M. M. JOSHI
MEMBER SECRETARY
SEIAA (GUJARAT)

सत्यमेव जयते

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY
GUJARAT

Government of Gujarat

By R P A D

No. SEIAA/GUJ/EC/5(f)/150/2016

Date: 19-02-2016

Time Limit

Sub: Environment Clearance to M/s. Aether Industries Ltd. for setting up of the proposed manufacturing unit of Synthetic organic chemicals (Bulk drug, Bulk drug intermediates and specialty chemicals manufacturing plants) at Plot No:8203, GIDC Estate-Sachin, Choryasi, Surat..... In Category 5(f) of Schedule annexed with EIA Notification dated 14/09/2006.

Dear Sir,

This has reference to your application along with Form-I dated **02/01/2015** submitted to SEIAA, seeking Environmental Clearance under Environment Impact Assessment Notification, 2006 and EIA/ additional information / documents submitted vide letter dated **31/08/2015** to the SEAC.

The proposal is for Environmental Clearance to **M/s. Aether Industries Ltd. for setting up of the proposed manufacturing unit of Synthetic organic chemicals (Bulk drug, Bulk drug intermediates and specialty chemicals manufacturing plants) at Plot No:8203, GIDC Estate-Sachin, Choryasi, Surat.** It is an proposed unit for manufacturing following products, which falls in the category - 5(f) of the schedule of the EIA Notification-2006:

Sr. no.	Name of products	Production Capacity (MT/Month)	
		Existing	Total After Proposed Expansion
(A)	**Research & Development (R & D) centre along with Pilot Plant and Crams Products**	1.0	10 .0
(B)	**Active Pharmaceuticals Intermediates (APIs)**	-	25.0
	MEP Derivatives		
1	1-(4-(2-methoxyethyl)phenoxy)propan-2-ol		
2	(RS)-1-(Isopropylamino)-3-[4-(methoxyethyl)phenoxy]propan-2-ol		
3	(±)-1-(Isopropylamino)-3-[p-(2-methoxyethyl)phenoxy]-2-propanol succinate		
4	(±)-1-(Isopropylamino)-3-[p-(2-methoxyethyl)phenoxy]-2-propanol L-(+)-tartrate		
5	(S)-1-(isopropylamino)-3-(4-(2-methoxyethyl)phenoxy)propan-2-ol		
	Citalopram Series		
6	S-(+)-4-(4-(dimethylamino)-1-(4-fluorophenyl)-1-hydroxybutyl)-3-(hydroxymethyl)benzonitrile		
7	1-[3-Dimethylamino)propyl]-1-(4-flurophenyl)-1,3-dihydro-5-isobenzofurancarbonitrile hydrobromide		
8	S-(+)-1-[3-dimethylamino)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofurancarbonitrile oxalate		
	Metoprolol Derivatives		
9	1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-ol		
	Etodolac Derivatives		
10	Etodolac		
	Atovaquone Derivatives		
11	2-(4-(4-chlorophenyl)cyclohexyl)-3-hydroxynaphthalene-1,4-dione		
	Mesalamine Derivatives		
12	5-Aminosalicylic acid		

