

Minutes of the 38th Expert Appraisal Committee (Industry-2) Meeting held during 25-27 June, 2018 at Indira Paryavaran Bhawan, Jor Bagh Road, Ministry of Environment, Forest and Climate Change, New Delhi - 3

Day one - 25th June, 2018

38.1 Opening Remarks by the Chairman

38.2 Confirmation of minutes of the 37th meeting of the EAC (Industry-2) held on 29-31 May, 2018 at Indira Paryavaran Bhawan, New Delhi.

The EAC, having taken note that no comments were offered on minutes of its 37th meeting held on 29-31 May, 2018 at New Delhi, confirmed the same except that in respect of Agenda No.37.3.10 in view of the representation from the project proponent in this regard. Accordingly, the said agenda item was taken up for deliberations/correction in minutes of the meeting.

Agenda No.37.3.10

Laying of Anjar - Chotila Natural Gas transportation pipeline project with associated facilities from Anjar (District Kutch) to Chotila (District Surendranagar), Gujarat by M/s Gujarat State Petronet Limited

[IA/GJ/IND2/53487/2016, J-11011/144/2016- IA II(I)]

The proposal environmental/CRZ Clearance to the project for laying 36/30" Natural Gas transportation pipeline from Anjar (Kutch) to Chotila (Surendranagar) covering approx. length 196.14 km with associated facilities by M/s Gujarat State Petronet Limited (Gujarat), was considered in the EAC meeting held on 29-31 May, 2018 and the Committee recommended project for grant of environmental clearance. The project proponent vide e-mail dated 11th June, 2018 has requested for correction in specific terms and conditions.

The terms and conditions suggested by the Committee for environmental safeguards while recommending the proposal earlier shall be modified as below:

- *Stage-I forest clearance for diversion of forest land for non-forestry purposes as required under the Forest (Conservation) Act, 1980 shall be obtained and submitted to the Ministry.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *All terms and conditions stipulated by the State Coastal Zone Management Authority in their recommendation/NOC letter dated 4th September, 2017 shall be strictly adhered to.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *Total fresh water requirement shall not exceed 60 cum/day during construction phase to be met from tanker supply.*

- The Oil Industry Safety Directorate (OISD) guidelines for pipeline projects shall be followed in letter and spirit.
- The construction of pipelines through the waterbodies shall be avoided during the rainy season/ breeding seasons of aquatic animals.
- The riverbed, embankments and dykes shall be restored adequately after installation of crossings.
- SCADA system shall be installed with dedicated optical fiber based telecommunication link for safe operation of pipeline and leak detection system.
- Intelligent pigging facilities shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.
- All the recommendations mentioned in the risk assessment report shall be implemented and Emergency response plan shall be based on guideline prepared by OISD.
- All the issues raised during the public hearing conducted by the Gujarat State Pollution Control Board on 21st March, 2018 in District Morbi, 23rd March, 2018 in District Surendranagar and 27th March, 2018 in District Kutch shall be satisfactory implemented.
- At least 0.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and the details along with time bound action plan shall be submitted to the Ministry's Regional Office.
- Necessary approval from Chief Controller of Explosive must be obtained before commission of project. Requisite Onsite and Offsite Disaster Management Plans will be prepared and implemented.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.

The EAC, after deliberations, agreed for correction in minutes of the meeting on the above lines.

38.3 Environmental Clearance

Agenda No.38.3.1

Expansion of Pesticides Technical and its intermediates (excluding formulations) by M/s PI Industries Ltd at Plot No. SPM-28 & 29/1, Sterling SEZ & Infrastructure Ltd., At & PO: Sarod, Taluka Jambusar, District Bharuch (Gujarat)

[IA/GJ/IND2/61999/2017, J-11011/511/2010-IA II(I)]

38.3.1.1 The project proponent and the accredited consultant M/s San Envirotech Pvt. Ltd., Ahmedabad has made detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance for expansion of existing capacity of Pesticides Technical its intermediates with addition of new products from 8593.2 MT/annum to 44240 MT/annum at Plot No. SPM-28 & 29/1, Sterling SEZ & Infrastructure Ltd., At & Po: Sarod, Taluka Jambusar, District: Bharuch, Gujarat by M/s PI Industries Ltd. 90700 MT/annum will be recovered as by product.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry 2) in its 21st meeting held during 27-29 March, 2017 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/511/2010-IA-II (I) dated 29th May, 2017.

