72-7		
233.	Blue 15.1	1328-53-6		
234.	Blue 15.3	147-14-8		
235.	Blue 15.2	147-14-8		
Group- C				
236.	VS	42986-22-1	**400.00**	Used in manufacturing of various Dyes and Pigments
Group- D				
237.	H Acid	90-20-0	**200.00**	Used in manufacturing of various Dyes and Pigments
		Total	**3100.00**	--

3) The project falls under B1 category of project activity 5(f) as per the schedule of EIA Notification 2006.
4) The proposal was considered in the SEAC video conference meeting dated 21.07.2023.
5) Project proponent (PP) and their Technical Expert M/s Enviro Fluid Consultants remain present during video conference meeting.
6) Committee noted that PP has obtained auto-ToR for manufacturing of various dye and pigments as it is located in GIDC Dahej.
7) During meeting, Committee noted that there are some changes in Product list which is not as per ToR

granted, upon which PP informed that they have revised the product list in which total production capacity will increase from 2500 MT/M (as granted in ToR) to 3100 MT/M wrt the GPCB policy regarding 11 dirty products (as per query raised at the time of EC application) which is not acceptable as unit has not obtained ToR-Amendment for the same.

8) In view of the same, PP informed that they will withdraw the said application.

9) Later on vide email dated: 21.07.2023, PP has submitted the copy of withdrawal letter dated: 21.07.2023 mentioning reason of withdrawal was due to technical issue and revision in product list.

In view of the above, Committee unanimously decided to recommend to permit project proponent for withdrawal of their application of Environmental Clearance and to remove the proposal from the list of pending applications & to close the file.

3.	SIA/GJ/IND3/423418/2023	**M/s. Yasho Industries Limited** PLOT NO. 583, 593, 596, 597, 598 Payal industrial Park, Industrial Infrastructure in PCPIR, Village: Pakhajan, Taluka; vagra Dist: Bharuch.	EC-Expansion

Category of the unit: **5(f)**

Project status: **Expansion**

1) **DETAILS OF APPLICATION:**

1.1. Type of application:	EC (Expansion)
1.2. Proposal no.	SIA/GJ/IND3/423418/2023
1.3. Category of Project :	5 (f) – B1
1.4. Date of application:	25-03-2023
1.5. Date of EDS by SEIAA a) EDS Raised b) Reply by PP	NO EDS raised
1.6. Date of EDS by SEAC a) EDS Raised b) Reply by PP c) Accepted by SEAC	05-04-2023 19-04-2023 21-04-2023
1.7. TOR No. & Date :	SIA/GJ/IND/19302/2023 Dated 13/02/2023
1.8. Date and place of Public Hearing	Not Applicable (Unit is located in Payal industrial Park PCPIR, Village: Pakhajan)
1.9. Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	Green Circle Inc. NABET Accredited Organization NABET/EIA/2124/RA 0219 Valid up to 26.01.2024
1.10. SEAC Meeting No. and Date:	658TH SEAC Meeting on dated 21-07-2023
1.11. ADS raised by SEAC meeting No & date :	Not Applicable
1.12. Reply Submitted by PP dated:	Not Applicable
1.13. Revised Consideration SEAC Meeting No. and Date:	Not Applicable

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2) **DELIBERATIONS OF SEAC**

1) The project falls under B1 category of project activity 5(f) as per the schedule of EIA Notification 2006.
2) The proposal was considered in the SEAC video conference meeting dated **21.07.2023**.
3) Project proponent (PP) and their Technical Expert/Consultant M/s. Green Circle Inc remain present during video conference meeting.
4) Committee deliberated on Product profile, Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt, etc.
5) Committee deliberated on baseline environmental data and quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect
6) Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detailed proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.
7) Earlier PP obtained EC. First EC letter vide letter no. SEIAA/GUJ/EC/5(f)/2258/2022 on dated 11/10/2022 and unit have obtained EC to CTE on dated 15/02/2022 and unit has not started any production activity and is under construction. PP has submitted Self-Certified Compliance Report for EC Compliance Report.
8) PP has submitted that there is no any legal actions/Closure directions/SCN etc. PP has also submitted that there is no any legal court case and public complaint against unit.
9) Committee noted that M/s Payal Properties Pvt Ltd has obtained EC for development of Payal Industrial Park at vill: Pakhajan, Pipaliya and Vahiyal, Tal: Vagra & Dist: Bharuch at PCPIR on dated: 03.06.2022.
10) Committee asked to submit the following:
    - ✓ Notarized undertaking regarding accreditation of NABET as per MoEF&CC's OM dated: 18.05.2023.
    - ✓ Details of commencement of CETP of Payal Industrial Park.
    - ✓ Notarized undertaking regarding unit will not start operation till CETP of Payal Industrial Park will be in operation.
    - ✓ Copy of water supply letter of Payal Industrial Park.
    - ✓ Justification of no increase in wastewater generation due to proposed expansion.
    - ✓ Revised CER details focusing on environmental aspects by removing medical aspects.
    - ✓ Revised EMP including cost of noise control measures.
    - ✓ Revised carbon sequestration details with details of future planning related to greenbelt development and solar panels.
11) Later on PP submitted following details through email dated: 26.07.2023 which is as under:

- ✓ Notarized undertaking dated: 26.07.2023 regarding accreditation of NABET as per MoEF&CC's OM dated: 18.05.2023 mentioning *"Green Circle Inc having valid NABET accreditation vide No: NABET/EIA/2124/RA0219 (valid up to 26/01/2024) and has prepared EIA report of said project as per ToR. Also, we hae obtained primary and secondary data for chapter -3 from M/s Satva Environ Consultancy, Ahmedabad which is NABL approved laboratory vide Certificate No: TC-10870 valid up to dated: 26/07/2024."*
- ✓ Notarized undertaking dated: 24.07.2023 mentioning *"We will not start production activity till CETP of Payal Industrial Park commence and in operation."*
- ✓ Copy of letter of M/s Payal Properties Pvt Ltd for supply of 3940 KLD water dated: 24.07.2023.
- ✓ Revised CER details focusing on environmental aspects by removing medical aspects.
- ✓ Revised EMP including cost of noise control measures.
- ✓ Revised details of carbon sequestration considering future planning in which copy of letter of M/s Payal Properties Pvt Ltd dated: 25.07.2023 for additional greenbelt development of 5000 Nos of trees in Payal Industrial Park and revised details of solar panels.

12) Committee found presentation and submission of project proponent satisfactory.

13) Since the proposed project is located in notified industrial area, public consultation is not required as per paragraph 7(i) (III) (I) (b) of the Environment Impact Assessment Notification 2006.

14) Compliance of the ToR found satisfactory.

3) **EIA REPORT (BASELINE STUDIES AND RISK ANALYSIS)**

Sr. no.	**Particulars**	**Details (Give brief note / Conclusion of the particular subject)**	**Page no., Section no. & chapter no. of EIA report**
a	Ensure that there is no change in EIA report w. r. t. ToR i.e. Form-1 & PFR	We ensure that there is no change in EIA report compare to TOR Application	-
b	Baseline environmental monitoring period	November-2020 to January-2021	Page no 89 Section no 3.3 Chapter 3
c	Whether baseline data is primary or secondary data? 1) If baseline data carried out by other NABL accredited laboratory then MoU between both. 2) If baseline data is taken from another EIA report, then MoU between NABET consultant and industry whose data used in preparing present EIA report and time period of baseline data shall be as per MoEF&CC's OM dated: 08.06.2022.	Secondary data We have carried out MOU both Consultant Satva environ consultancy and Green circle for baseline data and time bound utilized baseline data only for this project	

d	Baseline study area (Km)	10 Km	Page no 89 Section no 3.3 Chapter 3
AIR			
e	No. of AAQM stations including project site	8	Page no 93 Section no 3.5.1 Chapter 3
f	Parameters considered for AAQM including project specific parameters.		Page no 97 to 98 Section no 3.5.3, 3.5.4,3.5.6 Chapter 3

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Sr. no.	Parameters	Range of Concentrations ($\mu g/m^3$)	Remarks
1	$PM_{2.5}$	27.49 – 55.10 $\mu g/m^3$	All parameter are within permissible range as per NAAQM standards
2	PM_{10}	56.23 – 88.61 $\mu g/m^3$	
3	SO_2	9.26 – 19.68 $\mu g/m^3$	
4	NOx	11.55 – 26.23 $\mu g/m^3$	
5	VOC, Cl2, H2S	< 0.1ppm	

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g	Whether the results of AAQM is within the norms prescribed in NAAQS ? If no, give reasons as per EIA report	It is found that all parameters at eight locations are well within limits as per NAAQS Standards	Page no 97 to 98 Section no 3.5.3, 3.5.4,3.5.6 Chapter 3
h	Comments for AAQM results w. r. t. NAAQS	It is found that all parameters at eight locations are well within limits as per NAAQS Standards	Page no 97 to 98 Section no 3.5.3, 3.5.4,3.5.6 Chapter 3

Parameter	Units	Ranges of Values
PM10	µg/m3	56.23 – 88.61
PM2.5	µg/m3	27.49 – 55.10
SO2	µg/m3	9.26 – 19.68
NOx	µg/m3	11.55 – 26.23
VOC	Ppm	<0.01
PM10 (Upwind)	µg/m3	57.86-84.10
PM2.5 (Downwind)	µg/m3	28.65-42.21

i	Software used for the mathematical Modelling for anticipated incremental GLCs (Ground Level Concentrations	AERMOD View (Lakes Environment Software)	Page no 136 to 138 Section no 4.4.3.2 Chapter 4
j	The resultant concentrations w. r. t. NAAQS and its conclusion.	The incremental ground level concentration of Ambient Air Quality Parameter is negligible therefore there will be no any	Page no 97 to 98 Section no 3.5.3, 3.5.4,3.5.6

			impacts on the air quality due to the proposed project	Chapter 3
	WATER			
	k	No. of monitoring stations including project site wrt water a) Groundwater b) Surface water	Groundwater 8 nos. Surface water 3 nos.	Page no 104 to 108 Section no 3.4 Chapter 3
	l	Conclusion of the Monitoring during baseline study of water (ground water and surface water)	All the samples were colorless meeting desirable norms (<5 Hazen). All the samples meet the desirable standards (pH ranges from 7.08 to 8.19) TDS in samples ranges from 1096 mg/L to 1678 mg/L. All the samples meet the permissible limit of 2000 mg/L. Total Hardness in the water ranges from 206 mg/L to 350 mg/L. All the samples meet the permissible limit of 600 mg/L. Calcium content in the water ranges from 55.3 mg/L to 73.6 mg/L, all the samples meet the permissible limit of 200 mg/L. Magnesium content in the water ranges from 24.9 mg/L to 40.8 mg/L. All the samples meet the permissible limit of 100 mg/L. Alkalinity content in the water ranges from 125 mg/L to 173 mg/L. All the samples meet the permissible limit of 400 mg/L for drinking water. Hence, it can be observed that ground water qualities in terms of various essential and desirable characteristics are found within the limits specified by IS 10500:2012	Page no 104 to 108 Section no 3.4 Chapter 3
	m	No. of monitoring stations including project site wrt soil	The Soil sample was collected from eight location within project area.	Page no 109 to 110 Section no 3.8 Chapter 3
	n	Conclusion of the Monitoring during baseline study of land / soil	All the samples were colorless meeting desirable norms (<5 Hazen). All the samples meet the desirable standards (pH ranges from 7.23 to 7.65) Calcium in the Soil ranges from 0.35 mg/kg to 0.71 mg/kg. Magnesium in the Soil ranges from 0.21 mg/kg to 0.45 mg/kg.	Page no 109 to 110 Section no 3.8 Chapter 3

		Available Nitrogen in the Soil ranges from 0.50 mg/kg to 0.89 mg/kg.	
o	No. of monitoring stations including project site wrt Noise	The Noise sample was collected from eight location within project area.	Page no 99 Section no 3.6 Chapter 3
p	Conclusion of the Monitoring during baseline study of Noise	Acoustic enclose will be provided with to minimize noise level also noise barriers / absorbers around stationery noise sources will be installed. The adequate PPEs will be provided to workers as a barrier of noise.	Page no 99 Section no 3.6 Chapter 3

q Any other details:

a) Details of carbon footprint and Details of water footprint:

Sr. no.	Category	Quantity	Unit
1	Imported coal	70200	MT/year
2	Diesel	22000	liter/Year
3	Electricity	24000000	kWh/year
4	Fresh water consumption	931800	KL/year
5	Waste water generation	348000	KL/year
6	Solid waste generation	10930	Mt/year

Scope	Description		Applicability
1	DIRECT GHG EMISSIONS		
	1.1	Direct emissions from stationary combustion	Yes
	1.2	Direct emissions from mobile combustion	Yes
2	INDIRECT GHG EMISSIONS FROM IMPORTED ENERGY		
	2.1	Indirect emissions from imported electricity	Yes
	2.2	Indirect emissions from imported energy	NA
3	OTHER INDIRECT GHG EMISSIONS		
	3.1	Water consumption	Yes
	3.2	Waste water generation	Yes
	3.3	Solid waste generation	Yes
	3.4	Upstream transportation of goods	Yes
	3.5	Employee commuting	Yes

Total emission

Scope	Gross Emissions (t CO2 eq./year)

Scope-1	1011.92
Scope-2	18960
Scope-3	4396.1297
Total emissions (t CO2 eq. /year)	**24368.0497**

b) Details of carbon sequestration:

Sr. No.	Botanical Name	Common Name	Nos. of Tree
1	Azadiracta indica	Neem	2843
2	Polyalthia longifolia	Asopalav	2000
3	Pongamia pinnata	Karanj	500
4	Delbergia sissoo	Sisam	1630
5	Ficus religiosa	Peepal	3000
6	Eugenia jambolana	Jamun	500
7	Mangifera indica	Mango	5532
8	Moringa pterydosperma	Sargvo	250
			16255

The total carbon sequestered through trees (16255 trees) = 18098.317 t CO2 eq. /year

Total emissions reduction due to carbon sequestration	18098.317 t CO2 eq. /year
Net emissions (gross emissions – emission reduction)	24368.0497 – 18098.317 t CO2 eq. /year = **6269.7327 t CO2 eq. /year**
The emission reduction percentage	74.27 %

Other initiatives to minimize the carbon footprint

- More trees sequestering maximum carbon should be planted.
- The use of renewable sources of electricity generation like solar plant, wind mill will help reduce the emissions.
- For short distances, one should either walk or ride bicycle to avoid carbon emissions completely.
- Carpooling and public transportation should be encouraged to reduce CO2 emissions
- Energy efficient electric appliances will further help save energy.
- Products with loads of unnecessary plastic packaging should be discouraged as the waste generated fills the landfill sites and pollutes the environment.
- Energy efficient appliances should be used to reduce CO2 emissions. For instance, CO2 emissions from traditional incandescent bulb is 8 times more than that of LED bulb. Similarly, refrigerators and ACs with better 'Star Ratings' can help bring down the emissions.
- Carbon footprint study should be done every year to track greenhouse gases emission and to set target of GHG gases reduction for next year
- Energy efficient equipment's will be utilized to reduce the energy consumption.
- Steam condensate will be recycled to reduce the fresh water load.
- Fly ash generated from the coal consumption is sent to brick manufacturers to reduce the load on landfills.
- Switching off lights and other appliances when not required is the least we can do to

contribute towards environment.

Emission Reduction Plan in future

Category	Emission calculation	CO2 saving (tCO2e/Annum)
Greenbelt development - 5000 Number of Neem trees will planted out side plant premises (after 5 years when tree will be matured Co2 Absorbsion rate will be increase)	5000 X 1.1134	5567
Use of Renewable energy sources (Solar Panel, LED) (5000 No. 500 W solar panel with LED light)	2500 KW = (0.787X2500X365)/1000 0.787 emission factor for electricity	718.14
Total CO2 saving In future planning		6285.14
Total emissions reduction due to carbon sequestration		18098.317 +6285.14 = 24383.4545 t CO2 eq. /year
Net Emission After Comply future planning		-15.40480 t CO2 eq. /year

c) Details of roof top rain water harvesting and reuse within premises:

Roof top area

Production area; 4 nos. of Production plant (2925 X 4 = 11700)
Admin building = 2800
Raw material storage area= 5400
Finish good storage= 8550
Total = 28450
Harvest rainwater from the roof tops :
= (Area of roof in sq. m)*(runoff co-efficient)*(annual rainfall in m)
= 28450*0.85*0.80
= 24183.3 m3

24183.3 m3 of rainwater will be collected in a year. The collected rainwater will be filtered using dual media filtration system, stored in fire tank of 2000 KL (1000 KL spare capacity for rain water harvesting) capacity, and utilized for firefighting purposes.

The effectiveness of the drainage system depends on proper cleaning of drainage pipes/channels etc. Regular checking before & during the monsoon will be done to see that none of the drains/drainage facilities are clogged and are efficient to collect the rainwater under rain water harvesting program. The clogged drains will be cleaned up immediately on report of any clogging or
blockage.

r	Details of Schedule-I species and its conservation plan, if any
	The unit has located in Payal industrial Park, Industrial Infrastructure in PCPIR, Village: Pakhajan, Taluka; vagra Dist: Bharuch there is no found any Schedule-I species

-

4) **RISK ANALYSIS & ITS MITIGATION MEASURES IN GENERAL AS GIVEN IN EIA REPORT**

- Quantitative Risk Assessment (QRA) study for M/s. Yasho Industries limited has been carried out based on data provided by Project Proponent.
- The main objective of risk assessment -Quantitative Risk Assessment (QRA) is to identify and determine the potential damage or loss of life, property and environment and to provide a scientific argument for decision makers to provide and maintain the safety levels of the facilities to prevent or mitigate harm and loses. This is achieved by the following:
- Identification of hazards that could be realized from manufacturing processes, plant equipment and machinery, raw materials and products.
- Identify the potential failure scenarios that could occur within the facility.
- To Access, the potential risks associated with identified hazards to which the plant and its personal and community outside may be subjected. Consequences analysis of various hazards is carried out to determine the vulnerable zones for each probable accident scenario.
- Evaluate the process hazards emanating from the identified potential accident scenarios.
- Analyse the damage effects to the surroundings due to such accidents.
- Conclusion and Recommendation to mitigate measures to reduce the hazard / risks.
- To provide guidelines for the preparation of On-site response plan.

Scope of the study

- The project will undertake quantitative risk assessment (QRA) study for the storage tank area.
- Following listed material below are stored, used and handled in the premises**.**

Disaster

- ❑ Extremely rare major emergency/accident having high potential which can cause damage to human life/properties either due to natural calamities or human activities

Objectives

- ❑ To protect lives of working personnel and nearby population.
- ❑ To contain the hazards and to control their spread.
- ❑ To minimize the impact on the environment.
- ❑ To minimize the loss to plant and production.

Disaster Management Plan: Key Elements

- ❑ Basis of the plan
- ❑ Accident/emergency response planning procedures
- ❑ Onsite Emergency Management Plan
- ❑ Offsite Emergency Management Plan

6 monthly emergency mock-drill will be conducted

5) **PRODUCT PROFILE AND BRIEF NOTE OF PRODUCT PROFILE**

Sr. No.	Name of Product	Cas No.	Total Quantity (MT/Month)			End Use of Products
			Existing	Proposed	Total	
1.	4,4'– methylene bis (dibutyl dithiocarbomate) (YALUB 44 MBC)	10254-57-6	250	NIL	250	Lubricant additive
2.	2,5-dimercapto-1,3,4-thiadiazole derivative (YALUB DM 86)	13539-13-4	50	NIL	50	
3.	1,3,4-thiadiazole-2(3H)-thione,5,5-dithiobis (YALUB DM 89)	72676-55-2	125	NIL	125	
4.	2,5-Dimercapto-1,3,4-thiadiazole (YALUB DMTD)	1072-71-5	125	NIL	125	

	5.	4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]aniline (QUREANTI ADA)	10081-67-1	167	NIL	167	Rubber antioxidant
	6.	2-mercapto toluimidazole (QUREANTI MMB)	53988-10-6	167	NIL	167	
	7.	1,3-dihydro-4(or 5)-methyl-2H-benzimidazole-2-thione, zinc salt (QUREANTI ZMMB)	61617-00-3	167	NIL	167	
	8.	4-[(morpholinothio)thioxomethyl] morpholine (QUREACC OTOS)	13752-51-7	83	NIL	83	
	9.	2-mercaptobenzothiazole (QUREACC MBT)	583-39-1	167	NIL	167	
	10.	2,4,6-Trimercapto-S-Triazine (QUREACC TST)	638-16-4	42	NIL	42	
	11.	2,2'-[1,3-Phenylenebis (oxy)] bisethanol (YAPOX R 10/40)	102-40-9	21	NIL	21	Chain extender
	12.	2-aminothiazole (YAPOX 2-AT)	96-50-4	42	NIL	42	Intermediate
	13.	2,2,4-Trimethyl-1,2-dihydroquinolone, Polymerised (QUREANTI TMQ)	26780-96-1	833	NIL	833	Rubber antioxidant
	14.	4,4'- dithiodimorpholine (QURECURR DTDM)	103-34-4	83	NIL	83	
	15.	Anethole (YAROMAX ANT)	4180-23-8	167	NIL	167	Aroma
	16.	Alkylated Phenyl Alpha Naphthylamine (YALUB NA-A)	437-450-6	50	NIL	50	Lubricant additive
	17.	Ashless Alkyl Thiadiazole (YALUB DM 84)	91648-65-6	25	NIL	25	
	18.	Benzeneamine, N-phenyl-, reaction products with 2,4,4-trimethylpentane (YALUB BODPA)	68411-46-1	2500	NIL	2500	Lubricant additive
	19.	Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)4-hydroxy,C 7-9 branched alkyl esters (YALUB PA 135)	125643-61-0	1667	NIL	1667	
	20.	Bis(4-(1,1,3,3-tetramethylbutyl)phenyl)amine (YALUB DODPA/QUREANTI OCD)	15721-78-5	417	NIL	417	
	21.	bis[O,O-bis(2-ethylhexyl) dithiophosphorato-S,S']dioxodi-µthioxodimolybdenum (YALUB LA)	947-946-1	83	NIL	83	
	22.	Bismuth dimethyldithiocarbamate (QUREACC BiDD)	21260-46-8	4	NIL	4	Rubber accelerator
	23.	Benzotriazole (YAPOX BZT)	95-14-7	417	NIL	417	Engine Coolants, Paints & Ink, etc.
	24.	Copper dimethyldithiocarbamate	137-29-1	4	NIL	4	Rubber accelerator

		(QUREACC CDMC)					
	25.	Copper 2-mercaptobenzothiazolate (QUREACC CMBT)	32510-27-3	4	NIL	4	
	26.	Copper Dibutyl Dithiocarbamate (YAPOX CDBC)	13927-71-4	83	NIL	83	Stabilizer
	27.	Dinonylated diphenylamine (YALUB DND)	701-385-4	2500	NIL	2500	Lubricant additive
	28.	Disodium 2,5-dimercapto-1,3,4-thiadiazole, 36% aqueous solution (YALUB NATD)	50530-45-5	42	NIL	42	Lubricant additive
	29.	Diisopropyl xanthogen polysulfide (QUREACC DIXP)	137398-54-0	8	NIL	8	Rubber accelerator
	30.	Dipentamethylene Thiuram hexasulfide (QUREACC DPTT)	971-15-3	83	NIL	83	
	31.	Diphenyl Thiourea (QUREACC DPTU)	102-08-9	42	NIL	42	
	32.	Dimethyl Diphenyl thiuram Disulfide (QUREACC MPTD)	53880-86-7	8	NIL	8	
	33.	Dimer acid (YAPOX DIMER ACID)	61788-89-4	833	NIL	833	Adhesives, Surfactants
	34.	Ethylene Thiourea (QUREACC ETU)	96-45-7	42	NIL	42	Rubber accelerator
	35.	Hydroquinone and Catechol	123-31-9 & 120-80-9	1250	NIL	1250	Intermediate
	36.	Hydroquinone bis(2-hydroxyethyl) ether (YAPOX CL 30/10)	104-38-1	417	NIL	417	Chain extender
	37.	Mercaptobenzothiazole Disulfide (QUREACC MBTS)	120-78-5	417	NIL	417	Rubber accelerator
	38.	Molybdenum Dithiocarbamate (YALUB 525 S)	441-570-4	25	NIL	25	Lubricant additive
	39.	Molybdenum Dialkyldithiocarbamate (YALUB 822 M)	71342-89-7	29	NIL	29	
	40.	Molybdenum Dithiocarbamate (YALUB 3000 D)	948-019-1	29	NIL	29	
	41.	Molybdenum, bis(dibutylcarbamodithioato)di-μ-oxodioxodi-, sulfurized (YALUB MDBC)	68412-26-0	83	NIL	83	
	42.	Mono methyl ether of hydroquinone (YAPOX MEHQ)	150-76-5	833	NIL	833	Polymerisation Inhibitor
	43.	Mercapto Benzimidazole (QUREANTI MB)	583-39-1	42	NIL	42	Rubber antioxidant
	44.	N-[(1,1,3,3-tetramethylbutyl)phenyl]naphthalen-1-amine (YALUB NA 06)	51772-35-1	83	NIL	83	Lubricant additive
	45.	Nickel Dibutyl Dithiocarbamate (QUREANTI NDBC)	13927-77-0	25	NIL	25	Rubber antioxidant
	46.	N-cyclohexylbenzothiazole-2-sulfenamide (QUREACC CBS)	95-33-0	833	NIL	833	Rubber accelerator
	47.	N-Tertiarybutyl-2-Benzothiazole	95-31-8	833	NIL	833	

	Sulfenamide (QUREACC TBBS)					
48.	Organomolybdenum complex of organic amide (YALUB 85 M)	445409-27-8	83	NIL	83	Lubricant additive
49.	p-Benzoquinone (YAPOX PBQ)	106-51-4	250	NIL	250	Intermediate
50.	Phenothiazine (YAPOX PTZ)	92-84-2	417	NIL	417	
51.	Piperidinium pentamethylenedithiocarbamate (QUREACC PPD)	98-77-1	8	NIL	8	Rubber accelerator
52.	Sodium Dibutyl Dithiocarbamate (QUREACC SDBC)	136-30-1	42	NIL	42	Rubber accelerator
53.	Sodium Hydrosulfide (YAPOX NaSH)	16721-80-5	417	NIL	417	Intermediate
54.	Thiodiethylene bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate] (YALUB PA 15 S)	41484-35-9	83	NIL	83	Lubricant additive
55.	Tolytriazole derivatives (YALUB TT 33)	939-700-4	83	NIL	83	Lubricant additive
56.	Triallyl cyanurate (QUREACC TAC)	101-37-1	167	NIL	167	Rubber accelerator
57.	Triallyl isocyanurate (QUREACC TAIC)	1025-15-6	167	NIL	167	Rubber accelerator
58.	Triallyl Cyanurate 50% (QUREACC TAC 50)	101-37-1	83	NIL	83	Rubber accelerator
59.	Triallyl Cyanurate 70% (QUREACC TAC 70)	101-37-1	83	NIL	83	
60.	Triallyl Isocyanurate 50% (QUREACC TAIC 50)	1025-15-6	83	NIL	83	
61.	Triallyl Isocyanurate 70% (QUREACC TAIC 70)	1025-15-6	83	NIL	83	
62.	Tertiary butyl-2-benzothiazolesulfenimide (QUREACC TBSI)	3741-80-8	417	NIL	417	
63.	Tetra Butyl Thiuram Disulfide on carrier (QUREACC TBTD 60)	1634-02-2	13	NIL	13	
64.	Tetra Butyl Thiuram Disulfide (QUREACC TBTD)	1634-02-2	13	NIL	13	
65.	Tetrabenzyl Thiuram Disulfide (QUREACC TBzTD)	10591-85-2	250	NIL	250	
66.	Tellurium Diethyldithiocarbamate (QUREACC TDEC)	20941-65-5	8	NIL	8	
67.	Tetra Ethyl Thiuram Disulfide (QUREACC TETD)	97-77-8	25	NIL	25	
68.	Tetra(isobutyl)thioperoxydicarbamic acid (QUREACC TiBTD)	3064-73-1	83	NIL	83	
69.	Tetra Methyl Thiuram disulfide (QUREACC TMTD)	137-26-8	833	NIL	833	
70.	Tetra Methyl Thiuram monosulfide (QUREACC	97-74-5	42	NIL	42	

		TMTM)					
	71.	Thiocarbohydrazide (YAPOX TCH)	2231-57-4	42	NIL	42	Intermediate
	72.	Tolylhydroquinone (YAPOX THQ)	96937-50-7	42	NIL	42	Intermediate
	73.	Tolytriazole 50% Sodium Salt (YAPOX 50% TTZ)	64665-57-2	417	NIL	417	Engine Coolants, Paints & Ink
	74.	Tolyltriazole (YAPOX TTZ)	29385-43-1	417	NIL	417	
	75.	Trimethylolpropane trimethacrylate (YAPOX TMPTMA)	3290-92-4	167	NIL	167	
	76.	YALUB 1103 (552)	Mixture	417	NIL	417	
	77.	YALUB 1104 (323)	Mixture	417	NIL	417	
	78.	YALUB 1105 (521)	Mixture	417	NIL	417	
	79.	YALUB POLY	25154-01-2	83	NIL	83	
	80.	YAPOX QDO/DBQDO	105-11-3	42	NIL	42	Intermediate
	81.	Zinc Diamyldithiocarbamate in 50% oil (YALUB ZDD)	15337-18-5	42	NIL	42	Lubricant additive
	82.	Zinc-2-mercapto benzimidazole (QUREANTI ZMB)	3030-80-6	25	NIL	25	Rubber accelerator
	83.	Zinc dibenzyl dithiocarbamate (QUREACC ZBEC)	14726-36-4	417	NIL	417	Rubber accelerator
	84.	Zinc Dialkyl Dithiophosphate (YALUB ZDDP)	68649-42-3	2083	NIL	2083	Lubricant additive
	85.	Zinc Benzenesulfinate Dihydrate (QUREACC ZBS)	24308-84-7	167	NIL	167	Rubber accelerator
	86.	Zinc diacrylate (QUREACC ZDA)	14643-87-9	83	NIL	83	Rubber accelerator
	87.	Zinc dimethacrylate (QUREACC ZDMA)	13189-00-9	83	NIL	83	Rubber accelerator
	88.	Zinc dibutyldithiocarbamate (QUREACC ZDBC)	136-23-2	417	NIL	417	Rubber accelerator
	89.	Zinc diethyldithiocarbamate (QUREACC ZDEC)	14324-55-1	417	NIL	417	Rubber accelerator
	90.	Zinc dimethyl dithiocarbamate (QUREACC ZDMC)	137-30-4	417	NIL	417	Rubber accelerator
	91.	Zinc ethyl phenyl dithiocarbamate (QUREACC ZEPC)	14634-93-6	42	NIL	42	Rubber accelerator
	92.	Zinc diisobutyldithiocarbamate (QUREACC ZIBC) ZIBC	36190-62-2	42	NIL	42	Rubber accelerator
	93.	Zinc Isopropylxanthate (QUREACC ZIX)	1000-90-4	4	NIL	4	Rubber accelerator
	94.	Zinc-2-mercaptobenzothiazole (QUREACC ZMBT)	155-04-4	250	NIL	250	Rubber accelerator
	95.	Zinc pentamethylenedithiocarbamate (QUREACC ZPD)	13878-54-1	4	NIL	4	Rubber accelerator
	96.	MG ADA 80 GA	10081-67-1	1700	NIL	1700	Accelerator for rubber compounds
	97.	MG BMT 70	72676-55-2				
	98.	MG BMT 75	72676-55-2				
	99.	MG CaO 80	1305-78-8				
	100.	MG CBS 80	95-33-0				

	101.	MG DETU 75	105-55-5				
	102.	MG DETU 80	105-55-5				
	103.	MG DIXP 40	137398-54-0				
	104.	MG DOTG 65 GA	97-39-2				
	105.	MG DOTG 75	97-39-2				
	106.	MG DPG 80	102-06-7				
	107.	MG DPTT 70	971-15-3				
	108.	MG DPTT 75	971-15-3				
	109.	MG DPTU 75	102-08-9				
	110.	MG DTDC 80	23847-08-7				
	111.	MG DTDM 80	103-34-4				
	112.	MG ETU 75	96-45-7				
	113.	MG ETU 80	96-45-7				
	114.	MG HDMC 65 GA	143-06-6				
	115.	MG MBT 75	149-30-4				
	116.	MG MBT 80	149-30-4				
	117.	MG MBTS 70	120-78-5				
	118.	MG MBTS 75	120-78-5				
	119.	MG MMB 70	53988-10-6				
	120.	MG MPTD 70	10591-84-1				
	121.	MG NDBC 75	13927-77-0				
	122.	MG OTOS 75	13752-51-7				
	123.	MG PVI 80	17796-82-6				
	124.	MG S 80	7704-34-9				
	125.	MG TAIC 50	1025-15-6				
	126.	MG TBBS 80	95-31-8				
	127.	MG TBTD 40	1634-02-2				
	128.	MG TBzTD 70	10591-85-2				
	129.	MG TBzTD 80	10591-85-2				
	130.	MG TDEC 75	20941-65-5				
	131.	MG TETD 75	97-77-8				
	132.	MG TiBTD 75	3064-73-1				
	133.	MG TiO_2 80	13463-67-7				
	134.	MG TMTD 70	137-26-8				
	135.	MG TMTD 75	137-26-8				
	136.	MG TMTD 80	137-26-8				
	137.	MG TMTM 80	97-74-5				
	138.	MG TZ 62	638-16-4				
	139.	MG ZBEC 70	14726-36-4				
	140.	MG ZBOP 50	68649-42-3				
	141.	MG ZBS 75	24308-84-7				
	142.	MG ZDBC 75	136-23-2				
	143.	MG ZDBC 80 GA	136-23-2				
	144.	MG ZDBC 80	136-23-2				
	145.	MG ZDEC 75	14324-55-1				
	146.	MG ZDMC 75	137-30-4				
	147.	MG ZDMC 70	137-30-4				
	148.	MG ZDMC 80	137-30-4				
	149.	MG ZMMB 50	61617-00-3				
	150.	MG Zn Trans 70	3486-35-9				
	151.	MG ZnO 80	1314-13-2				

152.	MG ZnO 85	1314-13-2				
153.	MG ZnO Aktiv 70	1314-13-2				
154.	YALUB G 456	68937-96-2	NIL	1667	1667	Accelerator for rubber compounds
155.	YALUB CI 701	2156592-65-1	NIL	1667	1667	
156.	YALUB CI 702	61789-86-4	NIL	1667	1667	
157.	YALUB CS 400	NA	NIL	8333	8333	
158.	YALUB MS 400	NA	NIL	8333	8333	
159.	YALUB PIBSA	NA	NIL	4162	4162	
160.	Chlorosulfonic acid	7790-94-5	NIL	4162	4162	
161.	YALUB D 2100	NA	NIL	8333	8333	
162.	YALUB CP 250	Mixture	NIL	8333	8333	
163.	YALUB EP 40	68515-88-8	NIL	8333	8333	
164.	YALUB Z104	68457-79-4	NIL	417	417	
165.	YALUB Z 201	2215-32-2	NIL	417	417	
166.	YALUB Z 102	4259-15-8	NIL	417	417	
167.	YALUB Z 101	68442-22-8	NIL	417	417	
168.	YALUB AP 812	71888-91-0	NIL	417	417	
Total			**28550**	**57075**	**85625**	

 # Brief Note of Product Profile:

1. No of Manufacturing Plants: 4
2. Brief Note regarding number of Products to be manufactured considering plant capacity:

6) **PROJECT DETAILS (COST/LAND OWNERSHIP/NA PERMISSION ETC.)**

a) Total **cost of Proposed** Project (Rs. in Crores):

Existing	Proposed	Total
400 Cr	50 Cr	450 Cr.

Break-up of proposed project Cost:

Details	Existing (Rs. In Crores)	Proposed (Rs. In Crores)	Total (Rs. In Crores)
Land	70	0	70
Building	108	0	108
Plant & Machinery	180.2	50	230.2
EMP	41.8	0	41.8
Total	**400**	**50**	**450**

b) **Details of Land / Plot ownership details:** (Linking between Land ownership and PP is required.)

i. **Total Plot area (sq mt): 172399**

ii. **GIDC Plot Allotment letter/ NA documents:** Consent Deed Between Payal industrial park and Yasho Industries Limited plot no: PLOT NO. 583, 593, 596, 597, 598 on dated 22/02/2022

7) **IF IT IS EXPANSION WHETHER CCR/EARLIER EC COMPLIANCE GIVEN:**

Sr. no.	Particulars	Brief Information/Details	Remarks
1	Earlier Environmental Clearance **(EC)** details [EC letter no. and date & obtained from MoEF&CC/SEIAA.]	We have applied for Expansion in Environment Clearance vide letter NO: SEIAA/GUJ/EC/5(f)/2258/2022 on dated 11/10/2022 from SEIAA.	Slide no 6 to 12
2	In case EC not obtained for existing project:	We have applied for	Slide no

	Copy of first CTE (NOC) & CCA obtained from GPCB i.e. before 14/09/2006. (For justification that you have not obtained EC for existing project).	Expansion in Environment Clearance vide letter NO: SEIAA/GUJ/EC/5(f)/2258/2022 on dated 11/10/2022 from SEIAA.	6 to 12
3	**Certified Compliance Report (CCR)** from the concern authority **(IRO-MoEF&CC/MS-GPCB) for existing EC/ CCA** as per the MoEFCC's OM no.F.No: IA3-22/10/2022-IA.III [E 177258] dated: 08/06/2022.	We have obtained EC to CTE Vide NO CTE-52176 on dated 15/02/2022 We have attached here with Self Compliance Report. Our unit has not started any production activity, and they have under construction activity	The unit has applied for expansion in Environment clearance
4	**Time bound action plan of conditions i.e partly complied/ non-complied**	Not Applicable	No remark
5	Details of latest Consent to Operate (CTO/CC&A) obtained from GPCB along with date of issue and validity	Unit have Environment Clearance vide letter NO: SEIAA/GUJ/EC/5(f)/2258/2022 on dated 11/10/2022 from SEIAA Now we are in under construction activity	No remark
6	Details of **Improvement notice, Show- cause notice, Notice of direction, Directions, Closure direction etc**. issued by the GPCB to the existing unit in **last 3 years**. Details in tabular format comprise **issues, actions taken and current status**.	Unit is under construction, and we have obtain CTE after Existing TOR/EC Vide NO CTE-52176 on dated 15/02/2022 Unit have not obtain CCA	Slide no 5
7	Details of **Public Complaints (**If any)	No any public complaints	No remark
8	Details of **litigation** pending before any court of Law against the Project (If any)	No any litigation pending	No remark

-

Comments:

As per MoEF&CC's OM dated: 08.06.2022, CCR is not applicable as unit is under construction and has not obtained CCA. Also, PP has submitted that there is no action taken by GPCB in last three years, no litigation pending and public complaints against the unit.

8) **PUBLIC HEARING APPLICABILITY AND ITS COMPLIANCE:**

Not applicable- The Unit is located in Payal industrial Park, Industrial Infrastructure in PCPIR, Village: Pakhajan, Taluka-Vagra, Bharuch

Comments:

M/s Payal Properties Pvt Ltd has obtained EC for establishment of Payal Industrial Park in PCPIR area, so as per paragraph 7(i) III (i) (b) of the Environment Impact Assessment Notification-2006, public consultation is not applicable.

9) **SITING CRITERIA DETAILS (OTHER THAN GIDC): Not applicable-** The Unit is located in Payal industrial Park, Industrial Infrastructure in PCPIR, Village: Pakhajan, Taluka-Vagra, Bharuch

Comments:

This unit is located in PCPIR area, so siting criteria is not applicable.