(D)	**Halogenation Derivatives**	-	20.0
	Benzylbromide Derivatives		
1	1-(bromomethyl)-4-(trifluoromethoxy)benzene		
2	4'-(bromomethyl)-[1,1'-biphenyl]-2-carbonitrile		
	(S)-2-Chloropropionic Acid / Esters Derivatives		
3	2-Chloropropionic acid, ethyl ester		
4	2-Chloropropionic acid, methyl ester		
	Halogenated Aryl Derivatives		
5	3-(bromomethyl)pyridine		
6	4-(chloromethyl)pyridine		
7	4-Bromo-2,6-diisopropylaniline		
8	2-bromophenol		
9	3-chloro-2,6-diethylaniline		
	Naphthoquinone Derivatives		
10	2-chloronaphthalene-1,4-dione		
11	2,3-Dichloro-1,4-Naphthoquinone		
(E)	**Eatherification**	-	75.0
	(S)-2-Chloropropionic Acid / Esters Derivatives		
1	(R)-2-(4-Hydroxyphenoxy) propionic acid		
	(R)-2-(Aryloxy)propionic Acid, Esters derivatives		
2	(R)-2-(4-Hydroxyphenoxy)propionic acid, methyl ester		
3	(R)-2-(4-Hydroxyphenoxy)propionic acid, ethyl ester		
4	Methyl-(R)-2-{4(2,4-dichlorophenoxy)phenoxy}propaonate		
5	Propynyl-(R)-2-[4-[(5-chloro-3-fluoro-2-pyridinyl)oxy] phenoxy] propanoate		
6	Butyl-(R)-2-(4-((5-(Trifluoromethyl)Pyridin-2-YL)Oxy)Phenoxy) Propanoate		
7	Methyl-(R)-2-{4-[3-chloro-5-(trifluoromethyl)-2-pyridyloxy]propanoate		
8	Ethyl (R)-2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy]propanoate		
9	Ethyl-(R)-2-[4-{6-chloro-2-benzoxazolyloxy}phenoxy]propanoate		
10	Butyl-(R)-2-[4-(4-Cyano-2-Fluorophenoxy) Phenoxy]Propanoate		
	Aryl ether Derivatives		
11	2-(3-Phenoxyphenyl)propionic acid		
12	2-(2-Methoxyphenoxy)ethylamine		
13	4-Phenoxy-2, 6-diisopropyl aniline		
14	4-Methoxy-3-[3-(4-morpholinyl)propoxy)benzonitrile		
15	4-Fluoro-3-phenoxybenzaldehyde		
16	2,6-Diisopropyl-4-phenoxyphenylthiourea		
17	1-Tert-butyl-3-(2,6-Diisopropyl-4-phenoxyphenyl)thiourea		
18	2,6-Diisopropyl-4-phenoxy phenyl isothiocyanate		
(F)	**Specialty Chemicals (Electronic Chemicals, Fragrance & Flavors and Specialty Monomers and Polymers)**	-	40.0
	Cyclohexanone Derivatives		
1	4-Propyl Cyclohezanone		
2	4-(4'-propylcyclohexyl)phenol		
	(Cyclohexyl)Phenyl Derivatives		
3	Trans-(4'-propylcyclohexyl) cyclohexanone		
4	4-(Trans-4-propylcyclohexyl) benzoic acid		
5	(4-Trans-4-propylcyclohexyl) phenyl boronic acid		
	Cyclohexyl aryl Derivatives		

	Thiazole Derivatives		
23	Thiazol-5-ylmethanol		
	Diphenyl Methane Derivatives		
24	1,1'-(methylenebis(4,1-phenylene))bis(1H-pyrrole-2,5-dione)		
	Pyrimidine Derivatives		
25	2-(2,2-Difluoroethoxy)-N-(5,8-dimethoxy[1,2,4]triazol[1,5,7] pyrimidine-2-yl)-6-(trifluoromethyl)benzenesulfonamide		
	Sulfamide Derivatives		
26	Sulfamide		
(H)	**Oxidation Derivatives**	-	**40.0**
	Aryl Aldehyde Derivatives		
1	4-hydroxy benzaldehyde (PHB)		
2	4-methoxy benzaldehyde / p-anesaldehyde (PAA)		
3	4-pyridinecarboxaldehyde		
4	2,6-dichlorobenzaldehyde		
5	3-pyridinecarboxaldehyde		
6	4-(diethylamino)-2-hydroxy benzaldehyde		
7	2-amino-3,5-dibromobenzaldehyde		
	Aryl Carboxylic Acid Derivatives		
8	4-(tert-butyl)benzoic acid		
9	2-Nitro Benzoic acid		
10	2,4-Dichlorobenzoic acid		
11	3,5-di-t-butyl-4-hydroxy benzoic acid		
12	3-methoxy-2-methylbenzoic acid		
13	2-ethoxy benzoic acid		
14	3-amino-4-methylbenzoic acid		
15	Mafenamic acid		
16	4-aminobenzoic acid		
	Keto Aryl Derivatives		
17	Naphthalene-1,4-dione		
18	Pyromelllitic Anhydride (benzo(1,2-c;4,5-c')difuran-1,3,5,7-tetraone		
(I)	**Carboxylic Acid Derivatives**	-	**30.0**
	Benzonitrile Derivatives		
1	2-Hydroxy benzonitrile		
2	4-Hydroxy benzonitrile		
3	5-Cyano-3H-isobenzofuranone		
4	4-chlorobenzonitrile		
5	2-amino-4-chloro benzonitrile		
6	2,6-dichlorobenzonitrile		
7	4 - chlorophenyl benzene butane nitrile		
	Aryl Carboxylic Acid Ester Derivatives		
8	Methyl 2-nitro Benzoate		
9	Methyl 4-nitro Benzoate		
10	Methyl 4-amino Benzoate		
11	tert-Butyl 4-(chloromethyl)benzoate		
12	Dimethyl-5-aminoisophthalate		
13	Methyl-3-amino-4-toluate		
14	Ethyl paraben		
15	Propyl paraben		
16	Ethyl-4 amino benzoate		

