STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

Environment department,
Room No. 217, 2nd floor,
Mantralaya, Annexe,
Mumbai- 400 032.
Date:July 8, 2020

To,
Mr. Kirat Patel -Alkyl Amines Chemicals Limited
at MIDC Kurkumbh, Maharashtra

Subject: Environment Clearance for Proposed project for expansion in existing products & addition of new products for manufacturing of amines & specialty chemicals at existing unit of Alkyl Amines Chemicals Limited at Plot Nos.: D-6/1 & D-6/2, MIDC Kurkumbh, Taluka Daund, Dist. Pune, Maharashtra 413802.

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee-I, Maharashtra in its 183rd - Day-1rd meeting and recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 198th meetings.

2. It is noted that the proposal is considered by SEAC-I under screening category B1, 5 (f) as per EIA Notification 2006.

Brief Information of the project submitted by you is as below :-

1.Name of Project	Proposed project for expansion in existing products & addition of new products for manufacturing of amines & specialty chemicals at existing unit of Alkyl Amines Chemicals Limited at Plot Nos.: D-6/1 & D-6/2, MIDC Kurkumbh, Taluka Daund, Dist. Pune, Maharashtra 413802.
2.Type of institution	Private
3.Name of Project Proponent	Mr. Kirat Patel -Alkyl Amines Chemicals Limited
4.Name of Consultant	Goldfinch Engineering Systems Private Limited
5.Type of project	Industrial- Manufacturing of Synthetic Organic Chemicals
6.New project/expansion in existing project/modernization/diversification in existing project	Expansion in existing products & addition of new products
7.If expansion/diversification, whether environmental clearance has been obtained for existing project	Yes, EC letter- SEAC-2014/CR-387/TC-2 dated 31.03.2015
8.Location of the project	MIDC Kurkumbh, Maharashtra
9.Taluka	Daund
10.Village	Pandharewadi, Kurkumbh
Correspondence Name:	Mr. Sameer S. Katdare
Room Number:	401-407
Floor:	--
Building Name:	Nirman Vyapar Kendra
Road/Street Name:	--
Locality:	Plot No. 10, Sector 17, Vashi,
City:	Navi Mumbai 400 703
11.Whether in Corporation / Municipal / other area	NA

12.IOD/IOA/Concession/Plan Approval Number	NA
	IOD/IOA/Concession/Plan Approval Number: NA
	Approved Built-up Area: 276070
13.Note on the initiated work (If applicable)	Not applicable (Already existing unit)
14.LOI / NOC / IOD from MHADA/ Other approvals (If applicable)	NA
15.Total Plot Area (sq. m.)	276,070 Sq. m.
16.Deductions	NA
17.Net Plot area	NA
18 (a).Proposed Built-up Area (FSI & Non-FSI)	**FSI area (sq. m.):** 18599.0
	Non FSI area (sq. m.):
	Total BUA area (sq. m.): 18599.0
18 (b).Approved Built up area as per DCR	**Approved FSI area (sq. m.):** NA
	Approved Non FSI area (sq. m.): NA
	Date of Approval: 15-05-2020
19.Total ground coverage (m2)	45597 Sq.m.
20.Ground-coverage Percentage (%) (Note: Percentage of plot not open to sky)	16.51 %
21.Estimated cost of the project	4458200000

22.Production Details

Serial Number	Product	Existing (MT/M)	Proposed (MT/M)	Total (MT/M)
1	A TO E Aliphatic Amines, Aliphatic Mixed Amines, Aromatic Amines, Aromatic Mixed Amines, Others Mixed Amines	25000 MT/A	25000 MT/A	50000 MT/A
2	A Aliphatic Amines	-	-	Quantity of individual product (existing + Proposed)
3	Monomethyl Amine (MMA)	-	-	10 MT/A
4	Dimethyl Amine(DMA)	-	-	10 MT/A
5	Trimethyl Amine(TMA)	-	-	10 MT/A
6	Monoethyl Amine (MEA)	-	-	1950 MT/A
7	Diethyl Amine (DEA)	-	-	3600 MT/A
8	Triethyl Amine (TEA)	-	-	21190 MT/A
9	Monoisopropyl Amine (MIPA)	-	-	100 MT/A
10	Diisopropyl Amine (DIPA)	-	-	50 MT/A
11	N – Propylamine (NPA)	-	-	10 MT/A
12	Di – N – PROPYL AMINE (DNPA)	-	-	10 MT/A
13	Tri-N- Propyl Amine (TNPA)	-	-	10 MT/A
14	Mono – N – Butylamine (MNBA)	-	-	10 MT/A
15	Di-N-Butylamine(DNBA)	-	-	10 MT/A
16	Tri-N-Butylamine(TNBA/TBA)	-	-	10 MT/A
17	2-Etylhexaylamine (2-EHA)	-	-	10 MT/A
18	Bis-2-Ethylhexylamine(BIS-2-EHA)	-	-	50 MT/A
19	Mono-Cyclohexylamine(MCHA)	-	-	10 MT/A
20	Di-Cyclohexylamine(DCHA)	-	-	10 MT/A
21	Proposed Products in category A	-	-	-
22	Morpholine (MORPH)	-	-	4500 MT/A
23	Diethylene Glycoamine (DGA)	-	-	500 MT/A
24	Ethylene Diamine (EDA)	-	-	15 MT/A
25	Piperazine (PIPZ)	-	-	15 MT/A
26	Allylamine (ALLA)	-	-	15 MT/A
27	Diallylamine	-	-	15 MT/A
28	Triallylamine	-	-	15 MT/A
29	Diamylamine (mixture of amines) (DAMA)	-	-	15 MT/A
30	Triamylamine (TAMA)	-	-	15 MT/A
31	Tertiary Octyl Amine (TOA)	-	-	15 MT/A
32	Isobutylamine (IBA)	-	-	15 MT/A
33	1,4- Diaminobutane (1,4- DMB)	-	-	15 MT/A
34	Pyrrolidine (Pyrldne)	-	-	15 MT/A
35	Hexamethylene Diamine (HMDA)	-	-	500 MT/A
36	Hexamethyleneimine (Azepane)	-	-	15 MT/A
37	Tertiary Butylamine (TBA)	-	-	15 MT/A
38	B Aliphatic Mixed Amines	--	-	Quantity of individual product (existing + Proposed)
39	Diisopropylethyl Amine (Hunig's Base)(DIPEA)	-	-	2000 MT/A
40	Dimethyl Isopropyl Amine(DMIPA)	-	-	50 MT/A
41	Ethylmethyl Amine(EMA)	-	-	15 MT/A
42	Diethylmethyl Amine(DEMA)	-	-	10 MT/A
43	Dimethylcyclohexyl Amine(DMCHA)	-	-	10 MT/A
44	N-ethylcyclohexyl Amine(NECHA)	-	-	10 MT/A
45	N-Methylisopropyl Amine(NMIPA)	-	-	10 MT/A