(iii) All Pesticides industry and pesticide specific intermediates (excluding formulations) units are listed at S.N. 5(b) along with fine chemicals under 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has earlier issued EC vide letter no. J-11013/511/2010-IA.II (I) dated 04.04.2011 for manufacturing of pesticides & its intermediates.

(v) Existing land area is 90286 m², Proposed land area is 42000.00 m². Thus, total land area after expansion is 1,32,286 m². Industry has already developed Greenbelt in an area of 29790 m² out of 90286 m² of project area, after expansion unit will increasing the greenbelt area to 43650 m² which will be 33% of the total area. The estimated project cost after proposed expansion will be Rs. 600.0 crore including existing investment of 393.0 crore. Total capital cost earmarked towards environmental pollution control measures will be Rs. 50.0 crore and the Recurring cost (operation and maintenance) will be about Rs. 20.0 crore per annum. Total employment including direct and indirect after expansion will be 350 persons. Industry proposes to allocate Rs.10.35 crores 5.0% of total project cost towards Corporate Social Responsibility.

(vi) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within the 10 km of the project site. Coastal area of Gulf of Cambay is at 2.5 km distance from project site.

(vii) Ambient air quality monitoring was carried out at 8 locations during January, 2017 to March, 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60.1 - 67.4 µg/m³), PM_{2.5} (28.8 - 32.9 µg/m³), SO₂ (8.7 - 10.3 µg/m³) and NO_x (13.2 - 17.7 µg/m³) were observed. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs from the proposed project would be 1.646 µg/m³, 0.950 µg/m³, 3.671 µg/m³, 0.071 µg/m³, 0.035 µg/m³, 0.106 µg/m³, 0.020 µg/m³ 0.008 µg/m³ with respect to PM, SO₂, NO_x, HCl, Cl₂, NH₃, H₂S, HC and dust of pesticides. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 2973 m³/day of which fresh water requirement is 2839 m³/day and 134.0 m³/day will be recycled/treated water, which will be met from SEZ water supply.

(ix) Total Industrial effluent generation will be around 1335 KLD & 50 KLD from Domestic. Industrial 1335 KLD effluent divided into two parts; one part of 522 KLD process effluents and second part dilute stream of 813 KLD which goes to ETP. Process effluent of 522 KLD is further divided into 3 parts based on the concentration, one part of 170 KLD dilute stream which is directly taken into ETP, 232 KLD of high COD High TDS stream which goes to MEE along with 60 KLD of scrubber water and the third part of 60 KLD of highly concentrated organic stream which is sent for incineration. Condensate of 273 KLD from MEE is taken into ETP for further treatment. Total 1172 KLD (50 KLD domestic + 1122 KLD industrial) waste water goes to ETP for treatment and final disposal.

500 KLD of lean stream i.e. having low TDS and low COD from adjacent PI Unit-II will be treated in the ETP of Unit-I. Also 60 KLD of organic Waste from adjacent PI Unit-II will be incinerated in the incineration facility of Unit-I.

The unit proposes to discharge Low TDS and low COD effluent quantity of 1672 m³/day into Gulf of Cambay after treatment through approved channel of VECL.

(x) Power requirement 25000 kVA will be met from DGVCL. Existing 2 nos. of D.G. Set with capacity of 4000 kVA each and additional four D.G sets with capacity of 4000 kVA each will be installed and used as standby during power failure. Stack (height 30 meters) will be provided as per CPCB norms to the proposed DG set.

(xi) Existing unit has three boilers of 6 TPH (1 nos.) and 17 TPH (2 nos.) and Thermic Fluid Heater (60 lakhs kcal/hr.). Natural Gas or Furnace Oil is/will be used as fuel. After proposed expansion quantity of Natural Gas or Furnace Oil will be increased to 200440 Nm³/day or 204 MT/day respectively). Boiler & TFH is connected with stacks of adequate stack height of 54 m & 20 m respectively.