10) **APPLICABILITY OF GENERAL CONDITIONS AND COMMENTS WITH SPECIFIC CLARIFICATION OF MOEF&CC GUIDELINES:** Any project or activity specified in Category 'B' will be appraised at Central level as Category 'A' if located in whole or in part within 5 Km radius from the project boundary of:-

Sr No	Particulars	Aerial Distance in Km
1.	Protected Areas notified under the Wildlife (Protection) Act 1972 (53 of 1972)	No within 5 Km Radius from project site
2.	CPA/SPA (Critically Polluted Area/Severely Polluted Area) as identified by the CPCB	No within 5 Km Radius from project site
3	Eco sensitive areas as notified under sub-section (2) of section 3 of EPA-1986	No within 5 Km Radius from project site
4	Interstate boundaries and international boundaries	No within 5 Km Radius from project site

Comments:

As per MoEF&CC's notification dated: 25.06.2014 and as per details submitted by PP, General condition is not applicable.

11) **AREA ADEQUACY AND COMMENTS**

Total Land area: 172399Sq.m

Floor-wise land area break-up table

Sr. No.	Description of Area	Ground Floor	First Floor	Second Floor	Third Floor	TOTAL	Percentage
		Area (m^2)	Area (m^2)	Area (m^2)	Area (m^2)		
1	Process Plant -1	2925	2925	2925	2925	11700	1.70
2	Process Plant -2	2925	2925	2925	2925	11700	1.70
3	Process Plant -3	2925	2925	2925	2925	11700	1.70
4	Process Plant -4	2925	2925	2925	2925	11700	1.70
5	Raw Material Storage Area	5400	-	-	-	5400	3.13
6	Finished Products Storage Area	8550	-	-	-	8550	4.96
7	ETP Area	2702.5	-	-	-	2702.5	1.57
8	Hazardous Waste Storage	354	-	-	-	354	0.21
9	Scrap yard	354	-	-	-	354	0.21
10	Utility Area	2047.5	-	-	-	2047.5	1.19
11	Coal Storage Area	1365	-	-	-	1365	0.79
12	RM Tank farm Area	6901.015	-	-	-	6901.015	4.00
13	CCOE Tank area	700				700	0.41
14	EO tank Storage	2256	-	-	-	2256	1.31

15	IB Tank Storage area	5787.76				5787.76	3.36
16	Chloride Shed	700				700	0.41
17	CO2 Tank	468				468	0.27
18	Admin Building	2800	-	-	-	2800	1.62
19	OHC		-	-	-		0.00
20	Fire and safety Equipment Room	1000	-	-	-	1000	0.58
21	Green Belt	56892	-	-	-	56892	33.00
22	Open & Road	62421.2	-	-	-	62421.2	36.21
	Total Area	**172399**				**100**	

Area Adequacy table:

Sr No.	**Description of Area**	**Criteria for Storage**	**Inventory Required (MT) (KL)**	**Area Required (m^2)**	**Area Proposed (m^2)**
1	Finished Product Storage Area (2 Days inventory)	85625 MT/Month	5708	6564	8550
2	Raw Material Store area in Drum and Bag (3 Day inventory)	1914 Drum 24062 Bag	401.94	861	5400
			601.55	800	
3	Storage tank Area (PESO Applicable)	100 X 2(EO tank)	100	1500	2256
		200 X 3	600	600	700
		30 X 1	30	30	
		35 X 6 (IB Tank)	210	4500	5787.76
4	Storage tank Area (Non PESO Applicable)	200 X 20	4000	5000	6901.015
		50 X 7	350	400	
		25 X 1	25	30	
		5 X 1	5	10	
		35 X 1 (CO2)	35	150	468
5	Cl2 Storage	10 Nos. Tonner	9 KL	500	700
6	Effluent Treatment Plant	1160 KLD	1160 KLD	2000	2702
	ETP Waste storage area (30 Day Inventory)	7000 MT/Annum	583		
7	Utility Area	-	Boiler, TFH	1500	3412.5
	Fuel Area (3 Days Storage)	234 MT/Day	702 MT	600	
	Fly Ash Storage (3 Days Storage)	4914 MT/annum	45 MT	50	
8	Process waste storage (5 day Inventory)	14308 MT/Annum	240	260	354

9	Manufacturing Area	85625 MT/Month	-	11420	46800
10	Admin Area	-	-	200	2800
11	Occupation health Center	-	-	100	
12	Safety Equipment Room	-	-	100	1000
13	Green belt area			56892	56892
			TOTAL	**94067**	**144723.275**

Area Adequacy table:

Sr No.	Description of Area	Tank	Drum
1	**Finish Good store**	200 KL X 15	210 Liter X 12896
2	Area required	6 meter Tank Diameter + 4 meter (2 meter every side Space dyke wall to tank)	45 Sq.m for 100 Drum
		10 X 10 =100 Sq.m (200 KLD 1 tank)	
3	Total area required	100 X 15 Tank (1500 Sq.m)	5803 Sq.m
	Total area required	**7303 Sq.m for 5708 MT Storage**	
	Provide area for Finish good	**8550 Sq.m (Including drum storage and Tank area)**	

Sr No.	Description of Area	Criteria for Storage	Inventory Required (MT) (KL)	Area Required (m^2)	Area Proposed (m^2)
1	Finished Product Storage Area (2 Days inventory)	85625 MT/Month	5708 (200 KL X 15 Tank) (210 liter X 12896 Drum)	7303	8550
2	Raw Material Store area in Drum and Bag (3 Day inventory)	1914 Drum 24062 Bag	401.94	861 (45 Sq.m for 100 Drum)	5400
			601.55	902 (1.5 Sq.m for 1 MT)	
3	Storage tank Area (PESO Applicable)	100 X 2(EO tank)	100	1500	2256
		200 X 3	600	600	700
		30 X 1	30	30	
		35 X 6 (IB Tank)	210	4500	5787.76
4	Storage tank Area (Non PESO Applicable)	200 X 20	4000	5000	6901.015
		50 X 7	350	400	

		25 X 1	25	30	
		5 X 1	5	10	
		35 X 1 (CO2)	35	150	468
5	Cl2 Storage	10 Nos. Tonner	9 KL	500	700
6	Effluent Treatment Plant	1160 KLD	1160 KLD	2000	2702
	ETP Waste storage area (30 Day Inventory)	7000 MT/Annum	583		
7	Utility Area	-	Boiler, TFH	1500	3412.5
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8	Process waste storage (5 day Inventory)	14308 MT/Annum	240	260	354
9	Manufacturing Area	85625 MT/Month	-	11420	46800
10	Admin Area	-	-	200	2800
11	Occupation health Center	-	-	100	
12	Safety Equipment Room	-	-	100	1000
13	Green belt area			56892	56892
			TOTAL	**94908**	**144723.275**

Comments:

SEAC has examined it w.r.t.to total monthly production, maximum products, manufactured per month, the total raw material required, weekly storage requirement of each raw material, their mode of storage, their compatibility (flammability, corrosive, toxic), area needed by each raw material, one week storage of finished goods. Area adequacy, from overall safety perspective, has been provided in proposal and is satisfactory.

12) **GREEN BELT CONDITIONS AND MEASURES ALONG WITH AREA:**

Total Plot area (Sq meter)	Total Green belt area (Sq meter)	% of Greenbelt
172399	**Inside: 56892 Outside:**	33 %

Details of copy of permission letter of concern GIDC/ Panchayat/etc. for greenbelt development (in case of greenbelt development outside the premises: *Not applicable*

Comments:

- The PP shall develop green belt within premises (56892 Sq. m i.e. 33% of the total plot area) as submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

13) **EMPLOYMENT GENERATION:**

Permanent	Contractual	Total
150	50	200

-

14) **SOURCE OF WATER SUPPLY WITH QUANTITY AND PERMISSION (DETAILS OF CGWA IF BOREWELL**

a) **Source of water supply: Payal industrial park, PCPIR**
b) **Total Fresh water quantity (KLD): 3076**
c) **Permission of concerned authority (Name and quantity (in KLD): GIDC/SE/CG/BRH/887 on dated 07/10/2019.**

Comments:

- PP has obtained permission from M/s Payal Properties Pvt Ltd for procurement of water which is found satisfactory.

15) **WATER CONSUMPTION RELATED DETAILS WITH COMMENTS**

Sr. No	Category	Water Consumption KLD			Remark
		Existing	Proposed	Total	
1.	Domestic Purpose	100	0	100	
2.	Gardening	50	0	50	Utilized from STP
3.	**INDUSTRIAL**				
	Process	920	0	920	
	Washing	100	0	100	
	Boiler	540	420	960	266 KLD Condensate + 694 KLD Fresh
	Cooling	1215	585	1800	548 KLD Condensate + 1252 KLD Fresh
	Scrubber	*5.0	5.0	10.0	
	Total water Consumption (Domestic + Gardening)	**150**	**0**	**150**	
	Total water Consumption (Industrial)	**2780**	**1010**	**3790**	
	Total Water requirement	**2930**	**1010**	**3940**	
	Total Reuse	**570**	**294**	**864**	
	Total Fresh Water	**2360**	**716**	**3076**	

Note: The Unit has proposed New Product Sr. No 154 to 168 capacity By 57075 MT/month which mixing product. Hence we are not required any additional water in proposed new product.

We are increase water in Boiler and cooling purpose because after proposed expansion we are Replace /Removed existing Boiler and TFH from our existing Environment clearance and proposed with increase capacity for Boiler and TFH Hence, we are increase water consumption in boiler and cooling purpose.

Comments:

PP has submitted the above water consumption which is calculated considering the worst case scenario and in no case the water requirement shall not exceed the same which is found satisfactory.

16) **WASTE WATER GENERATION AND DISPOSAL**

Sr No	Category	Wastewater Generation KLD			Remark
		Existing	Proposed	Total	

1	Domestic Purpose	50	0	50	Send to STP
	INDUSTRIAL				
2	Process water	980	0	980	
	Washing	100	0	100	
	Boiler	30	0	30	
	Cooling	50	0	50	
	Scrubber	5.0*	5*	10*	
	Total Wastewater Generation (Domestic)	**50.0**	**0**	**50.0**	
	Total Wastewater generation (Industrial)	**1160**	**0**	**1160**	

Note: The Unit has proposed New Product Sr. No 154 to 168 capacity By 57075 MT/month which mixing product. Hence we are not required any additional water in proposed new product and also not generated any wastewater form proposed new product.

We are increase water consumption in Boiler and cooling but blow remain same because we are increase Condensate water quantity and we have already given sufficient quantity for blow down/ bleed off in e=our Existing environment clearance and we have also verify our technical team.

Hence we are not increase waste water generation quantity after expansion.

Justification in case of increase/ drastic reduction in wastewater generation than water Consumption:

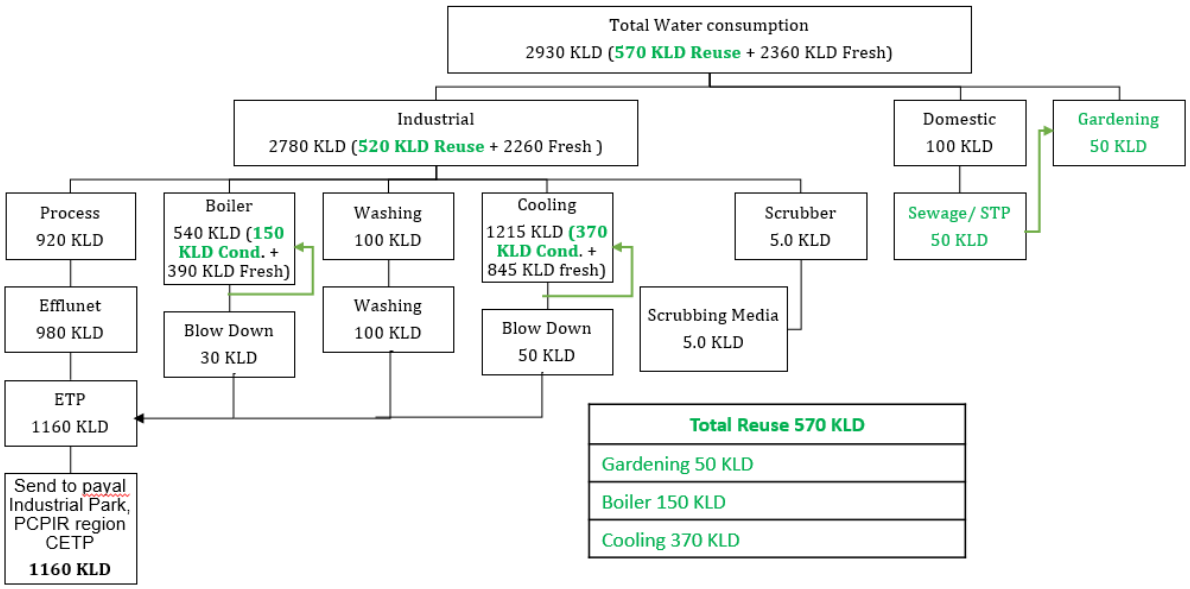
- The unit is utilizing total 2760 KLD of water in Boiler and cooling purpose and which is generated 80 KLD and 814 KLD Condensate will be reuse in Same process and 1866 KLD is evaporated due to hot process.
- The unit is utilizing total 920 KLD of water in manufacturing process and which is generated 980 KLD, waste water will be slight increase due to ice consumption.
- The unit is utilized 10 KLD water in Scrubber operation and generated scrubbing media will not consider in waste water generation and it will be dispose as hazardous waste and details will be given in separate hazardous waste table.
- The unit is utilized 100 KLD water in washing purposed and be generated effluent 100 KLD will be send to ETP.

Comments:

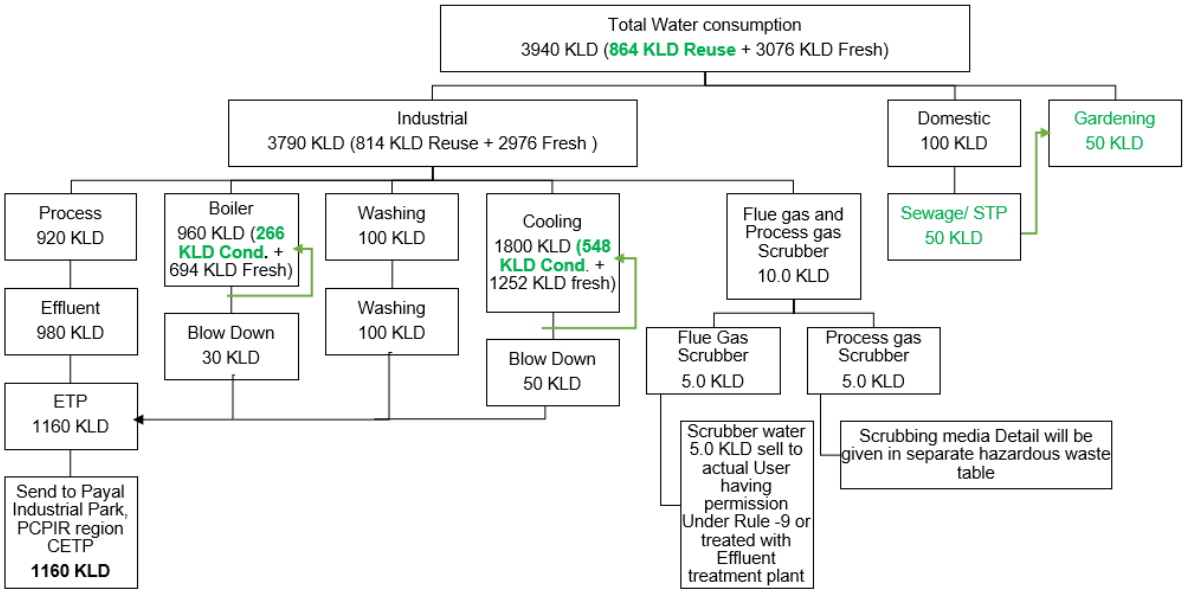
PP has submitted the above wastewater generation which is calculated considering the worst case scenario and in no case the wastewater generation shall not exceed the same which is found satisfactory.

17) **SIMPLIFIED WATER BALANCE DIAGRAM**

Exisitng water balance diagram



After Expansion water balance diagram



18) **BREAKUP OF WASTE WATER DISPOSAL (DOMESTIC & INDUSTRIAL BOTH)**

Sr. no.	Quantity KLD	Facility
1	1160	Send to payal Industrial Park, PCPIR region CETP
2	50	Utilized in gardening after treated in STP
Total	1210	

Comments for Domestic Effluent:

- Domestic wastewater generation shall not exceed 50 KL/day for proposed project and it

shall be treated in STP. It shall not be disposed off through soak pit/ septic tank. Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.

.

Comments for Industrial Effluent:

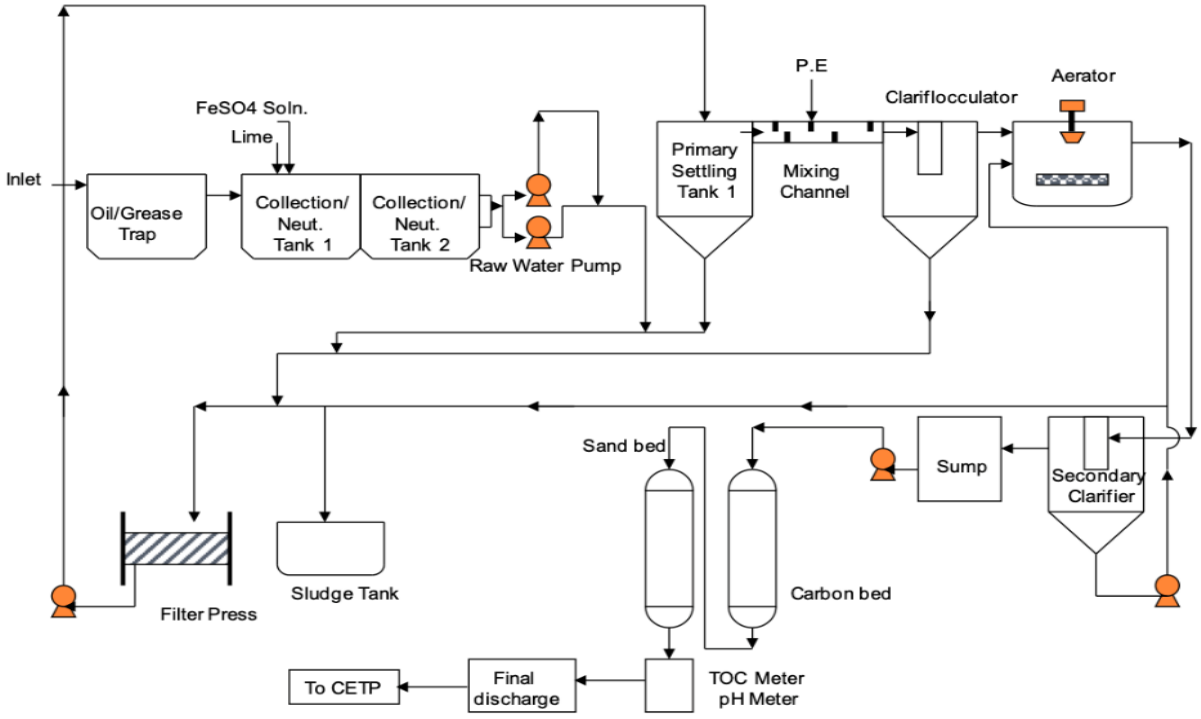
1. Management of Industrial effluent shall be as under:
   - 1160 KLD, effluent generated from process, washing and utilities shall be treated in primary, secondary & tertiary ETP and shall be sent to CETP-Payal Industrial Park for further treatment and disposal.

19) **MECHANISM AND METHODOLOGY OF STREAM SEGREGATION**

- We have proposed dedicated Effluent Treatment Plant for only one Stream, which will be generated from product Washing and other ancillary operation , which is around **@1160 KLD**
- This 1160 KLD stream we conveyed to dedicated ETP and treat along with other wastewater stream i.e. Process, washing water and utility water. Which are going**,** and treated in ETP having capacity of 1200 KLD will be treated in Primary, Secondary and tertiary Treatment plant and then after treated water will be send to Payal Industrial Park, CETP vide letter no: PIP/P1/01 Dated 15-01-2022.
- The ETP Sludge will be collected and send to TSDF site as per HWM Rule 2016

20) **STP AND/OR ETP SPECIFICATION AND DESIGN AND ITS CAPACITY**

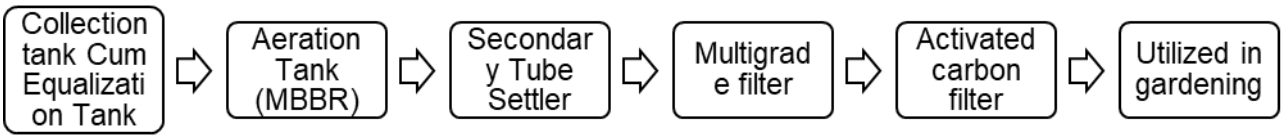
Effluent Treatment Plant (Capacity 1200 KLD)



Sr. No.	Name of Unit	No. of Unit	Capacity (KL)	Dimension
1	Collection tank	3 Nos	300	RCC
2	Neutralization Tank	3 Nos	50	FRP
3	Filter Press	3 Nos	--	PPFRP
4	Holding Tank	03 Nos	25	RCC
5	Dosing Tank	5 Nos	100 LPH	HDPE
6	Secondary Clarifier	1 No	150	RCC
7	Aeration tank	1 No	1500	RCC

8	Intermediate Tank	1 No	35	RCC
9	Sludge Drying bed	02 Nos	10 KL	RCC
10	Treated effluent storage tank	01 No	1000	RCC
11	Carbon Filter	01 No	4	M.S. + E.P.
12	Sand Filter	01 No	4	M.S. + E.P.

Sewage Treatment plant (STP) (Capacity 60 KLD)



Sr. No.	Name of Unit	Nos.	Capacity
1	Bar Screen	1+1	30 KL
2	Oil and Grease trap	1	1 KL
3	Equalization chamber	1	25 KL
4	Sewage Feed Pump	1 + 1 standby	1100 LPH
5	Aeration Tank (MBBR-1&2)	1	11.0 KL
6	Air Blower	1	40 M3/hr
7	Secondary Tube Sattlar	1	2.0 m3
8	Sludge holding tank	3	500 X500 mm
9	Sludge transfer pump	1 +1 standby	250 LPM
10	Intermediate holding tank	1	1.0 KL
11	Filter feed pump	1 +1 standby	1100 LPM
12	Multigrade filter	1	14 X 65inch
13	Activated carbon filter	1	14 X 65inch
14	Dosing system	1	100 liter
15	Final treated water storage	1	30 KL

21) **TREATABILITY OF WATER**

Sr. No.	Parameters	Unit	Process	Washing	Boiler	Cooling	Before Treatment
1.	pH	--	4.5-5.5	7 – 8	7 – 8	7 – 8	4.5-5.5
2.	C.O.D.	mg/l	2000-2500	500-600	100 -200	100 -200	2000-2500
3.	T.D.S.	mg/l	3500-4500	2500 -300	2200-2500	1500-2000	3500-4500

Sr. No.	Parameters	Unit	Before Treatment	After Primary Treatment	After Secondary Treatment	CETP
1.	pH	--	4.5-5.5	7-8	7-8	7-8
2.	C.O.D.	mg/l	2000-2500	1500-1700	1200-1500	1200-1500
3.	T.D.S.	mg/l	3500-4500	4000-5000	4000-5000	4000-5000

22) **SUMMARY OF WATER USE AND REQUIREMENT OF FRESH/REUSED WATER**

Summary of water requirement	**Quantity** KLD	Remarks
Total water requirement for the project **(A)**	3940	
Quantity to be **recycled (B)**	864	266 KLD Boiler Condensate

		548 KLD Cooling Condensate 50 KLD gardening	
Total **fresh water** requirement **(C)**	**3076**		
Ensure **Total water requirement = Recycled water + Fresh water i.e. A = B + C**			

23) **REUSE, REDUCE, RECYCLE RECOVERY MEASURES ADOPTED**

a) Reduce

Sr. No.	Item	Quantity	% percentage

b) Reuse

Sr. No.	Item	Quantity	% percentage
1	Water	Total requirement 3940 KLD Total reuse 864 KLD Total fresh 3076 KLD	21.7

c) Recycle

Sr. No.	Item	Quantity	% percentag
1	Spent Phosphoric acid	150 MT/annum	100
2	Spent Solvent	20000 MT/annum	100
3	Spent HCL	3384 MT/Annum	68.8

24) **FLUE GAS EMISSION**

Sr. no	**Source of emission With Capacity**	**Stack height in meter**	**Fuel**	**Consumption**	**Type of Pollutants i.e. Air Pollutants**	**APCM**	**Remark**
1	Steam Boiler (10.0 TPH)	35	Imported Coal	31.2 MT/day	PM SO_2 NO_x	ESP+ water scrubber	Removed in EC and proposed 16 TPH
2	Steam Boiler (10.0 TPH)	35	Imported Coal	31.2 MT/day		ESP+ water scrubber	Removed in EC and proposed 16 TPH
3	Steam Boiler (10.0 TPH)	35	Imported Coal	31.2 MT/day		ESP+ water scrubber	Removed in EC and proposed 16 TPH
4	Thermic Fluid Heater (15 Lakhs Kcal/hr.)	30	Natural gas or Imported Coal	5040 SCM/Day or 30 MT/Day		Multi Cyclone Separator + bag filter with Two Stage Water Scrubber	Removed in EC and proposed 25 Lac Kcal/Hr
5	Thermic Fluid Heater (4 Lakhs Kcal/hr.)	30	Natural gas or Imported Coal	5040 SCM/Day or 30 MT/Day		Multi Cyclone Separator + bag filter with Two Stage Water Scrubber	Removed in EC and proposed 25 Lac Kcal/Hr

6	Thermic Fluid Heater (4 Lakhs Kcal/hr.)	30	Natural gas or Imported Coal	5040 SCM/Day or 30 MT/Day		Multi Cyclone Separator + bag filter with Two Stage Water Scrubber	Removed in EC and proposed 25 Lac Kcal/Hr
7	DG Set (225 KVA) Stand By 2 Nos.	05	Diesel	150 lit/hr		Adequate Stack Height	Removed in EC and proposed 2000 KVA
8	Steam Boiler (16.0 TPH)	50	Imported Coal	58.0 MT/day	PM SO_2 NO_x	ESP+ water scrubber	Proposed
9	Steam Boiler (16.0 TPH)	50	Imported Coal	58.0 MT/day		ESP+ water scrubber	Proposed
10	Steam Boiler (16.0 TPH)	50	Imported Coal	58.0 MT/day		ESP+ water scrubber	Proposed
11	Thermic Fluid Heater 25 Lakhs Kcal/Hr.)	30.5	Natural gas	8150 SCM/Day		Adequate Stack height	Proposed
12	Thermic Fluid Heater 25 Lakhs Kcal/Hr.)	30.5	Natural gas **and/or** Imported Coal	8150 SCM/Day or 30 MT/Day		Adequate Stack height **and/or** Multi Cyclone Separator + bag filter with Two Stage Water Scrubber	Proposed
13	Thermic Fluid Heater 25 Lakhs Kcal/Hr.)	30.5	Natural gas **and/or** Imported Coal	8150 SCM/Day or 30 MT/Day		Adequate Stack height **and/or** Multi Cyclone Separator + bag filter with Two Stage Water Scrubber	Proposed
14	DG Set (1010 KVA)	30	Diesel	300 Liter/Hr		Adequate Stack height	Proposed
15	DG Set (1010 KVA)	30	Diesel	300 Liter/Hr		Adequate Stack height	Proposed
16	DG Set (2000 KVA)	30	Diesel	500 Liter/Hr		Adequate Stack height	Proposed

Note: The unit has replace all Existing utility with Proposed new higher Capacity utility in this proposed expansion Project and also increase Fuel Quantity.

Comments:

- The proposed fuel to be used is approved fuel for the requirement of the heat energy and proposed the Air pollution Control measures and stack height so as to achieve the emission norms prescribed by the competent authorities are found satisfactory.

25) **PROCESS GAS EMISSION**

Sr. no	Stack attached to	Stack height in	APCM	Types of Emission	Remark

		meter			
1	Reaction Vessels -1 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
2	Reaction Vessels -2 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
3	Reaction Vessels -3 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
4	Reaction Vessels -4 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
5	Reaction Vessels -5 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
6	Reaction Vessels -6 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
7	Reaction Vessels -7 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
8	Reaction Vessels -8 attached to Sulphonation Process	21	Two stage Alkali Scrubber	H2S	Existing
9	Reaction Vessels (Chlorination)	21	Two stage Alkali Scrubber	Cl2	Existing
10	Reaction Vessels (Chlorination)	21	Two Stage Water Scrubber	HCL	Existing

Note: The unit has carried out mixing process and proposed new product hence they have not required any additional process gas emission.

Comments:

- The proposed Air pollution Control measures and stack height so as to achieve the emission norms prescribed by the competent authorities are found satisfactory.

26) **FUGITIVE GAS EMISSION**

Sr. No.	Source	Probable Pollutant Emission	Control Measures/ APCM
1	Solvent storage tank	Air pollutant (VOC)	Carry out workplace area monitoring to find out concentration level in ambient air Close handling system Provision of breather valve cum flame arrester.
2	Solvent recovery system	Air pollutant (VOC)	Solvent recovery system with steam condensation system. Pumps & motors are Mechanical seal type.
3	Handling of raw material bags in storage area	Air pollutant (PM)	Provision of exhaust ventilation Provision of PPE. Provision of Job rotation to reduce exposure.

4	Flange joints of pipeline, pump & motors	Air pollutant (VOC)	Routine & periodic inspection to check leakage. Preventive maintenance, Follow SOP for maintenance. Pumps & motors will be mechanical seal type. LDAR program will be followed. Provision of Flange guard.
5	Solid raw material transferring to reactor	Air pollutant (PM)	Hopper will be provided with powder transfer system.
6	Liquid raw material transferring to reactor	Air pollutant (VOC)	Feeding of liquid raw material will be carried out by closed pipeline and mechanical seal pump.
7	Loading /unloading at storage area	Air pollutant (VOC)	Unloading through pipeline to tank in a close system.

Comments:

The air pollution control measures proposed for fugitive gas emission are found satisfactory.

27) **HAZARDOUS PROCESSES AND ITS SAFETY MEASURES**

Types of process	Safety measures including Automation
Amination	NO any Amination process involve in manufacturing
Bromination	NO any Bromination process involve in manufacturing
Chlorination	• Two stage alkali scrubber is proposed to control emission. • PLC based system shall be provided. • It is proposed to provide leak sensor and alarm system • Automatic supply shut off valves are proposed • On site emergency response capability shall be maintained • As far as possible, it is recommended to keep the gas phase composition the flammable range. • Temperature indicators will be provided near all reactors
Hydrogenation	NO any Hydrogenation process involve in manufacturing
Nitration	NO any Nitration process involve in manufacturing
Sulphonation (Release H2S gas)	• Flame proof light fittings will be installed in the plant. • Safety measures will be adopted from the design stage. • The solvent will be handle through receiver tank and recover solven store in receiver tank • Safety Valve and pressure gauge will be provided on reactor and its jack • Utility like Chilling, cooling, vacuum, steaming and its alternative will be to control reaction parameters in a safe manner. • Free Fall of any flammable material in the vessel will be avoided. • Static earthing provision will be made at design stage to all solvent equipments, reactors, vessels & powder handling equipment. • Any reaction upsets will be confined to the reaction vessel itself. • All emergency valves and switches and emergency handling facilitie easily assessable. • Further all the vessels will be examined periodically by a recognized co person under the Gujarat Factory Rules. • All the vessels and equipment will be earthed appropriately and p against Static Electricity. Also for draining in drums proper earthing faci be provided. • Materials will be transferred by pumping through pipeline or by vacu drums. • All solvents and flammable material storage tanks will be stored away process plant.

	• Caution note, safety posters, stickers, periodic training & Updation in safety and emergency preparedness plan will be displayed and conducted. • As Per GFR 68-U Rules Prescribed Under Schedule 8A. Our total employ will be 15 nos. We will proposed to provide OHC in Admin building with full equipped first aid box Also • we will appointment Medical Officer on retainer-ship basis and carry out the pre employment and periodical medical examination as stipulated
Others, if any	

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28) **SOLVENT MANAGEMENT**

Sr. no	Solvent	Total Solvent Quantity	Recover of Solvent	Loss of Solvent	% of recovery	% of Losses
1	Acetic acid	3570	3534	36	98.99	1.01
2	Acetone	2360	2336	24	98.98	1.02
3	Alcohol	230	227	3	98.70	1.30
4	Benzene	2770	2742	28	98.99	1.01
5	Boron trifluoride etherate	46	45	1	97.83	2.17
6	Butanol	225	222	3	98.67	1.33
7	cyclopropylamine	250	247	3	98.80	1.20
8	Dicholoro ethane	750	742	8	98.93	1.07
9	dicholoro methane	4725	4677	48	98.98	1.02
10	EDC	5150	5099	51	99.01	0.99
11	Ethanol	4692	4645	47	99.00	1.00
12	ethyl acetate	38572	38186	386	99.00	1.00
13	ethylene dichloride	900.9	892	8.9	99.01	0.99
14	Formic acid	300	297	3	99.00	1.00
15	hexane	2765	2737	28	98.99	1.01
16	Isopropanol	1225	1213	12	99.02	0.98
17	Isopropyl Acetate	6000	5940	60	99.00	1.00
18	MCB	7800	7722	78	99.00	1.00
19	MEK	1765	1747	18	98.98	1.02
20	Methanol	20103	19299	804	96.00	4.00
21	methyl ethyl ketone	750	743	7	99.07	0.93
22	methylene dichloride	3456	3421	35	98.99	1.01
23	methylene isobutyl ketone	2400	2376	24	99.00	1.00
24	Mix xylene	100	99	1	99.00	1.00
25	mono ethylene glycol	218	216	2	99.08	0.92
26	monopropyl alcohol	63.6	63	0.6	99.06	0.94
27	n-butanol	400	396	4	99.00	1.00
28	N-Propanol	210	208	2	99.05	0.95
29	ONBC	50	49.5	0.5	99.00	1.00
30	O-xylene	1060	1049	11	98.96	1.04
31	T Butyl acetate	209	207	2	99.04	0.96
32	T-Butanol	25	24.9	0.1	99.60	0.40
33	Toluene	2540	2515	25	99.02	0.98
34	Tri methyl ortho acetate	150	149	1	99.33	0.67

29) **VOC EMISSION AND MITIGATION MEASURES FOR ACHIEVING MAXIMUM SOLVENT RECOVERY AND MINIMUM VOC GENERATION**

Sr.	Emission Source	Probable Pollutant	Control measures

No.		Emission	
1	Solvent Storage are	VOC (Air Pollutant)	Carry out work place area monitoring to find out concentration level in ambient air. Connected with vent condensers with child brine circulation. Close handling system. Provision of breather valve cum flame arrester
2	Solvent Recovery System	VOC (Air Pollutant)	Vacuum distillation Close handling system. There will be recovery of more than 95-98% solvent.
3	Solvents & Liquid raw material transferring to reactor	VOC, Acid fumes (Air Pollutant)	Feeding of Solvents & liquid raw materials will be carried out by closed pipeline and mechanical seal pump
4	Flange joints of pipeline, pump & motors	VOC	Routine & periodic inspection to check leakage. Preventive

Comments for Sr No: 27) and 28):

- Measures for achieving maximum solvent recovery and minimize VOC generation, inclusive of VOC detectors, pumps, maintenance of pipelines, proper ventilation etc., provided are as per requirement.
- Spent solvents shall be recovered by in-house distillation in such a manner that recovery shall be achieved to the maximum extent and recovered solvent shall be reused in the process. Solvent recovery system with adequate reflux condensers shall be provided for controlling escape of low boiling solvents (VOCs).

30) **LDAR PROPOSED**

S.N.	Component	Frequency of monitoring	Repair preventive maintenance schedule
1.	Valves / Flanges	Quarterly (semi-annual after two consecutive period with < 2% leaks and annual after 5 periods with < 2% leaks)	Repair shall be started within 5 w days and shall be completed wit working days after detection of leak
2.	Pump seal	Quarterly	
3.	Compressor seals	Quarterly	
4.	Pressure relief devices	Quarterly	
5.	Pressure relief devices (after venting)	Within 24 hrs.	
6.	Process drains	Annually	Repair shall be started within 5 w days and shall be completed wit working days after detection of leak
7.	Components that are difficult to monitor	Annually	
8.	Pump seals with visible liquid dripping	Weekly	Immediately

9.	Any component with visible leaks	Weekly	Immediately
10.	Any component after repair / replacement	Within a week	-

The Following methodology to be adopted during LDAR study:

- The entire manufacturing activities & distillation process will be carried out in totally closed system.
- Regular maintenance of the pipeline and valves & fittings will be carried out regularly to avoid any leakages.
- Distillation column will be connected with condenser where cooling water will be used as media and also equipped with vacuum system.
- The condenser will be provided with the sufficient HTA and residence time to achieve more than 98% recovery.
- During the manufacturing activity as well as during distillation process 3% of the total solvent will be lost; approx. 97 % of solvent will be recovered during the process. The fresh solvent requirement will depend on solvent loss during distillation as well as manufacturing activity.

Following steps shall be followed for effective implementation of LDAR Program:

1. Process Controls
2. Emissions control program
3. Selection of appropriate method for leak detection
4. Scheduling and checklist for Leak Detection
5. Methods for rectification of identified leaks
6. Frequency of Monitoring
   - Record keeping of LDAR Program

31) **LDAR FOR SPECIFIC SOLVENT**

Sr. No.	Solvent Name	Type of Storage	Mode of Transfer	Charging	Sources of Leakage	Mitigation Measure For find out leakages	Mitigation Measure (If leakages shall be occur)	Action taken for prevention of leakages
1	Hexane / Methanol / Xylene	Tank	By Pump & Fix Pipe line	Direct Vessel	• Leak from Valve (failure of the valve packing & O-ring) • Leak from pump (Occur at seal) • Leak from tank • Leak from Connectors • Leak from open ended lines	• For using Gas Detector by PID Sensor technology.	• If valve shall be leak stop pumping system and replace with new valve. When pump seal shall be leak immediately stop solvent transfer and immediately repair or replace with new	• Check Thickness of tank • Using fix pipeline for solvent transfer • Minimum use of Connectors & Joins • Provided sufficient Space (Solvent Unloading area) for Solvent Tanker

							seal.	
2	Toluene	Tank	By Pump & Fix Pipe line	Direct Vessel	• Leak from Valve (failure of the valve packing & O-ring) • Leak from pump (Occur at seal) • Leak from tank • Leak from Connectors • Leak from open ended lines	• For using Gas Detector by PID Sensor technology.	• If valve shall be leak stop pumping system and replace with new valve. When pump seal shall be leak immediately stop solvent transfer and immediately repair or replace with new seal.	• Check Thickness of tank • Using fix pipeline for solvent transfer • Minimum use of Connectors & Joins • Provided sufficient Space (Solvent Unloading area) for Solvent Tanker

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32) **HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. No	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity MT/Annum			Disposal Management System
				Existing	Additional	Total	
1.	ETP Sludge	ETP Area	I-35.3	7000	3000	10000	Collection, storage, Transportation and Dispose to Active TSDF site or send to Co – processing unit
2.	Used Oil	Plant Machinery	I-5.1	0.5	6.5	7.0	Collection, storage, Reuse within premises or given to registered refiners..
3.	Empty Barrels/ Containers/Liners/ Contained with Hazardous Chemicals	Material handling and Storage	I-33.1	1500	NIL	1500	Collection, storage, Transportation and Dispose by selling to Registered Recycler

	4.	Spent Catalyst	Mfg. process	I-28.2	150	NIL	150	Collection, storage, send to supplier for Regeneration
	5.	Spent Phosphoric acid	Anethole	I-26.3	150	NIL	150	Collection, storage, Transportation and reuse in Same process
	6.	sodium bisulfide	Scrubbing Media YALUB ZDDP, QUREANTI MB, QUREACC ETU, QUREACC TMTM	I-26.1	11458	NIL	1145 8	Collection, storage, Transportation and sell to actual User having permission Under Rule -9
	7.	Sodium Chloride	Scrubbing Media QUREACC MBTS	I-26.1	1170	NIL	1170	Collection, storage, Transportation and sell to actual User having permission Under Rule -9
	8.	Spent HCL	Scrubbing Media (QURECUR R DTDM, YALUB PIBSA)	I-26.3	1530	3384	4914	Collection, Storage, Transportation & Existing 1530 MT/Annum sell to (Rule -9) authorized agencies or actual users and additional 3384 MT/Annum utilized in Chlorosulfonic acid product
	9.	Solid Waste	Process	I-26.1	500	NIL	500	Collection, storage, Transportation and send for Co processing/Cem ent Industries for Send for Active TSDF Site
	10.	Solvent Residue	Distillation Unit	I-36.1	400	681	1081	Collection, Storage, And Send For Co-Processing/Cem ent Industries or Send for CHWIF

11.	Spent Solvent	Manufacturing process	I-26.4	20000	34057	54057	Collection, Storage, And Reuse With in Plant Premises in Process After Distillation
12.	Scrubbing water	Water Scrubbing system	---	NIL	1500	1500	Collection, Storage and sell to actual User having permission Under Rule -9 or treated with Effluent treatment plant with in Plant premises and send to Final disposal with Effluent
13.	Insulation Waste	Manufacturing process	X02	NIL	40	40	Collection, Storage, Transportation and Dispose to Active TSDF Site
14.	Spent Carbon	Carbon Tower/ ETP	I-28.3	NIL	30	30	Collection, Storage, Transportation & co processing /cement industries/ or disposal by incineration at CHWIF.