46	Diisopropylmethyl Amine(DMPA)	-	-	10 MT/A
47	Dimethylbutylamine(DMBA)	-	-	10 MT/A
48	Dimethylethylamine(DMEA)	-	-	10 MT/A
49	Ethylpropyl Amine(EPA)	-	-	10 MT/A
50	N,N Dimethylpropyl Amine (DMPA)	-	-	50 MT/A
51	Proposed Products in category B	-	-	-
52	N-ethyl Piperazine (NEPIPZ)	-	-	10 MT/A
53	N-Methyl Piperazine (NMPIPZ)	-	-	10 MT/A
54	N-Methyl Morpholine (NMM)	-	-	50 MT/A
55	C Aromatic Amines	-	-	Quantity of individual product (existing + Proposed)
56	N,N Dimethylbenzyl Amine(BDMA)	-	-	10 MT/A
57	1-Methyl-3 Phenyl Propyl Amine(MPPA)	-	-	10 MT/A
58	Furfurylamine(FFA)	-	-	150 MT/A
59	Benzylamine(MBA)	-	-	10 MT/A
60	Dibenzyl Amine(DBA)	-	-	10 MT/A
61	N-Ethyl Benzayl Amine (NEBA)	-	-	10 MT/A
62	4-Methyl-N.N-Dimethylbenzayl Amine (4MBDMA)	-	-	10 MT/A
63	Beta – Phenylethylamine(PHEA)	-	-	10 MT/A
64	Alpha-Phenylethylamine(APEA)	-	-	10 MT/A
65	N-Isopropyl Benzene Amine(NIPBA)	-	-	10 MT/A
66	I-(Inaphthyl) Ethylamine(ANEA)	-	-	10 MT/A
67	3,5 Dichloroaniline(3.5 DCA)	-	-	10 MT/A
68	Para Cumidine(PCD)	-	-	30 MT/A
69	D Aromatic Mixed Amines	-	-	Quantity of individual product (existing + Proposed)
70	Thiophene – 2 Ethyl Amine(THEA)	-	-	20 MT/A
71	2-Cyclohexylethyl Amine(CHEA)	-	-	30 MT/A
72	Piperidine(PIP)	-	-	2500 MT/A
73	Trans-4-Methylcyclohexyl Amine(4MCHA)	-	-	20 MT/A
74	N-Methylbenzyl Amine(NMBA)	-	-	60 MT/A
75	N-Benzylethanol Amine(NBEA)	-	-	10 MT/A
76	E Other Mixed Amines	-	-	Quantity of individual product (existing + Proposed)
77	Methoxypropylamine(MOPA)	-	-	20 MT/A
78	Dimethylaminopropyl Amine(DMAPA)	-	-	6000 MT/A
79	Methylaminopropyl Amine(MAPA)	-	-	100 MT/A
80	N-Methyl Imino Bis Propyl Amine(MIBPA)	-	-	30 MT/A
81	Tetramethylenedlamine(TMEDA)	-	-	100 MT/A
82	Tetramethyl Amino Bis Propyl Amine(TMBPA)	-	-	10 MT/A
83	Ethoxy Propyl Amine(ETHOPA)	-	-	100 MT/A
84	Ethoxyethyl Amine(EEA)	-	-	10 MT/A
85	Diethylaminopropylamine(DEAPA)	-	-	10 MT/A
86	Ethylaminoethyl Amine(EAEA/NEEDA)	-	-	10 MT/A
87	Dimethylamino Ethyl Amine(DMAEA/DMEDA)	-	-	10 MT/A
88	1,3 Propylene Diamine(1,3-DAP)	-	-	10 MT/A
89	3- Aminopropanol(3-AP)	-	-	600 MT/A
90	Hydroxynovaldamine/N Bis(2hydroxyethyl) F-Phenylendiamine. Sulphatephenylenediaminesulphate (HND/HEPD SULPHATE)	-	-	20 MT/A