(xii) Existing Process emission is from vents attached to process stack MPP-5,6,7,8,9, Hydrogenation plant (2 Nos. having common vent), MEE process stack and Rotary kiln Incinerator for which Alkali Scrubber, Hypo scrubber followed by alkali scrubber, and Venturi scrubber followed by alkali scrubber is used as APCM. There will be no additional process emissions source from the unit after expansion. Scrubbers will be modified as per requirement.

(xiii) Details of Solid waste/Hazardous waste generation and its management.

S. No.	Type of Solid Waste	As per HWM Rules, 2016	Quantity (MTPM)			Disposal method
			Existing	Proposed	Total	
1	ETP Sludge & MEE salt	35.3	395.41 MTPM 1216.67 MTPM	504.59 MTPM 1483.33 MTPM	900 MTPM 2700 MTPM	Collection, Storage, Transportation & Disposal in approved common TSDF/co-processing.
2	Used Oil	5.1	15.16 KL/month	9.84 KL/month	25.0 KL/month	Collection, Storage, and reused or sold to registered refiners.
3	Residues after distillation, fractionation, condensation recovery etc./ Solvent Distillation Residue	20.3	243.33 MTPM	56.67 MTPM	300 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or co-Processing/incineration.
4	Spent Carbon	36.2	16.67 MTPM	33.33 MTPM	50 MTPM	Collection, storage & Incineration in house or in approved common incineration

						facility or Send to Authorized recyclers/re-processors for recovery/co-processing
5	Process Waste (Process Waste Sludge/residue)	29.1	60.76 MTPM	1739.24	1800 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or Co-processing/co-incineration facility
6	Incineration Ash	37.2	456.25 MTPM	543.75 MTPM	1000 MTPM	Collection, Storage, Transportation & Disposal in approved common TSDF site.
7	Discarded containers / drums/ liners	33.1	30.41 MTPM	269.59 MTPM & 1000 Nos./month	300 MTPM & 10000 Nos./month	Recycled or sold to authorized scrap dealer or end users or disposal in approved common TSDF/incineration in-house as well approved common facility or sent for common decontamination facility
8	Date Expired off specification products	29.3	0.91 MTPM	99.09 MTPM	100 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility/co-processing
9	Spent/Crude Solvent	29.4	121.67 MTPM	1378.33 MTPM	1500 MTPM	Collection, storage, & Incineration in house or at authorized CHWI facility or Co-processing or reuse by in-house solvent distillation. In Some of the product where purity requirements are very high, recycling is not possible due to build-up of moisture or some specific impurity, such solvents are required to be sent to

						authorized as well as CPCB registered solvent distillation unit. Sold to GPCB Authorized recyclers/ distillers/ re-processor
10	Spent Catalyst	29.5	--	50 MTPM	50 MTPM	Collection, storage & Incineration in house or in approved common incineration facility or co-processing, Send to Authorized recyclers/ re-processors for recovery or sent for regeneration to supplier.
11	Spent Acid	29.6	--	1500 MTPM	1500 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or co-processing, Send to Authorized recyclers/ re-processors, re user.
12	Spent Resin	34.2	0.125 MTPM	1.875 MTPM	2 MTPM	Collection, storage, transportation and disposal in approved common TSDF.

(xiv) Public Hearing is exempted as per para 7(i) III stage (3) (i) (b) of EIA Notification, 2006.

(xv) Following is the list of existing & proposed products:

List of Products

S. No.	Common Name	IUPAC Name	Quantity (MTPA)		
			Existing	Proposed Change	Total
1	CPFK	1-cyclopropy-2 (2 fluorophenyl) ethanone	55	-55	0
2	CNZ	Cyanazine	70	-70	0
3	AE473	(2-{2-chloro-4-mesyl-3-[(RS)]-tetrahydro-2-furylmethoxymethyl} benzoyl)-cyclohexane-1, 3-Dione	50	-50	0
4	IBCZ	(4-chlorophenyl) methyl N-(2,4-dichlorophenyl)-1H-1,2,4-	40.2	-40.2	0