Comments:

- Hazardous waste management includes collection, storage, transportation and disposal at TSDF, captive/ common incineration, co-processing/ pre-processing, sold to authorized actual users having Rule-9 permission and recycle/ reuse of waste. SEAC examined the details provided and found it as per requirement.

33) **NON-HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. No	Types of Non-Hazardous Waste	Sources	Category	Propose MT/Annum	Disposal
1	Fly Ash	Utility	-	4914	Collection, storage in silo and send to brick manufacturing unit as per Fly Ash Notification
2.	STP Sludge	STP Plant	--	20.0	Collection, Storage and utilize in Gardening as manure after sun drying

Comments:

- Other wastes management includes collection, storage, transportation and disposal by selling

to actual users and recycle / reuse of waste. SEAC examined the details provided and found it as per requirement.

34) **STORAGE SAFETY MEASURES**

a) Storage of Hazardous chemicals in Tanks

AS per PESO Standard

Sr No	Name of Chemical	State	Tank Capacity in KL	Number of Tank	Spare tank	Max Storage MT	IDLH ppm	Boiling Point °C	Flash Point °C	Nature of Chemical
1	Isooctanol	Liquid	200	1	-	160	NA	91	82	Flammable
2	N-Butanol	Liquid	200	1	-	160	1400 ppm	117.6 °C	35 °C	Flammable
3	2-Ethyl hexyl alcohol	Liquid	200	1	-	160	NA	184 °C	77 °C	Flammable
4	Methanol	Liquid	200	1	-	180	6,000 ppm	64	11	Flammable
5	Toluene	Liquid	25	3	-	60	500 ppm	110	4.4	Flammable
6	Hexane	Liquid	25	3	-	60	1,100 ppm	69	21.6	Flammable
7	Diisobutylene	Liquid	200	1	-	160	NA	104 C	-5 C	Flammable
8	Diethylamine	Liquid	200	1	-	160	200 ppm	55 °C	-23 °C	Flammable
9	Dimethylamine	Liquid	200	1	-	160	500 ppm	7 °C	-6.7 °C	Flammable
10	Nonane	Liquid	200	1	-	160	200 ppm	151 °C	31 °C	Flammable
11	Tert Butyl amine	Liquid	200	1	-	180	NA	46 °C	-38 °C	Flammable
12	Iso propyl Alcohol	Liquid	200	1	-	160	2000 ppm	82 °C	18 °C	Flammable
13	Iso-Butanol	Liquid	50	1	-	40	1600 ppm	107 °C	27.80 °C	Flammable
14	Amyl Alcohol	Liquid	50	1	-	40	NA	136-138 °C	49 °C	Flammable
15	Iso-Octanol	Liquid	50	1	-	40	NA	184.7 °C	75 °C	Flammable
16	2 Ethyl Hexanol	Liquid	50	1	-	40	NA	182 °C	60 °C	Flammable
17	Methyl Pantanol	Liquid	50	1	-	40	NA	128 °C	46 °C	Flammable
18	Xylene	Liquid	30	1	-	24	900 ppm	143 - 145 °C	31 °C	Flammable
19	Iso Butylene	Liquid	35	6	-	140	1600 ppm	107 °C	27.8 °C	Flammable
20	Carbon Disulfide	Liquid	50	1	1	40	500 ppm	46 °C	-30 °C	Flammable

21	Methyl acrylate	Liquid	200	1	-	160	1000 ppm	80 C	-3 °C	Flammable

AS PER NON PESO

Sr No	Name of Chemical	State	Tank Capacity in KL	Number of Tank	Spare tank	Max Storage MT	IDLH ppm	Boiling Point °C	Flash Point °C	Nature of Chemical
1	Diphenylamine	Liquid	200	1	-	160	10 mg/m3	302 C	153 C	Reactive
2	Dibutylamine	Liquid	200	1	-	160	NA	159 °C	40.5 °C	Flammable
3	Dibenzylamine	Liquid	200	1	-	160	NA	300 °C	138 °C	Reactive
4	Piperidine	Liquid	200	1	-	160	1,400 ppm	106 °C	16 °C	Flammable
5	N-methyl aniline	Liquid	200	1	-	160	100 ppm	195 °C	86 °C	Flammable
6	Clove Oil	Liquid	200	1	-	160	NA	250 °C	NA	Reactive
7	Hydrazine Hydrate	Liquid	200	1	-	160	50 ppm	120.1	NA	Reactive
8	Hydrogen peroxide	Liquid	200	1	-	160	75 ppm	106	NA	Reactive
9	Hydrochloric acid	Liquid	200	1	-	160	50 ppm	50.5	NA	Corrosive
10	Sulfuric acid	Liquid	200	1	-	160	15 mg/m3	270	NA	Corrosive
11	Aniline	Liquid	200	1	-	180	100 ppm	184.1	70	Flammable
12	Cyclohexylamine	Liquid	200	1	-	180	10 ppm	134 °C	27 °C	Flammable
13	Liquid CO2	Liquid	35	1	-	28	NA	NA	NA	Toxic
14	Acetic Acid	Liquid	5	1	-	4	50 ppm	117 - 118 °C	39 °C	Flammable
15	Sulphur Trioxide	Liquid	25	1	-	20	NA	44.7 °C	NA	Toxic

Safety Measures for PESO Underground storage tank farm:

PESO Tank	**PESO Area Storage & Handling Safety: (UNLOADING)** ✓ The Entire plant will be operated by PLC based semi Atomization system ✓ Ensure that the transfer of petroleum takes place only through electrically continuous sound hose having oil tight couplings at both ends. ✓ Couplings of the hose at the discharge ends of the tank trucks as well as at the fill pipe end of the underground tank shall not be leaky. ✓ Unloading operations should not commence without ensuring earthing of the tanker body to a proper earthing point. For this purpose, a proper earthing point shall be provided near filling

	points. ✓ Before commencing unloading operations tanker should be parked in the retail outlet in such a manner that it can be taken out of the retail outlet immediately in case of emergency. ✓ Dip pipe of the underground tank shall not be kept open during unloading operations. ✓ The dealer, supervisors and pump attendants shall be trained in all aspects of safety in RO including the provisions of Petroleum Rules, 2002 in Chapter IV on Electric Installation, Rules 117 to 119,122,125 and conditions 6 to 12, 15,16,18 to 21of licence Form XIV for the RO's under the said Rules. ✓ Before starting unloading of petroleum, it must be ensured that at least a safe distance of 3 M is kept clear of any kind of movement of other vehicles that come for fuelling and that there is no source of any spark in the area. In case of retail outlets that are in congested areas operations of fuelling automobiles in the retail outlet may be discontinued. ✓ Do not use plastic hose pipes for unloading purposes. ✓ Do not use hose pipe fitted with metallic pipe (bent pipe) at the discharge end. ✓ Do not use Hose pipes not conforming to OISD 135. ✓ Proper tightening of hose connections using screwed/cam lock couplings. ✓ Make sure that there shall be no collection of leaked petroleum through hose pipe connection at tanker discharge faucet end in the plastic bucket kept on the ground below. ✓ Provision of electrical earthing / bonding by means of flexible cable between tanker chassis and earth boss/fill pipe. ✓ Proper training to the retail outlet staff regarding hazards associated with the petroleum road tanker decantation operation in the retail outlets.
Non PESO Tank	✓ The Entire plant will be operated by PLC based Semi Atomization System ✓ Store in cool, dry and well ventilated area in compliance with compatible chart ✓ Dyke wall with sufficient size is provided. ✓ Tank, valve, pipeline are checked and maintain, in good condition. ✓ Apron, Hand gloves, gumboot, goggles and helmet will be provided. ✓ ISI Portable fire extinguisher & Hydrant line is provided as per TAC norms. ✓ Sufficient amount of sand/soil are kept to control any spillage. ✓ Eye washer cum shower is provided near tank-farm area. ✓ Level indicator provided. ✓ Vent line dipped in dilute caustic will be provided. ✓ RCC foundation will be provided. ✓ The material transfer is only from pump and fixed line in receiver tank with return valve to main tank

b) <u>Storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.</u>

Sr. No	Name of Raw Material	State	CAS NO.	Storage (MT)	Capacity of Drum /Bag	No. Drum / Bag	Storage	MOC	Types of Hazardous
1	1-Decene	Liquid	872-05-9	3.78	210	18	Drum	HDPE/MS	Reactive
2	1-Dodecene	Liquid	112-41-4	2.73	210	13	Drum	HDPE	Reactive
3	2,2'-Thiodiglycol	Liquid	111-48-8	2.52	210	12	Drum	HDPE/MS	Reactive
4	2,6-DiTBP	Liquid	128-39-2	48.3	210	230	Drum	HDPE	Reactive
5	Acetic acid	Liquid	64-19-7	47.88	210	228	Drum	MS	Flammable
6	Acetone	Liquid	67-64-1	13.86	210	66	Drum	MS	Flammable
7	Acetonitrile	Liquid	75-05-8	5.88	210	28	Drum	HDPE	Flammable
8	Allyl alcohol	Liquid	107-18-6	3.99	210	19	Drum	HDPE	Flammable
9	Alpha methyl styrene	Liquid	98-83-9	36.54	210	174	Drum	HDPE/MS	Reactive
10	Aniline	Liquid	62-53-3	11.55	210	55	Drum	MS	Flammable
11	Anisole	Liquid	100-66-3	4.62	210	22	Drum	HDPE	Reactive
12	Benzaldehyde	Liquid	100-52-7	3.15	210	15	Drum	MS	Reactive
13	Benzene sulfonyl chloride	Liquid	98-09-9	4.41	210	21	Drum	HDPE	Reactive
14	Caustic lye (47%)	Liquid	1310-73-2	69.3	210	330	Drum	HDPE	Corrosive
15	Chloro acetaldehyde (45%)	Liquid	107-20-0	3.99	210	19	Drum	HDPE/MS	Reactive
16	Diamyl amine	Liquid	2050-92-2	3.15	210	15	Drum	HDPE	Flammable
17	Diethyl amine	Liquid	109-89-7	3.15	210	15	Drum	HDPE	Flammable
18	Diisobutylamine	Liquid	110-96-3	2.1	210	10	Drum	HDPE	Flammable
19	Dimethyl Sulphate	Liquid	77-78-1	5.25	210	25	Drum	HDPE	Reactive
20	Ethylene Diamine	Liquid	107-15-3	2.73	210	13	Drum	HDPE/MS	Flammable
21	Ethylene glycol	Liquid	107-21-1	3.15	210	15	Drum	HDPE/MS	Reactive
22	Fatty acid	Liquid	67701-03-5	3.15	210	15	Drum	HDPE	Reactive
23	Formaldehyde (37%)	Liquid	50-00-0	2.1	210	10	Drum	MS	Reactive
24	Nitric Acid	Liquid	7697-37-2	2.1	210	10	Drum	MS	Reactive
25	Hydrazine hydrate	Liquid	7803-57-8	2.1	210	10	Drum	HDPE	Reactive
26	Hypo phosphorous Acid	liquid	6303-21-5	2.1	210	10	Drum	HDPE	corrosive
27	Isopropyl alcohol	Liquid	67-63-0	33.39	210	159	Drum	HDPE/MS	Reactive
28	Linoleic acid	Liquid	60-33-3	11.13	210	53	Drum	HDPE	Flammable
29	Methyl acrylic acid	Liquid	79-41-4	3.78	210	18	Drum	HDPE	Flammable
30	Methylene chloride	Liquid	75-09-2	2.94	210	14	Drum	HDPE/MS	Corrosion
31	Morpholine	Liquid	110-91-8	3.15	210	15	Drum	HDPE	Flammable
32	NaOCL 10%	Liquid	7681-52-9	16.38	210	78	Drum	HDPE	corrosive
33	N-ethyl aniline	Liquid	103-69-5	2.1	210	10	Drum	HDPE	Flammable

34	Oleic acid	liquid	112-80-1	11.34	210	54	Drum	HDPE	Reactive
35	Petroleum ether recd.	liquid	64742-49-0	4.41	210	21	Drum	MS	Flammable
36	Phosphoric acid (85%)	liquid	7664-38-2	2.52	210	12	Drum	MS	Reactive
37	Power oil	Liquid	64742-65-0	3.15	210	15	Drum	HDPE	Reactive
38	Propionic anhydride	liquid	123-62-6	6.72	210	32	Drum	HDPE	Reactive
39	Sulfur monochloride	Liquid	10025-67-9	2.52	210	12	Drum	HDPE	Flammable
40	Triallyl isocyanurate	Liquid	101-37-1	2.31	210	11	Drum	HDPE	Flammable
41	Zinc chloride	Liquid	7646-85-7	2.52	210	12	Drum	HDPE	Reactive
42	3-N-p-anisidine	Solid	104-94-9	4.18	25	167	Bag	HDPE	Flammable
43	Benzoic acid	Solid	65-85-0	0.60	25	24	Bag	HDPE	Reactive
44	BHT	Solid	128-37-0	5.00	25	200	Bag	HDPE	Reactive
45	Calcium oxide (clay)	Solid	1305-78-8	1.80	25	72	Bag	HDPE	Reactive
46	Caustic flakes	Solid	1310-73-2	0.08	25	300	Bag	HDPE	corrosive
47	Caustic soda (48%)	Solid	1310-73-2	2.40	25	960	Bag	HDPE	corrosive
48	CBS	Solid	112022-83-0	34.00	25	1360	Bag	HDPE	Reactive
49	Copper oxide	Solid	1317-38-0	0.40	25	16	Bag	HDPE	Reactive
50	Copper sulfate	Solid	7758-98-7	0.05	25	25	Bag	HDPE	Reactive
51	Cyanuric chloride	Solid	108-77-0	4.70	25	188	Bag	HDPE	Reactive
52	Diphenyl amine	Solid	122-39-4	126.18	25	5047	Bag	HDPE	Reactive
53	Ethylene thiourea	Solid	96-45-7	34.00	25	1360	Bag	HDPE	toxic
54	Hydroquinone	Solid	123-31-9	29.95	25	1198	Bag	HDPE	Reactive
55	MAA	Solid	79-41-4	4.05	25	162	Bag	HDPE	Reactive
56	MoO3	Solid	1313-27-5	2.70	25	108	Bag	HDPE	Reactive
57	MPTD	Solid	NA	29.75	25	1190	Bag	HDPE	Reactive
58	Na2CO3	Solid	497-19-8	1.28	25	51	Bag	HDPE	corrosive
59	Sodium Bicarbonate	Solid	144-55-8	0.48	25	19	Bag	HDPE	corrosive
60	NaMBT (50%)	Solid	149-30-4	33.18	25	1327	Bag	HDPE	Reactive
61	Sodium Nitrate	Solid	7632-00-0	10.35	25	414	Bag	HDPE	corrosive
62	Sodium sulphide	Solid	16721-80-5	7.90	25	316	Bag	HDPE	corrosive
63	NDBC	Solid	13927-77-0	31.88	25	1275	Bag	HDPE	Reactive
64	NH2OH.HCl	Solid	11-01-5470	2.35	25	94	Bag	HDPE	Corrosive
65	Nickel Oxide	Solid	1313-99-1	0.10	25	45	Bag	HDPE	Reactive
66	N-phenyl-N-naphthylamine	Solid	90-30-2	0.70	25	28	Bag	HDPE	corrosive
67	o-Cresol	Solid	95-48-7	0.98	25	39	Bag	HDPE	Flammable
68	OPDA	Solid	95-54-5	3.48	25	139	Bag	HDPE	Reactive
69	Ortho Phenylenediamine	Solid	95-54-5	9.90	25	396	Bag	HDPE	Reactive
70	Phenol	Solid	108-95-2	0.63	25	250	Bag	HDPE	Reactive

71	Phenyl alpha Naphthylamine	Solid	90-30-2	1.58	25	63	Bag	HDPE	corrosive
72	PVI	Solid	17796-82-6	34.00	25	1360	Bag	HDPE	Reactive
73	Resorcinol	Solid	108-46-3	0.35	25	140	Bag	HDPE	Flammable
74	SBR	Solid	9003-55-8	13.60	25	544	Bag	HDPE	corrosive
75	Silica	Solid	7440-21-3	1.05	25	420	Bag	HDPE	corrosive
76	Sodium nitrite	Solid	7632-00-0	6.50	25	260	Bag	HDPE	corrosive
77	Sodium sulfite	Solid	7757-83-7	8.05	25	322	Bag	HDPE	corrosive
78	Sodium sulphide	Solid	1313-82-2	4.18	25	167	Bag	HDPE	Reactive
79	Sulfur	Solid	7704-34-9	3.38	25	135	Bag	HDPE	Reactive
80	Sulphur powder	Solid	7704-34-9	0.60	25	240	Bag	HDPE	Reactive
81	Tellurium oxide	Solid	07-03-7446	0.05	25	24	Bag	HDPE	Reactive
82	Tert. Nonyl Mercaptan	Solid	25360-10-5	0.50	25	20	Bag	HDPE	Reactive
83	Tert.octyl mercaptan	Solid	141-59-3	0.90	25	36	Bag	HDPE	Reactive
84	Thiourea	Solid	62-56-6	0.85	25	34	Bag	HDPE	Reactive
85	Tolyltriazole	Solid	29385-43-1	4.50	25	180	Bag	HDPE	Toxic
86	Triallyl cyanurate	Solid	101-37-1	1.45	25	58	Bag	HDPE	Reactive
87	Zn	Solid	7440-66-6	29.75	25	1190	Bag	HDPE	Reactive
88	ZnO	Solid	1314-13-2	52.48	25	2099	Bag	HDPE	Reactive

Safety measures for Hazardous Chemicals:

Type of Hazardous Chemicals	Safety measures
FLAMMABLE & EXPLOSIVE	• First Aid Procedures: • Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If the victim is not breathing, provide artificial respiration. Get medical attention. • Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. GET MEDICAL ATTENTION IMMEDIATELY. • Skin Contact: Wash affected area with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur. • Eye Contact: Check for and remove contact lenses. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention. • General Advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. • Notes to Physician: Treat symptomatically. Symptoms may be delayed.
CORROSIVE& CHEMICALS	• The charging of material will be carried out by PLC based SCADA Fully Atomization System • Dyke wall provided

	• Dyke wall with sufficient size is provided. • Tank, valve, pipeline are checked and maintain, in good condition. • Apron, Hand gloves, gumboot, goggles and helmet will be provided. • ISI Portable fire extinguisher & Hydrant line is provided as per TAC norms • Sufficient amount of sand/soil are kept to control any spillage. • Eye washer cum shower is provided near tank-farm area. • Level indicator provided. • Vent line dipped in water will be provided. • RCC foundation will be provided. • Transfer material to another empty tank/ Vessel.
TOXIC CHEMICALS	• Ventilation must be sufficient to prevent accumulation of vapor pockets. All fan switches should be outside the storage area. • Self-breathing apparatus, gas mask and 'emergency kits' should be located at strategic points under working condition and to be easily accessible in the event of emergency • Appropriate minimum safety distances as stipulated in the above mentioned rules have to be maintained from buildings or group of buildings or adjacent property.
REACTIVE CHEMICALS	• Store minimum quantities • Segregate chemicals, e.g. from water, air, incompatible chemicals, sources of heat, ignition sources • Spillage control; bund, spray, blanket, containment. Drain to collection pit • Decontamination and first-aid provisions, e.g. neutralize/destroy, fire-fighting • Contain/vent pressure generated to a safe area • Split-up stocks into manageable lots, e.g. with reference to fire loading/spillage control. • Ensure appropriate levels of security, hazard warning notices, fences, patrols. Control access including vehicles • Appropriate gas/vapour/fume/pressure venting, e.g. flame arrestors, scrubbers, absorbers, stacks • Ensure adequate natural or forced general ventilation of the storage area Provide adequate, safe lighting • Label (name and number); identify loading/unloading/transfer couplings • Provide appropriate fire protection (sprinkler, dry powder, gas) • Ensure adequate access for both normal and emergency purposes with alternative routes.

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35) **FIRE LOAD CALCULATION**

Total Plot Area:	172399 Sq.m
Area utilized for plant activity:	76515
Area utilized for Hazardous Chemicals Storage:	6496 Sq.m
Number of Floors:	GF+FF+SF+TF
Water requirement for firefighting in KLD:	459.09 (120 Minutes)
Water storage tank provided for firefighting in KL:	2000 KL (532 Minutes)
Details of Hydrant Pumps:	6.0 Inch Diameter fire hydrant line will be provided connected to Jockey Pump Followed by Diesel Pump having 07 bar pressure with sprinkler system. The jockey pump is placed with the fire water tank having capacity of 2000

		KL.
	Nearest Fire Station :	SEZ fire station With 15.43 KM distance GFI Fire Station @ 18.05 Km
	Applicability of Off Site Emergency Plan:	Yes

Comments:

The project proponent has proposed fire safety plan which includes fire hydrant line, sprinkler system, fire extinguishers, fire suits, covering the project area and provides for fire water storage tank of 2000 KL. SEAC found it as per the requirement.

36) **WORKERS SAFETY AND OCCUPATIONAL HEALTH MANAGEMENT**

Safety Terms & Conditions:

General Safety

1. Safety shoes,yellow helmet and goggles is mandatory PPE's at site.
2. Safety officer must be appointed if man power will be more than 25 Nos at site.
3. Alcohol, Gutaka strickly prohibited inside company premises.
4. Mobile phone is strickly prohibited inside company premises.
5. Safety induction must be taken on first day by YIL safety department.
6. Tool box talk must be carried out on daily basis by contractor. Tool box talk& man power data detail to be submitted to YIL.
7. Breakfast/Lunch/Food/Snack is allowed into designated area only.
8. Sleeping is not allowed into company premises.
9. Horse play, misbehave is strickly not allowed at site.
10. Work management at location with other contractor should be in advance.
11. Medical examination must be done by contractor for all workers.
12. Work permit procedure must be follow across the site.
13. Illumination shall be proper for night work.
14. First aid box must be provided at site.
15. Any hazardous waste like oil, grease , diesel, petrol any chemical, contaminated bag, carboys stored as per environmental protection act and disposed by Interested Party.
16. Supervisor and safety officer must be present at site till the work is going on.
17. Any of the person is not allow work more then 16 Hour continuous. If allowed in special case the must be return on duty after 8 hour of gap.

If work will be done for 24 hour, the day and night team must be separate.

18. Any job specific requirement have to follow as per company policy and safety procedure.
19. If safety violation will be observed, warning letter and penalty will be issued.
20. If any of new policy and procedure enforced, Interested Party must be follow.

21. Scaffolding is require if the height work is more than 6 meter height or the work is movable on th height. Cup lock , Pipe & clamp scaffolding is acceptable with scaffolding standard.
22. Safety belt without shock absorber with double lanyard is required below 6 meter Height. It must be as per ISI Marked & IS 3521.
23. Safety belt with shock absorber with double lanyard is required above 6 meter height. It must be as per ISI Marked & IS 3521.
24. Industrial Ladder must be used for climbing up and down and it must be as per IS 3696-2 (1991)standard.
25. Work tools will be inspected periodically by YIL team.
26. Workshop at YIL premises will be inspected by EHS department.
27. Tools caring belt is required for working at height.
28. House keeping of the area must be done on daily basis after work is completed.
29. **Welding Machine Safety /Electrical Safety/Hot Work Safety:**

- ON / OFF knob is required.(Check for damage and un-insulated knob)
- Regulator with indicator is required.
- Welding cables connection to the welding machine with lugs at the joints have to in good conditi
- Without damage in the insulation of welding cables must be used.
- Electrode holder and earthing holder are without damage is required.
- Industrial type Plug for power tapping cable of welding machine is required.
- ELCB must be provided in all portable / panel board.
- No internal live electrical parts of welding machine should be exposed.
- Earthing and Grounding of welding machine, control panel, Portable electrical board is required.
- Trolley without damaged wheels is required.
- Fire extinguisher and fire bucket with sand is required.
- Cooling fan is required in running condition.
- Welding PPEs are required and in good condition. e.g. face shield with helmet is mandatory.

30. **Gas Cutting Set/ Grinding:**

- Valve Protection Cap on Cylinder is required.
- Pressure gauges two for each cylinder(inlet & out)are in working condition(both
- Oxygen & Acetylene gas with color coding).
- LPG gas is not allowed at site.
- Oxygen and Acetylene cylinder pressure test certificate is required to enter into company premi
- Gas transferring hose condition must be in good condition with IS 447:1988 standard.
- Hose clamp is required at torch and cylinder side.
- Flash back arrestor (NRV) is required on both side on Oxygen and Acetylene cylinder.
- Regulator should be in good condition.

- Trolley with chain is require.
- Spare cylinder storage area must be prepared as per safety norms.
- Industrial type lighter is allowed only for gas cutting set ignition.
- Gas cutting PPEs are required and in good condition. e.g. face shield with helmet is mandatory.
- Fire extinguisher and fire bucket with sand is required.
- Grinding machine must be as per safety practice.
- Fire blanket is required if applicable.

31. **Sand Blasting/ Painting**

- Hard barricading with roof sheet or any other specific suggested material surrounding sand blas area.
- Sand blasting suit, ear plug, gloves must be wear during sand blasting.
- If sand blasting machine is diesel operated than spark arrestor must be provided.
- Painting work must be done with scaffolding only, at any place above 3 meter height.
- Excess material stock is not allowed at work place.
- Cage hanging by rope is strickly not allowed.

Comments:

Project proponent has provided PPEs, Occupational health center (OHC) with adequate provision of manpower, equipment and operational cost. SEAC finds it as per the provisions of Gujarat Factory Rules 1963.

37) **DETAILS OF MEMBERSHIP OF COMMON FACILITIES:**

Sr. No.	Membership for Common Facility	Membership Certificate issuing agency along with Date of Iss validity of membership
01	CETP	**Name of CETP: Payal Indutrial Park** **Date of Issue of membership along with validity: Issued on dated 2022**
02	TSDF site	**Name of TSDF: SEPL Magnad, Jambusar site & SEIPL Kutch Site** **Date of Issue of membership along with validity: 07/06/2023 & 13/06/2023**
03	Common Hazardous Waste Incineration Facility	
04	Common Spray Drying Facility	Not Applicable
05	Common MEE Facility	Not Applicable
06	Common Conveyance System	Not Applicable
07	PESO permission	We will obtained after getting EC/NOC
08	FIRE permission	We will obtained after getting EC/NOC
09	Health Certificate	We will obtained after getting EC/NOC

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38) **EMERGENCY MEASURES PROPOSED AND PREPAREDNESS ACTION PLAN**

EMERGENCY MEASURES PROPOSED AND PREPAREDNESS ACTION PLAN

Management shall take into consideration fire prevention measures at the project planning and

during plant commissioning stage to avoid any outbreak of fire. But looking to the hazardous nature of process and the chemicals that shall be handled and processed, the chance of outbreak of fire cannot be totally ignored. Hence to tackle such a situation a good well laid fire protection system will be provided in the factory. Details of firefighting are given below.

Type		nos	Capacity in Kg
ABC	:	500	06
CO2	:	200	6.5
SAND BUCKET	:	650	10
Class B (Foam)	:	250	9 liter
DCP	:	200	06
Foam Trolley		15	50 Liter
TOTAL	**:**	**1815**	---

39) **CER ACTIVITIES PROPOSED YEAR WISE/ IN CASE OF EXPANSION ANY ADDITIONALITY SUGGESTED AND ITS COMPLIANCE (AS PER THE MOEF & CC GUIDELINES)**

Total cost of Project (Rs in Crores)	Total Cost of CER (Rs in Crores or Lakhs)	Percentage (%)
450 (400 Cr. Existing + 50 Cr. Proposed)	850 Lakh (800 Lakh Existing + 50 Lakh additional)	2.0

Sr. No.	CER-Proposed Planned Activities	Identified Villages	Rs. In lakh
1	Promoting Rain Water harvesting System and Construction of ground Water tank @ 200 KL to Collect Rain Water in panchayat area or suitable area.	Pakhajan, Nadarkha, Pipaliya , Nandida	300 lakh
2	To give contribution in the increase the depth of Village Pond to increase the rain water storage which is also useful to decrease the salinity of surrounding soil.	Nandida, Akhod, Nadarkha, Pipaliya	130 lakh
3	Solar Panel Tree lighting -39 nos. in Village	Pakhajan, Nadarkha, Pipaliya, Limdi, Ambhel	240 lakh
4	Over Head Water Storage will be Constructed for water distribution.	Limdi, Ambhel	80 lakh
5	Water distribution system from over head tank to easy access of fresh water with RO System to PHC, School and Panchayat.	Pakhajan, Nadarkha, Pipaliya	100 lakh
Grand Total			**850 lakh**

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Comments:

As per MoEF&CC's OM dated: 01.05.2018 and 30.09.2020, SEAC examined that the proposed cost of CER i.e 2% (Rs 8.5 Crores) which is as per the requirement.

40) **ENVIRONMENT MANAGEMENT PLAN (ESPECIALLY WITH CEPI AND NON CEPI GUIDELINES, AS MAY BE APPLICABLE)**

Sr. No	Unit	Details	Capital Cost (Rs.in Cr)	Operating Cost (Cr/ Month)	Maintenance Cost (Cr/ Month)	Total Recurring Cost (Cr/ Month)
1	Effluent Treatment Plant	Installation of ETP and getting membership of payal Industrial Park, CETP	10.00	1.5	0.2	1.7

2	APCM	Installation of stack/vent & it"s monitoring facilities including online and provision of air pollution control system Provision of odour control system Provision of H2S and VOC Sensors Alarm Fly Ash Management	5.00	0.50	0.1	0.60
3	Noise Control	Insulation and Lubrication of pumps, Valves, equipment etc. (Acoustic enclosure will be provided for DG Set.) If DG Set is installed.	0.08	-	0.001	0.001
4	TSDF Membership and other	Getting membership of TSDF site and management of Hazardous Waste	0.50	0.75	0.1	0.85
5	Health & Safety	Provision of Occupational Health Centre including full time doctors and medical staff, medical equipment with Antidotes, PPE and its Kits, Breathing Apparatus etc	1.00	0.10	0.1	0.20
6	AWH Monitoring	To conduct EMS efficacy & environment monitoring	-	0.15	-	0.15
7	Green Belt	Development of Greenbelt Area	1.00	0.1	0.05	0.15
8	Fire	Provision of Safety Measures including Fire Detectors,, Fire Hydrant, SCBA Suits, Fire Extinguishers and Proximate suits, Fire tender Lightening arrestors etc.	5.00	0.50	0.2	0.70
9	Other	PLC based SCADA and DCS System	10.00	0.50	0.10	0.60
		CER	8.5	-	-	-
Total			**41.08**	**4.10**	**0.851**	**4.951**

Comments:

The overall environment management plan (EMP) provided for capital and recurring cost for wastewater treatment, air emission control, noise control, hazardous waste disposal, fire & safety, occupational health, environment monitoring program, green belt and corporate environmental responsibility was deliberated and found satisfactory.

41) **RECOMMENDATIONS OF SEAC**

"On the basis of information provided to SEAC on project, its location, technical, physical and environmental infrastructure, products, quantity to be manufactured, its raw material, storage, waste disposal, water treatment, safety measures, green belt development planning, regulatory compliance assured of related statutory provisions, necessary documents of requisite permissions provided from concerned departments and overall environmental management planning for the project, along with financial resources committed for operation and maintenance, and on the

	basis of presentation made before SEAC, modification suggested by SEAC and incorporated by project proponent, SEAC finds the project as per the requirement and **unanimously** recommends the same to SEIAA for environmental clearance." **Conditions with which Environment Clearance is recommended:**
42)	**GENERAL/ SPECIFIC CONDITIONS** **Construction Phase** a) "Wind – breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided. Individual building within the project site shall also be provided with barricades. b) "No uncovered vehicles carrying construction material and waste shall be permitted." c) "No loose soil or sand or construction & demolition waste or any other construction material that cause dust shall be left uncovered. Uniform piling and proper storage of sand to avoid fugitive emissions shall be ensured." d) Roads leading to or at construction site must be paved and blacktopped (i.e. – metallic roads). e) No excavation of soil shall be carried out without adequate dust mitigation measures in place. f) Dust mitigation measure shall be displayed prominently at the construction site for easy public viewing. g) Grinding and cutting of building materials in open area shall be prohibited. h) Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited. i) Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site. (If applicable). **SPECIFIC CONDITIONS:** 1. Unit shall install CEMS **[Continuous Emission Monitoring System]** in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. **[For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable].** 2. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with. 3. National Emission Standards for Dye and dye intermediates Industry issued by the Ministry vide G. S. R. 325 (E) dated 07/05/2014 and amended from time to time shall be followed. 4. Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance &

consistence with the same.

5. All measures shall be taken to avoid soil and ground water contamination within premises.

6. <u>Safety & Health:</u>

a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.

b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.

c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.

d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.

e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.

f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.

g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.

h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labour within premises.

i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.

j) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.

k) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.

l) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.

m) Unit shall provide chlorine leakage control emergency kit and FRP hood with scrubber system for chlorine safety.

n) Unit shall provide bund/ dyke wall to the CS2 storage tank and it shall be kept under water.

o) Unit shall provide safety valve and rapture disc, as well as auto dump or auto quench/, suppress system for exothermic reaction vessel safety.

<u>WATER</u>

7. Total water requirement for the project shall not exceed 3940 KLD. Unit shall reuse 864 KLD of treated effluent within premises. Hence, fresh water requirement shall not exceed 3076 KLD and it shall be met through water supply of Payal Industrial Park only. Prior permission from concerned authority shall be obtained for procurement of water.

8. The industrial effluent generation from the project shall not exceed 1160 KLD.
9. Management of Industrial effluent shall be as under:
    - ✓ 1160 KLD, effluent generated from process, washing and utilities shall be treated in primary, secondary & tertiary ETP and shall be sent to CETP-Payal Industrial Park for further treatment and disposal.
10. Domestic wastewater generation shall not exceed 50 KL/day for proposed project and it shall be treated in STP.It shall not be disposed off into soak pit.Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.
11. During monsoon season when treated sewage may not be required for the plantation / Gardening / Green belt purpose, it shall be stored within premises. There shall be no discharge of waste water outside the premises in any case.
12. Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water during rainy days.
13. Treated waste water shall be sent to CETP-Payal Industrial Park , PCPIR region only after complying with the inlet norms of common facilities prescribed by GPCB to ensure no adverse impact on Human Health and Environment.
14. The PP shall ensure to dispose off Waste water to the Common Facilities having valid CTO of GPCB.
15. Unit shall provide STP and ETP with adequate capacity.
16. The unit shall provide metering facility at the inlet and outlet of STP and ETP and maintain records for the same.
17. Proper logbooks of STP & ETP; reuse/ recycle of treated/ untreated effluent; chemical consumption in effluent treatment; quantity & quality of treated effluent sent to common facilities; power consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.

AIR:

18. Unit shall not exceed fuel consumption for Steam Boilers, Thermic Fluid Heaters and D G Set as per the point no. 24 as mentioned above.
19. PP shall use approved fuels only as fuel in Steam Boilers, Thermic Fluid Heaters, and D G Set.
20. Unit shall provide adequate APCM with flue gas generation sources to achieve the norms prescribed by GPCB.
21. Unit shall provide adequate APCM with process gas generation sources as the point no. 25 as mentioned above.
22. The fugitive emission in the work zone environment shall be monitored. The emission shall

conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety& Health). Following indicative guidelines shall also be followed to reduce the fugitive emission.

- Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.
- Air borne dust shall be controlled with water sprinklers at suitable locations in the plant.
- A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission.

23. Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air.
24. For control of fugitive emission, VOCs, following steps shall be followed :
    a. Closed handling and charging system shall be provided for chemicals.
    b. Reflux condenser shall be provided over Reactors / Vessels.
    c. Pumps shall be provided with mechanical seals to prevent leakages.
    d. Air borne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures.
25. Solvent management shall be carried out as follows:
    - ✓ Measures shall be taken to reduce the process vapors emissions as far as possible. Use of toxic solvents shall be minimum. All venting equipment shall have vapour recovery system
    - ✓ Reactor shall be connected to adequate chilling system to condensate solvent vapors and reduce solvent losses.
    - ✓ Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
    - ✓ The condensers shall be provided with sufficient HTA and residence time so as to achieve maximum solvent recovery.
    - ✓ Solvents shall be stored in a separate space specified with all safety measures.
    - ✓ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
    - ✓ Solvent storage and handling area shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
26. Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.
27. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
28. Regular monitoring of ground level concentration of PM_{10}, $PM_{2.5}$, SO_2, NOx, HCl, Cl_2, H_2S and

VOCs shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of monitoring shall be decided in consultation with the GPCB.

HAZARDOUS / SOLID WASTES:

29. All the hazardous/ solid waste management shall be taken care as per the point no. 32 and 33 as mentioned above.
30. Authorized end-users shall have permissions from the concerned authorities under the Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
31. Unit shall explore the possibilities for environment friendly methods like co-processing of hazardous waste for disposal of Incinerable & land fillable wastes before sending to CHWIF & TSDF sites respectively.
32. The project proponent has to obtain membership of TSDF site & CHWIF before obtaining CTO of GPCB.
33. STP sludge shall be collected and used as manure in gardening activity.
34. Management of fly ash shall be as per the Fly ash Notification 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

GREENBELT AREA

35. The PP shall develop green belt within premises (56892 Sq. m i.e. 33% of the total plot area) as submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

OTHERS:

36. The project proponent shall carry out the activities of amount of Rs. 8.50 Crores [Promoting Rain Water harvesting System and Construction of ground Water tank @ 200 KL to Collect Rain Water in panchayat area or suitable area in Pakhajan, Nadarkha, Pipaliya , Nandida villages; To give contribution in the increase the depth of Village Pond to increase the rain water storage which is also useful to decrease the salinity of surrounding soil in Nandida, Akhod, Nadarkha, Pipaliya villages, Solar Panel Tree lighting -39 nos. in Village- Pakhajan, Nadarkha, Pipaliya, Limdi, Ambhel; Over Head Water Storage will be Constructed for water distribution in Limdi, Ambhel villages and Water distribution system from over head tank to easy access of fresh water with RO System to PHC, School and Panchayat in Pakhajan, Nadarkha, Pipaliya villages] proposed under CER and it shall be part of the Environment

	Management Plan (EMP) as per the MoEF&CC's OM no. F. No. 22-65/2017-IA.III dated 30.09.2020. This shall be monitored, and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to the District Collector. The monitoring report shall be posted on the website of the project proponent. 37. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s. Green circle Inc and submitted by the project proponent and commitments made during presentation before SEAC and proposed In the EIA report shall be strictly adhered to in letter and spirit.
43)	**COMPLIANCE AND ADMINISTRATION/APPEAL OF EC ORDERS** 1. Project proponent shall inform to all the concerned authorities including Municipal Corporation and District Collector and shall also give wide publicity through advertisement in minimum two local newspapers within seven days, about the Environment Clearance order accorded. 2. Project proponent shall appoint a key person in the organization who shall be responsible for compliance of above condition fully on behalf of the proponent. It will not mean that appointing a key person will exempt the project proponent from the responsibility of compliance. Any change in key person shall immediately be informed to SEIAA and all concerned authorities. 3. Designated key person shall submit six monthly compliance report to SEIAA/SEAC, MOEF&CC, GPCB and Nodal Department of the Government. 4. The Nodal Department or any authority or officer authorized by MOEF&CC/SEIAA can inspect the site of the project and all the facilities, for verification of compliances of environment clearance conditions. 5. In case of violation reported upon, the project proponent shall be responsible for all the legal actions as per Environment Protection Act, 1986 including SEIAA may cancel, withdraw or keep in abeyance, the Environment Clearance accorded. 6. Any person including the project proponent affected by this Environment Clearance order may file appeal to Honorable National Green Tribunal West Zone branch, Pune, preferably within a period of thirty days from the date of issue of Environment Clearance as prescribe under section 16 of National Green Tribunal Act 2010. 7. All complains and public grievance or representations may be addressed to SEIAA/SEAC in the email addresses (a) msseiaagj@gmail.com& (b) seacgujarat@gmail.com.