91	N,N Bis (2 Amminopropyl) Ethylenediamine (N-4 AMINE)	-	-	10 MT/A
92	3-Methylamino-1-Phenyl-1-Propanol(MAPP)	-	-	10 MT/A
93	Diethyl Hydroxylamine(DEHA)	-	-	2800 MT/A
94	Dibenzyl Hydroxylaine(DBHA)	-	-	10 MT/A
95	Isopropyl Hydroxylamine(IPHA)100%(sold as 15% soln)	-	-	200 MT/A
96	N-Ethyl 1,2 – Dimethyl Propylamine (EDMPA)	-	-	10 MT/A
97	Mixed Amines(MIXAMIN)	-	-	250 MT/A
98	1,2 Dimethylpropylamine(1,2 DMPA)	-	-	20 MT/A
99	Tris-2- (Ethyl Hexyl) Amine(TRIS-2-EHA)	-	-	100 MT/A
100	3-(2-ethylhexoxy) Propylamine(EHOPA)	-	-	50 MT/A
101	Iminobispropylamine(IBPA)	-	-	10 MT/A
102	Proposed Products in category E	-	-	-
103	Diethyl Ethylene Diamine (DEEDA)	-	-	10 MT/A
104	Diisopropyl Ethylene Diamine (DIPEDA)	-	-	10 MT/A
105	Tertiary Amines- typical- N,N Dimethyl Laurylamine-LDMA (TA)	-	-	10 MT/A
106	Tri Acetone Amine (TAA)	-	-	1500 MT/A
107	Di Tertiary Butyl Ethylenediamine (DTBEDA)	-	-	10 MT/A
108	Methoxyethylamine (MOEA)	-	-	10 MT/A
109	Total Production of Category A-E	25000 MT/A	25000 MT/A	50000 MT/A
110	F Betaines	1250 MT/A	0 MT/A	1250 MT/A
111	G Aliphatic amine hydrochloride	15000 MT/A	15000 MT/A	30000 MT/A
112	-	-	-	Quantity of individual product (existing + Proposed)
113	Dimethylamine Hydrochloride(DMA HCL)	-	-	27500 MT/A
114	Dimethylaminopropylchloride Hydrochloride(DMAPC.HCL)	-	-	20 MT/A
115	Diethylamine Hydrochloride(DEA HCL)	-	-	750 MT/A
116	Monomethylamine Hydrochloride(MMA HCL)	-	-	30 MT/A
117	2-Chloroethylamine Hydrochloride(CEA HCL)	-	-	20 MT/A
118	Triethylamine Hydrochloride(TEA HCL)	-	-	1500 MT/A
119	Trimethylamine Hydrochloride(TMA HCL)	-	-	180 MT/A
120	Total Production of Category G	15000 MT/A	15000 MT/A	30000 MT/A
121	H Aliphatic Amine Hydrochloride Solution	15,000 MT/A	0 MT/A	15,000 MT/A
122	I Amides	500 MT/A	500 MT/A	1000 MT/A
123	-	-	-	Quantity of individual product (existing + Proposed)
124	Diethyltoluamide (DEET)	-	-	830 MT/A
125	Dietylphenyl Acetamide(DEPA)(sold as solutionin ipa)	-	-	120 MT/A
126	Proposed Products in category I	-	-	-
127	Acetamide (AA)	-	-	50 MT/A
128	Total Production of Category I	500 MT/A	500 MT/A	1000 MT/A
129	J Pearlising Agent	500 MT/A	0 MT/A	500 MT/A
130	K Hydrogen	600 MT/A	0 MT/A	600 MT/A
131	L Specialty Intermediates	12400 MT/A	31000 MT/A	43400 MT/A
132	-	-	-	Quantity of individual product (existing + Proposed)
133	4-Methylcyclohexanone(4 MCHN)	-	-	10 MT/A

134	3- Methoxypropanol(3 MOPL)	-	-	10 MT/A
135	Dimethyl Propylene Urea(DMPU)	-	-	100 MT/A
136	1.8 – Diazabicyclo (5.4.0) Undec – 7 Ene(DBU)	-	-	200 MT/A
137	Ethyl Piperazinedione(EDP)	-	-	10 MT/A
138	B – Dimethylaminopropionitrile(DMAPN)	-	--	100 MT/A
139	Acetonitrile(AN)	-	-	20500 MT/A
140	N,N – Dimethyl Imidazolidone(DMI)	-	-	10 MT/A
141	1,5- Diazobicyclo (4,3,0) non-5-Ene (DBN)	-	-	10 MT/A
142	2- Methyl Tetrahydrofuran (2-MTHF)	-	-	2000 MT/A
143	Phenyl Ethyl Alcohol(PHEA)	-	-	1000 MT/A
144	2- Methyl Resorcinol(3 MR)	-	-	10 MT/A
145	Proposed Products in category L	-	-	-
146	Tetrahydrofurfurylalcohol (THFA)	-	-	150 MT/A
147	1,2 Pentanediol (1,2 PDL)	-	-	500 MT/A
148	1, Pentanol (1, PNTL)	-	-	150 MT/A
149	Gammabutyrolactone (GBL)	-	-	1000 MT/A
150	4-Aminobutanol (4-AMBUNOL)	-	-	20 MT/A
151	1,6 Hexanediol (1,6 HEXDIOL)	-	-	1500 MT/A
152	1,5 Pentanediol (1,5 PDIOL)	-	-	500 MT/A
153	2 Methylcyclohexylacetate (2 MCA)	-	-	2000 MT/A
154	Diethylsulphate (DES)	-	-	1800 MT/A
155	Hindered Amines Light Stabiliser (HALS) Typical- Bis(2,2,6,6 Tetramethyl-4-Piperidyl) Sebacate	-	-	4500 MT/A
156	N-Methylmorpholineoxide (NMMO)	-	-	1990 MT/A
157	Trans-4Aminocyclohexanol (4AMCHNL)	-	-	50 MT/A
158	Diisobutycarbinol (DIBC)	-	-	300 MT/A
159	1,2,4-Triazole (1,2,4 TAZL)	-	-	60 MT/A
160	N-Ethylurea (NEU)	-	-	500 MT/A
161	N-Cynoacetyl N-Ethylurea (NCANEU)	-	-	500 MT/A
162	2,2,6,6-Tetramethylpiperine 1-Oxyl (TEMPO)	-	-	500 MT/A
163	4-Hydroxy-2,2,6,6-Tetramethylpiperine 1-Oxyl (HYDROXY TEMPO)	-	-	1650 MT/A
164	Diacetonealcohol (DAAL)	-	-	60 MT/A
165	Mesityl Oxide (MEO)	-	-	60 MT/A
166	2,2,6,6-Tetramethyl 2,3- Dihydropiridine (TMDP)	-	-	250 MT/A
167	2,4,6-Trimethyl Pyridine Collidine (CODIN)	-	-	200 MT/A
168	Diethyl ketone	-	-	1200 MT/A
169	Total Production of Category L	12400 MT/A	31000 MT/A	43400 MT/A
170	M Sodium Acetate Solution	3400 MT/A	7000 MT/A	10400 MT/A
171	N Other Products	-	-	-
172	Dilute Caustic Lye	5000 MT/A	0 MT/A	5000 MT/A
173	Metal Catalyst	12 MT/A	50 MT/A	62 MT/A
174	Diethyltoluamide (EET) Aqueous Layer	90 MT/A	0 MT/A	90 MT/A
175	Dilute Ammonia Solution	620 MT/A	180 MT/A	800 MT/A
176	Solvent (Purified)	1 MT/A	-1 MT/A	0 MT/A
177	Sodium Sulphate	0 MT/A	3500 MT/A	3500 MT/A
178	Calcium Sulphate	0 MT/A	1170 MT/A	1170 MT/A
179	Sodium carbonate solution	0 MT/A	4680 MT/A	4680 MT/A
180	Calcium Carbonate	0 MT/A	388 MT/A	388 MT/A