(C)	**Hydrogenation Derivatives**	-	70.0
	Secondary amine Derivatives		
1	(2R, 3R, 4R, 5S)-6-(octylamino)hexane-1,2,3,4,5-pentaol		
2	(2R, 3R, 4R, 5S)-6-(Methylamino)hexane-1,2,3,4,5-pentaol		
3	(2R, 3R, 4R, 5S)-6-(ethylamino)hexane-1,2,3,4,5-pentaol		
	Piperidine Derivatives		
4	4-Piperidine Carboxylic Acid		
5	4-Piperidine Carboxamide		
6	2-aminomethylpiperidine		
7	2-Piperidineethanol		
	Benzhydrol Derivatives		
8	a,a-Diphenyl-4-piperidinemethanol		
9	Diphenylmethanol		
10	4-Chlorobenzhydrol		
	Cyclohexyl Derivatives		
11	1,3-Cyclohexanedione		
12	Trans-4-Isopropylcyclohexanecarboxylic acid		
13	Trans-4-Amino cyclohexanol		
14	Ethyl 4-oxocyclohexanecarboxylate		
	Benzylamine Derivatives		
15	3-Amino Benzylamine		
16	2-Chloro Benzylamine		
	Chiral Amine Derivatives		
17	(S)-2-chloro-N-(2-ethyl-6-methylphenyl)-N-(1-methoxypropan-2-yl)acetamide		
18	Benzenebutanoic acid, β-[[(1,1-dimethylethoxy)Carbonyl]amino]-2,4,5-trifluro-,ethyl ester,(βR)		
19	(R)-1-(naphthalen-1-yl)ethanamine		
	Chiral Alcohol Derivatives		
20	(R)-1-(3,5-bis(trifluoromethyl)phenyl)ethanol		
21	3-(dimethylamino)-1-(thiophen-2-yl)propane-1-one		
	Benzyl Alcohol Derivatives		
22	4-(2-amino-1hydroxyethyl)phenol		
23	3-(hydroxymethyl)phenol		
24	3-Phenoxy Benzyl Alcohol		
	Amine Arene Derivatives		
25	2-Ethyl aniline		
26	5-Aminosalicylic acid		
27	3-Aminosalicylic Acid		
28	Methyl-2-aminobenzoate		
29	Methyl-4-aminobenzoate		
30	N-(4-Amino-2,5-dimethylphenyl)acetamide		
31	N-(4-Amino-5-chloro-2-methylphenyl)acetamide		
32	4'-chloro-[1,1'-biphenyl]-2-amine		
33	3- Amino-4-toluic acid		
34	2,5-Dimethyl-1,4-phenylenediamine		
35	2-Chloro-5-methyl-1,4-phenylenediamine		
36	3,3'-Diamino-4,4'-dihydroxydiphenyl sulfone		
	Alkyl Derivatives		
37	N',N'-di-tert-butylethane-1,2-diamine		
38	N',N'-dimethylethane-1,2-diamine		