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4.	SIA/GJ/IND3/72696/2022	**M/s. AKASH DYES & INTERMEDIATES** Plot no. 1401/A+1401/A/1+1401/B+ 1401/B/1, Phase – IV, GIDC Naroda, Ahmedabad.	EC-Expansion
Category of the unit: **5(f)**			

Project status: **EC-Expansion**

1) **DETAILS OF APPLICATION:**

1.1. Type of application:	EC-EXPANSION
1.2. Proposal no.	SIA/GJ/IND3/72696/2022
1.3. Category of Project:	5 (f) – B1
1.4. Date of application:	11-06-2022
1.5. Date of EDS by SEIAA a) EDS Raised b) Reply by PP	 24-06-2022 24-09-2022
1.6. Date of EDS by SEAC a) EDS Raised b) Reply by PP c) Accepted by SEAC	 19-10-2022 24-04-2023 28-04-2023
1.7. TOR No. & Date:	SIA/GJ/37603/2022 Dated 03-03-2022
1.8. Date and place of Public Hearing	Not Applicable (Unit is located in Naroda GIDC Area)
1.9. Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	Green Circle Inc. NABET Accredited Organization NABET/EIA/2124/RA 0219 Valid up to 26.01.2024
1.10. SEAC Meeting No. and Date:	658th SEAC Meeting on dated 21-07-2023
1.11. ADS raised by SEAC meeting No & date:	Not Applicable
1.12. Reply Submitted by PP dated:	Not Applicable
1.13. Revised Consideration SEAC Meeting No. and Date:	Not Applicable

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2) **DELIBERATIONS OF SEAC (Reference May Be Given To Legal Disputes/Court Cases and Land Matters/ Environmental Violations Apart From The Proceedings Of SEAC).**

1) The project falls under B1 category of project activity 5(f) as per the schedule of EIA Notification 2006.
2) The proposal was considered in the SEAC video conference meeting dated **21.07.2023**.
3) Project proponent (PP) and their Technical Expert/Consultant M/s. Green Circle Inc remain present during video conference meeting.
4) Committee deliberated on Product profile, Layout plan, Storage details, Process safety, Fire safety, water balance & waste water management, Flue gas and process gas emission & Air Pollution Control System, Hazardous waste matrix, EMP, CER, Green belt, etc.
5) Committee deliberated on baseline environmental data and quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect
6) Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detailed proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.

7) This is an existing unit involved in manufacturing of dyes for which unit is having CCA. The latest CCA was obtained on dated: 13.07.2022. As per MoEF&CC's OM dated: 08.06.2022, unit has obtained latest CCA on dated: 13.07.2022 which is less than one year at the time of application and acceptance of EC application, hence Self-Certified Compliance report is acceptable.
8) PP has submitted that there is one SCN issued by GPCB on dated: 18.08.2021 reply of the same is submitted which is found satisfactory. PP has also submitted that there is no any legal court case and public complaint against unit.
9) Committee noted that in proposed expansion there will be addition of Plot No: 1401/A, 1401/A/1 & 1401/B/1, Phase – IV, GIDC Naroda. PP has presented amalgamation letter for Plot No: 1401/A, 1401/A/1,1401/B & 1401/B/1, Phase – IV, GIDC Naroda in the name of M/s Akash Dyes and Intermediates dated: 04.08.2018.
10) Commitee also noted that in proposed expansion though there will be increase in wastewater generation but in compliance of 18(1)(b) direction, there will be no additional discharge proposed in CETP-NEPL. The wastewater generation from proposed expansion will be sent to M/s NOVEL.
11) Committee asked to submit the following:
    - ✓ Notarized undertaking regarding accreditation of NABET as per MoEF&CC's OM dated: 18.05.2023.
    - ✓ Notarized undertaking regarding unit will not manufacture any dirty products (in proposed expansion) as per GPCB circular dated: 03.11.2018.
    - ✓ Justification regarding increase in wastewater generation than water consumption in process.
    - ✓ Revised EMP including cost of noise control measures.
    - ✓ Copy of membership of M/s NOVELfor acceptance of additional effluent considering proposed expansion.
12) Later on PP submitted following details through email dated: 26.07.2023 which is as under:
    - ✓ Notarized undertaking dated: 26.07.2023 regarding accreditation of NABET as per MoEF&CC's OM dated: 18.05.2023 mentioning *"Green Circle Inc having valid NABET accreditation vide No: NABET/EIA/2124/RA0219 (valid up to 26/01/2024) and has prepared EIA report of said project as per ToR. Also, we hae obtained primary and secondary data for chapter -3 from M/s Satva Environ Consultancy, Ahmedabad which is NABL approved laboratory vide Certificate No: TC-10870 valid up to dated: 26/07/2024."*
    - ✓ Notarized undertaking dated: 26.07.2023 mentioning *"We are not proposed any dirty products as per GPCB circular dated: 03.11.2018"*
    - ✓ Revised EMP including cost of noise control measures.

✓ **Provisional NOVEL membership certificate:** In Connection with we would like to inform you that as per environment Clarence proposed we are generated 36.5 KLD spent having High COD and High TDS form the process and it will be dispose through Novel and we have already member of Novel for 250 KL/Month (3000 KL/Year). Further, regarding provisional membership certificate for 36.5 KLD spent disposal, we have approach NOVEL for the same but they informed us that there is no such provision to issue provisional certificate as they have testing characteristics of spent and then only issue the certificate.

We are informing you that at present there is no such generation. Hence we have obtained certificate for common spray drying facility of M/s NEPL which is submitted and also carried out MoU with Shree Cement having register address Bangur road, Beawar, District: Ajmer, Rajasthan on dated 24-07-2023 for capacity of 550 MT/month (6600 MT/Annum) and they have agree to utilized generated spent acid in their premises for co processing or actual user.

The revised Hazardous waste matrix is submitted with no such change in disposal mode and only changing agencies for its utilization. Also, there will be no change in quantity of wastewater generation but changes in mode of discharge from M/s NOVEL to M/s NEPL or M/s Shree Cement. The revised waste balance diagram and wastewater generation table is submitted.

13) Committee found presentation and submission of project proponent satisfactory.

14) Since the proposed project is located in notified industrial area, public consultation is not required as per paragraph 7(i) (III) (I) (b) of the Environment Impact Assessment Notification 2006.

15) Compliance of the ToR found satisfactory.

3) **EIA REPORT (BASELINE STUDIES AND RISK ANALYSIS)**

Sr. no.	Particulars	Details (Give brief note / Conclusion of the particular subject)	Page no., Section no. & chapter no. of EIA report
A	Ensure that there is no change in EIA report w. r. t. ToR i.e. Form-1 & PFR	We ensure that there is no change in EIA report compare to TOR Application	-
B	Baseline environmental monitoring period	November-2020 to January-2021	**Page no., 56 Section no. 3.2 chapter no. 3**
c	Whether baseline data is primary or secondary data? 3) If baseline data carried out by other NABL accredited laboratory	Secondary data We have carried out MOU both Consultant Satva environ	Attached here with

<table>
<tr><td></td><td></td><td>then MoU between both.
4) If baseline data is taken from another EIA report, then MoU between NABET consultant and industry whose data used in preparing present EIA report and time period of baseline data shall be as per MoEF&CC's OM dated: 08.06.2022.</td><td>consultancy and Green circle for baseline data and time bound utilized baseline data only for this project</td><td></td></tr>
<tr><td></td><td>d</td><td>Baseline study area (Km)</td><td>10 Km</td><td>Page no., 56 Section no. 3.2 chapter no. 3</td></tr>
<tr><td></td><td colspan="4">AIR</td></tr>
<tr><td></td><td>e</td><td>No. of AAQM stations including project site</td><td>9</td><td>Page no., 59 Section no. 3.5 chapter no. 3</td></tr>
<tr><td></td><td>f</td><td>Parameters considered for AAQM including project specific parameters.</td><td>As per given below table</td><td></td></tr>
<tr><td></td><td colspan="4">-
<table><tr><th>Sr. no.</th><th>Parameters</th><th>Range of Concentrations (µg/m^3)</th><th>Remarks</th></tr><tr><td>1</td><td>$PM_{2.5}$</td><td>30.89 – 61.43</td><td rowspan="5">All parameter are within permissible range as per NAAQM standards</td></tr><tr><td>2</td><td>PM_{10}</td><td>39.76 – 95.52</td></tr><tr><td>3</td><td>SO_2</td><td>10.25 – 20.42</td></tr><tr><td>4</td><td>NOx</td><td>13.26 – 28.74</td></tr><tr><td>5</td><td>VOC,</td><td><0.1 ppm</td></tr></table>-</td></tr>
<tr><td></td><td>g</td><td>Whether the results of AAQM is within the norms prescribed in NAAQS ?
If no, give reasons as per EIA report</td><td>It is found that all parameters at nine locations are well within limits as per NAAQS Standards</td><td>Page no., 67 Section no. 3.5.7 chapter no. 3</td></tr>
<tr><td></td><td>h</td><td>Comments for AAQM results w. r. t. NAAQS</td><td>It is found that all parameters at Nine locations are well within limits as per NAAQS Standards</td><td>Page no., 59 Section no. 3.5 chapter no. 3</td></tr>
<tr><td></td><td>i</td><td>Software used for the mathematical Modelling for anticipated incremental GLCs (Ground Level Concentrations</td><td>AERMOD View (Lakes Environment Software)</td><td>Page no., 103 Section no. 4.4.3.3. chapter no. 3</td></tr>
<tr><td></td><td>j</td><td>The resultant concentrations w. r. t. NAAQS and its conclusion.</td><td>The incremental ground level concentration of Ambient Air Quality Parameter is negligible therefore there will be no any impacts on the air quality due to the proposed project.</td><td>Page no., 65 to 66 Section no. 3.5..3, 3.5.4, 3.5.5 chapter no. 3</td></tr>
<tr><td></td><td colspan="4">WATER</td></tr>
<tr><td></td><td>k</td><td>No. of monitoring stations including project site wrt water
c) Groundwater</td><td>Groundwater – 9 location
Surface water – 3 location</td><td>Page no., 73 to 78 Section no. 3.7 chapter no. 3</td></tr>
</table>

	d) Surface water		
l	Conclusion of the Monitoring during baseline study of water (ground water and surface water)	The water sample was collected from Nine location within project area. The all the parameter was found within norms. The heavy metals is found below detectable limits from all the samples.	**Page no., 73 to 78 Section no. 3.7 chapter no. 3**
m	No. of monitoring stations including project site wrt soil	The water sample was collected from Nine location within project area.	**Page no., 79 to 81 Section no. 3.8 chapter no. 3**
n	Conclusion of the Monitoring during baseline study of land / soil	The project site is within industrial estate and the major texture of soil was found loamy in the area with sandy loam.	**Page no., 79 to 81 Section no. 3.8 chapter no. 3**
o	No. of monitoring stations including project site wrt Noise	The water sample was collected from Nine location within project area.	**Page no., 68 to 69 Section no. 3.6 chapter no. 3**
p	Conclusion of the Monitoring during baseline study of Noise	The project is within GIDC area and noise level at all the location was found within limit.	**Page no., 68 to 69 Section no. 3.6 chapter no. 3**
q	Any other details: **a) Details of carbon footprint:** **As per TOR NO: SIA/GJ/37603/2022 Dated 03-03-2022 not given carbon footprint point in auto TOR letter** **b) Details of roof top rain water harvesting and reuse within premises:** Harvest rainwater from the roof tops : = (Area of roof in sq. m)*(runoff co-efficient)*(annual rainfall in m) = 1465*0.85*0.75 = 933.93 m3 933.93 m3 of rainwater will be collected in a year. The collected rainwater will be filtered using dual media filtration system, stored in fire tank of 300 KL capacity (150 KL Spare for Rain water harvesting), and utilized for firefighting purposes.		
r	Details of Schedule-I species and its conservation plan, if any		
	The unit has located in Naroda GIDC there is no found any Schedule-I species		

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4) **RISK ANALYSIS & ITS MITIGATION MEASURES IN GENERAL AS GIVEN IN EIA REPORT**

OBJECTIVE OF THE STUDY

- Quantitative Risk Assessment (QRA) study for M/s. AKASH DYES & INTERMEDIATES has been carried out based on data provided by Project Proponent.
- The main objective of risk assessment -Quantitative Risk Assessment (QRA) is to identify and determine the potential damage or loss of life, property and environment and to provide a scientific argument for decision makers to provide and maintain the safety levels of the facilities to prevent or mitigate harm and loses. This is achieved by the following:
- Identification of hazards that could be realized from manufacturing processes, plant equipment and machinery, raw materials and products.
- Identify the potential failure scenarios that could occur within the facility.

- To Access, the potential risks associated with identified hazards to which the plant and its personal and community outside may be subjected. Consequences analysis of various hazards is carried out to determine the vulnerable zones for each probable accident scenario.
- Evaluate the process hazards emanating from the identified potential accident scenarios.
- Analyse the damage effects to the surroundings due to such accidents.
- Conclusion and Recommendation to mitigate measures to reduce the hazard / risks.
- To provide guidelines for the preparation of On-site response plan.

Scope of the study

- The project will undertake quantitative risk assessment (QRA) study for the storage tank area.
- Following listed material below are stored, used and handled in the premises**.**

Disaster

- ❑ Extremely rare major emergency/accident having high potential which can cause damage to human life/properties either due to natural calamities or human activities

Objectives

- ❑ To protect lives of working personnel and nearby population.
- ❑ To contain the hazards and to control their spread.
- ❑ To minimize the impact on the environment.
- ❑ To minimize the loss to plant and production.

Disaster Management Plan: Key Elements

- ❑ Basis of the plan
- ❑ Accident/emergency response planning procedures
- ❑ Onsite Emergency Management Plan
- ❑ Offsite Emergency Management Plan
- ❑ 6 monthly emergency mock-drill will be conducted.

5) **PRODUCT PROFILE AND BRIEF NOTE OF PRODUCT PROFILE**

SR. NO	PRODUCT NAME	Cas No.	Existing MT/Month	Proposed MT/Month	Proposed MT/Month
1.	Sulpho Tobais Acid	117-62-4	20	-	20
2.	4B acid	88-44-8	5	-	5
3.	OT 5 SA	98-33-9	5	-	5
4.	Ortho Amino Phenol Sulphonic Acid (OAPSA)	98-37-3	NIL	70	70
5.	Metanilic Acid	121-47-1			
6.	6 Chloro Metanilic Acid	98-36-2			
7.	4-Chloro 2-Amino Phenol (4 CAP)	95-85-2			
8.	4-Chloro-2-Amino Phenol-5-Sulphonic Acid (4 CAPSA)	88-23-3			
9.	4 Nitro 2 Amino Phenol (4 NAP)	99-57-0			
10.	6 Nitro 2 Amino Phenol 4 Sulphonic Acid (6 NAPSA)	96-93-5			
11.	4 Nitro 2 Amino Phenol 4 Sulphonic Acid(4 NAPSA)	96-67-3			
12.	6-Chloro-2-Amino Phenol-5-Sulphonic Acid (6 CAPSA)	5857-94-3			
13.	2-Amino-4-chloro-5-methylbenzenesulfonic acid (2-B Ac id)	88-51-7			
14.	3,4 Di Chloro Aniline 6 Sulphonic Acid	6331-96-0			
15.	Para Cresidine Ortho Sulphonic Acid	121-03-9			

	16.	Purified Tobias Acid	81-16-3			
	17.	Meta Xylidine Ortho Sulphonic Acid	88-22-2			
	18.	Meta Xylidine Meta Sulphonic acid	NA			
	19.	Para Anisidine 3 Sulphonic Acid	6470-17-3			
	20.	Para Anisidine 2 Sulphonic Acid	13244-33-2			
	21.	Ortho Anisidine 4 Sulphonic Acid	98-42-0			
	22.	Meta Nitro Para toluidine	119-32-4			
	23.	Benzoyl H Acid	117-46-4			
	24.	Benzoyl J Acid	132-87-6			
	25.	Phenyl J Acid	119-40-4			
	26.	2 Pyridine	142-08-5			
	27.	Meta Uredo Aniline	59690-88-9			
	28.	Aniline 2.5 DSA	98-44-2			
	29.	Aniline 2.4 DSA	137-51-9			
	30.	5 Sulpho Anthranilic Acid	3577-63-7			
	31.	4 Sulpho Anthranilic Acid	98-43-1			
	32.	4 Sulpho Hydrazone	118969-29-2			
	33.	5 Sulpho Hydrazone	68645-45-4			
	34.	PNCBOSA	946-30-5			
	35.	DNSDA	128-42-7			
	36.	NADAPSA	135-11-5			
	37.	2R Acid	90-40-4			
	38.	3-5 DABA	535-87-5			
	39.	Para Amino Azo Benzene 4 Sulphonic Acid (PAABSA)	104-23-4			
	40.	4 NADPSA	91-29-2			
	41.	Sodium Naphthionate	130-13-2			
	42.	PCASA	6471-78-9			
	43.	OCASA	NA			
	44.	OT4SA	NA			
	45.	BON Acid	92-70-6			
	46.	1 Napthol	135-19-3			
	47.	2 Napthol	135-19-3			
	48.	C-Acid	131-27-1			
	49.	N-Methyl Aniline	98-44-2			
	50.	Sulphonic Acid	7664-93-9			
	51.	PNT-SA	121-03-09			
	52.	ONT-SA	NA			
	53.	R & D	--	NA	0.1	0.1
		Total		**30**	**70**	**100**

 # Brief Note of Product Profile:

1. No of Manufacturing Plants: 1
2. Brief Note regarding number of Products to be manufactured considering plant capacity:

6) **PROJECT DETAILS (COST/LAND OWNERSHIP/NA PERMISSION ETC.)**

a) Total **cost of Proposed** Project (Rs. in Crores):

Existing	Proposed	Total
2.5	1.0	3.5

Break-up of proposed project Cost:

Details	Project Cost (Rs. In Crores)
Land	1.5
Building	
Machinery	1.5
Env. & Safety	0.25
Miscellaneous	0.25
TOTAL	**3.5**

b) **Details of Land / Plot ownership details:** (Linking between Land ownership and PP is required.)

i. **Total Plot area (sq mt):** 4750.18 Sq.m (2500.97 Sq.m Additional + 2249.21 Sq.m Existing)

ii. GIDC Plot Allotment letter/ NA documents: GIDC/RM/ABD/AML/NRD/2674 Dated 04/08/2018, GIDC/RM/ABD/Naroda/1522 on dated 04/10/2022

7) **IF IT IS EXPANSION WHETHER CCR/EARLIER EC COMPLIANCE GIVEN:**

Sr. no.	Particulars	Brief Information/ Details	Remarks
1	Earlier Environmental Clearance **(EC)** details [EC letter no. and date & obtained from MoEF&CC/SEIAA.]	We have applied for Fresh Environment Clearance	Our Existing product are not falls in EC now we are apply for Fresh Environment Clearance with proposed new product
2	In case EC not obtained for existing project: Copy of first CTE (NOC) & CCA obtained from GPCB i.e. before 14/09/2006. (For justification that you have not obtained EC for existing project).	The existing CC&A is submitted with this letter	Given in Slide no 6-15
3	**Certified Compliance Report (CCR)** from the concern authority **(IRO-MoEF&CC/MS-GPCB) for existing EC/ CCA** as per the MoEFCC's OM no.F.No: IA3-22/10/2022-IA.III [E 177258] dated: 08/06/2022.	We have attached here with Self Compliance Report. As the current CCA obtained on dated 13/07/2022 within last one year, Hence CCR not obtained meeting compliance of MOEFCC OM dated 8 June 2022	Self Compliance Report is Given in Slide no 6-15
4	**Time bound action plan of conditions i.e partly complied/ non-complied**	Not Applicable	
5	Details of latest Consent to Operate (CTO/CC&A) obtained from GPCB along with date of issue and validity	Submitted with this letter	Given in Slide no 6-15
6	Details of **Improvement notice, Show-cause notice, Notice of direction,**	One show cause notice, generated on	Given in Slide no 4-5

	Directions, Closure direction etc. issued by the GPCB to the existing unit in **last 3 years**. Details in tabular format comprise **issues, actions taken and current status**.	18-08-2021.	
7	Details of **Public Complaints** (If any)	NO any public Complaints	
8	Details of **litigation** pending before any court of Law against the Project (If any)	No any litigation pending	

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Comments:

As per MoEF&CC's OM dated: 08.06.2022, unit has obtained latest CCA on dated: 13.07.2022 which is less than one year at the time of application and acceptance of EC application, hence Self-Certified Compliance report is acceptable. Also, PP has submitted that there is one SCN issued by GPCB on dated: 18.08.2021 reply of the same is submitted which is found satisfactory. There are no litigation pending and public complaints against the unit.

8) **PUBLIC HEARING APPLICABILITY AND ITS COMPLIANCE:** Not Applicable unit is located Naroda GIDC

Comments:

The public consultation is not applicable as per paragraph 7(i) III (i) (b) of the Environment Impact Assessment Notification-2006 (as it is located in GIDC area)

9) **SITING CRITERIA DETAILS (OTHER THAN GIDC): Not applicable as unit is located in Naroda GIDC industrial Estate**

Comments:

This unit is located in GIDC area, so siting criteria is not applicable.

10) **APPLICABILITY OF GENERAL CONDITIONS AND COMMENTS WITH SPECIFIC CLARIFICATION OF MOEF&CC GUIDELINES:** Any project or activity specified in Category 'B' will be appraised at Central level as Category 'A' if located in whole or in part within 5 Km radius from the project boundary of:-

Sr No	Particulars	Aerial Distance in Km
3.	Protected Areas notified under the Wildlife (Protection) Act 1972 (53 of 1972)	No within 5 Km Radius from project site
4.	CPA/SPA (Critically Polluted Area/Severely Polluted Area) as identified by the CPCB	No within 5 Km Radius from project site
3	Eco sensitive areas as notified under sub-section (2) of section 3 of EPA-1986	No within 5 Km Radius from project site
4	Interstate boundaries and international boundaries	No within 5 Km Radius from project site

Comments:

As per MoEF&CC's notification dated: 25.06.2014 and as per details submitted by PP, General condition is not applicable.

11) **AREA ADEQUACY AND COMMENTS**

Total Land area: 4750.18 Sq.m (2500.97 Sq.m Additional + 2249.21 Sq.m Existing)

Floor-wise land area break-up table

SR. NO	Area	Existing Area in M2	After Proposed in M^2				Percentage
			Ground floor	First Floor	Second Floor	Total	
1	Manufacturing Area	700	-	950	1065	2015	-
2	Lab/Administration	25	85	-	-	85	1.79
3	Finish Good Storage	200	-	115	-	115	-
4	Raw Material Storage	350	700	-	-	1100	14.74
5	Tank Storage Area	0	250	-	-	250	5.26
6	H2 Cylinder Storage	0	100	-	-	100	2.11
7	ETP Area	75	100	-	-	100	2.11
8	ETP Waste Storage Area		210	-	-	210	4.42
9	Process waste storage	0	250			250	5.26
10	Utility Area	80	200	-	-	200	4.21
11	Occupational Health Centre	0	30	-	-	30	0.63
12	Open Area (Road & Parking)	769.21	1225.18	-	-	1225.18	25.79
13	Green Belt (Within Premises)	50	1600	-	-	950.0	33.68
	Total Plant Area	**2249.21**	**4750.18**				**100.00**

Area Adequacy table:

Sr. No.	Description of Area	Criteria for Storage	Inventory Required (MT) (KL)	Area Required (m^2)	Area Proposed (m^2)
1	Finished Product Storage Area (solid/Liquid Form) (1 week inventory)	100 MT/Month	25 MT	50.0	115
2	Raw Material Store area in Drum and Bag (1 Week inventory)	426 Drum (210 Lit) 12444 Bag (25 Kg)	132.720 MT	191	700
			311.1 MT	400	
3	Tank Area (Non PESO)	20 X 3 (2.5 m dia. x 23.5 m Height)	60 KL	150	250
		10 X 2 (1.5 m dia. x 2.8 m Height)	20 KL		

		5 X 3 (1.2 m dia. x 2.5 m Height)	15 KL		
		2 M3 X 1	2 M3		
4	Tank Area (PESO)	10 X 1 (1.5 m dia. x 2.8 m Height)	10 KL	30	
		5 X 2 (1.2 m dia. x 2.5 m Height)	10 KL		
5	Hydrogen storage area	47 liter X 2 Cylinder	90 liter	50	100
7	Effluent Treatment Plant	4.5 KLD	-	70	100
	ETP Waste storage area (15 Day Inventory)	3600 MT/Annum	150 MT		
8	Process waste storage ((15 Day Inventory)	4202 MT/Annum	175 MT	30	210
9	Utility Area	Gas based	Boiler (2 TPH), TFH (3 Lac Kcal (2), 4 Lac Kcal), HAG(2 Lac kcal)	30	200
10	Manufacturing Area	100 MT/Month	-	550	2015
11	Admin Area & Lab Area	-	-	15	85
12	Occupation health Center + Safety Room	-	-	15	30
13	Open Area	-	-	950	1225.18
14	Green belt area	-	-	950	950
			Total	**3205**	**5980.18**

Comments:

SEAC has examined it w.r.t.to total monthly production, maximum products, manufactured per month, the total raw material required, weekly storage requirement of each raw material, their mode of storage, their compatibility (flammability, corrosive, toxic), area needed by each raw material, one week storage of finished goods. Area adequacy, from overall safety perspective, has been provided in proposal and is satisfactory.

12) **GREEN BELT CONDITIONS AND MEASURES ALONG WITH AREA:**

Total Plot area (Sq meter)	Total Green belt area (Sq meter)	% of Greenbelt
4750.18	**Inside: 1600 Outside:**	33.68 %

Details of copy of permission letter of concern GIDC/ Panchayat/etc. for greenbelt development (in case of greenbelt development outside the premises): NA

Comments:

- The PP shall develop green belt within premises (1600 Sq. m i.e. 33.68 % of the total plot area) as submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

13) **EMPLOYMENT GENERATION:**

Permanent	Contractual	Total
10	5	15

-

14) **SOURCE OF WATER SUPPLY WITH QUANTITY AND PERMISSION (DETAILS OF CGWA IF BOREWELL**

d) Source of water supply: GIDC Water Supply
e) Total Fresh water quantity (KLD): 63 KLD
f) Permission of concerned authority (Name and quantity (in KLD): Naroda GIDC 63.0 KLD Fresh water

Comments:

PP has obtained permission from GIDC (Concern authority) for procurement of water of 63.0 KLD which is found satisfactory.

15) **WATER CONSUMPTION RELATED DETAILS WITH COMMENTS**

Sr. No	Category	Water Consumption in KL/Day			Remarks
		Existing	Additional	Proposed Total	
1.	**Domestic Purpose**	**5.0**	**-**	**5.0**	
2.	**Gardening**	**-**	**4.5**	**4.5**	**Reutilized from STP**
3.	**INDUSTRIAL**				
	Process	6.7	24.3	31.0	
	Cooling	0.5	9.5	10.0	4 KLD Condensate + 6 KLD Fresh
	Boiler	-	25	25.0	10 KLD Condensate 15 KLD Fresh
	Washing	1.0	3.5	4.5	
	(Other)Scrubber, R& D purpose water	-	1.5	1.5	
	Total water Consumption Domestic	**5.0**	**-**	**5.0**	
	Total water Consumption (Industrial)	**8.2**	**63.8**	**72.0**	
	Total Water requirement	**13.2**	**68.3**	**81.5**	
	Total reuse	**0.0**	**18.5**	**18.5**	
	Total fresh after reuse	**13.2**	**49.8**	**63.0**	

Comments:

PP has submitted the above water consumption which is calculated considering the worst case scenario and in no case the water requirement shall not exceed the same which is found satisfactory.

16) **WASTE WATER GENERATION AND DISPOSAL**

Sr. No	Category	Waste Water Generation in KL/Day			Remarks
		Existi	Additio	Proposed	

		ng	nal	Total	
1.	**Domestic Purpose**	**4.5**	**0**	**4.5**	
2.	**INDUSTRIAL**				
	Process	3.5	33.0*	36.50*	10 KLD send to Novel 26.5 KLD Send to NEPL or Send to Shree cement industries
	Cooling	-	0.5	0.5	Send to CETP
	Boiler	-	0.5	0.5	Send to CETP
	Washing	1.0	2.5	3.5	Send to CETP
	Scrubbing Media	-	1.5*	1.5*	
	Total Waste Water Generation Domestic	**4.5**	**0**	**4.5**	
	Total Waste Water Generation (Industrial)	**4.5**	**36.5**	**41.0**	

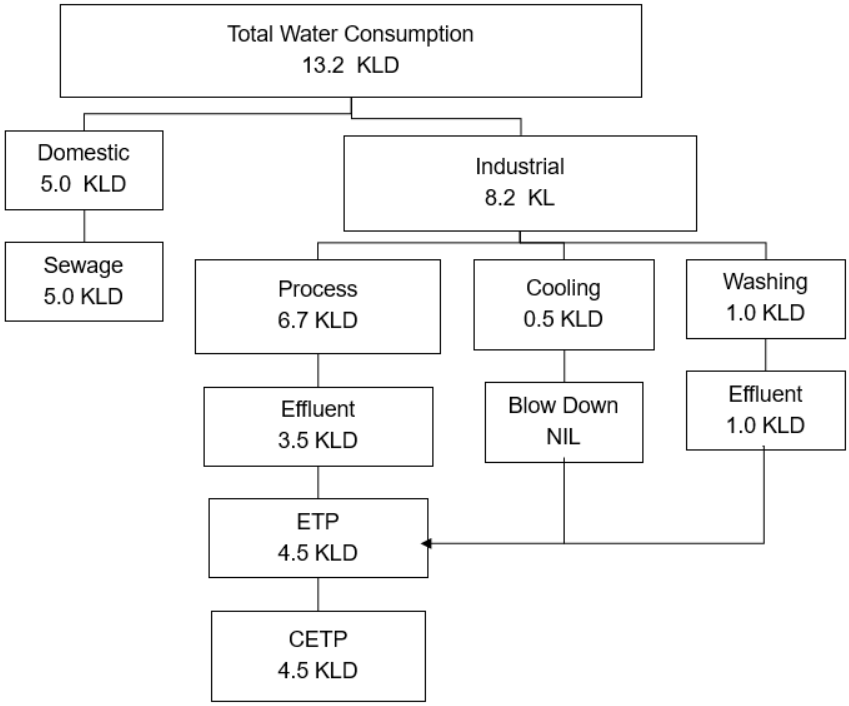
Justification in case of increase/ drastic reduction in wastewater generation than water Consumption:

- The unit has utilized 31.0 KLD Water in process, 36.5 KL spent/effluent will be generated which is high compare to Water consumption due to ice will be utilized in process, from which 10 KLD will be send to Novel and 26.5 KLD will be discharge though NEPL or send to Co-processing cement industries.
- The unit has utilized he unit has utilized water 35.0 KLD water in boiler and cooling activity it will be generated 1.0 KLD blow down will be treated in ETP and send to CETP and 14 KLD Condensate will be utilized in same process and remaining water evaporate to high temperature operation.
- Hence, the wastewater quantity will be increase compare to water consumption
- The unit has utilized 3.5 KLD in washing activity and 3.5 KLD effluent will be treated in ETP plant and send to CETP.
- After expansion 3.5 KLD effluent form washing and 1.0 KLD, form boiler will be treated in ETP and send to CETP as per mention Existing CCA quantity that is 4.5 KLD.
- Existing process effluent and additional process Spent/effluent will be send to Novel and Common facility OR send to co-processing.
- Hence, the wastewater quantity will be increase compare to water consumption

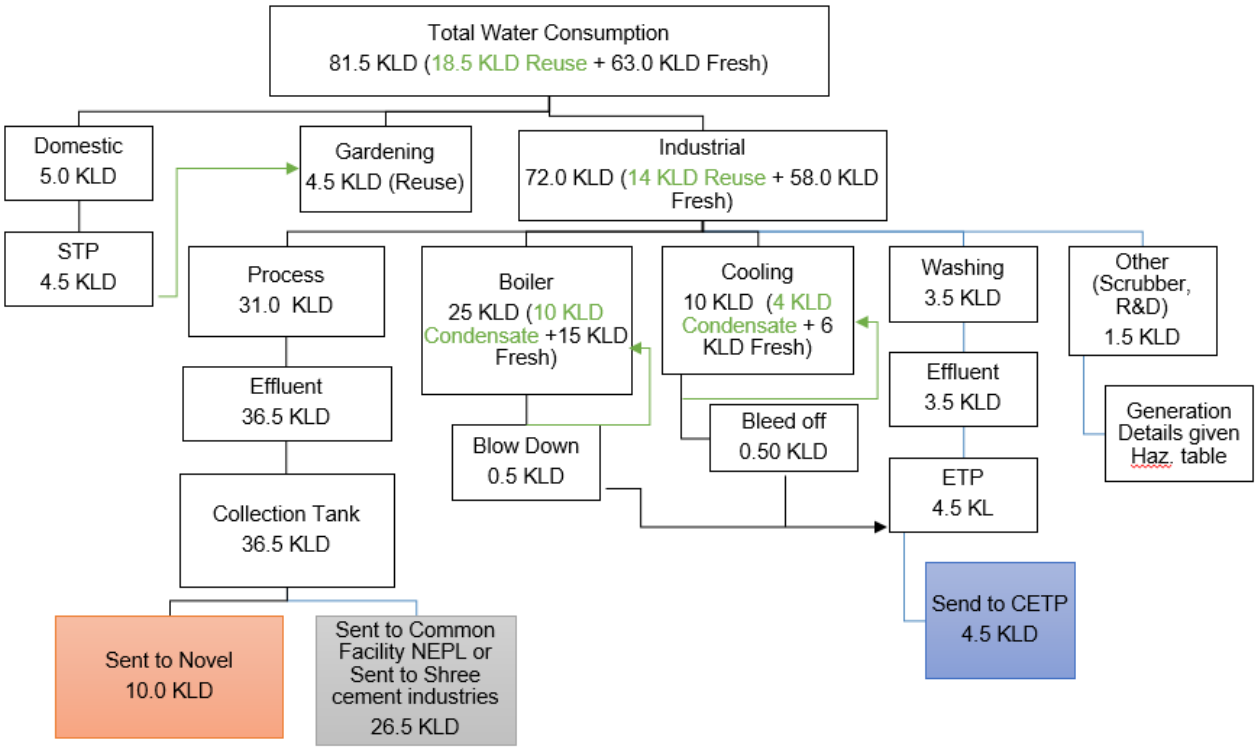
Comments:

PP has submitted the above wastewater generation which is calculated considering the worst case scenario and in no case the wastewater generation shall not exceed the same which is found satisfactory.

17) **SIMPLIFIED WATER BALANCE DIAGRAM**
Existing water balance diagram



After Expansion water balance diagram



18) **BREAKUP OF WASTE WATER DISPOSAL (DOMESTIC & INDUSTRIAL BOTH)**

Sr. no.	Quantity KLD	Facility
1	4.5	Domestic Reuse in gardening after treated in STP
2	36.5	Sent to Novel
3	4.5	Sent to CETP
Total	45.5	

Comments for Domestic Effluent:

- Domestic wastewater generation shall not exceed 4.5 KL/day for proposed project and it shall be treated in STP. It shall not be disposed off through soak pit/ septic tank. Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.

Comments for Industrial Effluent:

1. Management of Industrial effluent shall be as under:
   - ✓ **Concentrated Stream (36.5 KLD)**
     - 10 KLD, High TDS & High COD stream generated from process shall be collected and sent to M/s NOVEL for further treatment and disposal.
     - 26.5 KLD High TDS & High COD stream generated from process shall be collected and sent to common spray dryer of M/s NEPL or sent to M/s Shree Cement for co-processing.
   - ✓ **Dilute Stream (4.5 KLD):**
     - 4.5 KLD industrial effluent generated from utilities and washing shall be treated into primary ETP and sent to CETP-NEPL for further treatment and disposal.

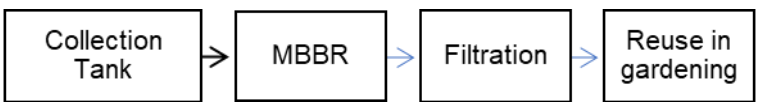
19) **MECHANISM AND METHODOLOGY OF STREAM SEGREGATION**

- We have proposed dedicated Effluent Treatment Plant for Spent High COD and High TDS (Concentrated Stream) and Low COD-Low TDS stream (Dilute Stream) we will give dedicated conveyance line from the process steps itself in each plant where the wastewater generated and same will conveyed to dedicated Effluent treatment plant.
- The Spent High COD and High TDS generated @ 36.5 KLD from manufacturing process will be Collect in collection tank and from which 10 KLD will be sent to Novel and 26.5 KLD will be sent to Common facility or Send to Shree cement industrial will be utilized their premises for co processing or actual use.
- There is dedicated Effluent Treatment Plant for Low COD-Low TDS Stream, which will be generated from Washing, and utility blowdown which is around @4.5 KLD (Dilute Stream).
- This 4.5 KLD dilute stream we conveyed to dedicate ETP having capacity of 5 KLD will be treated in Primary Treatment plant and then after treated water will be send to CETP Naroda as per our Existing Quantity mention in CCA order is 4.5 KLD.
- After expansion 3.5 KLD effluent form washing and 1.0 KLD, form boiler combine capacity 4.5 KLD will be disposed through CETP in line with compliance of 18(1)(b) direction issued by CPCB and Additional Waste Water generation will be Sent to Novel and sent to Common facility or Sent to Shree cement industries
- The ETP Sludge will be collected and send to TSDF site as per HWM Rule 2016**.**

20) **STP AND/OR ETP SPECIFICATION AND DESIGN AND ITS CAPACITY**

STP Capacity & its specification: Domestic wastewater will be utilized in gardening after treated in STP

Description of STP (Capacity 5.0 KLD)

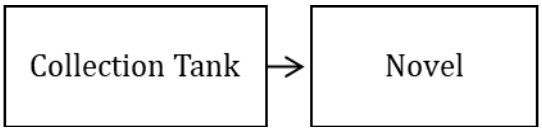


Domestic effluent generated from plant premises shall be treated in Sewage treatment plant. Sewage shall be passed through bar screens and oil & grease chamber and collected in the

collection tank. The sewage will be then transferred to aeration tank and then to MBR tank. The permeate shall be then transferred to final collection tank and will be reused for Gardening.