181	Dilute Sulphuric Acid	0 MT/A	8620 MT/A	8620 MT/A
182	Grand TOTAL	79,373 MT/A	97,087 MT/A	176,460 MT/A

23.Total Water Requirement

Dry season:	**Source of water**	NA
	Fresh water (CMD):	NA
	Recycled water - Flushing (CMD):	NA
	Recycled water - Gardening (CMD):	NA
	Swimming pool make up (Cum):	NA
	Total Water Requirement (CMD) :	NA
	Fire fighting - Underground water tank(CMD):	NA
	Fire fighting - Overhead water tank(CMD):	NA
	Excess treated water	NA
Wet season:	**Source of water**	NA
	Fresh water (CMD):	NA
	Recycled water - Flushing (CMD):	NA
	Recycled water - Gardening (CMD):	NA
	Swimming pool make up (Cum):	NA
	Total Water Requirement (CMD) :	NA
	Fire fighting - Underground water tank(CMD):	NA
	Fire fighting - Overhead water tank(CMD):	NA
	Excess treated water	NA
Details of Swimming pool (If any)	NA	

24.Details of Total water consumed

Particulars	Consumption (CMD)			Loss (CMD)			Effluent (CMD)		
Water Requirement	Existing	Proposed	Total	Existing	Proposed	Total	Existing	Proposed	Total
Domestic	49	0	49	-10	0	-10	39	0	39
Industrial Process	140	67	207	+21	+75	+96	161	142	303
Cooling tower & thermopack	1452	481	1933	-1196	-331	-1527	256	150	406
Gardening	200	192	392	-200	-192	-392	0	0	0
Fresh water requirement	1841	740	2581	-1385	-448	-1833	456	292	748
Fresh water requirement	Water Recycled	-	39+188 +12+12 =251	-	-	-	-	-	-
Fresh water requirement	Total fresh water required 2nd day onwards	-	2330	-	-	-	-	-	-
Fresh water requirement	39 CMD from STP+ 188 CMD RO-1, RO 2 Permeate+ 12 CMD RO-3 Permeate+ 12 CMD live steam condensate from MEE	-	-	-	-	-	-	-	-

25.Rain Water Harvesting (RWH)	**Level of the Ground water table:**	5-10 m
	Size and no of RWH tank(s) and Quantity:	400 m3 x 1 no. Harvested rain water will be stored in this tank and excess rain water will be led to drain.
	Location of the RWH tank(s):	Near Admin building
	Quantity of recharge pits:	Not applicable as collected water will be reused.
	Size of recharge pits :	Not applicable as collected water will be reused.
	Budgetary allocation (Capital cost) :	Rs. 10 Lac
	Budgetary allocation (O & M cost) :	Rs. 0.5 lac/A
	Details of UGT tanks if any :	Solvent storage tanks 14 nos.