6	4-(4-chlorophenyl) cyclohexanecarboxylic acid		
	OLED Derivatives		
7	4 - Vinylphenylboronic Acid		
8	B-[10-(2-naphthalenyl)-9-anthracenyl] boronic acid		
9	4-(naphthalene-2-yl) boronic acid		
	Fragrance & Flavors		
10	1-methoxy-4-(prop-1-en-1-yl) benzene		
11	3-(4-Methoxyphenyl)-2-Metylpropanal		
12	3-(4-(Tert-butyl)phenyl)-2-methylpropanal		
	Specialty Monomers and Polymers		
13	Tetrahydro-2H-pyran-2-one		
14	5-(1H-benzo[d]imidazol-2-yl)pentan-1-amine		
15	2-methyl-1,2-oxaphospholan-5-one 2-oxide		
16	Boron trichloride-N,N-dimethyloctylamine		
(G)	**Heterocyclic Derivatives / Polycyclic Derivatives**	-	**40.0**
	Anthraquinone Derivatives		
1	1,4-Dihydroxyanthraquinone		
2	2,3-dihydro-9,10-dihydroxy-1,4-anthracenedione		
	Indole Derivatives		
3	7-Ethyl Tryptophol		
4	Methyl indol-6-carboxylate		
5	Indoline		
	Phthalic acid Derivatives		
6	5-nitro isophthalic acid		
7	5 carboxyphthalide		
	Furan Derivatives		
8	2,3-dihydro furan		
9	2,5-Dihydrofuran		
	Imidazole Derivatives		
10	1- methyl-1H-imidazole		
11	2-Butyl-4-Chloro-5-Formylimidazole		
	Thiophene Derivatives		
12	2-(thiophen-2-yl)ethanamine		
13	2-(thiophen-2-yl)ethanol		
	Quinazoline Derivatives		
14	4-(4-(tert-butyl)phenethoxy)quinazoline		
	Tetrahydrofuran Derivatives		
15	1[(2S)-tetrahydro-2-furanyl]-ethanone		
	Pyridine Derivatives		
16	4-pyridinecarboxylic acid		
17	4-pyridinecarboxamide		
18	4-pyridinemethylamine		
19	2-(Pyridin-2-yl)ethanol		
	Pyran Derivatives		
20	3,4-Dihydro-2H-pyran		
	Carbonate Derivatives		
21	Bis (2,5-dioxopyrrolidin-1-yl)carbonate,[N,N-discuccinimidyl carbonate]		
	Piperazine Derivatives		
22	1-(2,3-dichlorophenyl)piperazine hydrochloride		

17	4'-methyl-2-biphenyl carboxylic acid methyl ester		
18	Hexyl-3,5-di-tert-butyl-4-hydroxybenzoate		
	Aryl Acetyl Derivatives		
19	N-(2,5-Dimethylphenyl)acetamide		
20	N-(5-Chloro-2-methylphenyl)acetamide		
21	3-Nitrophenyl acetate		
22	2-Acetylthiophene		
	Aryl Acid chloride Derivatives		
23	3-methoxy-2methyl benzoyl chloride		
	Benzamide Derivatives		
24	2-Chloro-n-(4'-chloro-[1,1'-biphenyl]-2-yl)nicotinamide		
25	4-chloro-2nitro benzamide		
(J)	**Basic Aromatic Intermediates**	-	**20.0**
	Aryl Hydrazine Derivatives		
1	2 - Ethyl Phenyl Hydrazine Hydrochloride		
2	p-Sulphonamide phenyl hydrazine hydrochloride		
	Nitroarene Derivatives		
3	2-Cholro - 5-nitro benzoic acid		
4	3-Nitro 2-Cholro benzoic acid		
5	N - (2,5- Dimethyl-4-nitophenyl) acetamide		
6	N - (5-Chloro-4-nitro-2-methylphenyl) acetamide		
7	3-Nitro -4-toluic acid		
8	2-Nitro-3-chlorobanzoic acid		
9	2-Nitro-5-chlorobanzoic acid		
10	5 - Nitovanillin		
11	3,3'-Diamino-4, 4' - dihydroxydiphenylsulfone		
	Hydroxyarene Derivatives		
12	5 - Nitosalicylic acid		
13	3 - Nitosalicylic acid		
14	2- Nitro-3-hydroxybenzoic acid		
15	2 - Nitro-5-hydroxybenzoic acid		
16	3,4 - Dihydroxy-5-nitrobenzaldehyde		
	(Alkylamino)arene Derivatives		
17	3 - (Dimethylamino) phenol		
18	3 - (Diethylamino) phenol		
19	3 - Amino phenol		
20	4 - Diethylaminosalicyladehyde		
21	4 - (Aminomethyl) aniline		
22	N - benzyl-2-(2-methoxyphenoxy) ethylamine		
23	Methyl-4-(butylamino) benzoate		
24	2-(2-chlorophenyl) ethanamine		
	Anisole Derivatives		
25	1-chloro-3-mrthoxy-2-methylbenzene		
(K)	**Chiral Resolution Derivatives**	-	**10.0**
1	(R)-(+)-1 Phenylethylamine		
2	(S)-(+)-1 Phenylethylamine		
3	D - 2 - hydroxy-2-phenylacetic acid		
4	L-(+)-Mendelic acid		
5	(S)-(-)-Indoline-2-carboxylic acid		