Sr. No	Particular	Qty	Capacity
1	Collection Tank	1	5.0
2	MBBR	1	0.5
3	Filter	1	500 L/hr

A. Capacity of ETP & its specification:
Effluent treatment plant : (5 KLD)



Spent Disposal:

Sr. No.	Name of Unit	Capacity	Nos.
1	Collection Tank cum Neutralization Tank	15.5 KL	1
2	Filter Press	1500 X 1500	1
3	Neutralization Tank	13.8 KL	1
4	Flocculation tank	20 KL	1
5	Sludge bed Nutch	5.0KL	5
6	Primary settling	3.0 KL	1
7	Holding Tank	10 KL	1
8	Collection tank for Spent	40 KL	1

21) **TREATABILITY OF WATER**

TREATABILITY OF WATER
Characteristics of Effluent: ETP: [5 KLD]

Sr. No.	Parameters	Unit	Washing	Boiler	Cooling	ETP inlet
1	pH	pH Scale	7-8	7.0-8.0	7- 7.5	7-8
2	C.O.D	mg/l	1100-1200	100-150	50-60	1100-1200
3	TDS	mg/l	2000-2500	1500-2000	1500-2000	2000-2500

Sr. No	Parameter	Unit	ETP Inlet	After Primary Treatment	Outlet for CETP
1.	pH	pH Scale	7-8	7-8	7-8
2	C.O.D	mg/l	1100-1200	800-900	800-900

3	TDS	mg/l	2000-2500	2200- 2700	2200- 2700

22) **SUMMARY OF WATER USE AND REQUIREMENT OF FRESH/REUSED WATER**

Summary of water requirement	**Quantity** KLD	Remarks
Total water requirement for the project **(A)**	81.5	
Quantity to be **recycled (B)**	18.5	4.5 KLD gardening 10 KLD Boiler 4 KLD Cooling
Total **fresh water** requirement **(C)**	63.0	
Ensure **Total water requirement = Recycled water + Fresh water i.e. A = B + C**		

23) **REUSE, REDUCE, RECYCLE RECOVERY MEASURES ADOPTED**

d) Reduce

Sr. No.	Item	Quantity	% percentage
-	-	-	-

e) Reuse

Sr. No.	Item	Quantity	% percentage
1	Water	Total Quantity: 80.5 KLD Re-use Quantity: 18.5 KLD	23 %

f) Recycle

Sr. No.	Item	Quantity	% percentage
1	Solvent	Total Solvent Quantity: 425 MT/Month Recover Quantity: 416 MT/Month Loss Quantity: 9.0 MT/month	98.0 %
2	Spent Sulphuric Acid (25 %)	Total Generated 6240 MT/annum Reuse Quantity 3240 MT/annum	52

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24) **FLUE GAS EMISSION**

Sr. no	**Source of emission With Capacity**	**Stack height in meter**	**Fuel**	**Consumption**	**Type of emissions i.e. Air Pollutants**	**APCM**	**Remark**
1	Thermic Fluid Heater 3 Lac Kcal/H	30	Natural Gas	720 SCM/Day (150 SCM/Day exiting + 570 SCM/Day Proposed)	PM	Adequate to Stack height	Existing
2	Steam Boiler 2 TPH	30	Natural gas	960 SCM/Day		Adequate to Stack height	Proposed
3	Thermic Fluid	30	Natural	720 SCM/Day		Adequate	Propos

	Heater 3 Lac Kcal/H		Gas			to Stack height	ed
4	HAG 2 Lac Kcal/H	30	Natural Gas	480 SCM/Day		Adequate to Stack height	Proposed
5	Thermic Fluid Heater 4 Lac Kcal/H	30	Natural Gas	960 SCM/Day		Adequate to Stack height	Proposed

Comments:

- The proposed fuel to be used is approved fuel for the requirement of the heat energy and proposed the Air pollution Control measures and stack height so as to achieve the emission norms prescribed by the competent authorities are found satisfactory.

25) **PROCESS GAS EMISSION**

Sr. no	Stack attached to	Stack height in meter	APCM	Types of Emission	Remark
1	Sulphonation	30	Two stage Alkali Scrubber	SO_2	Existing
2	Reaction Vessels of Sulphonation Plant – 2 sets	21	Two stage Alkali Scrubber each	SO_2	Proposed
3	Reaction Vessels of Sulphonation and Nitration Plant – 1 sets	21	Two stage Alkali Scrubber	SO_2 NO_2	Proposed
4	Process Vessel (NW acid)	21	Two stage Alkali Scrubber	SO_2 NH_3	Proposed
5	Reaction vessel for 4 NAP	21	Two stage Alkali scrubber	H_2S	Proposed

Comments:

- The proposed Air pollution Control measures and stack height so as to achieve the emission norms prescribed by the competent authorities are found satisfactory.

26) **FUGITIVE GAS EMISSION**

Sr. No.	Source	Probable Pollutant Emission	Control Measures/ APCM
1	Solvent storage tank	Air pollutant (VOC)	i) Carry out work place area monitoring to find out concentration level in ambient air Close handling system. ii) Provision of breather valve cum flamearrester.
2	Solvent recovery system	Air pollutant (VOC)	i) Solvent recovery system with steam condensation system. ii) Pumps & motors are Mechanical seal type.
3	Handling of raw material bags in storage area	Air pollutant (PM)	i) Provision of exhaust ventilation Provision ofPPE. ii) Provision of Job rotation to reduceexposure.

4	Flange joints of pipeline, pump & motors	Air pollutant (VOC)	i) Routine &periodic inspection to checkleakage. ii) Preventive maintenance, Follow SOP formaintenance. iii) Pumps & motors will be mechanical sealtype. iv) LDAR program will be followed. Provision of Flange guard.
5	Solid raw material transferring to reactor	Air pollutant (PM)	Hopper will be provided with powder transfer system.
6	Liquid raw material transferring to reactor	Air pollutant (VOC)	Feeding of liquid raw material will be carried out by closed pipeline and mechanical seal pump.
7	Loading /unloading at storage area	Air pollutant (VOC)	Unloading through pipeline to tank in a close system.

Comments:

The air pollution control measures proposed for fugitive gas emission are found satisfactory.

27) **HAZARDOUS PROCESSES AND ITS SAFETY MEASURES**

Types of process	Safety measures including Automation
Amination	**No amination process**
Bromination	**No Bromination process**
Chlorination	**No Chlorination process**
Hydrogenation	• Total enclosed process system. • FLP type area will be provided • Instrument & Plant Air System. • Nitrogen blanketing in Hydrogenation reactor. • Safety valve and Rupture disc provided on reactor • Cooling Chilling and power alternative arrangement have been made c • Hydrogen and Nitrogen Cylinder bank away from the auto clave reacto • PRV station with shut off valve, safety valve provision will b hydrogenation reaction safety • Before Hydrogen Gas charging in to reactor and after completion • Nitrogen flushing will be done. • Flame arrestor will be provided on vent line of reactor and it will be ex roof level • Open well ventilated and fragile roofs will be provided to on reactor. • Safe Catalyst charging method will be adopted. • SOP will be prepared and operators will be trained for the same. • Static earthing and electric earthing (Double) provided. • Reactor vent extended outside the process area and flame arres on vent line. • Dumping vessel arrangement will be made. Dumpers for static earthing on pipeline flanges of flammable chemic provided.
Nitration	• Safety valve & Rupture disk shall be provided on reactors. • Flushing water (chilled water / ice quenching) to control the runawa

		• Provision of dumping vessel for the contents of the Nitrator. • Total close process will be adopted (from storage tank to measured ves then to reactor) for Nitric Acid charging • SOP will be displayed for safe charging of Nitric acid for nitration proces • Required PPEs like full body protection PVC apron, • Hand gloves, gumboot, Respiratory mask etc. • will be provided to operator at time of nitric acid charging. • Make sure the absorber unit (two stage Alkali scrubber) will be working capable of handling vented NO2 fumes. • Neutralizing agent will be kept ready for tackle any emergency spillage. • Safety Shower and eye wash will be provided near process area. • Caution note and emergency first aid will be displayed and train for the all employees. • First Aid Boxes will be available in process area. • Prevention measures for runaway reaction of nitration reaction. • Instrumentation control • Rotameter • Level alarms • TIC of jacket as well as the reactor • Emergency control measures • Standby Pump For Cooling Water / Brine Circulation
	Sulphonation	• Safety valve & Rupture disk shall be provided on reactors. • Flushing water (chilled water / ice quenching) to control the runaway reactio • Provision of dumping vessel for the contents. • Total close process will be adopted (from storage tank to measured vessel reactor) for charging • Required PPEs like full body protection PVC apron, • Hand gloves, gumboot, Respiratory mask etc. • will be provided to operator at time of nitric acid charging. • Make sure the absorber unit (two stage Alkali scrubber) will be working and of handling vented NO2 fumes. • Neutralizing agent will be kept ready for tackle any emergency spillage. • Safety Shower and eye wash will be provided near process area. • Caution note and emergency first aid will be displayed and train for the sam employees. • First Aid Boxes will be available in process area. • Prevention measures for runaway reaction of nitration reaction. • Instrumentation control • Rotameter • Level alarms • TIC of jacket as well as the reactor • Emergency control measures • Standby Pump For Cooling Water / Brine Circulation

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28) **SOLVENT MANAGEMENT**

sr. no	Name of Product	Name of Solvent	Qty. Used MT/ MT	Qty. Recovered MT/MT	solvent Losses in air (A)	solvent Loss in (Effluent - stripped out)	Distillation Residue (C)	Total Losses (A + B+ C)	Solvent Recovery %

						(B			
1.	4B Acid	ODCB	0.41	0.4018	0.002	0.002	0.004	0.008	98.00
2.	2B Acid	ODCB	0.67	0.6505	0.006	0.004	0.010	0.020	97.09
3.	Para Anisidine 3 Sulfonic Acid	ODCB	2.2	2.15	0.015	0.010	0.025	0.050	97.73
4.	MNPT	MDC	2.5	2.485	0.005	0.003	0.008	0.015	99.40
5.	Sodium Naphthionate	ODCB	1.2	1.18	0.006	0.004	0.010	0.020	98.33

29) **VOC EMISSION AND MITIGATION MEASURES FOR ACHIEVING MAXIMUM SOLVENT RECOVERY AND MINIMUM VOC GENERATION**

Sr. No.	Emission Source	Probable Pollutant Emission	Control measures
1	Solvent Storage are	VOC (Air Pollutant)	Carry out work place area monitoring to find out concentration level in ambient air. Connected with vent condensers with child brine circulation. Close handling system. Provision of breather valve cum flame arrester
2	Solvent Recovery System	VOC (Air Pollutant)	Vacuum distillation Close handling system. There will be recovery of more than 95-98% solvent.
3	Solvents & Liquid raw material transferring to reactor	VOC, Acid fumes (Air Pollutant)	Feeding of Solvents & liquid raw materials will be carried out by closed pipeline and mechanical seal pump
4	Flange joints of pipeline, pump & motors	VOC	Routine & periodic inspection to check leakage. Preventive

Comments for Sr No: 27) and 28):

- Measures for achieving maximum solvent recovery and minimize VOC generation, inclusive of VOC detectors, pumps, maintenance of pipelines, proper ventilation etc., provided are as per requirement.
- Spent solvents shall be recovered by in-house distillation in such a manner that recovery shall be achieved to the maximum extent and recovered solvent shall be reused in the process. Solvent recovery system with adequate reflux condensers shall be provided for controlling escape of low boiling solvents (VOCs).

30) **LDAR PROPOSED**

S.N.	Component	Frequency of monitoring	Repair preventive maintena
1.	Valves / Flanges	Quarterly (semi-annual after two consecutive period with < 2% leaks and annual after 5 periods with < 2% leaks)	Repair shall be started within and shall be completed wi days after detection of leak.
2.	Pump seal	Quarterly	

3.	Compressor seals	Quarterly	
4.	Pressure relief devices	Quarterly	
5.	Pressure relief devices (after venting)	Within 24 hrs.	
6.	Process drains	Annually	Repair shall be started within 5 w
7.	Components that are difficult to monitor	Annually	and shall be completed within days after detection of leak.
8.	Pump seals with visible liquid dripping	Weekly	Immediately
9.	Any component with visible leaks	Weekly	Immediately
10.	Any component after repair / replacement	Within a week	-

The Following methodology to be adopted during LDAR study:

- The entire manufacturing activities & distillation process will be carried out in totally closed system.
- Regular maintenance of the pipeline and valves & fittings will be carried out regularly to avoid any leakages.
- Distillation column will be connected with condenser where cooling water will be used as media and also equipped with vacuum system.
- The condenser will be provided with the sufficient HTA and residence time to achieve more than 98% recovery.
- During the manufacturing activity as well as during distillation process 3% of the total solvent will be lost; approx. 97 % of solvent will be recovered during the process. The fresh solvent requirement will depend on solvent loss during distillation as well as manufacturing activity.

Following steps shall be followed for effective implementation of LDAR Program:

7. Process Controls
8. Emissions control program
9. Selection of appropriate method for leak detection
10. Scheduling and checklist for Leak Detection
11. Methods for rectification of identified leaks
12. Frequency of Monitoring
13. Record keeping of LDAR Program

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31) **LDAR FOR SPECIFIC SOLVENT**

Sr. No.	**Solvent Name**	**Type of Storage**	**Mode of Transfer**	**Charging**	**Sources of Leakage**	**Mitigation Measure For find out leakages**	**Mitigation Measure (If leakages shall be occur)**	**Action taken for prevention of leakages**
1	MDC	Tank	By Pump & Fix Pipe line	Direct Vessel	• Leak from Valve (failure of the valve packing & O-ring) • Leak	•For using Gas Detector by PID Sensor technology.	•If valve shall be leak stop pumping system and replace with new	•Check Thickness of tank •Using fix pipeline for solvent transfer •Minimum

					from pump (Occur at seal) • Leak from tank • Leak from Connectors • Leak from open ended lines		valve. When pump seal shall be leak immediately stop solvent transfer and immediately repair or replace with new seal.	use of Connectors & Joins •Provided sufficient Space (Solvent Unloading area) for Solvent Tanker
	2	ODCB	Tank	By Pump & Fix Pipe line	Direct Vessel	• Leak from Valve (failure of the valve packing & O-ring) • Leak from pump (Occur at seal) • Leak from tank • Leak from Connectors • Leak from open ended lines	•For using Gas Detector by PID Sensor technology. •	•If valve shall be leak stop pumping system and replace with new valve. •When pump seal shall be leak immediately stop solvent transfer and immediately repair or replace with new seal.	•Check Thickness of tank •Using fix pipeline for solvent transfer •Minimum use of Connectors & Joins •Provided sufficient Space (Solvent Unloading area) for Solvent Tanker

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32) **HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. No	Types of Hazardous Waste	Source	Category	Existing MT/Year	Propose MT/Year	Ultimate MT/Year	Disposal
1	ETP Sludge/Gypsum	ETP Plant	35.3	100	3500	3600	Collection, storage, Transportation and Dispose to Active TSDF Site
2	Used Oil	Plant machinery	5.1	0.02	0.02	0.04	Collection, storage, Reuse within premises.
3	Empty barrels/	Material Storage and	33.1	1.0	20.0	21.0	Collection, storage, Transportation and

	Container/ Liners contaminated	Handling					Dispose by selling to Registered Recycler under Rule-9
4	Spent Sulphuric Acid 25%	OPSA, Metanilic Acid, 6 Chloro Metanilic Acid, 4 CAP, 4 CAPSA, Opsamide / Mithyl Opsamide / Anthranilic Opsamide, Aniline 2.5 DSA, Aniline 2.4 DSA, 5 SAA, 4 SAA	26.3	NIL	6240	6240	Collection, storage, Transportation and 3240 MT/Year Spent Sulphuric Acid Reuse in Dyes Intermediates in Sulphonation and Reduction Process and Remaining 3000 MT/Year Spent Acid Send to actual User having permission Under Rule -9
5	Iron Sludge	Metanilic Acid , 6 Chloro Metanilic Acid 4 CAP, 6 CAPSA, 3 5 DABA, 4 NADPSA	26.1	NIL	2520	2520	Collection, storage, Transportation and sell to Co processing
6	Calcium Thio Sulphate	4 NAP, 4 NAPSA	26.1	NIL	762	762	Collection, storage, Transportation and sell to actual User having permission Under Rule -9
7	Sodium Bi Sulphite	Scrubbing Media	26.3	NIL	500	500	Collection, storage, Transportation and sell to Co-processing
8	Sodium Hydro Sulphite	Scrubbing media of 4 NAP	26.3	NIL	60	60	Collection, storage, Transportation and sell to actual User having permission Under Rule -9
9	Spent Solvent	Manufacturing Process	26.2	NIL	2100	2100	Collection, storage and reuse with in Premised after in house distillation
10	Solvent Residue	Distillation	26.2	NIL	42	42	Collection, storage and send to CHWIF

Comments:

- Hazardous waste management includes collection, storage, transportation and disposal at TSDF, captive/ common incineration, co-processing/ pre-processing, sold to authorized actual users having Rule-9 permission and recycle/ reuse of waste. SEAC examined the details provided and found it as per requirement.

33) **NON-HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. No	**Types of Non Hazardous Waste**	**Sources**	**Category**	**Propose MT/Annum**	**Disposal**

1	STP Sludge	STP Plant	--	1.0	Collection, Storage and utilize in Gardening as manure after sun drying

Comments:

- Other wastes management includes collection, storage, transportation and disposal by selling to actual users and recycle / reuse of waste. SEAC examined the details provided and found it as per requirement.

34) **STORAGE SAFETY MEASURES**

c) Storage of Hazardous chemicals in Tanks

Sr. no	Name of Chemical	Capacity of Tank	Number of Tanks	Hazardous Characteristics of Chemical
TANK FARM (PESO)				
1	Ortho Dichloro Benzene	5	1	Flammable
2	Methylene Di Chloride	5	1	Flammable
TANK FARM (NON-PESO)				
4	HCl	10	1	Corrosive
5	Oleum 23 %	10	1	Corrosive
6	Oleum 65 %	10	1+1	Corrosive
7	sulphuric Acid	20	1	Corrosive
8	Nitric acid	10	1	Danger to Health

Safety Measures for PESO Underground storage tank farm:

PESO Tank	**PESO Area Storage & Handling Safety: (UNLOADING)** ✓ Ensure that the transfer of petroleum takes place only through electrically continuous sound hose having oil tight couplings at both ends. ✓ Couplings of the hose at the discharge ends of the tank trucks as well as at the fill pipe end of the underground tank shall not be leaky. ✓ Unloading operations should not commence without ensuring earthing of the tanker body to a proper earthing point. For this purpose, a proper earthing point shall be provided near filling points. ✓ Before commencing unloading operations tanker should be parked in the retail outlet in such a manner that it can be taken out of the retail outlet immediately in case of emergency. ✓ Dip pipe of the underground tank shall not be kept open during unloading operations. ✓ The dealer, supervisors and pump attendants shall be trained in all aspects of safety in RO including the provisions of Petroleum Rules, 2002 in Chapter IV on Electric Installation, Rules 117 to 119,122,125 and conditions 6 to 12, 15,16,18 to 21of licence Form XIV for the RO's under the said Rules. ✓ Before starting unloading of petroleum, it must be ensured that at least a safe distance of 3 M is kept clear of any kind of movement of other vehicles that come for fuelling and that there is no source of any spark in the area. In case of retail outlets that are in congested areas operations of fuelling automobiles in the retail outlet may be discontinued. ✓ Do not use plastic hose pipes for unloading purposes. ✓ Do not use hose pipe fitted with metallic pipe (bent pipe) at the discharge end. ✓ Do not use Hose pipes not conforming to OISD 135. ✓ Proper tightening of hose connections using screwed/cam lock couplings. ✓ Make sure that there shall be no collection of leaked petroleum through hose pipe connection at tanker discharge faucet end in the plastic bucket kept on the ground below.

	✓ Provision of electrical earthing / bonding by means of flexible cable between tanker chassis and earth boss/fill pipe. ✓ Proper training to the retail outlet staff regarding hazards associated with the petroleum road tanker decantation operation in the retail outlets.
Non-PESO tank	**Safety measures for Acid storage Tank:** ✓ Storage tank will be stored away from the process plant. ✓ Tanker unloading procedure will be prepared and implemented. ✓ Caution note and emergency handling procedure will be displayed at unloading area and trained all operators. ✓ NFPA label will be provided. ✓ Required PPEs like full body protection PVC apron, Hand gloves, gumboot, Respiratory mask etc. will be provided to operator. ✓ Neutralizing agent will be kept ready for tackle any emergency spillage. ✓ Safety shower, eye wash with quenching unit will be provided in acid storage area. ✓ Material will be handled in close condition in pipeline. ✓ Dyke wall will be provided to all storage tanks, collection pit with valve provision. ✓ Double drain valve will provide. ✓ Level gauge will be provided on all storage tanks. ✓ Safety permit for loading unloading of hazardous material will be prepared and implemented. TREM CARD will be provided to all transporters and will be trained for transportation Emergency of Hazardous chemicals. ✓ Fire hydrant system with jockey pump as per TAC norms will be installed. **Safety Measures of Non PESO Tank** ✓ Leakage / spillage mitigation plan ✓ Tank shall be rubber lined to prevent the corrosion ✓ Dyke wall shall be provided for containment ✓ Rubber type hand gloves and chemical splash goggles and full-face cartridge type mask and PVC apron shall be used while manual handling ✓ Lime shall be readily available during leak to neutralize the spill material ✓ Safety shower, eye wash with quenching unit will be provided in acid storage area. ✓ Material will be handled in close condition in pipe line. ✓ Double drain valve will provided. ✓ Level gauge will be provided on all storage tanks. ✓ Fire hydrant system with jockey pump as per TAC norms will be installed

d) <u>Storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.</u>

Sr. NO	Raw material	Cas no	State	Max Storage (MT)	Capacity bag (Kg/ Liter)	No. Bag	Storage	MOC	Hazardous characteristic
1	TOBIAS ACID	81-16-3	Solid	4	25	160	Bag	HDPE	Reactive
2	2:5 DCNB	89-61-2	Solid	13.5	25	540	Bag	HDPE	Reactive
3	2-4 DNCB	97-00-7	Solid	12.85	25	514	Bag	HDPE	Reactive

4	4 Nitro Chloro Benzene	100-00-5	Solid	9	25	360	Bag	HDPE	Flammable
5	4 Sulpho Anthranilic Acid	98-43-1	Solid	5.5	25	220	Bag	HDPE	corrosive
6	5 Sulpho Anthranilic Acid	3577-63-7	Solid	9	25	360	Bag	HDPE	Reactive
7	Acetic Anhydride	108-24-7	Solid	8.75	25	350	Bag	HDPE	Flammable
8	Activated Carbon	7440-44-0	Solid	3.5	25	140	Bag	HDPE	Reactive
9	Alpha Napthyl Amine	134-32-7	Solid	5.6	25	224	Bag	HDPE	Reactive
10	Anthranilic Acid	118-92-3	Solid	12.5	25	500	Bag	HDPE	Reactive
11	Benzoic Acid	65-85-0	Solid	6.5	25	260	Bag	HDPE	corrosive
12	Beta Naphthol	135-19-3	Solid	3.6	25	144	Bag	HDPE	Reactive
13	Carbon	7440-44-0	Solid	0.1	25	4	Bag	HDPE	Reactive
14	Catalyst	11057-89-9	Solid	0.15	25	6	Bag	HDPE	Reactive
15	Caustic	1310-73-2	Solid	6.6	25	264	Bag	HDPE	corrosive
16	H Acid	90-20-0	Solid	14	25	560	Bag	HDPE	Reactive
17	Iron Powder	7439-89-6	Solid	12.5	25	500	Bag	HDPE	Flammable
18	J Acid	87-02-5	Solid	5.6	25	224	Bag	HDPE	Reactive
19	Magnesium oxide	1309-48-4	Solid	6.13	25	245	Bag	HDPE	Reactive
20	Metanilic Acid	121-47-1	Solid	7.5	25	300	Bag	HDPE	Reactive
21	m-Phenylenediamine	107-41-5	Solid	6.9	25	276	Bag	HDPE	Reactive
22	Naphthalene	91-20-3	Solid	8.5	25	340	Bag	HDPE	Flammable
23	Ortho Toluidine	95-53-4	Solid	0.73	25	29	Bag	HDPE	Reactive
24	Para Anisidine	104-94-9	Solid	6.2	25	248	Bag	HDPE	Reactive
25	Para Cresidine	104-15-4	Solid	6.5	25	260	Bag	HDPE	Flammable
26	Para Nitro Chloro	946-	Sol	6.2	25	2	Bag	HD	Reactive

	Benzene Ortho Sulphonic Acid	30-5	id			48		PE	
27	Para Nitro Toluene	99-99-0	Solid	6.5	25	260	Bag	HDPE	Flammable
28	Para Toludine	106-49-0	Solid	8.6	25	344	Bag	HDPE	Reactive
29	Pentachlorophenol	131-52-2	Solid	9.5	25	380	Bag	HDPE	Reactive
Sr. NO	Raw material	Cas no	State	Max Storage (MT)	Capacity bag (Kg/ Liter)	No. Bag	Storage	MOC	Hazardous characteristics
30	Potassium chloride	7447-40-7	Solid	9.5	25	380	Bag	HDPE	Reactive
31	Resist Salt	1718-34-9	Solid	9.2	25	368	Bag	HDPE	corrosive
32	Salt	7647-14-5	Solid	9.6	25	384	Bag	HDPE	corrosive
33	Soda Ash	497-19-8	Solid	6.1	25	244	Bag	HDPE	corrosive
34	Sodium bicarbonate	144-55-8	Solid	6.38	25	255	Bag	HDPE	corrosive
35	Sodium bisulphite	7631-90-5	Solid	8.25	25	330	Bag	HDPE	corrosive
36	Sodium Carbonate	207-838-8	Solid	1.93	25	77	Bag	HDPE	corrosive
37	Sodium cyanate	917-61-3	Solid	8.83	25	353	Bag	HDPE	Reactive
38	Sodium Hydrosulfide	16721-80-5	Solid	5.5	25	220	Bag	HDPE	corrosive
39	Sodium Hydroxide	1310-73-2	Solid	8.9	25	356	Bag	HDPE	corrosive
40	Sodium methoxide	124-41-4	Solid	8.9	25	356	Bag	HDPE	Reactive
41	Sodium nitrite	7631-99-4	Solid	6.13	25	245	Bag	HDPE	Reactive
42	Sodium Sulphate	7757-82-6	Solid	8.25	25	330	Bag	HDPE	corrosive
43	Sulphanilic Acid	121-57-3	Solid	7.13	25	285	Bag	HDPE	corrosive

Safety measures for Hazardous Chemicals:

Type of Hazardous Chemicals	Safety measures

		FLAMMABLE & EXPLOSIVE CHEMICALS	• The Entire plant will be operated by PLC based hybrid System • Storage shall be cool, well ventilated away from sources of ignition or heat. Prevent accumulation of static charge. Protect material from direct sunlight. • Store in original container. Keep containers tightly closed and upright when not in use. • Proper label and identification board /stickers shall be provided in the storage area. • Conductive drum pallets shall be provided. • Drum handling trolley / stackers/fork lift shall be used for drum handling. Separate dispensing room with local exhaust and static earthing provision shall be made. • Ground container and transfer equipment to eliminate static electric sparks. • Smoking and other spark, flame generating item shall be banned near storage area. FLP type light fittings shall be provided. • Handling of materials from Drum shall be done only through Mechanical Transfer System only. • Training shall be provided to employees for safe storage, handling and transpiration. • When using, do not eat, smoke or drink. • Fire Hydrant with monitor, fire proximity suits, automatic sprinkler system, Safety shower & eye wash unit shall be installed nearby area. • Provision of Respiratory protective equipment (airline respirator & SCBA) & personal protective equipment shall be available. • For spills involving small volumes of dilute solution of Xylene/Formaldehyde/Methanol, the following cleaning procedure can be used • Wear appropriate personal protective equipment (PPE) • Remove any ignition source from the spill area; • Clean the spill area with a mixture of water and soap • Dry the spill area with paper towels • Onsite emergency plan prepared and mock drill shall be carried out. Safety sign board displaying Do's and Don'ts in local language.
		CORROSIVE CHEMICALS	✓ Preventing or minimizing contact between corrosive substances and skin, mucous membranes and eyes. ✓ The Entire plant will be operated by PLC based hybrid System ✓ System Corrosive substances shall not be allowed to come in contact with materials that may react. ✓ All the containers, pipes, apparatus, installations and structures used for the manufacture, storage, transport or use of these substances shall be protected by suitable coatings, impervious to and unaffected by corrosives. ✓ All containers or receptacles shall be clearly labelled to indicate their contents and shall bear the danger symbol for corrosives. ✓ Adequate ventilation and exhaust arrangement whether general or local, shall be provided whenever corrosive toxic gases or dust are present. ✓ Personal protective devices shall be used. ✓ First aid treatment facilities shall be provided and all concerned shall be instructed to follow safe practices such as (a) Prolonged washing with water (b) Removing contaminated clothing (c) Seeking immediate medical help. ✓ Safety showers and eye washers shall be provided.

	REACTIVE CHEMICALS	✓ Store minimum quantities. ✓ The Entire plant will be operated by PLC based hybrid System ✓ Segregate chemicals, e.g. from water, air, incompatible chemicals, sources of heat, ignition sources. ✓ Spillage control; bund, spray, blanket, containment. Drain to collection pit. ✓ Decontamination and first-aid provisions, e.g. neutralize/destroy, fire-fighting • Contain/vent pressure generated to a safe area. ✓ Split-up stocks into manageable lots, e.g. with reference to fire loading/spillage control. ✓ Ensure appropriate levels of security, hazard warning notices, fences, patrols. Control access including vehicles. ✓ Appropriate gas/vapour/fume/pressure venting, e.g. flame arrestors, scrubbers, absorbers, stacks. ✓ Shall ensure adequate natural or forced general ventilation of the storage area Provide adequate, safe lighting. ✓ Label (name and number); identify loading/unloading/transfer couplings. ✓ Provide appropriate fire protection (sprinkler, dry powder, gas). ✓ Shall ensure adequate access for both normal and emergency purposes with alternative routes

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35) **FIRE LOAD CALCULATION**

Total Plot Area:	4750.18
Area utilized for plant activity:	3574
Area utilized for Hazardous Chemicals Storage:	-
Number of Floors:	GF+2
Water requirement for firefighting in KLD:	15.0 KL
Water storage tank provided for firefighting in KL:	300 KL
Details of Hydrant Pumps:	6.0 Inch Diameter fire hydrant line will be provided connected to Jockey Pump Followed by Diesel Pump having 07 bar pressure with sprinkler system. The jockey pump is placed with the fire water tank having capacity of 300 KL.
Nearest Fire Station :	Naroda fire station With 3.0 KM distance
Applicability of Off Site Emergency Plan:	Yes

Comments:

The project proponent has proposed fire safety plan which includes fire hydrant line, sprinkler system, fire extinguishers, fire suits, covering the project area and provides for fire water storage tank of 300 KL. SEAC found it as per the requirement.

36) **WORKERS SAFETY AND OCCUPATIONAL HEALTH MANAGEMENT**

Number of permanent Employee:	15
Number of Contractual person/Labour:	10
Area provided for OHC:	30 Sq. m
Number of First Aid Boxes:	At least one box containing such items and placed and maintained in accordance with the requirements of Sec. 45 is separately provided.
Nearest General Hospital:	Ahmedabad Civil hospital @ **10.20 Km**

Name of Antidotes to be store in plant:	Injection -morphia, pethidins, atropins, adrenaline, coramine, novocan Antidotes: Fomepizole, formic acid

Comments:

Project proponent has provided PPEs, Occupational health center (OHC) with adequate provision of manpower, equipment and operational cost. SEAC finds it as per the provisions of Gujarat Factory Rules 1963.

37) **DETAILS OF MEMBERSHIP OF COMMON FACILITIES:**

Sr. No.	Membership for Common Facility	Membership Certificate issuing agency along with Date of Issue and validity of membership
01	CETP	**Name of CETP:** Naroda CETP NEPL 02/04/2017
02	TSDF site	**Name of TSDF: Eco care** **Date of Issue of membership along with validity: Eco care, Registration NO: ECIPL-377 issued on dated 30-04-2023 valid up to 30-04-2026**
03	Common Hazardous Waste Incineration Facility	Not Applicable
04	Common Spray Drying Facility	M/s NEPL dated: 24.07.2023 for 40 KLD
05	Common MEE Facility	Not Applicable
06	Common Conveyance System	Not Applicable
07	PESO permission	We will be obtained after getting EC/NOC
08	FIRE permission	We will be obtained after getting EC/NOC
09	Health Certificate	We will be obtained after getting EC/NOC

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38) **EMERGENCY MEASURES PROPOSED AND PREPAREDNESS ACTION PLAN**

Management shall take into consideration fire prevention measures at the project planning and during plant commissioning stage to avoid any outbreak of fire. But looking to the hazardous nature of process and the chemicals that shall be handled and processed, the chance of outbreak of fire cannot be totally ignored. Hence to tackle such a situation a good well laid fire protection system will be provided in the factory. Details of firefighting are given below.

Type		Nos	Capacity in Kg
ABC	:	15	06
CO2	:	10	06
SAND BUCKET	:	10	05
Class B (Foam)	:	20	05
DCP	:	15	06
Foam Trolley		02	50 Liter
TOTAL	**:**	**72**	**---**

39) **CER ACTIVITIES PROPOSED YEAR WISE/ IN CASE OF EXPANSION ANY ADDITIONALITY SUGGESTED AND ITS COMPLIANCE (AS PER THE MOEF & CC GUIDELINES)**

Total cost of Project (Rs in Crores)	Total Cost of CER (Rs in Lakhs)	Percentage (%)
3.5 (2.5 Existing + 1.0 Additional)	7.0	2.0

Sr No	Activities	Name of Villages	Cost (Rs in Lakhs)
1	Installation of Solar Panel at primary school and gram panchayat, Installation and maintenance of solar street lights near PHC area, Office	Naroda	7.0

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Comments:

As per MoEF&CC's OM dated: 01.05.2018 and 30.09.2020, SEAC examined that the proposed cost of CER i.e 2.0% (Rs 7.0 Lakhs) which is as per the requirement.

40) **ENVIRONMENT MANAGEMENT PLAN (ESPECIALLY WITH CEPI AND NON CEPI GUIDELINES, AS MAY BE APPLICABLE)**

Sr. No	Unit	Detail	Capital Cost (Rs. In Lakh)	Total Recurring Cost (Rs. In Lakh per Annum)
1	Wastewater	Construction cost of ETPs + Maintenance cost of ETPs + Disposal cost at CETP Naroda.	5.0	2.0
2	Air	Installation Cost of Boiler (1 nos.) + TFH (1 Nos) and stack + Scrubbers and stack + APCM for flue gas emission + Process Gas Emission + Maintenance cost	30.0	0.200
3	Hazardous Management	Membership cost of TSDF +Cost for TSDF disposal + Co-processing Waste+ incineration disposal	10.0	5.0
4.	Fire & Safety	Installation cost of all the Safety Equipment's/ Control Measures [i.e., Personal protective Equipment, Process Safety] + Monitoring cost of 3rd party Risk assessment, safety audit Emergency Fund allocation [To control any Hazardous situation] and Fire control system	35.0	10.0
5	Green Belt Development	33% of the plant area will be developed as greenbelt.	3.5	0.50
6	Rainwater harvesting	Development of Rainwater harvesting system	2.0	0.50
7.	Occupational Health	Occupational health needs attention during construction, operation & maintenance phases. Cost of medical room, oxygen cylinder, Bed facilities, First Aid Box and basic amenities. Monitoring	10.0	2.5

		cost of Periodic Medical Examination of All workers.		
8.	Noise Control	Monitoring for Noise and Noise Control system	2.0	0.5
9.	VOC Control & LDAR	Installation cost of VOC-LDAR Monitoring	5.0	0.5
10	Environment Monitoring Program	Monitoring instrument and laboratory Expense + Analysis Instrument-COD, BOD, pH meter + Maintenance/ 3rd party monitoring cost	3.0	1.0
11	CER Activity	CER activity in nearby village (2 % of total project cost)	7.0	---
Total			**112.5**	**22.7**

Comments:

The overall environment management plan (EMP) provided for capital and recurring cost for wastewater treatment, air emission control, noise control, hazardous waste disposal, fire & safety, occupational health, environment monitoring program, green belt and corporate environmental responsibility was deliberated and found satisfactory.

41) **RECOMMENDATIONS OF SEAC**

"On the basis of information provided to SEAC on project, its location, technical, physical and environmental infrastructure, products, quantity to be manufactured, its raw material, storage, waste disposal, water treatment, safety measures, green belt development planning, regulatory compliance assured of related statutory provisions, necessary documents of requisite permissions provided from concerned departments and overall environmental management planning for the project, along with financial resources committed for operation and maintenance, and on the basis of presentation made before SEAC, modification suggested by SEAC and incorporated by project proponent, SEAC finds the project as per the requirement and **unanimously** recommends the same to SEIAA for environmental clearance."

Conditions with which Environment Clearance is recommended:

42) **SPECIFIC/GENERAL CONDITIONS**

Construction Phase

a) "Wind – breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided. Individual building within the project site shall also be provided with barricades.

b) "No uncovered vehicles carrying construction material and waste shall be permitted."

c) "No loose soil or sand or construction & demolition waste or any other construction material that cause dust shall be left uncovered. Uniform piling and proper storage of sand to avoid fugitive emissions shall be ensured."

d) Roads leading to or at construction site must be paved and blacktopped (i.e. – metallic roads).

e) No excavation of soil shall be carried out without adequate dust mitigation measures in place.

f) Dust mitigation measure shall be displayed prominently at the construction site for easy public viewing.

g) Grinding and cutting of building materials in open area shall be prohibited.

h) Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited.

i) Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site. (If applicable).

SPECIFIC CONDITIONS: for 5(f)

1. Unit shall not manufacture any dirty products in proposed expansion as mentioned in GPCB circular dated: 03.11.2018.
2. Unit shall install CEMS **[Continuous Emission Monitoring System]** in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB/CPCB on real time basis. **[For Small/Large/Medium (Red Category) & Whichever (Air emission & Effluent discharge) is applicable].**
3. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.
4. National Emission Standards for Dyes and dyes intermediates Industry issued by the Ministry vide G. S. R. 325 (E) dated 07/05/2014 and amended from time to time shall be followed.
5. Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same.
6. All measures shall be taken to avoid soil and ground water contamination within premises.
7. **Safety & Health:**
   a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
   b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
   c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.

d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.

e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.

f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.

g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.

h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labour within premises.

i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.

j) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.

k) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.

l) Unit shall obtain all required permissions from the Narcotics Control Bureau for manufacturing, storage and handling of Acetic Anhydride & any such chemicals.

m) Provide double earthling to solvent storage tanks.

n) (1) Unit shall provide effective fire hydrants, water monitors & foam application system at solvent storage tank farm area. (2) Unit shall provide adequate safety system such as water sprinklers, water curtains, foam pouring system etc. to restrict cascade fire emergency in solvent tank farm.

o) Unit shall provide safety valve & rupture disc to the Hydrogenation vessel.

p) Unit shall provide safety valve and rapture disc, as well as auto dump or auto quench/, suppress system for nitration vessel safety.

q) Unit shall provide safety valve and rapture disc, as well as auto dump or auto quench/, suppress system for exothermic reaction vessel safety.

r) Unit shall provide a spare tank with emergency transfer system and bund/ dyke wall to Oleum storage tank.

WATER

8. Total water requirement for the project shall not exceed 81.5 KLD. Unit shall reuse 18.5 KLD of treated effluent within premises. Hence, fresh water requirement shall not exceed 63 KLD and it shall be met through water supply of Payal Properties Pvt Ltd (Payal Industrial Park) only. Prior permission from concerned authority shall be obtained for procurement of water.
9. The industrial effluent generation from the project shall not exceed 41 KLD.
10. Management of Industrial effluent shall be as under:

- ✓ **Concentrated Stream (36.5 KLD)**
  - 10 KLD, High TDS & High COD stream generated from process shall be collected and sent to M/s NOVEL for further treatment and disposal.
  - 26.5 KLD High TDS & High COD stream generated from process shall be collected and sent to common spray dryer of M/s NEPL or sent to M/s Shree Cement for co-processing.
- ✓ **Dilute Stream (4.5 KLD):**
  - 4.5 KLD industrial effluent generated from utilities and washing shall be treated into primary ETP and sent to CETP-NEPL for further treatment and disposal.