26.Storm water drainage	**Natural water drainage pattern:**	Proper and separate storm water drains are provided as per natural slopes.
	Quantity of storm water:	1570 lit/s
	Size of SWD:	Width: 600mm; Depth: 600 mm;
27.Sewage and Waste water	**Sewage generation in KLD:**	Existing: 39 CMD; Proposed: 0 CMD; Total: 39 CMD
	STP technology:	Generated sewage will be treated in existing STP.
	Capacity of STP (CMD):	50 CMD
	Location & area of the STP:	72 sq.m ground coverage near existing ETP
	Budgetary allocation (Capital cost):	Rs. 43.84 Lac
	Budgetary allocation (O & M cost):	Rs. 6 lac/A

28.Solid waste Management

Waste generation in the Pre Construction and Construction phase:	**Waste generation:**	Debris, Excavated soil
	Disposal of the construction waste debris:	Within premises in low lying area.
Waste generation in the operation Phase:	**Dry waste:**	Hazardous Waste: • • Ash from Incineration Hazardous Waste- 2TPA; (Right now incineration is not in use, quantity is given whenever it will be in operation (only after getting permission from MPCB) • Discarded container/barrels/liners- 7200 Nos./A; • E-waste- 0.9 TPA; • Biomedical waste- 0.1 TPA. Non-hazardous waste: • Wood Pallet- 80 TPA; • Scrap Material-110 TPA; • Carboy plastic- 2000 nos./A; • Office paper waste-2 TPA; • Woven sack bag HDPE- 30TPA; • Drums- 5400 nos./A; • Boiler Ash from coa
	Wet waste:	Hazardous Waste: • Contaminated Aromatic Aliphatic Or Napthalenic Solvents- 48.5 TPA; • Spent Carbon from ETP - 6 TPA; • Toxic metal containing residue from water purification- 8 TPA; • Distillation residue- 2515 TPA; • Used/spent oil- 27 TPA; • Spent organic solvent- 1590 TPA; • Chemical sludge from waste water treatment/bio sludge- 346 TPA; • Waste/residue containing oil- 4 TPA; • MEE salts- 36 TPA; Non-Hazardous Waste: • Biological Sludge from STP- 20 TPA
	Hazardous waste:	Hazardous Waste: • Contaminated Aromatic Aliphatic Or Napthalenic Solvents- 48.5 TPA; • • Ash From Incineration Hazardous Waste - 2 TPA; (Right now incineration is not in use, quantity is given whenever it will be in operation (only after getting permission from MPCB) • Spent Carbon from ETP-6 TPA; • Toxic metal containing residue from water purification- 8 TPA; • Distillation residue- 2515 TPA; • Used/spent oil- 27 TPA; • Spent organic solvent- 1590 TPA; • Discarded container/barrels/liners- 72
	Biomedical waste (If applicable):	• Biomedical waste- 0.1 TPA;
	STP Sludge (Dry sludge):	• Biological Sludge from STP-20 TPA
	Others if any:	• E waste = 0.9 TPA
Mode of Disposal of waste:	**Dry waste:**	MPCB authorized party for reuse/To CHWTSDF
	Wet waste:	CHWTSDF/Sale to MPCB authorized party/ Incineration in factory after getting permission from MPCB
	Hazardous waste:	CHWTSDF/Sale to MPCB authorized party/ Incineration in factory after getting permission from MPCB
	Biomedical waste (If applicable):	Authorized Biomedical Waste disposal facility.
	STP Sludge (Dry sludge):	Use as manure for gardening within premises
	Others if any:	Sale to authorized vendors/Recyclers.
Area requirement:	**Location(s):**	In plot D-6/2 area as indicated in plot layout.
	Area for the storage of waste & other material:	Area for the storage of Hazardous waste 400 Sq.m.
	Area for machinery:	Not applicable
Budgetary allocation (Capital cost and O&M cost):	**Capital cost:**	Rs.25 lacs, which is Included in total capital cost
	O & M cost:	Rs. 496.86 Lacs/year

29.Effluent Charecterestics

Serial Number	Parameters	Unit	Inlet Effluent Charecterestics	Outlet Effluent Charecterestics	Effluent discharge standards (MPCB)
1	pH	--	9-10	7-8	5.5-9.0
2	BOD3,27ºC	mg/L	1000-1250	<30	<30
3	COD	mg/L	2000-2500	200-250	<250
4	TSS	mg/L	150-200	80-90	<200
5	TDS	mg/L	1500-2000	500-600	<2100

Amount of effluent generation (CMD):	709 CMD
Capacity of the ETP:	Existing ETP-1 - 100 CMD; Existing ETP-2 - 100 CMD; Proposed ETP-3 - 150 CMD
Amount of treated effluent recycled :	251 CMD (39 CMD from STP+ 188 CMD RO-1, RO 2 Permeate+ 12 CMD RO-3 Permeate+ 12 CMD live steam condensate from MEE)
Amount of water send to the CETP:	500.5 CMD (208.5 CMD existing +292 CMD proposed) The permission of discharge to CETP for additional 292 CMD is conditional. Hence, if permission from CETP is not granted for whatever reason the wastewater generated from expansion implementing ZLD treatment will be reused in process/utilities. Existing 208.5CMD will be discharged to CETP as per consent.
Membership of CETP (if require):	CETP Kurkumbh
Note on ETP technology to be used	Existing effluent from process (150 CMD) is being treated in two full-fledged ETP's of 100 CMD each consisting of primary, secondary and tertiary treatment separately. And the existing 267 CMD effluent from washings, boiler & cooling tower blowdowns and DM plant is first neutralized and then passed through sand filter. Generated sludge is settled down in the tank, which is cleaned periodically and collected along with ETP sludge for disposal. Then tertiary effluent from process along with other
Disposal of the ETP sludge	Sent to CHWTSDF