6	(S)-(-)-tetrahydro-2-furoic acid		
(L)	**Ethylene Oxide an Isobutylene Intermediastes**	-	**75.0**
	Aryl Ethylene Oxide Derivatives		
1	4 - (2 - methoxyethyl)phenol		
2	4 - (2 - hydroxyethyl)phenol		
3	2 - (4 - (tert - butyl)phenyl)ethanol		
	Aliphatic ethylene oxide derivatives		
4	2 - (2 - chloroethoxy)ethanol		
5	2 - (diisopropylamino)ethanol		
6	2 - (tert - butylamino)ethanol		
7	2 - (ethyl(phenyl)amino)ethanol		
8	2- Chloro Ethanol		
	Butylates Aryl Derivatives		
9	2,6 - di - tert-butyl-4-(2-hydroxyethyl)phenol		
10	2,6 - di - tert-butyl phenol		
11	1-(tert-butyl)-4-methylbenzene		
12	1,3,5-tri-tert-butylbenzene		
13	2-bromo-4-(tert-butyl)phenol		
	Butylated Alkyl Derivatives		
14	1,1-dimethylethyl chloride		
(M)	**Organomettalic Chemistry Derivatives (Grignard, Lithiation, Coupling)**	-	**20.0**
	Citalopram Series		
1	4-(4-(dimethylamino)-1-(4-fluorophenyl)-1-hydroxybutyl)-3-(hydroxymethyl)benzonitrile		
	Phosphine Derivatives		
2	Triphenyl phosphine		
	Alkyl Benzene Derivatives		
3	1-(tert-butoxy)-4-pentylbenzene		
4	4-tert.butoxy alkyl benzene/4-Hydroxy alkyl benzene		
	Biaryl Derivatives		
5	4'-methyl-2-cyanobiphenyl		
6	4'-chloro-2-nitro-1,1'-biphenyl		
7	Methyl 4-acetamino-3-chloro-5-(4-chloro-2-fluoro-3-methoxyphenyl)picolinate		
8	4-Cyanobiphenyl		
9	4-(2-Pyridinyl)Benzaldehyde		
10	2,4-Difluorobiphenyl		
	Dialkyl Derivatives		
11	2,2-dimethyl pentane		
12	7-Bromo-1-heptene		
13	8-chloro-1-octene		
	Boronic Acid Derivatives		
14	4-Chlorophenyl boronic acid		
15	2-(1,3,2-dioxaborinan-2-yl)pyridine		
16	2-(4-chloro-2-fluoro-3-methoxyphenyl)-1,3,2-dioxaborinane		
17	(4-chloro-2-fluoro-3-methoxyphenyl)boronic acid		
18	3-Furanboronic acid		
19	Dimethyl thiophen-2-ylboronate		
20	Phenylboronic acid		
	Styrene Derivatives		

21	1-propyl-4-vinylbenzene		
22	4-vinylphenyl acetate		
23	1-chloro-4-vinylbenzene		
	Aliphatic Hydroxy derivatives		
24	oct-1-en-3-ol		
25	4-methyl-3-decen-5-ol		
26	3-methyl-1-phenylpentan-3-ol		
27	2-methyl-1-phenylpropan-2-ol/dimethyl phenyl ethyl carbinol		
	Total	**1.0**	**475**
	By-Products		
1	Sodium Sulphate	-	150
2	KCl Solution & Solution (15 – 20 %)	-	225
3	Acetic Acid	-	75
4	Sodium Sulfilte	-	150
5	Sodium Bisulfite	-	35
6	HBr Solution (25 – 30 %)	-	114
7	NaBr Solution (15 – 20 %)	-	125
8	KBr Solution (20 – 25 %)	-	100
9	Sodium Acetate	-	17
10	Alum Solution	-	95
11	Ammonium Sulphate	-	80

The project activity is covered in 5(f) and is of 'B' Category. Since, the proposed unit is located in GIDC, public consultation is not required as per paragraph 7(i) (III) (i) (b) of the Environment Impact Assessment Notification-2006.

The SEAC, Gujarat vide their letter dated **09/02/2016** had recommended to the SEIAA, Gujarat, to grant the Environment Clearance for the above-mentioned project based on its meeting held on **27/11/2015**. The proposal was considered by SEIAA, Gujarat in its meeting held on **12/02/2016** at Gandhinagar. After careful consideration, the SEIAA hereby accords Environmental Clearance to above project under the provisions of EIA Notification dated 14th September, 2006 subject to the compliance of the following conditions.