11. Domestic wastewater generation shall not exceed 4.5 KL/day for proposed project and it shall be treated in STP.It shall not be disposed off into soak pit.Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.
12. During monsoon season when treated sewage may not be required for the plantation / Gardening / Green belt purpose, it shall be stored within premises. There shall be no discharge of waste water outside the premises in any case.
13. Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water during rainy days.
14. Treated waste water shall be sent to common facilities (CETP-NEPL, common Spray dryer-NEPL) only after complying with the inlet norms of common facilities prescribed by GPCB to ensure no adverse impact on Human Health and Environment.
15. The PP shall ensure to dispose off Waste water to the Common Facilities having valid CTO of GPCB.
16. Unit shall provide STP and ETP with adequate capacity.
17. The unit shall provide metering facility at the inlet and outlet of STP & ETP and maintain records for the same.
18. Proper logbooks of STP & ETP; reuse/ recycle of treated/ untreated effluent; chemical consumption in effluent treatment; quantity & quality of treated effluent sent to common facilities; power consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.

AIR:

19. Unit shall not exceed fuel consumption for Steam Boiler, TFHs and HAG as per the point no. 24 as mentioned above.
20. PP shall use approved fuels only as fuel in boiler, TFHs and HAG.
21. Unit shall provide adequate APCM with flue gas generation sources to achieve the norms

prescribed by GPCB.

22. Unit shall provide adequate APCM with process gas generation sources as the point no**.** 25 as mentioned above.
23. The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety& Health). Following indicative guidelines shall also be followed to reduce the fugitive emission.
    - Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.
    - Air borne dust shall be controlled with water sprinklers at suitable locations in the plant.
    - A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission.
24. Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air.
25. For control of fugitive emission, VOCs, following steps shall be followed :
    a. Closed handling and charging system shall be provided for chemicals.
    b. Reflux condenser shall be provided over Reactors / Vessels.
    c. Pumps shall be provided with mechanical seals to prevent leakages.
    d. Air borne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures.
26. Solvent management shall be carried out as follows:
    - ✓ Measures shall be taken to reduce the process vapors emissions as far as possible. Use of toxic solvents shall be minimum. All venting equipment shall have vapour recovery system
    - ✓ Reactor shall be connected to adequate chilling system to condensate solvent vapors and reduce solvent losses.
    - ✓ Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
    - ✓ The condensers shall be provided with sufficient HTA and residence time so as to achieve maximum solvent recovery.
    - ✓ Solvents shall be stored in a separate space specified with all safety measures.
    - ✓ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
    - ✓ Solvent storage and handling area shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
27. Close loop solvent recovery system with adequate condenser system shall be provided to

recover solvent vapours in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises.

28. Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbooks shall be maintained.
29. Regular monitoring of ground level concentration of PM_{10}, $PM_{2.5}$, SO_2, NOx, H_2S and VOCs shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of monitoring shall be decided in consultation with the GPCB.

HAZARDOUS / SOLID WASTES:

30. All the hazardous/ solid waste management shall be taken care as per the point no. 32 and 33 as mentioned above.
31. Authorized end-users shall have permissions from the concerned authorities under the Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
32. Unit shall explore the possibilities for environment friendly methods like co-processing of hazardous waste for disposal of Incinerable & land fillable wastes before sending to CHWIF & TSDF sites respectively.
33. The project proponent has to obtain membership of TSDF site & CHWIF before obtaining CTO of GPCB.
34. STP sludge shall be collected and used as manure in gardening activity or send to TSDF site for landfilling.

GREENBELT AREA

35. The PP shall develop green belt within premises (1600 Sq. m i.e. 33.68 % of the total plot area) as submitted before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.

OTHERS:

36. The project proponent shall carry out the activities of amount of Rs. 7 Lakhs [Installation of Solar Panel at primary school and gram panchayat, Installation and maintenance of solar street lights near PHC area, Office] proposed under CER and it shall be part of the Environment Management Plan (EMP) as per the MoEF&CC's OM no. F. No. 22-65/2017-IA.III dated 30.09.2020. This shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to the District Collector. The monitoring report shall be posted on the website of the project

	proponent. 37. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s. Green Circle Inc and submitted by the project proponent and commitments made during presentation before SEAC and proposed In the EIA report shall be strictly adhered to in letter and spirit.
43)	**COMPLIANCE AND ADMINISTRATION/APPEAL OF EC ORDERS** 1. Project proponent shall inform to all the concerned authorities including Municipal Corporation and District Collector and shall also give wide publicity through advertisement in minimum two local newspapers within seven days, about the Environment Clearance order accorded. 2. Project proponent shall appoint a key person in the organization who shall be responsible for compliance of above condition fully on behalf of the proponent. It will not mean that appointing a key person will exempt the project proponent from the responsibility of compliance. Any change in key person shall immediately be informed to SEIAA and all concerned authorities. 3. Designated key person shall submit six monthly compliance report to SEIAA/SEAC, MOEF&CC, GPCB and Nodal Department of the Government. 4. The Nodal Department or any authority or officer authorized by MOEF&CC/SEIAA can inspect the site of the project and all the facilities, for verification of compliances of environment clearance conditions. 5. In case of violation reported upon, the project proponent shall be responsible for all the legal actions as per Environment Protection Act, 1986 including SEIAA may cancel, withdraw or keep in abeyance, the Environment Clearance accorded. 6. Any person including the project proponent affected by this Environment Clearance order may file appeal to Honorable National Green Tribunal West Zone branch, Pune, preferably within a period of thirty days from the date of issue of Environment Clearance as prescribe under section 16 of National Green Tribunal Act 2010. 7. All complains and public grievance or representations may be addressed to SEIAA/SEAC in the email addresses (a) msseiaagj@gmail.com& (b) seacgujarat@gmail.com.

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5.	SIA/GJ/IND2/423179/2023	**M/s. Shree Khedut Sahakari Khand Udyog Mandli Ltd.** P.O. Sardar Baug, Baben, Taluka Bardoli, District Surat.	ToR-New

Category of the unit: **5(j)**

Project status: **ToR-New**

1) Details of application:

1.1. Type of application:	TOR
1.2. Proposal no.	SIA/GJ/IND2/423179/2023

1.3. Category of Project :	5(j) – "B"
1.4. Date of application:	11/05/2023
1.5. Date of EDS by SEIAA c) EDS Raised d) Reply by PP	Date of EDS by SEIAA a) EDS Raised on 29/03/2023 b) Reply by PP on 15/04/2023
1.6. Date of EDS by SEAC d) EDS Raised e) Reply by PP f) Accepted by SEAC	Date of EDS by SEAC a) EDS Raised on 04/05/2023 b) Reply by PP on 11/05/2023 c) Accepted by SEAC on 20/05/2023
1.7. TOR No. & Date :	Applied for ToR
1.8. Date and place of Public Hearing	--
1.9. Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	En-vision Enviro Technologies Pvt. Ltd., Surat
1.10. SEAC Meeting No. and Date:	658th meeting date 21/07/2023
1.11. ADS raised by SEAC meeting No & date :	--
1.12. Reply Submitted by PP dated:	--
1.13. Revised Consideration SEAC Meeting No. and Date:	--

2) This is an existing unit and now proposed for expansion in manufacturing of "Sugar Industries" as mentioned below:

S. No.	Products	CAS Number	Capacity, TPM			End use
			Existing	Proposed	Total	
1	Sugarcane Crushing Capacity (TCD)	--	10,000	2,000	12,000	--
2	Sugar	--	39,000	3,000	42,000	Commodity uses
	By Products					
3	Molasses	--	16,000	2,000	18,000	To produce Ethanol and sell to industries
4	Press Mud	--	12,000	3,000	15,000	Use as manure; Use as a filler material in composting
5	Bagasse	--	1,00,000	10,000	1,10,000	Use as Fuel in Boilers; Sell to industries
6	Cogeneration Power Plant	--	13 MW	29 MW	42 MW	Captive use and sell renewable power to electricity supply grid of GEB / GETCO

3) The project falls under B1 category of project activity 5(j) as per the schedule of EIA Notification 2006.

4) The proposal was considered in the SEAC video conference meeting dated 21.07.2023.

5) Project proponent (PP) and their Technical Expert M/s En-vision Enviro Technologies Pvt. Ltd., Surat remain present during video conference meeting.

6) During meeting, PP presented the product profile in which expansion of existing sugarcane crushing

capacity and sugar is proposed along with expansion of Molasses, Press Mud, Bagasse and CPP for which there is no earlier EC as unit is having NOC from GPCB since 1982 and valid CCA upto dated: 17.02.2028.

7) Upon asking regarding any EC obtained for the said project site, PP informed that they have obtained EC for manufacturing of "Molasses based Distillery with CPP" on dated: 02.07.2021 but project is yet not implemented hence they have not considered the details of "Molasses based Distillery with CPP" in existing which is not acceptable as the project name and project site is same.

8) Later on PP has submitted the copy of withdrawal letter vide email dated: 31.07.2023 regarding withdrawal of said application mentioning reason of withdrawal as tey will reapply for ToR considering all the apects.

In view of the above, Committee unanimously decided to recommend to permit project proponent for withdrawal of their application of Terms of Reference and to remove the proposal from the list of pending applications & to close the file.

6.	SIA/GJ/IND1/428369/2023	**M/s. Chandanpani Pvt Ltd** Plot /Survey No. 162/P, Opp- ONGC GGS, Village: Vasna Margiya, Taluka & District: Kheda.	ToR-Regularization

Category of the unit: **3(a)**

Project status: **ToR-Regularization**

1) **DETAILS OF APPLICATION:**

1.1. Type of application:	TOR (Regularization of Existing Project)
1.2. Proposal no.	SIA/GJ/IND1/428369/2023
1.3. Category of Project :	3(a)- B (non-toxic secondary metallurgical Processing industries)
1.4. Date of application:	06-05-2023
1.5. Date of EDS by SEIAA a) EDS Raised b) Reply by PP	NO EDS Raised
1.6. Date of EDS by SEAC a) EDS Raised b) Reply by PP c) Accepted by SEAC	NO EDS Raised 20/05/2023
1.7. TOR No. & Date :	Applied for TOR
1.8. Date and place of Public Hearing	Not Applicable unit is falls in 3(a) category
1.9. Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	Satva Environ Consultancy Stay order SCA 20206-2017 (Last date of hearing 21.06.2023)
1.10. SEAC Meeting No. and Date:	658th SEAC Meeting dated 21-07-2023
1.11. ADS raised by SEAC meeting No & date :	Not Applicable
1.12. Reply Submitted by PP dated:	Not Applicable

	1.13. Revised Consideration SEAC Meeting No. and Date:	Not Applicable
	-	
2)	**DELIBERATIONS OF SEAC**	

1) This office has received an application vide their online proposal no. 428369/2023 dated 20.05.2023 made by project proponent (PP) regarding grant of Terms of Reference [ToR] for preparation of EIA/EMP report.
2) Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
3) The project falls under Category B1 of project activity 3(a) as per the schedule of EIA Notification 2006.
4) PP has applied for ToR as per Notification Dated 20th July 2022 of Ministry of Environment, Forest and Climate Change (MoEF &CC) that " all standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO) from the concerned State Pollution Control Board or the Union territory Pollution Control Committee, as the case may be, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference as per item 3(a) of the said notification and shall be exempted from the requirement of public consultation".
5) This case was considered in the SEAC meeting dated **21.07.2023**.
6) During the meeting dated 21.07.2023, the project was discussed based on the information furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.
7) Project proponent (PP) and Technical expert from M/s Satva Environ Consultancy remain present during video conference meeting.
8) Committee noted that the existing unit has obtained CCA in the name of M/s Universal Metal Co Ltd Order No.: AWH-96074 issued on dated: 29/09/2018, Valid up to 07/08/2023 of the Board at Survey No. 162/P, opp ONGC GGS, Village: Vasana, Morgita, Tal & Dist: Kheda-387120 for manufacturing of SS Ingots/ Flats/ Long Products (Agriculture equipment) & SS Hot Rolled patta- patti-2400 MTPM. Also PP has obtained CCA-Amendment in the name of M/s Chandanpani Pvt Ltd Order No.: AWH-120309 issued on dated: 22/07/2022, Valid up to 07/08/2023 of the Board at Survey No. 162/P, opp ONGC GGS, Village: Vasana, Morgita, Tal & Dist: Kheda-387120 for manufacturing of SS Ingots/ Flats/ Long Products (Agriculture equipment) & SS Hot Rolled patta- patti-2400 MTPM and Sodium Silicate-1800 MTPM. PP has submitted self compliance report for CCA.
9) PP submitted satellite map showing that there is no any water bodies, villages, School,

monuments etc. within 500 m radius of the project site. Aerial distance of nearest habitat of village Vasna Margiya is @ 1.6 Km. PP also submitted that there are no Eco sensitive zones, wild life sanctuaries within the 10 km area from the boundary of the project site.

10) PP has submitted 7-12 Utara in the name of M/s Chandanpani Pvt Ltd for Survey No. 162/P and copy of National Company Law Tribunal, Ahmedabad dated: 07.06.2019 regarding amalagamantion of M/s Universal Metal Compant Ltd into M/s Chandanpani Pvt Ltd .

11) Commitee noted that water consumption, wastewater generation, flue gas matrix, process gas matrix and hazardous waste matrix is as per CCA & CCA-Amendment. Further, there will be (1) addition of STP for treatment of sewage earlier which was disposed through soak pit, (2) Use of water consumption in gardening-4.7 KLD but it will be reused of treated sewage hence there will be no change in fresh water consumption, (3) there will be addition of fuel i.e Diesel-50 Lit/Hr for D G Set as without fuel D G Set cannot work and it is only for emergency purposes which is not mentioned in CCA/CCA-Amendment but all the above changes are environment friendly and have positive impact of environment hence it is acceptable.

12) Committee noted that this is an existing unit and coming for regularization as per MoEF & CC Notification dated 20th July 2022 based on CCA & CCA-Amendment, hence public hearing is exempted.

13) Committee found presentation of project proponent satisfactory.

3) **EIA REPORT (BASELINE STUDIES AND RISK ANALYSIS):**

Not applicable as it is ToR application

4) **RISK ANALYSIS & ITS MITIGATION MEASURES IN GENERAL AS GIVEN IN EIA REPORT**

Will be submitting at the time of EC application at present we have applied for ToR application

5) **PRODUCT PROFILE AND BRIEF NOTE OF PRODUCT PROFILE**

SR. NO	PRODUCT NAME	CAS NO	QUANTITY MT/Month		
			Existing	Proposed	Total
1.	SS Ingots/ Flats/ Long Products (Agriculture equipment)	-	2400	-	2400
2.	SS Hot Rolled patta- patti	-			
3.	Sodium Silicate	-	1800	-	1800
		TOTAL	**4200**	**-**	**4200**

Note: There will be no change in Existing product profile which is mention in Valid CC& A order No: AWH-120309 Issued by Gujarat pollution control board on dated 22-07-2022 we are regularized unit by getting post facto Environment clearance as per the

amended EIA notification-2006 and MoEFCC Notification, number S.O. 3250(E) dated 20.07.2022

 # Brief Note of Product Profile:

1. No of Manufacturing Plants: 1
2. Brief Note regarding number of Products to be manufactured considering plant capacity:

6) **PROJECT DETAILS (COST/LAND OWNERSHIP/NA PERMISSION ETC.)**

a) Total **cost of Proposed** Project (Rs. in Lakh):

Existing As per C.A.	**Proposed**	**Total**
1981.65 lakh	**-**	**1981.65 lakh**

Break-up of proposed project Cost:

Details	**Project Cost As per CCA. (Rs. In Lakh)**
Land	618.90
Building	
Machinery	1327.75
Env. & Safety	15.0
Miscellaneous	20.0
Total	**1981.65**

b) **Details of Land / Plot ownership details:** (Linking between Land ownership and PP is required.)

iii. Total Plot area (sq mt): 13962

iv. GIDC Plot Allotment letter/ NA documents: Survey No. 162 NA Order No; **જમન -૨/ખેડા/૭૩(એ)(એ)વશીપ૪૫/S.R./1/03 dated 22/03/2003** for Area 13962.0 Sq.m As per Existing CCA

7) **IF IT IS EXPANSION WHETHER CCR/EARLIER EC COMPLIANCE GIVEN:**

Sr. no.	**Particulars**	**Brief Information/Details**	**Remarks**
1	Earlier Environmental Clearance **(EC)** details [EC letter no. and date & obtained from MoEF&CC/SEIAA.]	We have applied for Fresh Environment Clearance for regularization	
2	In case EC not obtained for existing project: Copy of first CTE (NOC) & CCA obtained from GPCB i.e. before	We have applied for Fresh Environment Clearance for regularized unit by getting post facto Environment clearance as per the amended EIA	

		14/09/2006. (For justification that you have not obtained EC for existing project).	notification-2006 and MoEFCC Notification, number S.O. 3250(E) dated 20.07.2022 as per The existing CC&A is submitted with this letter	
	3	**Certified Compliance Report (CCR)** from the concern authority **(IRO-MoEF&CC/MS-GPCB) for existing EC/ CCA** as per the MoEFCC's OM no.F.No: IA3-22/10/2022-IA.III [E 177258] dated: 08/06/2022.	We will provide CCR for existing CC&A which is valid up to 07.08.2023 at the time of Appraisal The self-certified Compliance report of existing CCA is also submitted	
	4	**Summary of CCR and Time bound action taken report/ plan of conditions i.e partly complied/ non-complied**	Not Applicable at present	
	5	Details of latest Consent to Operate (CTO/CC&A) obtained from GPCB along with date of issue and validity	Attached here with	
	6	Details of **Improvement notice, Show-cause notice, Notice of direction, Directions, Closure direction etc**. issued by the GPCB to the existing unit in **last 3 years**. Details in tabular format comprise **issues, actions taken and current status**. As per the latest XGN screen shot.	There will be no any legal notice, Show- cause notice, Notice of direction last three year	
	7	Details of **Public Complaints** (If any)	No any Public Complaints	
	8	Details of **litigation** pending before any court of Law against the Project (If any)	Not Applicable	

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Comments:

CCR is not applicable as it is a ToR application. Also, PP has submitted that there is no action taken by GPCB in last three years, no litigation pending and public complaints against the unit.

8)	**PUBLIC HEARING APPLICABILITY AND ITS COMPLIANCE:**

	Not applicable as it is ToR application
9)	**SITING CRITERIA DETAILS (OTHER THAN GIDC):**

Sr. no.	Environmental Sensitivity	Name/Specific details	Siting criteria as per GPCB guidelines dated: 05.06.2022	Aerial Distance in Km
1	Habitat (Residential Area)	Vasna Margiya	500 meter	1.6 Km
2	Eco sensitive zones	No With in 15 km radius Study Area	5 Km	No With in 15 km radius Study Area
3	Wild life sanctuaries/National Parks/ Reserved Forest	Jambughoda wild life Sanctuary	5 km	116.Km
4	Water Bodies	-	-	-
	River	Vatrak River	5 km	5.62 Km
	Natural Nallah/Drain	Natural Nallah	500 meter	11.43 Km
	Lake/Pond/Wetlands	Village Lake	500 meter	1.76 Km
	Water supply Tanks/Reservoirs	Tapper Reservoir	500 meter	9.27 Km
	Canal	Canal	500 meter	2.10 Km
5	Protected Monuments/Heritage sites/Public Buildings i.e School, colleges, etc.	Shri Siddhivinayk temple	500 meter	11.52 Km
6	National/State Highway OR Express way	National highway NH-1	200 meter	12.85 Km
7	Coastal Regulation Zone (CRZ) (In case of Coastal area projects)	No With in 15 km radius Study Area	1 KM	No With in 15 km radius Study Area
8.	Ground water table in meter	-	NA	50 meter
9.	Railway Line	kaniz Railway Station	50 meter	5.61 Km
10.	Air Port	Ahmedabad Air Port	10 KM	26.14 KM

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Comments:

SEAC has deliberated on siting criteria i.e habitation, river/ natural drain/ lake/ pond/canal/ reservoirs, protected monuments/ heritage sites/public buildings i.e. Schools, colleges, Coastal Regulation Zone (CRZ), etc. are found satisfactory.

10) **APPLICABILITY OF GENERAL CONDITIONS AND COMMENTS WITH SPECIFIC CLARIFICATION OF MOEF&CC GUIDELINES:** Any project or activity specified in Category 'B' will be appraised at Central level as Category 'A' if located in whole or in part within 5 Km radius from the project boundary of:-

Sr No	Particulars	Aerial Distance in Km
1.	Protected Areas notified under the Wildlife	Not within 5 Km Radius

	(Protection) Act 1972 (53 of 1972)	from project site
2.	CPA/SPA (Critically Polluted Area/Severely Polluted Area) as identified by the CPCB	Not within 5 Km Radius from project site
3	Eco sensitive areas as notified under sub-section (2) of section 3 of EPA-1986	Not within 5 Km Radius from project site
4	Interstate boundaries and international boundaries	Not within 5 Km Radius from project site

Comments:

As per MoEF&CC's notification dated: 25.06.2014 and as per details submitted by PP, General condition is not applicable.

11) **AREA ADEQUACY AND COMMENTS**

Total Land area: 13962 Sq.m

Floor-wise land area break-up table

Sr. No	Details of Area	Existing Area Ground floor Sq. m	After EC proposed Area ground floor Sq. m	Percentage %
1	Main plant Building (Production Area)	2350	**2350**	16.83
2	Sodium Silicate plant	1500	**1500**	10.74
3	Material Storage Area	1250	**1250**	8.95
4	Utility Area	250	**250**	1.79
5	Administration Buildings	80	**80**	0.57
6	OHC	30	**30**	0.21
7	Green Belt	1275	**4608**	33.00
8	Road and Open area	7227	**3894**	27.89
	TOTAL	13962	**13962**	100 %

12) **GREEN BELT CONDITIONS AND MEASURES ALONG WITH AREA:**

Total Plot area (Sq meter)	Total Green belt area (Sq meter)	% of Greenbelt
13962	**Inside: 4608** **Outside: NIL**	33%

NOTE: This unit has established 1227 sqaure meter area as green belt at present and the unit has proposed 4608 square meter of total land as green belt area which will be 33% of total land

Details of copy of permission letter of concern GIDC/ Panchayat/etc. for greenbelt development (in case of greenbelt development outside the premises: Not Applicable

13) **EMPLOYMENT GENERATION:**

Permanent	Contractual	Total
50	25	75

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14)	**SOURCE OF WATER SUPPLY WITH QUANTITY AND PERMISSION (DETAILS OF CGWA IF BOREWELL** **a) Source of water supply: Borewell** **b) Total Fresh water quantity (KLD): 34.7 KLD (30.00 KLD Industrial + 4.70 Domestic)** **c) Permission of Central Ground water Authority for 30.70 KLD(Industrial) vide letter number CGWA/NOC/IND/ORIG/2022/17013 on dated 14/10/2022 which is valid up to 13.10.2025**
15)	**WATER CONSUMPTION RELATED DETAILS WITH COMMENTS**

Sr No	Category	Water Consumption In KLD			Remark
		Existing	Additional	Total	
1.	Domestic Purpose	4.7	NIL	4.7	
2	Gardening	4.7		4.7	Reuse Water
3.	INDUSTRIAL				
	Process	20.0	NIL	20.0	
	Cooling	10.0	NIL	10.0	
	Total water Consumption (Domestic)	4.7	NIL	9.4	
	Total water Consumption (Industrial)	30.0	NIL	30.0	
	Total Water Consumption	39.4	NIL	39.4	
	Total Reuse water	4.7	NIL	4.7	
	Total fresh water after reuse	34.7	NIL	34.7	

16) **WASTE WATER GENERATION AND DISPOSAL**

Sr No	Category	Waste Water Generation In KLD		
		Existing	Additional	Total
1.	Domestic Purpose	4.7	0.0	0.0
2.	INDUSTRIAL			
	Process	0.0	0.0	0.0
	Cooling	0.0	0.0	0.0
	Total Waste water Generation (Domestic)	4.7	0.0	4.7
	Total Waste water generation (Industrial)	0.0	0.0	0.0

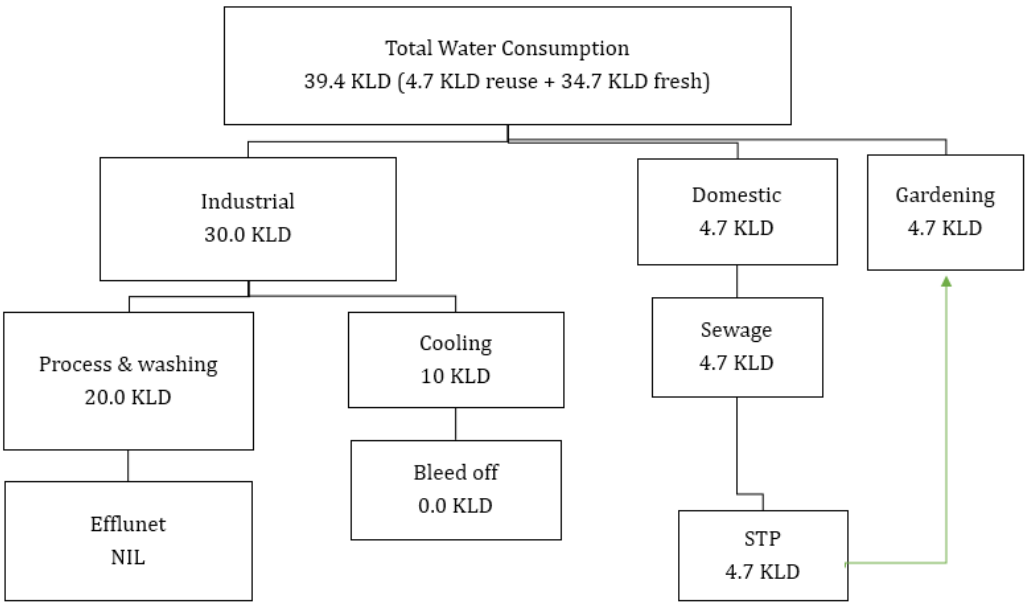
Justification in case of increase/ drastic reduction in wastewater generation than water Consumption:

- The unit is utilizing total 30.00 KLD of water in manufacturing process and other ancillary

operation

- The unit has product namely soldium silicate which is liquid product and hence there is no wastewater generation from that process
- The unit is utilizing water in cooling which is evaporated due to hot process
- In view of above there is no wastewater generation from industrial operation and for the same unit has obtained CC&A from Gujarat Pollution Control Board

17) **SIMPLIFIED WATER BALANCE DIAGRAM**



18) **BREAKUP OF WASTE WATER DISPOSAL (DOMESTIC & INDUSTRIAL BOTH)**

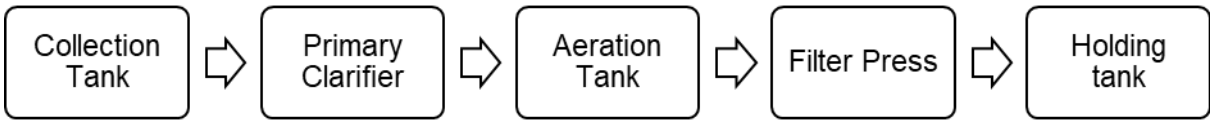
Sr. no.	Quantity KLD	Facility
1	4.7 (Domestic)	Utilized in Gardening and Cooling purpose after treatment in sewage treatment plant
Total	4.7	

19) **MECHANISM AND METHODOLOGY OF STREAM SEGREGATION**

Not Applicable as there is no wastewater generation from industrial operation

20) **STP AND/OR ETP SPECIFICATION AND DESIGN AND ITS CAPACITY**

STP Capacity & its specification: (5 KLD)



Sr. No	Name of Unit	Qty	Size
1	Collection tank	1	5 KL
2	Primary clarifier	1	1 KL
3	Aeration tank	1	1 KL
4	Decanter/ Filter press	1	1 Nos.
5	Holding tank	1	5 KL

21) **TREATABILITY OF WATER**

- There is no wastewater generation from industrial operation
- The generated sewage is disposed in gardening after treatment in sewage treatment plant

22) **SUMMARY OF WATER USE AND REQUIREMENT OF FRESH/REUSED WATER**

Summary of water requirement	**Quantity** KLD	Remarks
Total water requirement for the project **(A)**	39.4	
Quantity to be **recycled (B)**	4.7	4.7 KLD gardening
Total **fresh water** requirement **(C)**	34.7	
Ensure **Total water requirement = Recycled water + Fresh water i.e. A = B + C**		

23) **REUSE, REDUCE, RECYCLE RECOVERY MEASURES ADOPTED**

a) Reduce

Sr. No.	Item	Quantity	% percentage

b) Reuse

Sr. No.	Item	Quantity	% percentage
1	Water	4.7 KLD	11.8

c) Recycle

Sr. No.	Item	Quantity	% percentage

-

24) **FLUE GAS EMISSION**

Sr. no	Source of emission With Capacity	Stack height in meter	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Remark
1	Rolling Annealing Furnace	11	Natural Gas	3430 M3/Day	Adequate Stack height	Existing
2	Roller/Pusher Furnace	11	Natural Gas		Adequate Stack height	Existing
3	Pre-heating Furnace 1,2,3,4.5.6 & 7	11	Natural Gas		Adequate Stack height	Existing
4	Silicate Furnace (2 Nos.) (Cap. 1200 MT)	11 each	Natural Gas	4300 M3/Day	Adequate Stack height	Existing
5	D.G. Set-l (250 KVA)	10	Diesel	50 lit/hour	Adequate Stack height	Existing

25) **PROCESS GAS EMISSION**

Sr. no	Specific Source of emission (Name of the Product & Process)	Stack height in meter	Air Pollution Control Measures (APCM)	Types of Emission	Remark
1	Induction Furnace 1 & 2 (1 Tone each)	11 Meter Each	Hood Cover to each	PM SO2 NOx	Existing
2	Induction Furnace-3 (2 Tone KVA)(Stand by)				

26) **FUGITIVE GAS EMISSION**

Sr. No.	Source	Control Measures/ APCM
1	From Furnaces	Adequate Stack height and suction provided
2	From Transportation	RCC road are already available in plant premises for inter connection.

27) **HAZARDOUS PROCESSES AND ITS SAFETY MEASURES**

Types of process	Safety measures including Automation
Amination	**Not Applicable**
Bromination	**Not Applicable**
Chlorination	**Not Applicable**
Hydrogenation	**Not Applicable**
Nitration	**Not Applicable**
Sulphonation	**Not Applicable**
Others, if any	**Not Applicable**

	-
28)	**SOLVENT MANAGEMENT** **Not Applicable as there is no utilization of solvent in industrial operation**
29)	**VOC EMISSION AND MITIGATION MEASURES FOR ACHIEVING MAXIMUM SOLVENT RECOVERY AND MINIMUM VOC GENERATION** **Not Applicable as there is no utilization of solvent in industrial operation**
30)	**LDAR PROPOSED** **Not Applicable as there is no utilization of solvent in industrial operation**
31)	**LDAR FOR SPECIFIC SOLVENT** **Not Applicable as there is no utilization of solvent in industrial operation**
32)	**HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. No	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Existing MT/Year	Propose MT/Year	Ultimate MT/Year	Management of HW
1	Process waste	Process	I-7.2	28	-	28	Collection, storage, transportation and disposal by reuse or sending out to registered recycler. Or send to Co-processing
2	Used Oil	Plant machinery	I-5.1	0.15	-	0.15	Collection, storage, transportation and disposal by reuse or sending out to registered recycler.

33) **NON-HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. no.	Type/Name of non-hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of HW
1	STP Sludge	--	5	Collection, Storage and utilize in Gardening as manure after sun drying

34) **STORAGE SAFETY MEASURES**

a) Storage of Hazardous chemicals in Tanks

Not Applicable (Not covered in MSIHC Rules,1989)

b) Storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.

Sr. no	Name of Chemical	Capacity of Bag	Number of Bag/	Hazardous Characteristics of Chemical
1	Soda-ash	Bag	2200	Corrosive

Safety measures for Hazardous Chemicals:

Type of Hazardous Chemicals	Safety measures
FLAMMABLE & EXPLOSIVE CHEMICALS	Not involved
CORROSIVE CHEMICALS	Apron, Hand gloves, gumboot, goggles and helmet will be provided • ISI Portable fire extinguisher & Hydrant line is provided as per T norms • Sufficient amount of sand/soil are kept to control any spillage. • Eye washer cum shower is provided near tank-farm area. • Level indicator provided. • Vent line dipped in water will be provided. • RCC foundation will be provided.

	• Transfer material to another empty tank/ Vessel.
TOXIC CHEMICALS	Not involved
REACTIVE CHEMICALS	Not involved
Others, if any	Not involved

-

35) **FIRE LOAD CALCULATION**

Total Plot Area:	13962
Area utilized for plant activity:	6370
Area utilized for Hazardous Chemicals Storage:	No hazardous chemical is used
Number of Floors:	Ground Floor
Water requirement for firefighting in KLD:	56
Water storage tank provided for firefighting in KL:	500
Details of Hydrant Pumps:	6.0 Inch Diameter fire hydrant line will be provided connected to Jockey Pump having 07 bar pressure with sprinkler system. The jockey pump is placed with the fire water tank having capacity of 500 KL
Nearest Fire Station :	Nadiyad fire station With 24.5 KM distance
Applicability of Off Site Emergency Plan:	-

36) **WORKERS SAFETY AND OCCUPATIONAL HEALTH MANAGEMENT**

Number of permanent Employee:	50 Nos.
Number of Contractual person/Labour:	100 Nos.
Area provided for OHC:	30 SQ.M
Number of First Aid Boxes:	04 Nos.
Nearest General Hospital:	The General Hospital Bareja 6.1 Km
Name of Antidotes to be store in plant:	-

37) **DETAILS OF MEMBERSHIP OF COMMON FACILITIES:**

Sr. No.	Membership for Common Facility	Membership Certificate issuing agency along with Date of Issue and validity of membership
01	CETP	Not Applicable Zero liquid Discharge
02	TSDF site	Not Applicable no any sludge dispose to TSDF site /CHWIF
03	Common Hazardous Waste Incineration Facility	Not Applicable no any sludge dispose to TSDF site /CHWIF
04	Common Spray Drying Facility	Not Applicable

05	Common MEE Facility	Not Applicable
06	Common Conveyance System	Not Applicable
07	PESO permission	Not Applicable
08	FIRE permission	We will obtain after getting EC
09	Health Certificate	Maintaining Forms Nos. 32 & 33 as per Factories Act-1948 & Gujarat rule -1963
10	Central ground water permission	NOC No: CGWA/NOC/IND/ORIG/2022/17013 on dated 14/10/2022 which is valid up to 13.10.2025

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38) **EMERGENCY MEASURES PROPOSED AND PREPAREDNESS ACTION PLAN**

Management shall take into consideration fire prevention measures at the project planning and during plant commissioning stage to avoid any outbreak of fire. But looking to the hazardous nature of process and the chemicals that shall be handled and processed, the chance of outbreak of fire cannot be totally ignored. Hence to tackle such a situation a good well laid fire protection system will be provided in the factory. Details of firefighting are given below

Type		Nos	Capacity of Fire extinguishers
ABC	:	50	10 kg,5 kg,9 kg
CO2	:	35	6 Kg
SAND BUCKET	:	60	15 lit
Class B (Foam)	:	25	9 lit
DCP	:	15	10kg,5kg
TOTAL	**:**	**185**	

39) **CER ACTIVITIES PROPOSED YEAR WISE/ IN CASE OF EXPANSION ANY ADDITIONALITY SUGGESTED AND ITS COMPLIANCE (AS PER THE MOEF & CC GUIDELINES)**

Total cost of Project (Rs in lakh)	**Total Cost of CER (Rs in Lakhs)**	**Percentage (%)**
1981.65	39.61	2.0 %

Sr No	**Activities**	**Name of Villages**	**Cost (Rs in Lakhs)**
1	Installation of Solar panel Tree 8 KW with solar Inverter at common place suggested by local Gram Panchayat Vasna Marhiya and Bidaj	Vasna Marhiya and Bidaj	39.61

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40) **ENVIRONMENT MANAGEMENT PLAN (ESPECIALLY WITH CEPI AND NON CEPI GUIDELINES, AS MAY BE APPLICABLE)**

Sr. No	Unit	Detail	Capital Cost (Rs. In Lakhs)	Total Recurring Cost (Rs. In Lakhs per Annum)
1	Wastewater	STP (Installation and Maintenance of STP Treatment)	25.0	5.00
2	Air	Installation of stack/vent & it's monitoring facilities including provision of air pollution control System	30.0	10.0
3	Hazardous Management	Getting membership of TSDF site with including transportations cost and sampling cost	2.0	0.5
4.	Fire & Safety	Provision of Safety Measures including person Protective Equipment, Fire Detectors, Sensors, Alarm, Fire Hydrant, Fire Extinguishers, Lightening arrestors etc.	40.0	15.0
5	Green Belt Development	Development of Greenbelt Area	5.5	1.0
6.	Occupational Health	O.H.C, Miscellaneous, etc.	15.0	5.0
7.	Noise Control	Acoustic enclosure; Silencer ; Vibration pads; Noise PPEs, etc.	5.0	1.0
9	Environment Monitoring Program	Risk analysis, safety audit, maintenance expenses details,.	10.0	2.0
10	CER Activity	CER Cost (2 % of Total Project Cost)	39.62	-
Total			**172.12**	**39.5**

41) **RECOMMENDATIONS OF SEAC**

"On the basis of information provided to SEAC on project, its location, technical, physical and environmental infrastructure, products, quantity to be manufactured, its raw material, storage, waste disposal, water treatment, safety measures, green belt development planning, regulatory compliance assured of related statutory provisions, necessary documents of requisite permissions provided from concerned departments and overall environmental management planning for the project, along with financial resources committed for operation and maintenance, and on the basis of presentation made before SEAC, modification suggested by SEAC and incorporated by project proponent, SEAC finds the project as per the requirement and **unanimously** recommends the same to SEIAA for grant of Terms of Reference"

Considering the above project details, after detailed discussion, the following additional/ specific terms of reference (ToR) were prescribed in addition to the standard TORs/ model TORs available in the MoEFCC's sector specific EIA Manual for the "Metallurgical Industry (Ferrous and Non-ferrous)" projects shall be considered as

generic TORs for EIA study in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006 to be done covering 10 Km radial distance from the project boundary of the proposed site.

1. A tabular chart with index for point-wise compliance of TORs.
2. Executive summary of the project – giving a prima facie idea of the objectives of the proposal, use of resources, justification, etc. In addition, it should provide a compilation of EIA report, including EMP and the post-project monitoring plan in brief.
3. Justification for selecting the proposed product and unit size.
4. Land requirement for the project including its break up for various purposes along with details of area adequacy.
5. Land possession documents. Copy of NA order showing permission to use the project land for industrial purpose.
6. Furnish status of all the applicable rules, acts, regulation, clearances in a tabular form.
7. In case of Expansion of the project
   a) Need for the proposed expansion should be justified in detail.
   b) Adequacy of existing EMS (Environmental Management System).
   c) Explore the possibility to achieve Zero Liquid Discharge (ZLD) for existing as well as proposed activity.
   d) Records of any legal breach of Environmental laws i.e. details of show- cause notices, closure notices etc. served by the GPCB to the existing unit in last five years and actions taken then after for prevention of pollution.
   e) Copies of Environmental Clearances obtained for the existing plant, its point wise compliance report.
   f) Environmental audit reports for last 3 years and compliance of its recommendations/Suggestions. (Include latest audit report and its compliance.)
   g) Certified Compliance Report (CCR) from the concern authority as per the MoEFCC's Circular no. dated: 08.06.2022.
   h) Copies of XGN generated Inspection reports with analysis reports of the water/Air/Hazardous samples collected by GPCB (Last 2 year). Copies of instructions issued by GPCB in last 2 year and point wise compliance thereof.
9. Demarcation of proposed project activities in lay out Plan with mentioning colour coding for existing plant and proposed round bar plant facility, 6 meter road in periphery for ease movement of fire tender and emergency vehicle, green belt area, separate entry and exit, assembly point etc mentioning in layout plan.
10. Provision of separate entry & exit and undertaking for the same. Provision of adequate margin all-round the periphery for easy unobstructed movement of fire tender without

reversing.