30.Hazardous Waste Details

Serial Number	Description	Cat	UOM	Existing	Proposed	Total	Method of Disposal
1	Hazardous Waste Details	-	-	-	-	-	-
2	Contaminated Aromatic Aliphatic Or Napthalenic Solvents	20.1	T/A	48.5	0	48.5	Incineration in factory(whenever in operation after getting permission from MPCB)/CHWTSDF/ authorized co-processor
3	Ash From Incineration Hazardous Waste	36.2	T/A	2	0	2	To CHWTSDF
4	Spent Carbon from ETP	35.3	T/A	3	3	6	Incineration in factory (whenever in operation after getting permission from MPCB)/ CHWTSDF
5	Toxic metal containing residue from water purification	34.2	T/A	4	4	8	CHWTSDF
6	Distillation residue	20.3	T/A	330	2185	2515	Incineration infactory (whenever in operation after getting permission from MPCB)/ CHWTSDF/ authorized co-processor
7	Used/spent oil	5.1	T/A	11	16	27	Sale to MPCB authorized party
8	Spent organic solvent	28.5	T/A	250	1340	1590	Sale to MPCB authorized party/CHWTSDF/ authorized co-processor
9	Discarded container/barrels/liners	33.3	Nos./A	3600	3600	7200	Sale to MPCB authorized party /return to party
10	Chemical sludge from waste water treatment/bio sludge	34.3	T/A	336	10	346	CHWTSDF/Incineration(whenever in operation after getting permission from MPCB)
11	Waste/residue containing oil	5.2	T/A	2	2	4	Incineration in factory (whenever in operation after getting permission from MPCB)/ CHWTSDF/ authorized co-processor
12	MEE Salts	35.3	T/A	--	36	36	ETP CHWTSDF
13	Spent Catalyst	28.2	T/A	-	18	18	CHWTSDF
14	E-Waste	Not Specified	T/A	-	0.9	0.9	Returned to manufacturer through authorized dealer on buy back procurement
15	Biomedical waste	Not Specified	T/A	-	0.1	0.1	Authorized Biomedical Waste disposal facility.
16	Non-Hazardous waste	-	-	-	-	-	-
17	Wood Pallet	Not Specified	T/A	6.0	74.0	80.0	By Sale
18	Scrap Material	Not Specified	T/A	11.0	99.0	110.0	By Sale
19	Carboy plastic	Not Specified	nos./A	1000	1000	2000	By Sale
20	Office paper waste	Not Specified	T/A	1.0	1.0	2.0	By Sale
21	Woven sack bag HDPE	Not Specified	T/A	1.0	29.0	30.0	By Sale
22	Drums	Not Specified	nos./A	2700	1800	4500	By Sale

23	Boiler Ash from coal (Indian)	Not Specified	T/A	28,380 (86 TPD)	55,110 (167 TPD)	83,490 (253 TPD)	Sale to brick manufacturer
24	Boiler Ash from coal (imported)	Not Specified	T/A	5940 (18 TPD)	7590 (23TPD)	13,350 (41 TPD)	Sale to brick manufacturer
25	Biological Sludge from STP	Not Specified	T/A	--	20	20	Use as manure in gardening

31.Stacks emission Details

Serial Number	Section & units	Fuel Used with Quantity	Stack No.	Height from ground level (m)	Internal diameter (m)	Temp. of Exhaust Gases
1	Existing 28 TPH Boiler	Imported Coal- 7.5 T/hr /Indian Coal- 10.21 T/hr	1	60 m combined stack	2.0 m	125o C
2	Existing 18 TPH Boiler	Imported Coal- 4.85 T/hr /Indian Coal- 6.56 T/hr	1	60 m combined stack	2.0 m	125o C
3	Existing 10 TPH Boiler	Imported Coal- 2.65 T/hr /Indian Coal- 3.65 T/hr	1	42 m	0.65 m	125o C
4	Proposed 50 TPH Boiler	Imported Coal- 9.5 T/hr /Indian Coal- 17.02 T/hr	1	73 m	2.58 m	125o C
5	Existing TFH 15 lac kcal/hr	FO-125 kg/hr	1	31 m	1 m	130o C
6	Existing TFH10 lac kcal/hr	FO- 70 kg/hr	1	26.5 m	1.8 m	130o C
7	Existing H2 plant TFH- 5 lac Kcal/hr	Methanol/CO /CO2/H2-55 kg/hr	1	15 m	0.25 m	130o C
8	Proposed TFH2- 30 lac Kcal/hr	FO- 190.5 kg/hr	1	42 m	0.5 m	130o C
9	Proposed TFH3- 2.5 lac Kcal/hr	Methanol/Off gas- 28 kg/hr	1	15 m	0.25 m	130o C
10	DG set 1000 KVA (Existing)	HSD- 210 lit/hr	1	7.82 m above enclosure	0.15 m	135o C
11	DG set 1000 KVA (Existing)	HSD- 243 lit/hr	1	7.82 m above enclosure	0.15 m	135o C
12	DG set 2000 KVA (Proposed)	HSD- 403 lit/hr	1	10 m above enclosure	0.25 m	135o C
13	Ethylene Vent MPP2	--	1	15 m	0.08 m	Ambient
14	Flare	Ethylene-75 kg/hr./ H2- 5 kg/hr.	1	5 m	1.5 m	300°C
15	Incinerator	HSD- 20 kg/hr	1	30 m	0.2 m	200-250°C
16	H2 plant PSA vent	-	1	15 m	0.15 m	Ambient
17	Process HCl Scrubber	-	1	6 m	0.15 m	Ambient
18	Acetonitrile Plant vent gas	-	1	12 m	0.08 m	Ambient
19	Ethyl Plant Vent	-	1	24 m	0.24 m	Ambient
20	SMPV vent	-	1	12 m	0.3 m	Ambient
21	MPP-3 vent	-	1	12 m	0.3 m	Ambient