A. CONDITIONS :

A. 1 SPECIFIC CONDITION :

1. Entire quantity of By-products (1) Sodium Sulphate [150 MT/Month], (2) KCl Salt & Solution [225 MT/Month], (3) Acetic Acid [75 MT/Month], (4) Sodium Sulfilte [150 MT/Month], (5) HBr Solution (25 – 30 %) [114 MT/Month], (6) NaBr Solution (15 – 20 %) [125 MT/Month], (7) KBr Solution (20 – 25 %) [100 MT/Month], (8) Sodium Acetate [17 MT/Month], (9) Alum Solution [95 MT/Month] & (10) Ammonium Sulphate [80 MT/Month] (11) Sodium Bi-Sulfite [35 MT/Month] shall be sell out to the actual end users like Dyes & Dyes Intermediates Industries, Textile Industries, Manufacturer of Dispersing Agent, Paper Industries, Agro Industries etc.
2. Above mentioned items/ waste streams qualifying the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008 shall only be sold after obtaining prior permission from CPCB/SPCB/PCC.
3. The above mentioned By-product/hazardous wastes shall be sold only to the potential users who are authorized by the competent authority (MoEF/CPCB/SPCB etc.)
4. The unit shall submit the list of authorized end users of above mentioned by-products/hazardous wastes along with MoU signed with them at least two months in advance prior to commencement of production. In absence of potential buyers of these items, the unit shall restrict the production of respective item.
5. The schedule of the production activity shall be in such a way that there shall be no increase in pollution load with respect to air, water and hazardous waste as proposed in EIA report submitted vide letter no. NIL dated 31/08/2015.
6. Spent solvents shall be recovered by in-house distillation in such a manner that recovery shall not be less than 95 percent and recovered solvent shall be reused in the process as far as possible. Solvent recovery system with adequate reflux condensers shall be provided for controlling escape of low boiling solvents (VOCs). If need arises, excess solvent shall be sold to only such distillation units having valid consent & authorization from the GPCB.

A. 2 WATER :

7. Fresh Water requirement shall not exceed 364 KL/day. The fresh water shall be sourced from GIDC water supply. The water meter shall be installed and records of daily and monthly water consumption shall be maintained. No ground water shall be tapped for the project requirements in any case.

8. Industrial waste water generated from the proposed activity shall not exceed 145 KL/day.
9. Process effluent shall be segregated into different streams and treatment shall be as below:
    - Stream I: 15 KL/day:- Dilute Stream (COD – 4,000 to 6000 mg/lit). This dilute stream will be generated from manufacturing of Group D, G, I & K and R & D process will be given phanton treatment followed by primary treatment and then effluent will be send to CETP of M/s. Globe Enviro Care Ltd. (GECL) for further treatment and final disposal.
    - Stream II: 90 KL/Day: - Low TDS (< 15,000 mg/lit) & low COD (15,000 to 20,000 mg/lit). This stream will be generated from the manufacturing of Group C, E, F & J, from pilot plan, washing and scrubber. This effluent will be given Primary and Secondary treatment (SBT-Soil Bio-Technology) and passed though Common R.O. Plant. From R. O. Plant. RO Permeate (70 KL/day) water will be recycle in to utilities. RO Reject Water (20 KL/day) will be sent to Common MEE of MEPPL (M/s: Mahavir Eco Projects Pvt. Ltd.)
    - Stream III: 40 KL/Day: - Concentrated Stream – High TDS (> 15,000 mg/lit) & High COD (> 20,000 mg/lit. This stream will be generated from the manufacturing of B, H, L & M group products. This stream will be sent to Common MEE of MEPPL.
10. In case of non-operation of common MEE of MEPPL, PP has proposed to install their own Multi Effect Evaporator (MEE) system after passed through pH Correction & Solvent Stripper Column. The condensate water shall be passed though Common R O Plant. From R. O. Plant. In this situation, RO Permeate (35 KL/day) will be recycle in to utilities and RO Reject (5 KL/day) will be sent to in-house MEE.
11. Domestic effluent (20 KL/day) shall be deposed off in septic tank/soak pit.
12. Unit shall provide adequate Effluent treatment plants having Primary treatment plant, Phanton treatment, Soil Biotechnology (SBT) treatment plant, RO plant, Solvent stripper, MEE-Multi Effect Evaporator and ATFD (Agitated Thin Film Dryer) and it shall be operated regularly and efficiently so as to achieve the GPCB norms at the final outlet.
13. The unit shall provide metering facility at the inlet and outlet of the ETP including RO & MEE system and maintain the records of the same. A separate electric meter shall be placed for the effluent treatment plant (ETP), RO, MEE system. A proper logbook of ETP operation and also showing the quantity of effluent (all types of streams) generated, its treatment, reuse etc. shall be maintained and furnished to the GPCB from time to time.
14. Regular performance evaluation of the ETP including MEE & RO system shall be undertaken every year to check its adequacy, through credible institutes like L.D. College of Engineering, NPC or such other institutes of similar repute, and its records shall be maintained.
15. The unit shall join and participate financially and technically for any common environmental facility / infrastructure as and when the same is taken up either by the GIDC or GPCB or any such authority created for this purpose by the Govt. / GIDC.