		triazole-1-ethanimidothioate			
5	MY-71	3-[1-(3,5-dichlorophenyl)-1-methylethyl]-6-methyl-5-phenyl-2,3-dihydro-4H-1,3-oxazin-4-one	10	-10	0
6	MY-100	3-[1-(3,5-dichlorophenyl)-1-methylethyl]-3,4-dihydro-6-methyl-5-phenyl-2H-1,3-oxazin-4-one	25	-25	0
7	PFD	N-{3-isobutyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl}-1,3,5-trimethylpyrazole -4- carboxylic amide	100	-100	0
8	TLF	Tolfenpyrad	225	-225	0
9	TBFN	4-chloro-N-[[4-(1,1-dimethylethyl) phenyl] methyl]-3-ethyl-1-methyl-1H-pyrazole-5-carboxamide	120	-120	0
10	PYCL	1-(3-chloro-4,5,6,7-tetrahydropyrazolo [1,5-a] pyridin-2-yl)-5-[methyl(prop-2-ynyl)amino] pyrazole-4-carbonitrile	150	-150	0
11	Lake Palace	3-[[2,5-dichloro-4-ethoxyphenyl)methyl] sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole	240	-240	0
12	Octopussy	3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1Hpyrazol- 4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole	1500	-1500	0
13	2C6SMT	3-Chloro-2-Methylthioanisole	140	-140	0
14	DMI	2,6-dimethylindanone	600	-600	0
15	ORST	Orysastrobin	170	-170	0
16	PCM	N-(2 Chloro-4 Fluoro-5-((ethoxy carbonyl)-amino)-benzoyl)-Nisopropyl-N-methyl-sulfamid	1000	-1000	0
17	ACH	3-(difluoro methyl)-1-methyl-1Hpyrazole- 4-carboxylic acid	200	-200	0
18	Star-1	Pethoxamid Technical	48	-48	0
19	CFPA	3,4-dichloro-5-fluorobiphenyl-2-amine	300	-300	0
20	AMB	3,4,5-Trifluoro-aminobiphenyl	100	-100	0
21	PRZ	Difluoro Methyl-N-Methyl Pyrazolic acid	300	-300	0
22	DCPA	1,3-dimethyl-5-chloro-4-	360	360	0

		pyrazolylcarboxylic acid chloride			
23	CMTB	2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy) methyl] benzoic acid	300	-300	0
24	ZXMD	Zoxamide	100	-100	0
25	AZST	methyl (E)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	100	-100	0
26	CDMB	4-chloro 2,6-dimethyl-bromo benzene	300	-300	0
27	PMT	Phosmet	100	-100	0
28	Flub/SOD	N-(2-Methylsulfinyl-1,1-dimethyl-ethyl)-N'-{ 2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl) ethyl]phenyl} phthalamide	300	-300	0
29	CCITM	Disodium cyanocarbonodithioimidate	140	-140	0
30	IBA	3-(2-Methylpropyl)aniline	50	-50	0
31	FNZQ	4-tert-Butylphenethyl quinazolin-4-yl ether	100	-100	0
32	DMAI	(1R,2S) and (1S,2S)-2,6-dimethyl-2,3-dihydro-1H-inden-1-amine	200	-200	0
33	Tembutrion	2-({2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy) methyl] phenyl} carbonyl)cyclohexane-1,3-dione	300	-300	0
34	CCMP	2-Chloro-5-(chloromethyl)pyridine	300	-300	0
35	HFMOP	1,1,1,3,3,3-hexafluoro-2-methoxypropane	300	-300	0
36	MDO	2,2-Dimethyl-4-methylidene-1,3-dioxolane	100	-100	0
37	FMTQ	2-Ethyl-3,7-dimethyl-6-(4-(trifluoromethoxy)phenoxy) quinolin-4-yl methyl	100	-100	0
Insecticides and Intermediates			00	4800	4800
1	Amino Triazines				
2	Diamides				
3	Hydazinopyridine				
4	Nicotinamides				
5	Nitroguanidines				
6	Organophosphorus Insecticide				
7	Phenyl organo thiophosphate				
8	Phthalimides				
9	Pyrazole-diamides				