22	HCl Scrubber	-	1	6.5 m	0.15 m	Ambient
23	Amine Hydrochloride plant 2	-	1	15 m	0.3 m	Ambient
24	Amine Hydrochloride plant 3	-	1	15 m	0.3 m	Ambient
25	7th Column Stack	-	1	10 m	0.05 m	Ambient
26	MPP-4 plant, 3 nos.	-	1	15 m each	0.1 m each	Ambient
27	MPP-5	-	1 each	15 m	0.1 m	Ambient
28	MPP-6 VP plant	-	1	15 m	0.1 m	Ambient
29	Acetonitrile Plant	-	1	15 m	0.15 m	Ambient
30	Amine Hydrochloride plant-4, 2 nos.	-	1 each	15 m each	0.3 m each	Ambient
31	PSV Absorber, 2 nos.	-	1 each	15 m each	0.3 m each	Ambient
32	PSA vent	-	1	15 m	0.1 m	Ambient
33	*Note- Existing DG set- 320 KVA x 1 no. will be replaced by 1 no. of DG sets of 2000 KVA.	-	-	-	-	-

32.Details of Fuel to be used

Serial Number	Type of Fuel	Existing	Proposed	Total
1	imported coal /Indian coal	17.5 T/hr /10.21 T/hr	9.5 T/hr /17.02 T/hr	17 T/hr /27.23 T/hr
2	FO	271 kg/hr	190.5 kg/hr	461.5 kg/hr
3	HSD	533 lit/hr	403 lit/hr	936 lit/hr
4	Methanol/CO/CO2/H2	55 kg/hr	27 kg/hr	82 kg/hr
33.Source of Fuel		Local		
34.Mode of Transportation of fuel to site		By Road		

35.Energy

Power requirement:	**Source of power supply :**	MSEDCL
	During Construction Phase: (Demand Load)	800 KVA
	DG set as Power back-up during construction phase	--
	During Operation phase (Connected load):	5500 KW
	During Operation phase (Demand load):	4000 KW
	Transformer:	4000 KVA
	DG set as Power back-up during operation phase:	1000 KVA × 2 Nos. 2000 KVA× 1 No.
	Fuel used:	HSD 936 lit/hr
	Details of high tension line passing through the plot if any:	Not Applicable

Energy saving by non-conventional method:

2.013 MWp (DC) Solar PV power plants have been commissioned in July-2015. This solar generated power is transmitted to AACL Kurkumbh plant through MSEDCL Grid (open access).

36.Detail calculations & % of saving:

Serial Number	Energy Conservation Measures	Saving %
1	NA	NA

37.Details of pollution control Systems

Source	Existing pollution control system	Proposed to be installed
Air	ESP, Dust Collector, Multi-cyclone followed by stack of adequate height	ESP followed by stack of adequate height
Water	ETP, RO, MEE and STP	Proposed additional ETP
Noise	Acoustic enclosure for DG set	Acoustic enclosure for DG set
Solid Waste	Disposal to CHWTSDF/ Sale to authorized Recycler	Disposal to CHWTSDF/Incineration/ Sale to authorized Recycler

Budgetary allocation (Capital cost and O&M cost):	**Capital cost:**	Rs. 16.97 Cr.
	O & M cost:	Rs. 7.49 Cr/A

38.Environmental Management plan Budgetary Allocation

a) Construction phase (with Break-up):

Serial Number	Attributes	Parameter	Total Cost per annum (Rs. In Lacs)
1	Dust	Air Pollution	1.0
2	Debris	Solid Waste	1.0
3	Construction equipment	Noise Pollution	0.5

b) Operation Phase (with Break-up):				
Serial Number	**Component**	**Description**	**Capital cost Rs. In Lacs**	**Operational and Maintenance cost (Rs. in Lacs/yr)**
1	Air pollution control	ESP, Stack, Multi cyclone and Bag filter	580	10.0
2	Water pollution control	Exiting ETP, MEE & RO, existing STP and proposed ETP	894.85	218.88
3	Noise pollution Control	Acoustic enclosure and regular maintenance	32	0.5
4	Occupational Health	Medical checkup, Health insurance policy, Medical staff charges, First aid facilities, consumables, In-house first aid room, Other infrastructure and Equipment	68.05	3.23
5	Environmental Monitoring Budget including carbon and water footprint	Environmental Monitoring, Carbon Footprint and Water Footprint monitoring	--	10.0
6	Hazardous waste Storage & disposal	Storage, Transportation, disposal & Incinerator operation and maintenance	190.0	519.70
7	Green belt	Plantation &Maintenance of Green belt	20	15.0
8	Mitigation Measures for LCA	Installation of solar Panels	1389	15.5
9	Carbon Footprint Monitoring (Measures taken to reduce carbon footprint)?	Installation of solar Panels* for reduction of consumption of electricity which indirectly reduce carbon footprint. Reduction of fuel consumption by using well efficient insulation to heating equipment.	-	5.0
10	Water Footprint Monitoring (Measures taken to reduce water footprint)	Rain water harvesting & use of rain water in utilities & domestic•?Recycling & reuse of treated waste water** in utilities Regular maintenance of equipments to reduce wastage of water due to leaks	10	5.0

11	Note – *Cost for Tree plantation & solar panel is already considered in sr. no. 7 & 8. ** Cost for recycle & reuse of water is already considered in sr. no. 2.	-	-	-
12	Total	--	3183.9	792.81

39.Storage of chemicals (inflamable/explosive/hazardous/toxic substances)