A. 3 AIR:

16. Natural Gas (3180 SCM/day) shall be used as a fuel for steam boiler (4 TPH).
17. Natural Gas – 48 SCM/hr or LDO – 80 Liters/hr shall be used as a fuel for two TFH (400 U each).
18. Diesel (100 Liters/Hr) will be used as a fuel for proposed two DG sets having capacity 750 KVA each.
19. Unit shall provide separate sets of Water scrubber followed by Alkali scrubber (3 sets) as APCM with different reactors to control emissions of HCl, SO_2 and HBr.
20. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
21. Stack of adequate height shall be provided as per the prevailing norms for flue gas emissions.
22. Online monitoring system shall be installed on the flue gas and process stacks to monitor the pollutant concentrations. An arrangement shall also be made for reflecting the online monitoring results on the company's server, which can be accessed by the GPCB on real time basis.
23. Flue gas emission from Boilers, TFH, DG set & any gaseous emissions shall conform to the standards prescribed by the GPCB. At no time, emission level should go beyond the stipulated standards.
24. The air pollution control systems shall be operated efficiently and effectively to achieve the norms prescribed by the GPCB at vent / stack outlets.
25. Third party monitoring of the functioning of the Air APCMs with its efficiency shall be carried out once in a year through a reputed institute / organization.
26. The company shall prepare schedule and carry out regular preventive maintenance of APCMs and assign responsibility of preventive maintenance to the senior officer of the company.
27. 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.
28. All the vessels used in the manufacturing process shall be closed to reduce the fugitive emission.

29. Regular performance evaluation of the air pollution control systems including ESP shall be carried out at least once in a year to check its performance and efficiency through a reputed institute / organization like NPC, L.D. College of Engineering -Ahmedabad or such other institutes of similar repute, and its records shall be maintained.
30. 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.
31. All the vessels used in the manufacturing process shall be close to reduce the fugitive emission.
32. The fugitive emission in the work zone environment shall be monitored. The emission shall strictly conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health).
33. Regular monitoring of ground level concentration of SO_2, NOx, PM_{10}, $PM_{2.5}$, NH_3, HCl, Carbon Monoxide (CO), Hydrogen Bromide (HBr), HC and VOC 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.
34. Airborne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures.
35. Solvent management shall be carried out as follows :
    - Reactor shall be connected to chilled brine condenser 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 more than 95% 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.
    - Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
36. Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air..
37. 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.
    c. Pumps shall be provided with mechanical seals to prevent leakages.
    d. Project proponent shall prepare LDR program and meticulously strive to curb VOC emission and its records shall be maintained.

A. 4 SOLID / HAZARDOUS WASTE:

38. The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handing and Transboundary Movement) Rules 2008, as may be amended from time to time. Authorization of the GPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes.
39. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.
40. ETP waste, Evaporation salt shall be disposed off at the Common TSDF site.
41. Spent Catalyst, Carbon Waste, Raney Nickel shall be reuse in to process / send to regeneration unit / TSDF site/CHWIF based on its characteristic.
42. Distillation residue shall be off at the Common TSDF/CHWIF site or sent to the cement industries for co processing based on its characteristic.
43. Handling of Spent solvents shall be done as per specific condition no.6 above.
44. Spent catalyst shall be sent to authorised regeneration unit or shall be disposed off at the Common Hazardous Waste Incineration Facility (CHWIF/TSDF).
45. Process waste shall be disposed off to TSDF/CHWIF based on its characteristic.
46. NaCl shall be Sold as a by Product or send to the Common TSDF site.
47. Spent HCl – 20 to 32 % shall be reuse in to process or Sold as a By Product to the actual users.
48. Sodium Sulphite, 15 - 30 % Sodium Bromide, KBr Solution, Liq. NH3 Sol., Alum, Sodium Acetate, Ammonium Sulphate, Na2SO4, 30 % Hydrogen Bromide shall be sold to the actual users.
49. Spent H_2SO4 Solution (40-70%) shall be reused within premises or send to the actual end-users who are authorized to receive spent sulphuric acid as per the Hazardous Waste (Management, Handing and Transboundary Movement) Rules 2008.
50. Management and reuse/disposal of By-products/Hazardous wastes Sodium sulphate, KCl Salt & Solution, Acetic Acid, Sodium Sulfilte, Sodium Bisulfite, HBr Solution (25 – 30 %), NaBr Solution (15 – 20 %), KBr Solution (20 – 25 %) Sodium Acetate, Alum Solution, Ammonium Sulphate shall be as per the specific conditions mentioned above.
51. Discarded barrels / containers / bags / liners shall be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination.