11. Characteristics of raw material (scrap) to be purchased as a raw material in terms of presence of foreign material like plastic, rubber, dirt, oily residues, paint etc. Details of scrap cleaning / sorting process, if any to be carried out, for removal of foreign materials.
12. Detailed water balance (including reuse-recycle, evaporation if any).
13. Specific measures proposed to conserve water and plans for the future in this regard.
14. Detailed cleaner production measures like energy efficiency in the furnaces to reduce emissions if possible in the proposed project & commitment of the management on futuristic development / implementation for the same.
15. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes.
16. Generation, characteristics and mode of disposal of wastewater in existing and proposed scenarios. Details of the wastewater treatment facilities, if any proposed, including its capacity, size of each unit, retention time and other technical parameters along with adequacy and efficacy report. Action plan for Zero Liquid Discharge concept.
17. Anticipated environmental impacts due to the proposed project/production may be evaluated for significance and based on corresponding likely impacts VECs (Valued Environmental Components) may be identified. Baseline studies may be conducted within the study area of 10 km for all the concerned/identified VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
18. One complete season base line ambient air quality data (except monsoon) to be given along with the dates of monitoring. The parameters to be covered shall be in accordance with the revised National Ambient Air Quality Standards as well as project specific parameters. Locations of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
19. Modeling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modeling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modeling should be superimposed on Google map / geographical area map.
20. Explore the possibility for fume extraction system along with primary and secondary APCM

for induction furnaces/any other furncaes, if applicable

21. Details regarding D.G. sets including its capacities, location, fuel consumption & storage and acoustic measures to abate noise pollution.
22. Details of generation and management of the hazardous wastes/Solid wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. Details of slag generation, its quality and method of disposal / reuse in various applications. How spillages / leakages of used oil shall be managed.
23. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment as well as detailed monitoring plan. The EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures. Environmental management cell proposed for implementation and monitoring of EMP.
24. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Detailed work area monitoring plan. Plan for periodic medical examinations of the workers exposed.
25. Detailed work area monitoring plan. Details of activity wise hazards, likely heat stress to the workers, radiation heat level in and around the furnaces, measures proposed for reduction of heat stress around furnaces and for safe handling of the molten metal considering the provision of the Gujarat Factories Rules. Details of automated systems to be provided to avoid manual handling / conveyance of materials.
26. Detailed risk assessment report including identification of the most hazardous activity, its sub activity, prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures.
27. Details of firefighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for firefighting, details of qualified and trained fire personnel& their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network.
28. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for hazardous processes and monitoring of the occupational injury to workers as well as impact on the workers.
29. Impact of the transportation of raw materials and finished product on the transport system should be assessed and provided.

30. Details of possibility of occupational health hazards from the manufacturing activities and proposed measures to prevent it.
31. Details of personal protective equipments to be provided to the workers. Plan for periodic medical examinations of the workers.
32. Details of first-aid / occupational health center and arrangement of ambulance van provided for injured workers.
33. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for hazardous operations and monitoring of the occupational injury to workers as well as impact on the workers.
34. Details of three year greenbelt development program including annual budget, types &number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in surrounding area. *Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines.*
35. Undertaking from the management regarding maximum employment to the local people.
36. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg. utility staff for safety related measures.
37. Proposal for socio economic upliftment activities along with time bound action plan and cost should be included.
38. Details of any fatal and non-fatal accidents and dangerous occurrences under the Gujarat Factories Rules 1963 (GFR) for factories for the last three years.
39. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
40. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (Compliance of OM dated 05/10/2011 & 04/08/2009).
41. Details with respect to justification for proposed expansion: (1) To address proportionate availability of space for production plant. (2) To address proportionate availability of storage area for raw materials finished goods, utilities and goods carrier movement within premises. (3) To address proportionate captive/common infrastructure available to accommodate additional load due to proposed expansion. (4) Environment impact and its mitigation measures for common/ captive infrastructure due to proposed production.
42. Fund allocation for Corporate Environment Responsibility (CER) for various activities

		therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report. 43. Explore the use of renewable energy to the maximum extent possible. Details of provisions to make the project energy-efficient through of energy efficient devices and adoption of modes of alternative eco-friendly sources of energy like solar water heater, solar lighting etc. Measures proposed for energy conservation. 44. Adoption of automization process like DCS/PLC including emergency response to eliminate risk associated with the hazardous processes, fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016 and provision of Occupational health Centre(OHC) within premises. 45. Details of carbon foot prints and carbon sequestration study w.r.t. proposed project and proposed mitigation measures also needs to be analyzed. 46. Compliance of MoEFCC's OM dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per MoEFCC's O.M. No. 22-65/2017-IA.III dated 01/05/2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report as per MoEF&CC's OM dated: 30.09.2020. 1) Further Project Proponent may be advised to submit final EIA Report with EC application within 100 days from the date of issuance of this ToR to expedite processing of Environment Clearance application. 2) The project proponent shall have to apply for Environmental clearance through online portal http://environmentclearance.nic.in/along with final EIA report. **Validity of ToR:** 1. The ToRs prescribed for the project shall be valid for a period of four years for submission of EIA & EMP report accordingly, ToR will lapse after 4 years from the date of issue.

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7.	SIA/GJ/IND1/428689/2023	**M/s. Umiya Steel Industries** New Survey No. 1608 (Old Survey No. 971/1), Vijapur-Ranasan Road, Ranasan, Ta.: Vijapur, Dist.: Mehsana	ToR-Regularization

Category of the unit: **3(a)**

Project status: **ToR-Regularization**

1)	**DETAILS OF APPLICATION:**	
	1.1. Type of application:	ToR Application (regularization)

	1.2. Proposal no.	SIA/GJ/IND1/428689/2023
	1.3. Category of Project :	3 (a) – B1
	1.4. Date of application:	09/05/2023
	1.5. Date of EDS by SEIAA a) EDS Raised b) Reply by PP	--
	1.6. Date of EDS by SEAC a) EDS Raised b) Reply by PP c) Accepted by SEAC	-- 20/05/2023
	1.7. TOR No. & Date:	Applied for ToR
	1.8. Date and place of Public Hearing	Applied for ToR
	1.9. Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	M/s. Bhagwati Enviro Care Pvt Ltd. Accreditation No: NABET/EIA/2326/IA 0116 Validity: 18/01/2026
	1.10. SEAC Meeting No. and Date:	658th SEAC & 21.07.2023
	1.11. ADS raised by SEAC meeting No & date:	--
	1.12. Reply Submitted by PP dated:	--
	1.13. Revised Consideration SEAC Meeting No. and Date:	--

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2) **DELIBERATIONS OF SEAC (Reference May Be Given To Legal Disputes/Court Cases and Land Matters/ Environmental Violations Apart From The Proceedings Of SEAC).**

1) This office has received an application vide their online proposal no. 428689/2023 dated 20.05.2023 made by project proponent (PP) regarding grant of Terms of Reference [ToR] for preparation of EIA/EMP report.
2) Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
3) The project falls under Category B1 of project activity 3(a) as per the schedule of EIA Notification 2006.
4) PP has applied for ToR as per Notification Dated 20th July 2022 of Ministry of Environment, Forest and Climate Change (MoEF &CC) that " all standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO) from the concerned State Pollution Control Board or the Union territory Pollution Control Committee, as the case may be, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference as per item 3(a) of the said notification and shall be exempted from the requirement of public consultation".
5) This case was considered in the SEAC meeting dated **21.07.2023**.
6) During the meeting dated 21.07.2023, the project was discussed based on the information

furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.

7) Project proponent (PP) and Technical expert from M/s Bhagwati Enviro Care Pvt Ltd remain present during video conference meeting.

8) Committee noted that the existing unit has obtained Order No.: AWH-44933 issued on dated: 02/02/2021, Valid up to 31/12/2025 of the Board at Survey No. 971/A, Vijapur-Ranasan Road, Ranasan- 382870, Tal: Vijapur & Dist: Mehsana for manufacturing of MS Bars , Patta, Patti, angles etc.-1500 MTPM.

9) PP submitted satellite map showing that there is no any water bodies, villages, School, monuments etc. within 500 m radius of the project site. Aerial distance of nearest habitat of village Ranasan is @ 0.7 Km. PP also submitted that there are no Eco sensitive zones, wild life sanctuaries within the 10 km area from the boundary of the project site.

10) PP has submitted 7-12 Utara in the name of M/s Umiya Steel Industries for New Survey No. 1608 (Old survey Number-971/1P) and NA for survey number- 971/1P mentioning purpose as industrial (rolling mill) dated: 30.12.2009.

11) Commitee noted that there will be no change in production capacity but there will be minor change in air, water and hazardous details which is not as per CCA are as under:

- ✓ There will be increase in total water consumption by 1 KLD [Gardening-0.9 KLD and scrubber-0.1 KLD] (reuse water will be used) hence there will be no increase in fresh water consumption.
- ✓ There will be increase in wastewater generation by 0.1 KLD (scrubber) which will be reused within premises.
- ✓ Sewage shall be treated in STP and reused for gardening (in CCA it is disposed through soak pit).
- ✓ There will be change in fuel in heating furnace from Imported coal to bio coal hence there will be addition of APCM as MCS+ water scrubber.
- ✓ There will be addition of bleed liquor-30 MTPA which will be reused within premises.
- ✓ There will be addition of non-hazardous waste matrix (Earlier in CCA there are no provision of mentioning non hazardous waste)

14) Commitee deliberated that all the proposed above changes are environment friendly and have positive impact of environment hence it is acceptable.

12) Further, during presentation PP presented pulverizer in process gas matrix which is not acceptable hence cannot be granted.

13) Later on PP submitted the revised process gas matrix by email dated: 21.07.2023 mentioning there will be no process gas emission from manufacturing process and ancillary operations which is as per CCA.

14) Committee noted that this is an existing unit and coming for regularization as per MoEF & CC Notification dated 20th July 2022 based on CCA, hence public hearing is exempted.

15) Committee found presentation and submission of project proponent satisfactory.

3) **EIA REPORT (BASELINE STUDIES AND RISK ANALYSIS)**

Currently, we are applying for ToR. This all details we will submit in EIA.

4) **RISK ANALYSIS & ITS MITIGATION MEASURES IN GENERAL AS GIVEN IN EIA REPORT**

Currently, we are applying for ToR. This all details we will submit in EIA.

5) **PRODUCT PROFILE AND BRIEF NOTE OF PRODUCT PROFILE**

Sr. No.	Name of Products	CAS No.	Quantity (MT/month)			End use of Product
			Existing	Proposed	Total	
1.	MS Bars , Patta, Patti, angles etc.	--	1500.0	-	1500.0	Structure Design, door & window frame, Factory Shed, Stairs
		Total	**1500.0**	**-**	**1500.0**	

(Note: This is an Existing Unit & there is no Expansion in Existing Unit)

 # Brief Note of Product Profile:

1. No of Manufacturing Plants: 01
2. Brief Note regarding number of Products to be manufactured considering plant capacity: 01

6) **PROJECT DETAILS (COST/LAND OWNERSHIP/NA PERMISSION ETC.)**

a) Total **cost of Proposed** Project (Rs. in Crores): 5.4693

Existing	Proposed	Total
5.4693	-	5.4693

Break-up of proposed project Cost:

Details	Existing (Rs. In Crores)	Proposed (Rs. In Crores)	Total (Rs. In Crores)
Land	0.1700	-	0.1700
Building	0.5110	-	0.5110
Plant & Machinery	4.7883	-	4.7883
EMP	0	-	0
Total	**5.4693**	**-**	**5.4693**

b) **Details of Land / Plot ownership details:** (Linking between Land ownership and PP is required.)

i. **Total Plot area (sq mt):** 9307.0 sq. m.

ii. **GIDC Plot Allotment letter/ NA documents:** 7/12/8a: New Survey No. 1608 (Old Survey No. 971/1) on the Name of M/s. Umiya Steel Industries & NA Order No.: LNA/VASHI/3489 TO 3495/09 DATED 30/12/2009 & NA Purpose: Bin Kheti (Rolling Mill)

iii. **Rent agreement, if any:** NO

iv. **Other Land Possession documents, if any:** Partnership deed

7) **IF IT IS EXPANSION WHETHER CCR/EARLIER EC COMPLIANCE GIVEN:**

Sr. no.	Particulars	Brief Information/Details	Remarks
1	Earlier Environmental Clearance **(EC)** details [EC letter no. and date & obtained from MoEF&CC/SEIAA.]	Earlier EC was not applicable.	
2	In case EC not obtained for existing project: Copy of first CTE (NOC) & CCA obtained from GPCB i.e. before 14/09/2006. (For justification that you have not obtained EC for existing project).	Earlier EC was not applicable Now, as per NGT order & MoEF&CC notification unit is fall under 3(a) B1 category. CCA No.: AWH-44933 Obtained Date: 02/02/2021 Valid Up to: 31/12/2025	
3	**Certified Compliance Report (CCR)** from the concern authority **(IRO-MoEF&CC/MS-GPCB) for existing EC/ CCA** as per the MoEFCC's OM no.F.No: IA3-22/10/2022-IA.III [E 177258] dated: 08/06/2022.	Currently, we are applying for ToR. This all details we will submit in EIA.	
4	**Summary of CCR and Time bound action taken report/ plan of conditions i.e partly complied/ non-complied**	Currently, we are applying for ToR. This all details we will submit in EIA.	
5	Details of latest Consent to Operate	CCA No.: AWH-44933	

	(CTO/CC&A) obtained from GPCB along with date of issue and validity	Obtained Date: 02/02/2021 Valid Up to: 31/12/2025	
6	Details of **Improvement notice, Show- cause notice, Notice of direction, Directions, Closure direction etc**. issued by the GPCB to the existing unit in **last 3 years**. Details in tabular format comprise **issues, actions taken and current status**. As per the latest XGN screen shot.	No	
7	Details of **Public Complaints** (If any)	No	
8	Details of **litigation** pending before any court of Law against the Project (If any)	No	

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Comments:

CCR is not applicable as it is a ToR application. Also, PP has submitted that there is no action taken by GPCB in last three years, no litigation pending and public complaints against the unit.

8) **PUBLIC HEARING APPLICABILITY AND ITS COMPLIANCE:** Currently, we are applying for ToR. Not Applicable our project falls under 3(a) project. As per MoEF&CC's Notification Dated 20th July 2022 as it is regularization as per valid CTE/CCA public consultation is exempted.

9) **SITING CRITERIA DETAILS (OTHER THAN GIDC):**

Sr. no.	Environmental Sensitivity	Name/Specific details	Siting criteria as per GPCB guidelines dated: 05.06.2022 & its amendment	Aerial Distance in Km
1	Habitat (Residential Area)	Ransan village	500 m	0.70 km
2	Water Bodies			
	River	Sabarmati River	500 m	5.00 km
	Natural Nallah/Drain	No	500 m	There is no any Natural Nallah/Drain within

				500 m of the project site.
	Lake/Pond/Wetlands	Pundhara lake	500 m	2.7 km
	Water supply Tanks/Reservoirs	No	500 m	There is no any Water supply Tanks/Reservoirs in 500 m.
	Canal	NA	500 m	There is no any canal within 500 m of the project site.
3	Protected Monuments/Heritage sites/Public Buildings i.e School, colleges, etc.	RK Patel Highschool, Ranasan	500 m	0.73 km & No any Protected Monuments/Heritage sites within 500 m
4	National/State Highway OR Express way	Mansa-Himmatnagar Highway (S.H.-55)	--	3.39 km
5	Coastal Regulation Zone (CRZ) (In case of Coastal area projects)	Gulf of Khambhat	10 km	138 km

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Comments:

SEAC has deliberated on siting criteria i.e habitation, river/ natural drain/ lake/ pond/canal/ reservoirs, protected monuments/ heritage sites/public buildings i.e. Schools, colleges, Coastal Regulation Zone (CRZ), etc. are found satisfactory.

10) **APPLICABILITY OF GENERAL CONDITIONS AND COMMENTS WITH SPECIFIC CLARIFICATION OF MOEF&CC GUIDELINES:** Any project or activity specified in Category 'B' will be appraised at Central level as Category 'A' if located in whole or in part within 5 Km radius from the project boundary of:-

Sr No	Particulars	Aerial Distance in Km
1.	Protected Areas notified under the Wildlife (Protection) Act 1972 (53 of 1972)	Thol Bird Sanctuary – 52.3 Km
2.	CPA/SPA (Critically Polluted Area/Severely Polluted Area) as identified by the CPCB	Vatva GIDC, Ahmedabad – 61.5 Km
3	Eco sensitive areas as notified under sub-section (2) of section 3 of EPA-1986	Nalsarovar Bird Sanctuary – 105.0 Km
4	Interstate boundaries and international boundaries	Ratanpur, Rajasthan – 75.5 Km

Comments:

As per MoEF&CC's notification dated: 25.06.2014 and as per details submitted by PP, General

condition is not applicable.

11) **AREA ADEQUACY AND COMMENTS**

Total Land area: 9307.0 sq. m.

Floor-wise land area break-up table

Area Adequacy table:

Sr No	Components	Area required (Sq m)	Area Provided (sq m)	Percentage
1.	Office/Admin building/Lab Building	130.0	130.0	1.40
2.	Production Area	1350.0	1350.0	14.50
3.	Finished Goods Storage Area	650.0	660.0	7.10
4.	Raw Material Storage Area	640.0	642.0	6.90
5.	STP/Cooling Bed	100.0	120.0	1.30
6.	Green Belt Area	2050.0	2050.0	22.00
7.	Parking, Road Area	2100.0	2140.0	23.00
8.	Security Cabin	25.0	25.0	0.26
9.	Utility Block/ Mechanical Workshop	160.0	165.0	1.78
10.	OHC	25.0	25.0	0.26
11.	Open area	1810.0	1810.0	19.50
12.	Others, if any (Parking Area)	150.0	190.0	2.00
	Total	**9190.0**	**9307.0**	**100.0**

12) **GREEN BELT CONDITIONS AND MEASURES ALONG WITH AREA:**

Total Plot area (Sq meter)	Total Green belt area (Sq meter)	% of Greenbelt
9307.0	**Inside:** 2050.0 Sq. M. **Outside:** 1250.0 Sq. M. **Total:** 3300 Sq. M.	**Inside:** 22.00 **Outside:** 13.43 **Total:** 35.43

Details of copy of permission letter of concern GIDC/ Panchayat/etc. for greenbelt development (in case of greenbelt development outside the premises: 1250.0 Sq. M. in Ranasan Village.

13) **EMPLOYMENT GENERATION:**

Permanent	Contractual	Total
5	20	25

	-
14)	**SOURCE OF WATER SUPPLY WITH QUANTITY AND PERMISSION (DETAILS OF CGWA IF BOREWELL** **a) Source of water supply: Water Tanker** **b) Total Fresh water quantity (KLD): 4.0 KLD (Fresh: 3.0 KLD+ Reused: 1.0 KLD)** **c) Permission of concerned authority (Name and quantity (in KLD):Local water Tanker Supplier**
15)	**WATER CONSUMPTION RELATED DETAILS WITH COMMENTS**

Category	Existing (KLD)	Proposed (KLD)	Total (KLD)	Remarks
(A) Domestic	1.0	0	1.0	
(B) Gardening	0	0.9	0.9	R:0.9
(C) Industrial				
Cooling	2.0	0	2.0	
Scrubber	0	0.1	0.1	R:0.1
Industrial Total	**2.0**	**0.1**	**2.1**	
Grand Total (A+B+C)	**3.0**	**1.0**	**4.0**	

Note: we are not doing any expansion in our proposal. But in existing water consumption: gardening water & Scrubber water are not mentioned. As per MoEF&CC's Notification Dated 20th July 2022 as it is regularization as per valid CTE/CCA.

16) **WASTE WATER GENERATION AND DISPOSAL**

Category	Existing (KLD)	Proposed (KLD)	Total (KLD)	Remarks
(A) Domestic	0.9	0	0.9	Reused
(B) Industrial				
Cooling	0	0	0	
Scrubber	0	0.1	0.1	Reused
Total Industrial waste water	**0**	**0.1**	**0.1**	Reused
Total [A + B]	**0.9**	**0.1**	**1.0**	Reused

Justification in case of increase/ drastic reduction in wastewater generation than water Consumption:

As per Existing CCA:

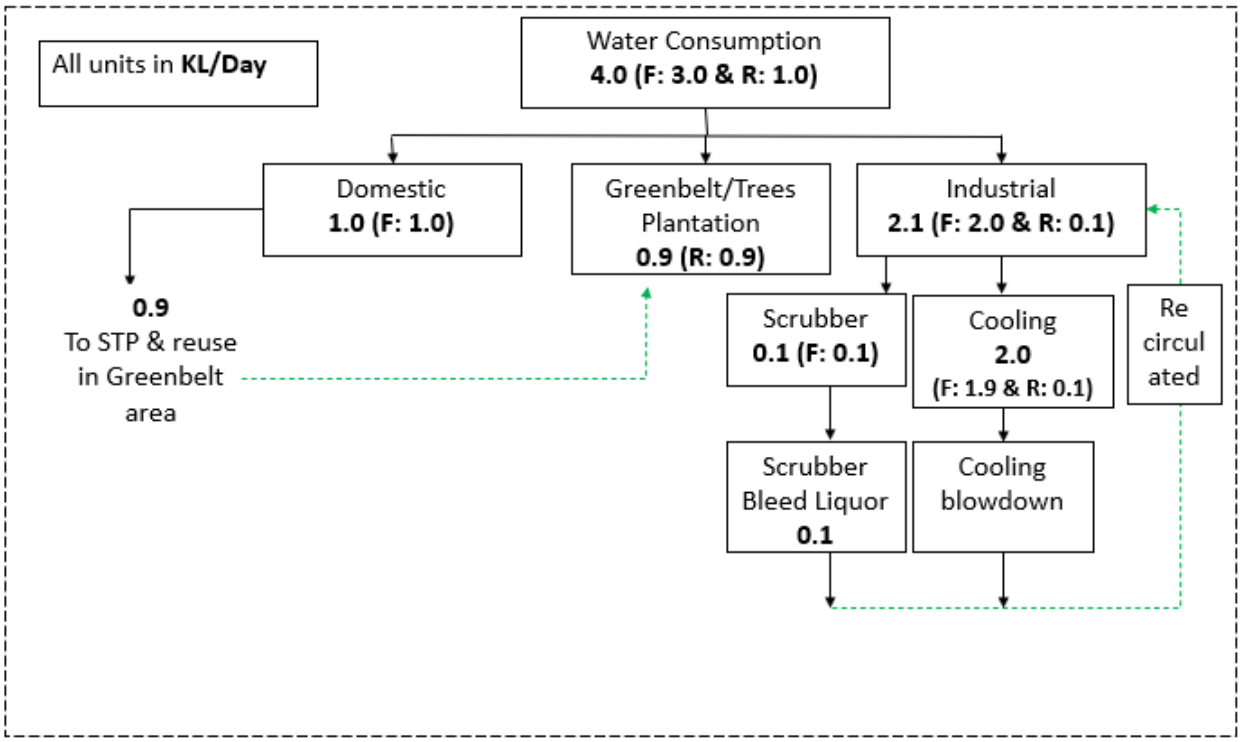
- **Total Water Consumption: 3.0 KLD**
- **Domestic Water Consumption: 1.0 KLD**
- **The generated domestic wastewater 0.7 KLD will be disposed of through Soak pit/Septic tank.**
- **Industrial Water Consumption: 2.0 KLD**

- **Cooling blow down will be re circulated in cooling system and fresh water will be added for makeup due to water loss during cooling process.**

<u>As per Applied EC:</u>

- **Total Water Consumption: 4.0 KLD**
- **Reuse Water: 1.0 KLD (0.1 From Scrubber Bleed liquor + 0.9 From STP)**
- **Fresh Water Consumption: 3.0 KLD**
- **Domestic Water Consumption: 1.0 KLD**
- **The generated domestic wastewater 0.9 KLD will be treated in STP and treated water will be reuse in Greenbelt/Trees plantation activity.**
- **Greenbelt/Trees plantation water consumption: 0.9 KLD**
- **Industrial Water Consumption: 2.1 KLD**
- **@ 0.1 KLD Scrubber Bleed liquor will be re circulated in cooling tower and fresh water will be added for makeup due to water loss during cooling process from the next day.**

17) **SIMPLIFIED WATER BALANCE DIAGRAM**



18) **BREAKUP OF WASTE WATER DISPOSAL (DOMESTIC & INDUSTRIAL BOTH)**

Sr. no.	Quantity KLD	Facility
1	0.9	STP treated water will be reused in Greenbelt/Trees Plantation.
2	0.1	Scrubber Bleed liquor will be reused as it will be re circulated in cooling tower.
Total	1.0	

19) **MECHANISM AND METHODOLOGY OF STREAM SEGREGATION**

@ 0.1 KLD Scrubber Bleed liquor will be re circulated in cooling tower and fresh water will be added for makeup due to water loss during cooling process from the next day.

20) **STP AND/OR ETP SPECIFICATION AND DESIGN AND ITS CAPACITY**

STP: 1.0 KLD

21) **TREATABILITY OF WATER**

STP water:

pH:6.5-9.0
TSS:<50 mg/L
BOD:<20 mg/L

22) **SUMMARY OF WATER USE AND REQUIREMENT OF FRESH/REUSED WATER**

Summary of water requirement	**Existing** KLD	**Proposed (Additional)** KLD	**Total after Expansion** KLD	Remarks
Total water requirement for the project **(A)**	3.0	1.0	4.0	
Quantity to be **recycled (B)**	0	1.0	1.0	
Total **fresh water** requirement **(C)**	3.0	0	3.0	
Ensure **Total water requirement = Fresh water + Recycled water** **i.e. A = B + C**				

23) **REUSE, REDUCE, RECYCLE RECOVERY MEASURES ADOPTED**

a) Reduce

Sr. No.	Item	Quantity	% percentage

b) Reuse

Sr. No.	Item	Quantity	% percentage
1	STP	0.9	22.5 of Total Water Requirement
2	Scrubber Bleed Liquor	0.1	2.5 of Total Water Requirement

c) Recycle

Sr. No.	Item	Quantity	% percentage

-

24) **FLUE GAS EMISSION**

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Heating Furnace (Re-heating) (Ex.: 10 TPH)	**30**	Bio Coal	150.0 MT/Month	Particulate Matter SO_2 NOx	Dust settling chamber (Existing) + **Multi Cyclone separator with bag filter & water scrubber (proposed)**

Details of Furnace:

Capacity Furnace:	10 MT/hr	Based on 6 to 8 working hrs capacity of furnace is 60 to 80 MT/d
Length:	80’	
Height:	14’	
Width:	10’	
Temperature:	1200^0C	

Sr. No.	Details	
01	Production (MT/M)	1500
02	Production (MT/d)	60
03	Working Days	25
04	Working Hour	6 to 8
05	Imported Coal Consumption (MT/M)	150
06	Imported Coal Consumption (MT/d)	6.0
07	Imported Coal Consumption (MT/hr)	0.75 to 1.0

There will be no change in furnace capacity.

25) **PROCESS GAS EMISSION**

Sr No	Specific Source of emission (Name of the Product & Process)	Type of Emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
There will be no any process gas generation from manufacturing or any other ancillary processes.				

26) **FUGITIVE GAS EMISSION**

Sr. No.	Source	Probable Pollutant Emission	Control Measures/ APCM
1	Raw material storage area: Loading /unloading	PM	- Raw material will be stored in the covered structure - Top & side suction hood is provided - Provision of exhaust ventilation - Provision of PPE. - Provision of Job rotation to reduce exposure - Frequent work area monitoring will be done.
2	Storage & Handling of Fuel	PM	- Water sprinkler - Provide to covered Storage area to fuel storage
3	Vehicular Movement	PM	- All the internal roads will be paved/concreted - Water sprinkling will be done. - Greenbelt will be developed around the plant to arrest the fugitive emission
4	Charging point of scrap in furnace	PM	- Top & side suction hood is provided - Dust suction system to control fugitive emission generated from melting of scrap - Frequent work area monitoring will be done.

27) **HAZARDOUS PROCESSES AND ITS SAFETY MEASURES -NA**

Types of process	Safety measures including Automation
Amination	**NA**
Bromination	**NA**
Chlorination	**NA**
Hydrogenation	**NA**
Nitration	**NA**
Sulphonation	**NA**

	Others, if any | **NA**
	-
28)	**SOLVENT MANAGEMENT (For example)** **NA**
29)	**VOC EMISSION AND MITIGATION MEASURES FOR ACHIEVING MAXIMUM SOLVENT RECOVERY AND MINIMUM VOC GENERATION** **NA**
30)	**LDAR PROPOSED** **NA**
31)	**LDAR FOR SPECIFIC SOLVENT (For example)** **NA**
32)	**HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. no.	Type/ Name of Hazardous waste	Source of generation	Category and Schedule as per HW Rules.	Quantity (MT/A)			Managements
				As per CCA	As per applied EC	Total	
1	Used/ Spent Oil	Plant & Machinery	5.1	0.015	0	0.015	Collection, Storage, Transportation, disposal by used us lubricant in plant or sale to authorize re refiner. (As per existing CCA)
2	Scrubber bleed Liquor	Scrubber	-	0.0	30.0	30.0	Collection and mixed with cooling blow down & finally reused in cooling tower along. (As per applied EC)

33)	**NON-HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. no.	Type/Name of non-hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of HW
1	Fly Ash	Utilities	90.0	Collection, Storage and use land filling within premises. (As per applied EC)
2	STP Sludge	STP	15.4	Used as manure in greenbelt area within premises. (As per applied EC)

34) **STORAGE SAFETY MEASURES : NA**

a) <u>Storage of Hazardous chemicals in Tanks</u>

Safety Measures for PESO Underground storage tank farm: NA

b) <u>Storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc. : NA</u>

<u>Safety measures for Hazardous Chemicals:</u>

Type of Hazardous Chemicals	Safety measures
FLAMMABLE & EXPLOSIVE CHEMICALS	NA
CORROSIVE CHEMICALS	NA
TOXIC CHEMICALS	NA
REACTIVE CHEMICALS	NA
Others, if any	NA

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35) **FIRE LOAD CALCULATION**

Total Plot Area:	9307.0 Sq. M.
Area utilized for plant activity:	3060.0 Sq. M.
Area utilized for Hazardous Chemicals Storage:	NA
Number of Floors:	G+0

Water requirement for firefighting in KLD:	10 KL
Water storage tank provided for firefighting in KL:	50 KL
Details of Hydrant Pumps:	02
Nearest Fire Station :	Mansa
Applicability of Off Site Emergency Plan:	-

36) **WORKERS SAFETY AND OCCUPATIONAL HEALTH MANAGEMENT**

- Unit has provided helmet, goggles, safety shoes, ear muff, Safety belt, hand gloves to employee and also provided OHC for employees.
- The workers should be trained for proper use of PPEs
- Safety measures in the form of Do and Don't Do should be displayed at strategic locations especially in local language and English.
- First box should be provided at strategic locations within the plant.
- List of important telephone numbers should be displayed in first aid room.

37) **DETAILS OF MEMBERSHIP OF COMMON FACILITIES:**

Sr. No.	Membership for Common Facility	Membership Certificate issuing agency along with Date of Issue and validity of membership
01	CETP	NA
02	TSDF site	NA
03	Common Hazardous Waste Incineration Facility	NA
04	Common Spray Drying Facility	NA
05	Common MEE Facility	NA
06	Common Conveyance System	NA
07	PESO permission	NA
08	FIRE permission	We will obtain.
09	Health Certificate	We will obtain.

-

38) **EMERGENCY MEASURES PROPOSED AND PREPAREDNESS ACTION PLAN**

- Emergency telephone numbers should be available and display properly strategic locations.

- Do's And Don'ts Of Preventive Maintenance
- Nearest Fire station: Mansa Fire Station 13.2 km SW
- Nearest Hospital: Vijapur 4.8 km S

39) **CER ACTIVITIES PROPOSED YEAR WISE/ IN CASE OF EXPANSION ANY ADDITIONALITY SUGGESTED AND ITS COMPLIANCE (AS PER THE MOEF & CC GUIDELINES)**

Total cost of Project (Rs in Crores)	Total Cost of CER (Rs in Lakhs)	Percentage (%)
5.4693	10.95 lacs	2% of Total Cost

Sr No	Activities	Name of Villages	Cost (Rs in Lakhs)
01	Solar Street light with pole in Primary School & Gram Panchayatr of Ranasaan Village (Year: 2024-25)	Ranasan	2.00
02	Solar panel in Primary School & Gram Panchayatr of Ranasaan Village (Year: 2024-25)	Ranasan	6.40
03	Solar Light & Panel Fixtures cost and Maintenance cost for 3 years	Ranasan	2.55

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40) **ENVIRONMENT MANAGEMENT PLAN (ESPECIALLY WITH CEPI AND NON CEPI GUIDELINES, AS MAY BE APPLICABLE)**

Sr. No	Unit	Detail	Capital Cost (Rs. In Lakhs)	Total Recurring Cost (Rs. In Lakhs per Annum)
1	Wastewater	Capital cost would include cost of installation of STP; Recurring cost is for operational phase for STP.	2.0	0.5
2	Air	Capital cost would include cost of APCM. Recurring cost would include cost of monitoring of air environment.	8.0	5.0
3	Solid waste management	Recurring cost would include cost of land filling and transportation.	2.0	0.5
4	Fire & Safety	Fire Hydrant System, Fire Extinguishers & PPE.	12.0	2.0
4.	Green Belt Development	Development of Greenbelt including Gardening and Plantation.	3.0	2.0

5	Occupational Health	Occupational health check-up of Employees and workers	6.0	4.0
6.	Noise Control	Capital cost would include cost of noise projection PPE. The recurring cost would include cost of noise monitoring.	0.5	0.5
7.	Environment Monitoring Program	The recurring cost would be incurred on hiring of consultants and payment of various statutory fees to regulatory agencies.	2.0	4.0
8.	CER Activity	2% of proposed project cost and CER will do in Ranasan village.	10.95	0
9	Cost of conservation plan of Schedule-I species, if any	Budget for Conservation /Management Plan	1.0	0
Total			**47.45**	**18.5**

41) **RECOMMENDATIONS OF SEAC**

"On the basis of information provided to SEAC on project, its location, technical, physical and environmental infrastructure, products, quantity to be manufactured, its raw material, storage, waste disposal, water treatment, safety measures, green belt development planning, regulatory compliance assured of related statutory provisions, necessary documents of requisite permissions provided from concerned departments and overall environmental management planning for the project, along with financial resources committed for operation and maintenance, and on the basis of presentation made before SEAC, modification suggested by SEAC and incorporated by project proponent, SEAC finds the project as per the requirement and **unanimously** recommends the same to SEIAA for grant of Terms of Reference"

Considering the above project details, after detailed discussion, the following additional/ specific terms of reference (ToR) were prescribed in addition to the standard TORs/ model TORs available in the MoEFCC's sector specific EIA Manual for the "Metallurgical Industry (Ferrous and Non-ferrous)" projects shall be considered as generic TORs for EIA study in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006 to be done covering 10 Km radial distance from the project boundary of the proposed site.

1. A tabular chart with index for point-wise compliance of TORs.
2. Executive summary of the project – giving a prima facie idea of the objectives of the proposal, use of resources, justification, etc. In addition, it should provide a compilation of EIA report,

	including EMP and the post-project monitoring plan in brief. 3. Justification for selecting the proposed product and unit size. 4. Land requirement for the project including its break up for various purposes along with details of area adequacy. 5. Land possession documents. Copy of NA order showing permission to use the project land for industrial purpose. 6. Furnish status of all the applicable rules, acts, regulation, clearances in a tabular form. 7. <u>In case of Expansion of the project</u> a) Need for the proposed expansion should be justified in detail. b) Adequacy of existing EMS (Environmental Management System). c) Explore the possibility to achieve Zero Liquid Discharge (ZLD) for existing as well as proposed activity. d) Records of any legal breach of Environmental laws i.e. details of show- cause notices, closure notices etc. served by the GPCB to the existing unit in last five years and actions taken then after for prevention of pollution. e) Copies of Environmental Clearances obtained for the existing plant, its point wise compliance report. f) Environmental audit reports for last 3 years and compliance of its recommendations/Suggestions. (Include latest audit report and its compliance.) g) Certified Compliance Report (CCR) from the concern authority as per the MoEFCC's Circular no. dated: 08.06.2022. h) Copies of XGN generated Inspection reports with analysis reports of the water/Air/Hazardous samples collected by GPCB (Last 2 year). Copies of instructions issued by GPCB in last 2 year and point wise compliance thereof. 8. Demarcation of proposed project activities in lay out Plan with mentioning colour coding for existing plant and proposed round bar plant facility, 6 meter road in periphery for ease movement of fire tender and emergency vehicle, green belt area, separate entry and exit, assembly point etc mentioning in layout plan. 9. Provision of separate entry & exit and undertaking for the same. Provision of adequate margin all-round the periphery for easy unobstructed movement of fire tender without reversing. 10. Characteristics of raw material (scrap) to be purchased as a raw material in terms of presence of foreign material like plastic, rubber, dirt, oily residues, paint etc. Details of scrap cleaning / sorting process, if any to be carried out, for removal of foreign materials. 11. Detailed water balance (including reuse-recycle, evaporation if any). 12. Specific measures proposed to conserve water and plans for the future in this regard. 13. Detailed cleaner production measures like energy efficiency in the furnaces to reduce

emissions if possible in the proposed project & commitment of the management on futuristic development / implementation for the same.

14. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes.
15. Generation, characteristics and mode of disposal of wastewater in existing and proposed scenarios. Details of the wastewater treatment facilities, if any proposed, including its capacity, size of each unit, retention time and other technical parameters along with adequacy and efficacy report. Action plan for Zero Liquid Discharge concept.
16. Anticipated environmental impacts due to the proposed project/production may be evaluated for significance and based on corresponding likely impacts VECs (Valued Environmental Components) may be identified. Baseline studies may be conducted within the study area of 10 km for all the concerned/identified VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
17. One complete season base line ambient air quality data (except monsoon) to be given along with the dates of monitoring. The parameters to be covered shall be in accordance with the revised National Ambient Air Quality Standards as well as project specific parameters. Locations of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
18. Modeling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modeling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modeling should be superimposed on Google map / geographical area map.
19. Explore the possibility for fume extraction system along with primary and secondary APCM for induction furnaces/any other furncaes, if applicable
20. Details regarding D.G. sets including its capacities, location, fuel consumption & storage and acoustic measures to abate noise pollution.
21. Details of generation and management of the hazardous wastes/Solid wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. Details of slag generation, its quality and method of disposal / reuse in various applications. How spillages / leakages of used oil shall be managed.

22. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment as well as detailed monitoring plan. The EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures. Environmental management cell proposed for implementation and monitoring of EMP.
23. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Detailed work area monitoring plan. Plan for periodic medical examinations of the workers exposed.
24. Detailed work area monitoring plan. Details of activity wise hazards, likely heat stress to the workers, radiation heat level in and around the furnaces, measures proposed for reduction of heat stress around furnaces and for safe handling of the molten metal considering the provision of the Gujarat Factories Rules. Details of automated systems to be provided to avoid manual handling / conveyance of materials.
25. Detailed risk assessment report including identification of the most hazardous activity, its sub activity, prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures.
26. Details of firefighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for firefighting, details of qualified and trained fire personnel& their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network.
27. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for hazardous processes and monitoring of the occupational injury to workers as well as impact on the workers.
28. Impact of the transportation of raw materials and finished product on the transport system should be assessed and provided.
29. Details of possibility of occupational health hazards from the manufacturing activities and proposed measures to prevent it.
30. Details of personal protective equipments to be provided to the workers. Plan for periodic medical examinations of the workers.
31. Details of first-aid / occupational health center and arrangement of ambulance van provided for injured workers.
32. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for

hazardous operations and monitoring of the occupational injury to workers as well as impact on the workers.