10	Quinazoline			
11	Quinolinyln carbonate			
12	Thiazolidines			
Herbicides and Intermediates		00	5650	5650
1	Alkylazines			
2	Amide-triazolones			
3	Aryloxyphenoxy propionates			
4	Benzoyl cyclohexanediones			
5	Furanones			
6	Intermediate of Herbicide			
7	Active nitrile Herbicide			
8	Oxazinones			
9	Oxazoles			
10	Oxazolidinediones			
11	Phosphinates			
12	Pyrimidinediones			
13	Pyrimidinyl oxybenzoic acid			
14	Pyrimidinylsulfonamide			
15	Sulfonamide			
16	Triazines			
17	Triazopyrimidine sulfonamides			
Fungicides and intermediates		00	3550	3550
1	Active amide Fungicides			
2	Benzamides			
3	Carboxamides			
4	Organophosphates			
5	Pyridine Fungicides			
6	Pyrimidines			
7	Quinoxalines			
8	Triazoles			
Fine Chemicals		00	7500	7500
1	Substituted Anthranilic acid			
2	Substituted 1,2,4-Triazole			
3	Substituted tetrahydro pyran			
4	Dimethyl halo substituted benzene			
5	Substituted cyclopropyl ethanone			
6	Substituted alkyl diamine			
7	Substituted dihalo pyridine			
8	Substituted dimethyl dioxane methanol			
9	Substituted Butanone			
10	Substituted Butanoic acid			
11	Substituted Hydrazine			
12	Substituted Phenothiazine			
13	Substituted diphenyl ether			
Pyrazoles		00	5500	5500
Fluorospeciality products		00	2000	2000
Pharma intermediates		00	1000	1000

Specialty Chemicals		00	1000	1000
1	Substituted cyclohexane carboxylate			
2	Hepta Fluoro Alkane			
3	Substituted 1,3-dioxalane			
4	Substituted Isobutyrate			
5	Substituted phenyl ether			
Performance Chemicals		00	13000	13000
1	Substituted phenyl morpholine Ketone			
2	Catechol mixed salt			
New R&D product for Pilot scale		00	240	240
Total		8593.2	35646.8	44240

List of By-Products

S. No.	By Products	Quantity (MTPA)		
		Existing	Proposed change	Total
1	27% NaSH	49.25	950.75	1000
2	30% HCl	9090.1	2909.9	12000
3	Ammonia Solution 15%	613.05	386.95	1000
4	SMM	45.82	-45.82	00
5	H ₂ SO ₄	85.0	215	300
6	Distill Solvent	90.0	6810	6900
7	Sodium Propionate	2402.2	-2.2	2400
8	NaBr/MgBr	999.65	59000.35	60000
9	Acetic Acid	300.0	900	1200
10	Spent Catalyst	100.20	-100.2	00
11	Orthocresol	0	300	300
12	Propionic Acid	0	900	900
13	HBr	0	1000	1000
14	Sodium hypochloride solution	0	900	900
15	AlCl ₃	1872.8	427.2	2300
16	Ammonium Chloride	0	500	500
Total		15648.07	75051.93	90700

38.3.1.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the expansion project of Pesticides Technical and its intermediates manufacturing unit from 8593.2 TPA to 44240 TPA by M/s PI Industries Ltd (Unit-II) in a total area of 132286 sqm at Plot No.SPM-28 & 29/1, Sterling SEZ & Infrastructure Ltd at Post: Sarod, Taluka Jambusar, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and item 5(f) 'Synthetic Organic Chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 29th May, 2017 followed by amendment with exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is 2973 m³/day of which fresh water demand of 2839 m³/day shall be met from SEZ water supply. The remaining water of 134 m³/day shall be obtained from recycled/treated water.

Total Industrial effluent generation will be 1335 KLD divided into two parts; one part of 522 KLD process effluents and second part dilute stream of 813 KLD which goes to ETP. Process effluent of 522 KLD is further divided into 3 parts based on the concentration, one part of 170 KLD dilute stream which is directly taken into ETP, 232 KLD of high COD High TDS stream which goes to MEE along with 60 KLD of scrubber water and the third part of 60 KLD of highly concentrated organic stream which is sent for incineration. Condensate of 273 KLD from MEE is taken into ETP for further treatment. Total 1172 KLD (50 KLD domestic + 1122 KLD industrial) waste water goes to ETP for treatment and final disposal.

500 KLD of lean stream i.e. having low TDS and low COD from adjacent PI Unit-II will be treated in the ETP of Unit-I. Also 60 KLD of organic Waste from adjacent PI Unit-II will be incinerated in the incineration facility of Unit-I. The unit proposes to discharge Low TDS and low COD effluent quantity of 1672 m³/day into Gulf of Cambay after treatment through approved channel of VECL.