52. Used oil shall be sold only to the registered recyclers.
53. The unit shall obtain necessary permission from the nearby authorized TSDF site and CHWIF.
54. Vehicles used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under.
55. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.

A. 5 SAFETY:

56. The company shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended.
57. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.
58. Storage of flammable chemicals shall be sufficiently away from the production area.
59. Sufficient no. of fire extinguishers shall be provided near the plant and storage area.
60. All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals.
61. All the toxic/hazardous chemicals shall be stored in optimum quantity and all necessary permissions in this regard shall be obtained before commencing the activities.
62. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment repot.
63. Only flame proof electrical fittings shall be provided in the plant premises.
64. Storage of hazardous chemicals shall be minimized and it shall be in multiple small capacity tanks / containers instead of one single large capacity tank / containers.
65. All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund/dyke walls shall be provided for storage tanks for Hazardous Chemicals.
66. Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs.
67. Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency.
68. Personal Protective Equipments shall be provided to workers and its usage shall be ensured and supervised.
69. First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.
70. Training shall be imparted to all the workers on safety and health aspects of chemicals handling.
71. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
72. Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.
73. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.
74. Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project.

A. 6 NOISE:

75. The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall confirm to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

A. 7 CLEANER PRODUCTION AND WASTE MINIMISATION:

76. The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.
77. The company shall undertake various waste minimization measures including :
    a. Metering and control of quantities of active ingredients to minimize waste.
    b. Reuse of by-products from the process as raw materials or as raw materials substitutes.
    c. Use of automated and close filling to minimize spillages.
    d. Use of close feed system into batch reactors.
    e. Venting equipment through vapour recovery system.
    f. Use of high pressure hoses for cleaning to reduce wastewater generation.
    g. Recycling of washes to subsequent batches.

h. Recycling of steam condensate
i. Sweeping / mopping of floor instead of floor washing to avoid effluent generation.
j. Regular preventive maintenance for avoiding leakage, spillage etc.

A. GREEN BELT AND OTHER PLANTATION:

78. The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC / GPCB and submit an action plan of plantation for next three years to the GPCB.
79. Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises.

B. OTHER CONDITIONS:

80. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
81. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s: Aqua-Air Environmental Engineers P. Ltd. & submitted vide letter no. NIL dated 03/03/2015 and commitments made during presentation before SEAC, proposed in the EIA report shall be strictly adhered to in letter and spirit.
82. A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
83. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority.
84. During material transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
85. Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
86. Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly.
87. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.
88. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act,1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
89. The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.
90. The funds earmarked for environment protection measures shall be maintained in a separate account and there shall not be any diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards shall be reported.
91. The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.
92. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
93. The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
94. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.
95. It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.
96. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
97. The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.

98. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
99. The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary.
100. The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
101. This environmental clearance is valid for seven years from the date of issue.
102. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

With regards,
Yours sincerely,

(M. M. JOSHI)
Member Secretary

Issued to:

Mr. Rohan Desai,
M/s: Aether Industries Ltd. ,
Angan, Plot no. 40,
Jaldarshan Society,
B/h: Gokul Raw House,
Parle Point, Surat.

Copy to:-

1. The Secretary, SEAC, C/O. G.P.C.B. Gandhinagar - 382010.
2. The Chairman, Central Pollution Control Board , Parivesh Bhavan, CBD -cum-Office Complex, East Arjun Nagar, New Delhi-110032
3. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (WZ), E-5, Arera Colony, Link Road-3, Bhopal-462016, MP
4. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-110003.
5. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A, Gandhinagar-382010
6. Select File

(M. M. JOSHI)
Member Secretary