33. Details of three year greenbelt development program including annual budget, types &number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in surrounding area. *Notarized undertaking regarding development of green belt within premises (Minimum 2050 Sq. m i.e. 22% of the total plot area) as per the commitment before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines.*

34. Copy of concern authority permission letter for development of greenbelt of 1250 Sq m outside the premises mentioning location i.e latitude & longitude and distance from the project site.
35. Undertaking from the management regarding maximum employment to the local people.
36. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg. utility staff for safety related measures.
37. Proposal for socio economic upliftment activities along with time bound action plan and cost should be included.
38. Details of any fatal and non-fatal accidents and dangerous occurrences under the Gujarat Factories Rules 1963 (GFR) for factories for the last three years.
39. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
40. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (Compliance of OM dated 05/10/2011 & 04/08/2009).
41. Details with respect to justification for proposed expansion: (1) To address proportionate availability of space for production plant. (2) To address proportionate availability of storage area for raw materials finished goods, utilities and goods carrier movement within premises. (3) To address proportionate captive/common infrastructure available to accommodate additional load due to proposed expansion. (4) Environment impact and its mitigation measures for common/ captive infrastructure due to proposed production.
42. Fund allocation for Corporate Environment Responsibility (CER) for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
43. Explore the use of renewable energy to the maximum extent possible. Details of provisions to make the project energy-efficient through of energy efficient devices and adoption of modes of alternative eco-friendly sources of energy like solar water heater, solar lighting etc. Measures proposed for energy conservation.

44. Adoption of automization process like DCS/PLC including emergency response to eliminate risk associated with the hazardous processes, fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016 and provision of Occupational health Centre(OHC) within premises.
45. Details of carbon foot prints and carbon sequestration study w.r.t. proposed project and proposed mitigation measures also needs to be analyzed.
46. Compliance of MoEFCC's OM dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per MoEFCC's O.M. No. 22-65/2017-IA.III dated 01/05/2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report as per MoEF&CC's OM dated: 30.09.2020.

1) Further Project Proponent may be advised to submit final EIA Report with EC application within 100 days from the date of issuance of this ToR to expedite processing of Environment Clearance application.
2) The project proponent shall have to apply for Environmental clearance through online portal http://environmentclearance.nic.in/along with final EIA report.

Validity of ToR:

The ToRs prescribed for the project shall be valid for a period of four years for submission of EIA & EMP report accordingly, ToR will lapse after 4 years from the date of issue.

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8.	SIA/GJ/IND1/428541/2023	**M/s. Rotec Steel Industries** New Survey No. 189, Vijapur-Mehsana Highway Road, Nr. Bilodara patia, At. & Po.: Bilodara, Ta.: Mansa, Dist.: Gandhinagar.	ToR-Regularization

Category of the unit: **3(a)**

Project status: **ToR-Regularization**

1) **DETAILS OF APPLICATION:**

1.1. Type of application:	ToR Application (regularization)
1.2. Proposal no.	SIA/GJ/IND1/428541/2023
1.3. Category of Project :	3 (a) – B1
1.4. Date of application:	08/05/2023
1.5. Date of EDS by SEIAA a) EDS Raised b) Reply by PP	 --
1.6. Date of EDS by SEAC a) EDS Raised b) Reply by PP c) Accepted by SEAC	 -- 20/05/2023

	1.7. TOR No. & Date:	Applied for ToR
	1.8. Date and place of Public Hearing	Applied for ToR
	1.9. Name of accredited Environmental Consultant & address along with Accreditation No. & Validity	M/s. Bhagwati Enviro Care Pvt Ltd. Accreditation No: NABET/EIA/2326/IA 0116 Validity: 18/01/2026
	1.10. SEAC Meeting No. and Date:	658th SEAC & 21.07.2023
	1.11. ADS raised by SEAC meeting No & date:	--
	1.12. Reply Submitted by PP dated:	--
	1.13. Revised Consideration SEAC Meeting No. and Date:	--

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2) **DELIBERATIONS OF SEAC (Reference May Be Given To Legal Disputes/Court Cases and Land Matters/ Environmental Violations Apart From The Proceedings Of SEAC).**

1) This office has received an application vide their online proposal no. 428541/2023 dated 20.05.2023 made by project proponent (PP) regarding grant of Terms of Reference [ToR] for preparation of EIA/EMP report.
2) Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
3) The project falls under Category B1 of project activity 3(a) as per the schedule of EIA Notification 2006.
4) PP has applied for ToR as per Notification Dated 20th July 2022 of Ministry of Environment, Forest and Climate Change (MoEF &CC) that " all standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO) from the concerned State Pollution Control Board or the Union territory Pollution Control Committee, as the case may be, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference as per item 3(a) of the said notification and shall be exempted from the requirement of public consultation".
5) This case was considered in the SEAC meeting dated **21.07.2023**.
6) During the meeting dated 21.07.2023, the project was discussed based on the information furnished in Form – 1, Pre-Feasibility Report, Environment Management Plan and details submitted by e-mail.
7) Project proponent (PP) and Technical expert from M/s Bhagwati Enviro Care Pvt Ltd remain present during video conference meeting.
8) Committee noted that the existing unit has obtained Order No.: AWH-93942 issued on dated: 25/06/2018, Valid up to 08/05/2023 of the Board at Survey No. 189, Nr Bilodra Patiya, Bilodra,

	Mehsana road, Tal: Kalol & Dist: Mehsana for manufacturing of MS Angles, MS Channel, MS Beam, MS Bars (Patta – Patti) Etc.-2300 MTPM. 9) PP submitted satellite map showing that there is no any water bodies, villages, School, monuments etc. within 500 m radius of the project site. Aerial distance of nearest habitat of village Ranasan is @ 0.824 Km. PP also submitted that there are no Eco sensitive zones, wild life sanctuaries within the 10 km area from the boundary of the project site. 10) PP has submitted 7-12 Utara for survey No: 189 in the name of name of Kantibhai Nanabhai Patel (Partner of M/s. Rotec Steel Industries) and NA for survey number- 189 mentioning purpose as industrial dated: 19.04.2017. M/s.Rotec Steel Industries have taken this unit Survey No. 189) on Rental basis from Kantibhai Nanabhai Patel. Rent agreement was made between Kantibhai Nanabhai Patel & Partners of M/s.Rotec Steel Industries for the period of fifteen (15) Years from the date 01/01/2018. 11) Commitee noted that there will be no change in production capacity but there will be minor change in air, water and hazardous details which is not as per CCA are as under: ✓ There will be increase in total water consumption by 1 KLD- Gardening (treated sewage water will be used) hence there will be no increase in fresh water consumption. ✓ Sewage shall be treated in STP and reused for gardening (in CCA it is disposed through soak pit). ✓ There will be change in fuel in heating furnace from coal to bio coal hence there will be addition of APCM as MCS+ bag filter+water scrubber. ✓ There will be addition of bleed liquor-0.5 KLPA which will be reused within premises as lubricant or sold to authorized recyclers having Rule-9 permission. ✓ There will be addition of non-hazardous waste matrix (Earlier in CCA there are no provision of mentioning non hazardous waste) 15) Commitee deliberated that all the proposed above changes are environment friendly and have positive impact of environment hence it is acceptable. 12) Committee noted that this is an existing unit and coming for regularization as per MoEF & CC Notification dated 20th July 2022 based on CCA, hence public hearing is exempted. 13) Committee found presentation and submission of project proponent satisfactory.
3)	**EIA REPORT (BASELINE STUDIES AND RISK ANALYSIS)** Currently, we are applying for ToR. This all details we will submit in EIA. -
4)	**RISK ANALYSIS & ITS MITIGATION MEASURES IN GENERAL AS GIVEN IN EIA REPORT**

Currently, we are applying for ToR. This all details we will submit in EIA.

5) **PRODUCT PROFILE AND BRIEF NOTE OF PRODUCT PROFILE**

Sr. No.	Name of Products	CAS No.	Quantity (MT/month)			End use of Product
			Existing	Proposed	Total	
1.	MS Angles, MS Channel, MS Beam, MS Bars (Patta – Patti) Etc.	--	2300.0	-	2300.0	Structure Design, door & window frame, Factory Shed, Stairs
		Total	**2300.0**	**-**	**2300.0**	

(Note: This is an Existing Unit & there is no Expansion in Existing Unit)

 # Brief Note of Product Profile:

1. No of Manufacturing Plants: 01
2. Brief Note regarding number of Products to be manufactured considering plant capacity: 01

6) **PROJECT DETAILS (COST/LAND OWNERSHIP/NA PERMISSION ETC.)**

a) Total **cost of Proposed** Project (Rs. in Crores): 8.7337433

Existing	Proposed	Total
8.7337433	-	8.7337433

Break-up of proposed project Cost:

Details	Existing (Rs. In Crores)	Proposed (Rs. In Crores)	Total (Rs. In Crores)
Land	0	-	0
Building	1.9064043	-	1.9064043
Plant & Machinery	6.8273390	-	6.8273390
EMP	0	-	0
Total	**8.7337433**	**-**	**8.7337433**

b) **Details of Land / Plot ownership details:** (Linking between Land ownership and PP is required.)

i. **Total Plot area (sq mt):** 13,178.0 sq. m.

ii. **GIDC Plot Allotment letter/ NA documents:** 7/12/8a: New Survey No. 189 on the Name of Kantibhai Nanabhai Patel & NA Order No.: NABP/BILODRA/MANSA/202 DATED 19/04/2017

i. **Rent agreement, if any:** Yes, M/s. Rotec Steel Industries have taken this unit

(New Survey No. 189) on Rental basis from Kantibhai Nanabhai Patel. Rent agreement was made between Kantibhai Nanabhai Patel & M/s. Rotec Steel Industries and Partners for the period of FIFTEEN (15) Years from the date 01/01/2018.

ii. **Other Land Possession documents, if any:** Partnership deed

7) **IF IT IS EXPANSION WHETHER CCR/EARLIER EC COMPLIANCE GIVEN:**

Sr. no.	Particulars	Brief Information/Details	Remarks
1	Earlier Environmental Clearance **(EC)** details [EC letter no. and date & obtained from MoEF&CC/SEIAA.]	Earlier EC was not applicable.	-
2	In case EC not obtained for existing project: Copy of first CTE (NOC) & CCA obtained from GPCB i.e. before 14/09/2006. (For justification that you have not obtained EC for existing project).	Earlier EC was not applicable Now, as per NGT order & MoEF&CC notification unit is fall under 3(a) B1 category. Last CCA No.: AWH-93942 Obtained Date: 25/08/2018 Valid Up to: 08/05/2023	We have applied for renewal application with reference id: 278859 to GPCB on 18/04/2023 and it is under process at GPCB.
3	**Certified Compliance Report (CCR)** from the concern authority **(IRO-MoEF&CC/MS-GPCB) for existing EC/ CCA** as per the MoEFCC's OM no.F.No: IA3-22/10/2022-IA.III [E 177258] dated: 08/06/2022.	Currently, we are applying for ToR. This all details we will submit in EIA.	
4	**Summary of CCR and Time bound action taken report/ plan of conditions i.e partly complied/ non-complied**	Currently, we are applying for ToR. This all details we will submit in EIA.	

		5	Details of latest Consent to Operate (CTO/CC&A) obtained from GPCB along with date of issue and validity	Last CCA No.: AWH-93942 Obtained Date: 25/08/2018 Valid Up to: 08/05/2023	We have applied for renewal application with reference id: 278859 to GPCB on 18/04/2023 and it is under process at GPCB.
		6	Details of **Improvement notice, Show- cause notice, Notice of direction, Directions, Closure direction etc**. issued by the GPCB to the existing unit in **last 3 years**. Details in tabular format comprise **issues, actions taken and current status**. As per the latest XGN screen shot.	No	
		7	Details of **Public Complaints** (If any)	No	
		8	Details of **litigation** pending before any court of Law against the Project (If any)	No	

-

Comments:

CCR is not applicable as it is a ToR application. Also, PP has submitted that there is no action taken by GPCB in last three years, no litigation pending and public complaints against the unit.

8) **PUBLIC HEARING APPLICABILITY AND ITS COMPLIANCE:** Currently, we are applying for ToR. Not Applicable our project falls under 3(a) project. As per MoEF&CC's Notification Dated 20th July 2022 as it is regularization as per valid CTE/CCA public consultation is exempted.

9) **SITING CRITERIA DETAILS (OTHER THAN GIDC):**

Sr. no.	Environmental Sensitivity	Name/Specific details	Siting criteria as per GPCB guidelines dated:	Aerial Distance in Km

				05.06.2022 & its amendment	
	1	Habitat (Residential Area)	Bilodra village	500 m	0.824 Km
	2	Water Bodies			
		River	Sabarmati River	500 m	14.8 km
		Natural Nallah/Drain	No	500 m	There is no any Natural Nallah/Drain within 500 m of the project site.
		Lake/Pond/Wetlands	Kukarwada lake	500 m	4.1 km
		Water supply Tanks/Reservoirs	Indrasi Reservior	500 m	48.0 Km
		Canal	Narmada Canal	500 m	44.0 Km
	3	Protected Monuments/Heritage sites/Public Buildings i.e School, colleges, etc.	Primary school, Vihar	500 m	1.0 Km
	4	National/State Highway OR Express way	Vijapur-Mehsana (S.H-55)	--	260 m
	5	Coastal Regulation Zone (CRZ) (In case of Coastal area projects)	Gulf of Khambhat	10 km	130 km

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Comments:

SEAC has deliberated on siting criteria i.e habitation, river/ natural drain/ lake/ pond/canal/ reservoirs, protected monuments/ heritage sites/public buildings i.e. Schools, colleges, Coastal Regulation Zone (CRZ), etc. are found satisfactory. (If is located outside GIDC area)

10) **APPLICABILITY OF GENERAL CONDITIONS AND COMMENTS WITH SPECIFIC CLARIFICATION OF MOEF&CC GUIDELINES:** Any project or activity specified in Category 'B' will be appraised at Central level as Category 'A' if located in whole or in part within 5 Km radius from the project boundary of:-

Sr No	Particulars	Aerial Distance in Km
1.	Protected Areas notified under the Wildlife (Protection) Act 1972 (53 of 1972)	Thol Bird Sanctuary – 48.5 Km
2.	CPA/SPA (Critically Polluted Area/Severely Polluted Area) as identified by the CPCB	Vatva GIDC, Ahmedabad – 61.7 Km
3	Eco sensitive areas as notified under sub-section (2) of section 3 of EPA-1986	Nalsarovar Bird Sanctuary – 100.5 Km
4	Interstate boundaries and international boundaries	Ratanpur, Rajasthan – 83.7 Km

Comments:

As per MoEF&CC's notification dated: 25.06.2014 and as per details submitted by PP, General condition is not applicable.

11) **AREA ADEQUACY AND COMMENTS**

Total Land area: 13178.0 sq. m.

Floor-wise land area break-up table

Area Adequacy table:

Sr No	Components	Area required (Sq m)	Area Provided (sq m)	Percentage
1.	Office/Admin building/Lab Building	200.0	250.0	1.80
2.	Production Area	3600.0	3600.0	27.40
3.	Finished Goods Storage Area	850.0	860.0	6.50
4.	Raw Material Storage Area	750.0	820.0	6.23
5.	STP/Cooling Bed	180.0	180.0	1.40
6.	Green Belt Area	2640.0	2640.0	20.0
7.	Parking, Road Area	4000.0	4000.0	30.40
8.	Security Cabin	23.0	23.0	0.17
9.	Utility Block/ Mechanical Workshop	250.0	300.0	2.30
10.	OHC	25.0	25.0	0.18
11.	Parking area	280.0	280.0	2.12
12.	Fuel storage area	150.0	200.0	1.50
	Total	**12,948.0**	**13,178.0**	**100.00**

12) **GREEN BELT CONDITIONS AND MEASURES ALONG WITH AREA:**

Total Plot area (Sq meter)	Total Green belt area (Sq meter)	% of Greenbelt
13178.0	**Inside:** 2640.0 Sq. M. **Outside:** 1720.0 Sq. M. **Total:** 4360.0 Sq. M.	**Inside:** 20.00 **Outside:** 13.0 **Total:** 33.0

Details of copy of permission letter of concern GIDC/ Panchayat/etc. for greenbelt development (in case of greenbelt development outside the premises: 1720.0 Sq. M. in Vihar Village.

13) **EMPLOYMENT GENERATION:**

Permanent	Contractual	Total
10	20	30

-

14) **SOURCE OF WATER SUPPLY WITH QUANTITY AND PERMISSION (DETAILS OF CGWA IF BOREWELL**

a) **Source of water supply: Water Tanker**

b) **Total Fresh water quantity (KLD): 3.0 KLD (Fresh: 1.9 KLD+ Reused: 1.1 KLD)**

c) **Permission of concerned authority (Name and quantity (in KLD):Local water Tanker Supplier @ 3.0 KLD**

15) **WATER CONSUMPTION RELATED DETAILS WITH COMMENTS**

Category	Existing (KLD)	Proposed (KLD)	Total (KLD)	Remarks
(D) Domestic	1.0	0	1.0	
(E) Gardening	0	1.0	1.0	R:1.0
(F) Industrial				
Cooling	1.0	0	1.0	
Scrubber	0	0.1	0.1	R:0.1
Industrial Total	**1.0**	**0.1**	**1.1**	
Grand Total (A+B+C)	**2.0**	**1.1**	**3.1**	

Note: we are not doing any expansion in our proposal. But in existing water consumption: gardening water & Scrubber water are not mentioned. As per MoEF&CC's Notification Dated 20th July 2022 as it is regularization as per valid CTE/CCA.

16) **WASTE WATER GENERATION AND DISPOSAL**

Category	Existing (KLD)	Proposed (KLD)	Total (KLD)	Remarks
(C) Domestic	1.0	0	1.0	Reused
(D) Industrial				
Cooling	0.9	0	0.9	Reused
Scrubber	0	0.1	0.1	Reused
Total Industrial waste water	**0.9**	**0.1**	**1.0**	**Reused**
Total [A + B]	**1.9**	**0.1**	**2.0**	**Reused**

Justification in case of increase/ drastic reduction in wastewater generation than water Consumption:

As per Existing CCA:

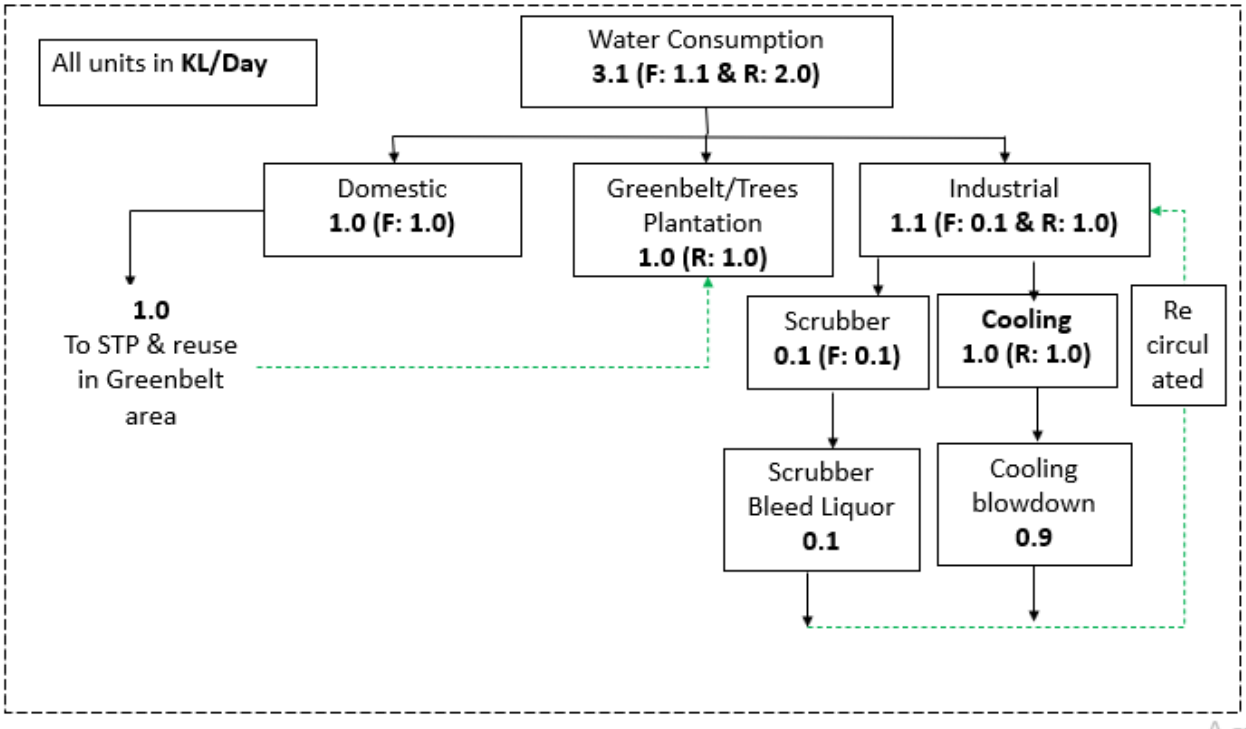
- **Total Water Consumption: 2.0 KLD**
- **Domestic Water Consumption: 1.0 KLD**

- **The generated domestic wastewater 1.0 KLD will be disposed of through Sock pit/Septic tank.**
- **Industrial Water Consumption: 1.0 KLD**
- **@ 0.9 KLD cooling blow down will be re circulated again and again in cooling tower and @ 0.1 KLPD fresh water will be added for makeup due to water loss during cooling process from the next day.**

<u>As per Applied EC:</u>

- **Total Water Consumption: 3.1 KLD**
- **Reuse Water: 2.0 KLD (0.9 From Cooling re circulation + Scrubbing Liquor 0.1 + 1.0 From STP)**
- **Fresh Water Consumption: 1.1 KLD**
- **Domestic Water Consumption: 1.0 KLD**
- **The generated domestic wastewater 1.0 KLD will be treated in STP and treated water will be reuse in Greenbelt/Trees plantation activity.**
- **Greenbelt/Trees plantation water consumption: 1.0 KLD**
- **Industrial Water Consumption: 1.1 KLD**
- **@ 0.9 KLD cooling blow down & 0.1 KLD Scrubber Bleed Liquor will be mixed and re circulated in cooling tower from the next day.**

17) **SIMPLIFIED WATER BALANCE DIAGRAM**



18) **BREAKUP OF WASTE WATER DISPOSAL (DOMESTIC & INDUSTRIAL BOTH)**

Sr. no.	Quantity KLD	Facility
1	1.0	STP treated water will be reused in Greenbelt/Trees Plantation.
2	1.0	Cooling blow down & Scrubber Bleed Liquor will be mixed

			and re circulated in cooling tower from the next day.
	Total	2.0	

19) **MECHANISM AND METHODOLOGY OF STREAM SEGREGATION**

@ 0.9 KLD cooling blow down & 0.1 KLD Scrubber Bleed Liquor will be mixed and re circulated in cooling tower from the next day.

20) **STP AND/OR ETP SPECIFICATION AND DESIGN AND ITS CAPACITY**

STP: 1.0 KLD

21) **TREATABILITY OF WATER**

STP water:

pH:6.5-9.0
TSS:<50 mg/L
BOD:<20 mg/L

22) **SUMMARY OF WATER USE AND REQUIREMENT OF FRESH/REUSED WATER**

Summary of water requirement	**Existing** KLD	**Proposed (Additional)** KLD	**Total after Expansion** KLD	Remarks
Total water requirement for the project **(A)**	2.0	1.1	3.1	
Quantity to be **recycled (B)**	0	2.0	2.0	
Total **fresh water** requirement **(C)**	2.0	-0.9	1.1	
Ensure **Total water requirement = Fresh water + Recycled water i.e. A = B + C**				

23) **REUSE, REDUCE, RECYCLE RECOVERY MEASURES ADOPTED**

a) Reduce

Sr. No.	Item	Quantity	% percentage

b) Reuse

Sr. No.	Item	Quantity	% percentage
1	STP	1.0	32.25 of Total Water Requirement
2	Cooling Blowdown &	1.0	32.25 of Total Water Requirement

	Scrubber Bleed Liquor		

c) Recycle

Sr. No.	Item	Quantity	% percentage

-

24) **FLUE GAS EMISSION**

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Heating Furnace (Re-heating) (Ex.: 10 TPH)	30	Bio Coal	160.0 MT/Month	Particulate Matter SO_2 NOx	Underground settling chamber & Multi Dust Collector (Existing) + **Multi Cyclone separator with bag filter & water scrubber (proposed)**

Details of Furnace:

Capacity Furnace:	10 MT/hr	Based on 8-10 working hrs capacity of furnace is 80-100 MT/Day
Length:	80’	
Height:	14’	
Width:	10’	
Temperature:	1200^0C	

Sr. No.	Details	
01	Production (MT/M)	2300
02	Production (MT/d)	92
03	Working Days	25
04	Working Hour	8 to 10
05	Coal Consumption (MT/M)	160
06	Coal Consumption (MT/d)	6.4

07	Coal Consumption (MT/hr)	0.64 to 0.8

There will be no change in furnace capacity.

25) **PROCESS GAS EMISSION**

Sr No	Specific Source of emission (Name of the Product & Process)	Type of Emission	Stack/ Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Pulverizer – 1 (Coal Grinder for heating furnace)	Particulate Matter	11	Closed pipeline provided from grinder to heating process

26) **FUGITIVE GAS EMISSION**

Sr. No.	Source	Probable Pollutant Emission	Control Measures/ APCM
1	Raw material storage area: Loading /unloading	PM	- Raw material will be stored in the covered structure - Top & side suction hood is provided - Provision of exhaust ventilation - Provision of PPE. - Provision of Job rotation to reduce exposure - Frequent work area monitoring will be done.
2	Storage & Handling of Fuel	PM	- Water sprinkler - Provide to covered Storage area to fuel storage
3	Vehicular Movement	PM	- All the internal roads will be paved/concreted - Water sprinkling will be done. - Greenbelt will be developed around the plant to arrest the fugitive emission
4	Charging point of scrap in furnace	PM	- Top & side suction hood is provided - Dust suction system to control fugitive emission generated from melting of scrap - Frequent work area monitoring will be done.

27) **HAZARDOUS PROCESSES AND ITS SAFETY MEASURES -NA**

Types of process	Safety measures including Automation
Amination	**NA**

Bromination	**NA**
Chlorination	**NA**
Hydrogenation	**NA**
Nitration	**NA**
Sulphonation	**NA**
Others, if any	**NA**

-

28) **SOLVENT MANAGEMENT (For example)**

NA

29) **VOC EMISSION AND MITIGATION MEASURES FOR ACHIEVING MAXIMUM SOLVENT RECOVERY AND MINIMUM VOC GENERATION**

NA

30) **LDAR PROPOSED**

NA

31) **LDAR FOR SPECIFIC SOLVENT (For example)**

NA

32) **HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. no.	Type/Name of Hazardous waste	Source of generation	Category and Schedule as per HW Rules.	Quantity (MT/A)			Managements
				As per CCA	As per applied EC	Total	
1	Scrubber bleed Liquor	Scrubber	-	0	30.0	30.0	Collection and mixed with cooling blow down & finally reused in cooling tower along.

33) **NON-HAZARDOUS WASTE MANAGEMENT MATRIX**

Sr. no.	Type/Name of non-hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)	Management of HW
1	Fly Ash	Utilities	96.0	Collection, Storage and use land filling within premises.
2	STP Sludge	STP	18.0	Used as manure in greenbelt area within premises.

34) **STORAGE SAFETY MEASURES : NA**

a) <u>Storage of Hazardous chemicals in Tanks-NA</u>

Safety Measures for PESO Underground storage tank farm: NA

b) <u>Storage of Hazardous chemicals other than Tanks i.e. Drum, Barrels, Carboys, Bags etc.: NA</u>

<u>Safety measures for Hazardous Chemicals:</u>

Type of Hazardous Chemicals	Safety measures
FLAMMABLE & EXPLOSIVE CHEMICALS	NA
CORROSIVE CHEMICALS	NA
TOXIC CHEMICALS	NA
REACTIVE CHEMICALS	NA
Others, if any	NA

-

35) **FIRE LOAD CALCULATION**

Total Plot Area:	13178.0 Sq. M.
Area utilized for plant activity:	5758.0 Sq. M.
Area utilized for Hazardous Chemicals Storage:	NA
Number of Floors:	G+0
Water requirement for firefighting in KLD:	10 KL
Water storage tank provided for firefighting in KL:	50 KL
Details of Hydrant Pumps:	02
Nearest Fire Station:	Mansa
Applicability of Off-Site Emergency Plan:	-

36) **WORKERS SAFETY AND OCCUPATIONAL HEALTH MANAGEMENT**

- Unit has provided helmet, goggles, safety shoes, ear muff, Safety belt, hand gloves to employee and also provided OHC for employees.
- The workers should be trained for proper use of PPEs
- Safety measures in the form of Do and Don't Do should be displayed at strategic locations especially in local language and English.
- First box should be provided at strategic locations within the plant.
- List of important telephone numbers should be displayed in first aid room.

37) **DETAILS OF MEMBERSHIP OF COMMON FACILITIES:**

Sr. No.	Membership for Common Facility	Membership Certificate issuing agency along with Date of Issue and validity of membership
01	CETP	NA
02	TSDF site	NA
03	Common Hazardous Waste Incineration Facility	NA
04	Common Spray Drying Facility	NA
05	Common MEE Facility	NA
06	Common Conveyance System	NA
07	PESO permission	NA
08	FIRE permission	We will obtain.
09	Health Certificate	We will obtain.

-

38) **EMERGENCY MEASURES PROPOSED AND PREPAREDNESS ACTION PLAN**

- Emergency telephone numbers should be available and display properly strategic locations.
- Do's And Don'ts Of Preventive Maintenance
- Nearest Fire station: Mansa Fire Station 11.7 km S
- Nearest Hospital: Vijapur 10.0 km ENE

39) **CER ACTIVITIES PROPOSED YEAR WISE/ IN CASE OF EXPANSION ANY ADDITIONALITY**

SUGGESTED AND ITS COMPLIANCE (AS PER THE MOEF & CC GUIDELINES)

Total cost of Project (Rs in Crores)	Total Cost of CER (Rs in Lakhs)	Percentage (%)
8.7337433	17.45 lacs	2% of Total Cost

Sr No	Activities	Name of Villages	Cost (Rs in Lakhs)
01	Solar Street light with pole in Primary School & Gram Panchayatr of Vihar Village (Year: 2024-25)	Vihar	2.00
02	Solar panel in Primary School & Gram Panchayatr of Vihar Village (Year: 2024-25)	Vihar	9.60
03	Solar Light & Panel Fixtures cost and Maintenance cost for 3 years	Vihar	2.60
04	Ro water system for drinking water in Vihar village & primary school	Vihar	3.25

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40) **ENVIRONMENT MANAGEMENT PLAN (ESPECIALLY WITH CEPI AND NON CEPI GUIDELINES, AS MAY BE APPLICABLE)**

Sr. No	Unit	Detail	Capital Cost (Rs. In Lakhs)	Total Recurring Cost (Rs. In Lakhs per Annum)
1	Wastewater	Capital cost would include cost of installation of STP; Recurring cost is for operational phase for STP.	4.0	1.0
2	Air	Capital cost would include cost of APCM. Recurring cost would include cost of monitoring of air environment.	8.0	2.0
3	Solid waste management	Recurring cost would include cost of land filling and transportation.	2.0	0.5
4	Fire & Safety	Fire Hydrant System, Fire Extinguishers & PPE.	18.0	2.0
4.	Green Belt Development	Development of Greenbelt including Gardening and Plantation.	4.0	2.0
5	Occupational Health	Occupational health check-up of Employees and workers	8.0	4.0
6.	Noise Control	Capital cost would include cost of noise projection PPE. The recurring cost would include cost of noise	0.5	0.5

		monitoring.		
7.	Environment Monitoring Program	The recurring cost would be incurred on hiring of consultants and payment of various statutory fees to regulatory agencies.	2.0	4.0
8.	CER Activity	2% of proposed project cost and CER will do in Ranasan village.	17.45	0
Total			**63.95**	**16.0**

41) **RECOMMENDATIONS OF SEAC**

"On the basis of information provided to SEAC on project, its location, technical, physical and environmental infrastructure, products, quantity to be manufactured, its raw material, storage, waste disposal, water treatment, safety measures, green belt development planning, regulatory compliance assured of related statutory provisions, necessary documents of requisite permissions provided from concerned departments and overall environmental management planning for the project, along with financial resources committed for operation and maintenance, and on the basis of presentation made before SEAC, modification suggested by SEAC and incorporated by project proponent, SEAC finds the project as per the requirement and **unanimously** recommends the same to SEIAA for grant of Terms of Reference"

Considering the above project details, after detailed discussion, the following additional/ specific terms of reference (ToR) were prescribed in addition to the standard TORs/ model TORs available in the MoEFCC's sector specific EIA Manual for the "Metallurgical Industry (Ferrous and Non-ferrous)" projects shall be considered as generic TORs for EIA study in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006 to be done covering 10 Km radial distance from the project boundary of the proposed site.

1. A tabular chart with index for point-wise compliance of TORs.
2. Executive summary of the project – giving a prima facie idea of the objectives of the proposal, use of resources, justification, etc. In addition, it should provide a compilation of EIA report, including EMP and the post-project monitoring plan in brief.
3. Justification for selecting the proposed product and unit size.
4. Land requirement for the project including its break up for various purposes along with details of area adequacy.
5. Land possession documents. Copy of NA order showing permission to use the project land for industrial purpose.
6. Furnish status of all the applicable rules, acts, regulation, clearances in a tabular form.
7. In case of Expansion of the project

a) Need for the proposed expansion should be justified in detail.
b) Adequacy of existing EMS (Environmental Management System).
c) Explore the possibility to achieve Zero Liquid Discharge (ZLD) for existing as well as proposed activity.
d) Records of any legal breach of Environmental laws i.e. details of show- cause notices, closure notices etc. served by the GPCB to the existing unit in last five years and actions taken then after for prevention of pollution.
e) Copies of Environmental Clearances obtained for the existing plant, its point wise compliance report.
f) Environmental audit reports for last 3 years and compliance of its recommendations/Suggestions. (Include latest audit report and its compliance.)
g) Certified Compliance Report (CCR) from the concern authority as per the MoEFCC's Circular no. dated: 08.06.2022.
h) Copies of XGN generated Inspection reports with analysis reports of the water/Air/Hazardous samples collected by GPCB (Last 2 year). Copies of instructions issued by GPCB in last 2 year and point wise compliance thereof.

8. Demarcation of proposed project activities in lay out Plan with mentioning colour coding for existing plant and proposed round bar plant facility, 6 meter road in periphery for ease movement of fire tender and emergency vehicle, green belt area, separate entry and exit, assembly point etc mentioning in layout plan.
9. Provision of separate entry & exit and undertaking for the same. Provision of adequate margin all-round the periphery for easy unobstructed movement of fire tender without reversing.
10. Characteristics of raw material (scrap) to be purchased as a raw material in terms of presence of foreign material like plastic, rubber, dirt, oily residues, paint etc. Details of scrap cleaning / sorting process, if any to be carried out, for removal of foreign materials.
11. Detailed water balance (including reuse-recycle, evaporation if any).
12. Specific measures proposed to conserve water and plans for the future in this regard.
13. Detailed cleaner production measures like energy efficiency in the furnaces to reduce emissions if possible in the proposed project & commitment of the management on futuristic development / implementation for the same.
14. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes.
15. Generation, characteristics and mode of disposal of wastewater in existing and proposed scenarios. Details of the wastewater treatment facilities, if any proposed, including its capacity, size of each unit, retention time and other technical parameters along with adequacy and efficacy report. Action plan for Zero Liquid Discharge concept.

16. Anticipated environmental impacts due to the proposed project/production may be evaluated for significance and based on corresponding likely impacts VECs (Valued Environmental Components) may be identified. Baseline studies may be conducted within the study area of 10 km for all the concerned/identified VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
17. One complete season base line ambient air quality data (except monsoon) to be given along with the dates of monitoring. The parameters to be covered shall be in accordance with the revised National Ambient Air Quality Standards as well as project specific parameters. Locations of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
18. Modeling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modeling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modeling should be superimposed on Google map / geographical area map.
19. Explore the possibility for fume extraction system along with primary and secondary APCM for induction furnaces/any other furncaes, if applicable
20. Details regarding D.G. sets including its capacities, location, fuel consumption & storage and acoustic measures to abate noise pollution.
21. Details of generation and management of the hazardous wastes/Solid wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. Details of slag generation, its quality and method of disposal / reuse in various applications. How spillages / leakages of used oil shall be managed.
22. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment as well as detailed monitoring plan. The EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures. Environmental management cell proposed for implementation and monitoring of EMP.
23. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the

	workers. Detailed work area monitoring plan. Plan for periodic medical examinations of the workers exposed. 24. Detailed work area monitoring plan. Details of activity wise hazards, likely heat stress to the workers, radiation heat level in and around the furnaces, measures proposed for reduction of heat stress around furnaces and for safe handling of the molten metal considering the provision of the Gujarat Factories Rules. Details of automated systems to be provided to avoid manual handling / conveyance of materials. 25. Detailed risk assessment report including identification of the most hazardous activity, its sub activity, prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures. 26. Details of firefighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for firefighting, details of qualified and trained fire personnel& their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network. 27. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for hazardous processes and monitoring of the occupational injury to workers as well as impact on the workers. 28. Impact of the transportation of raw materials and finished product on the transport system should be assessed and provided. 29. Details of possibility of occupational health hazards from the manufacturing activities and proposed measures to prevent it. 30. Details of personal protective equipments to be provided to the workers. Plan for periodic medical examinations of the workers. 31. Details of first-aid / occupational health center and arrangement of ambulance van provided for injured workers. 32. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for hazardous operations and monitoring of the occupational injury to workers as well as impact on the workers. 33. Details of three year greenbelt development program including annual budget, types &number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in surrounding area. *Notarized undertaking regarding development of green belt within premises (Minimum 2640 Sq. m i.e. 20% of the total plot area) as per the commitment before SEAC. Green belt shall be developed with native plant*

species that are significant and used for the pollution abatement as per the CPCB guidelines.

34. Copy of concern authority permission for development of 1720 Sq m greenbelt outside the premises mentioning location of greenbelt development and distance from the project site.
35. Undertaking from the management regarding maximum employment to the local people.
36. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg. utility staff for safety related measures.
37. Proposal for socio economic upliftment activities along with time bound action plan and cost should be included.
38. Details of any fatal and non-fatal accidents and dangerous occurrences under the Gujarat Factories Rules 1963 (GFR) for factories for the last three years.
39. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
40. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (Compliance of OM dated 05/10/2011 & 04/08/2009).
41. Details with respect to justification for proposed expansion: (1) To address proportionate availability of space for production plant. (2) To address proportionate availability of storage area for raw materials finished goods, utilities and goods carrier movement within premises. (3) To address proportionate captive/common infrastructure available to accommodate additional load due to proposed expansion. (4) Environment impact and its mitigation measures for common/ captive infrastructure due to proposed production.
42. Fund allocation for Corporate Environment Responsibility (CER) for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
43. Explore the use of renewable energy to the maximum extent possible. Details of provisions to make the project energy-efficient through of energy efficient devices and adoption of modes of alternative eco-friendly sources of energy like solar water heater, solar lighting etc. Measures proposed for energy conservation.
44. Adoption of automization process like DCS/PLC including emergency response to eliminate risk associated with the hazardous processes, fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016 and provision of Occupational health Centre(OHC) within premises.
45. Details of carbon foot prints and carbon sequestration study w.r.t. proposed project and proposed mitigation measures also needs to be analyzed.
46. Compliance of MoEFCC's OM dated 01/05/2018 regarding "Corporate Environment

	Responsibility" (CER). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per MoEFCC's O.M. No. 22-65/2017-IA.III dated 01/05/2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report as per MoEF&CC's OM dated: 30.09.2020. 1) Further Project Proponent may be advised to submit final EIA Report with EC application within 100 days from the date of issuance of this ToR to expedite processing of Environment Clearance application. 2) The project proponent shall have to apply for Environmental clearance through online portal http://environmentclearance.nic.in/along with final EIA report. **Validity of ToR:** The ToRs prescribed for the project shall be valid for a period of four years for submission of EIA & EMP report accordingly, ToR will lapse after 4 years from the date of issue.

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The meeting ended with a vote of thanks to the chair.

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Minutes approved by:

1.	Shri Akshay Kumar Saxena, Chairman, SEAC	
2.	Dr. S. C. Pant, Vice Chairman, SEAC	
3.	Shri D. C. Chaudhari, Member, SEAC	
4.	Shri J. K. Vyas, Member, SEAC	
5.	Shri Anand Zinzala, Member, SEAC	
6.	Shri B. M. Tailor, Member, SEAC	