Description	Status	Location	Storage Capacity in MT	Maximum Quantity of Storage at any point of time in MT	Consumption / Month in MT	Source of Supply	Means of transportation
Specially denatured spirit	liquid	Tank	1440	8640	5192	Local	Road
Anhydrous Ammonia	gas	Tank	75	150	2374	Local	Road
Hydrogen	gas	Cylinder bank and skids	21 NM3	10080 NM3	600000 m3/m	Local	Road
Diethylene Glycol	liquid	tank	100	200	1800	Local	Road
Amine HCL solution	liquid	tank	200	800	9000	Local	Road
Acetic Acid	liquid	tank	200	400	4407	Local	Road
Caustic Lye	liquid	tank	100	100	1320	Local	Road
Ortho cresol	liquid	Drums/RM store	0.15	30	220	Local	Road
Methanol	liquid	tank	80	80	420	Local	Road
Acetone	liquid	tank	45	40	946	Local	Road

40.Any Other Information

No Information Available

	CRZ/ RRZ clearance obtain, if any:	NA
	Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas/ inter-State boundaries	No such areas within 5 km radius circle.
	Category as per schedule of EIA Notification sheet	B1, 5 (f)
	Court cases pending if any	NO
	Other Relevant Informations	Existing Capital Cost: 240.82 Cr. Proposed: 205 Cr. Total capital Cost: 445.82 Cr. As per Corporate Environmental Responsibility (CER) Notification (Schedule VII, Company Act), the. Company has earmarked Rs. 1.54 Cr. (which is 0.75% of Additional proposed project cost Rs. 205 Cr) for undertaking the CER activities which are as follows: 1. Separate toilets and Changing Roomsfor Z.P. Schools Girls in Pandhrewadi- 15 Lacs 2. Drinking Water facility (Filters and RO System)and toilet for Z.P. Schools in Jiregav Village- 20 Lacs 3. Provision of SolarPower System at Daund District Hospital- 15 Lacs 4. Provision of Wellton Healthcare Mortuary Chembers WH-150 –Wellton Healthcare in Daund District Hospital- 10 Lacs 5. Provision of Construction of Check Dam on Natural Fresh water stream at Girim Village- 20 Lacs 6. Provision of ECG Machine and X-ray machine in Government Hospital Kurkumbh – 50 Lacs 7. Provision of Pipeline from JanaiShirsaiCanal to Vasunde village- 24 Lacs
	Have you previously submitted Application online on MOEF Website.	Yes
	Date of online submission	09-04-2019

3. The proposal has been considered by SEIAA in its 198th meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:

Specific Conditions:

I	PP proposes green belt development on an area of 34752 sq.m outside the factory area on MIDC land adjacent to the existing industrial plot along the Sholapur Highway NH-9; PP to submit drawing from National Highway Authority demarcating their area of highway, service road etc. and MIDC land so as to ensure proposed green belt will not obstruct their services.
II	PP to adopt technology to scrub all carbon di oxide gas generated during operations and ensure that it is not released in the atmosphere.
III	PP to implement the Guidelines for restoration of manufacturing industries after lockdown period issued by Ministry of Home Affairs, National Disaster Management Authority on 09.05.2020.
IV	PP to obtain permission from CETP for discharge of 292 KLD treated effluent before commissioning of the expansion activities. In case such permission is not granted PP shall provide Zero Liquid Discharge Effluent Treatment Plant.
V	PP to ensure to provide adequate Firefighting facilities as per recommendations of the Fire Audit.

VI	PP to provide Continuous Emission Monitoring System (CEMS) for monitoring of air emissions and connect the same to the MPCB and CPCB servers.
VII	PP to implement CER plan in consultation with the District Authority as per OM issued by MoEF&CC dated 01.05.2018.
VIII	PP has submitted the plan layout to MIDC, if there is any change plan layout PP have to take revised EC.
IX	PP to submit MIDC Approval.
X	PP to ensure that CER plan gets approved from District Collector.
XI	PP to ensure to comply with the conditions stipulated in the Office Memorandum issued by MoEF& CC dated 9th August, 2018.

General Conditions:

I	(i)PP to achieve Zero Liquid Discharge ; PP shall ensure that there is no increase in the effluent load to CETP.
II	No additional land shall be used /acquired for any activity of the project without obtaining proper permission.
III	PP to take utmost precaution for the health and safety of the people working in the unit as also for protecting the environment.
IV	Proper Housekeeping programmers shall be implemented.
V	In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieve.
VI	A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set. (If applicable).
VII	A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.
VIII	Arrangement shall be made that effluent and storm water does not get mixed.
IX	Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
X	Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.
XI	The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.
XII	Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
XIII	Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
XIV	Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.
XV	(The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
XVI	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.
XVII	Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.
XVIII	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
XIX	Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department
XX	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://ec.maharashtra.gov.in

XXI	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
XXII	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
XXIII	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM. SO2, NOx (ambient levels as well as stack emissions) or critical sectorai parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
XXIV	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
XXV	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.

5. In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.

6. The Environment department reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.

7. Validity of Environment Clearance: The environmental clearance accorded shall be valid as per EIA Notification, 2006, and amendments by MoEF&CC Notification dated 29th April, 2015.

8. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.

9. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

10. Any appeal against this Environment clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune),New Administrative Building, 1stFloor, D-, Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Shri. Anil Diggikar (Member Secretary SEIAA)

Copy to:

1. SECRETARY MOEF & CC

2. IA- DIVISION MOEF & CC

3. MEMBER SECRETARY MAHARASHTRA POLLUTION CONTROL BOARD MUMBAI

4. REGIONAL OFFICE MOEF & CC NAGPUR

5. MUNICIPAL COMMISSIONER PUNE

6. MUNICIPAL COMMISSIONER SATARA

7. REGIONAL OFFICE MPCB PUNE

8. REGIONAL OFFICE MIDC PUNE

9. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD

10. COLLECTOR OFFICE PUNE

11. COLLECTOR OFFICE SATARA

12. COLLECTOR OFFICE SOLAPUR