Ministry has earlier issued environmental clearance dated 4th April, 2011 for manufacturing of pesticides & its intermediates in favour of M/s PI Industries Limited. The monitoring report on compliance status of EC conditions was forwarded by the Gujarat State Pollution Control Board vide their letter dated 3rd April, 2018.

Meanwhile, the Ministry had received a representation from Shri Girishbhai K Patel, the Secretary of Kelavani regarding effluent disposal by the unit, which was forwarded to the Regional Office for verification and factual report for further action into the matter. However, there has been no response so far from the Regional Office. The Committee felt that either there has to be the desired factual report from the Regional Office or monitoring report of compliance status of the existing environmental clearance conditions should have been forwarded by them.

38.3.4.3 *The EAC, after deliberations, insisted for more inputs and clarifications in respect of the following:*

- *Clarity on products and quantity, which is necessarily to be consistent with the earlier EC dated 4th April, 2011 and the ToR dated 29th May, 2017.*
- *Revised water balance for the unit conforming to Zero Liquid Discharge.*
- *Factual status on the representation from Shri Girishbhai K Patel, already forwarded to the Ministry's Regional Office vide letter dated 12th December, 2013.*
- *Comments from GPCB also on the above representation vis-à-vis their monitoring report dated 3rd April, 2018 on compliance status of existing EC conditions.*

The proposal was deferred for the needful on the above lines.

Agenda No.38.3.2

Expansion of Bulk Drugs and Intermediates Manufacturing Unit by M/s Hazelo Lab Pvt Ltd (formerly known as Venlar Labs Pvt Ltd) at Sy.No. 240, 242, 243, 247, 248 & 249, Village Dhotigudem, Mandal Pochampally, District Nalgonda (Telangana)

[IA/TG/IND2/36540/2015, J-11011/19/2016-IA II (I)]

38.3.2.1 The Project Proponent and the accredited Consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project and informed that

(i) The Proposal is for Environmental Clearance (EC) for proposed expansion of synthetic organic chemicals (Bulk Drug and Intermediates) manufacturing unit at Sy.Nos.240, 242, 243, 247, 248 and 249, Dhotigudem Village, Pochampally Mandal, Yadadri Bhuvanagiri district, Telangana by M/s Hazelo Lab Pvt. Ltd (Formerly known as Venlar Labs (P) Ltd)

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry) in its 4th meeting held on 11-12 February, 2016 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter no. J-11011/19/2016-IA II (I) dated 31.03.2016.

(iii) All Synthetic organic chemicals manufacturing units located outside notified industrial area are listed at S.No. 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) The unit was established in 2002 in the name of Venlar Labs (P) Ltd. and involved in recovery of Piperzine ML's. The unit obtained consent for manufacturing of intermediates vide order no. 5099/PCB/ZO/RCP/CFE/2005-819 dated 23.12.2005. The unit was taken over by Hazelo Lab Pvt. Ltd in 2015.

Hazelo Lab Pvt. Ltd., renewed the Consent to operate vide order no. TSPCB/RCP/NLG/HO/2017-810 dated 30.05.2017 valid till 31.01.2022.

(v) Existing land area is 4.325 acres., additional 29.16 acres (total 33.485 acres) land will be used for proposed expansion. Industry will develop greenbelt in an area of 34.34% i.e., 11.5 acres out of 33.485 acres of area of the project site. The estimated project cost for proposed expansion is Rs. 45 crores. Total capital cost earmarked for pollution control measures is Rs 12.04 crores and the Recurring cost (operation and maintenance) will be about Rs 15.93 crores Per annum. Total Employment will be 80 persons as direct and 20 persons indirect after expansion. Industry proposes to allocate Rs. 112.5 lakhs @ 2.5 % towards Corporate Social Responsibility

(vi) It is reported that no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc lies within 10 km distance. Chinna Musi River is passing from NW to NE at 5.8km in NW direction to the site. There are seven reserve forests within the impact area; Lakkaram RF at 1.2 km in south direction, Chauttuppal RF at a distance of 4.8 km in northwest direction, Malkapuram RF at 2.2 km in west direction, Hafeezpura RF at a distance of 7 km in southwest direction, Ailaupur RF at 6.7 km in southwest direction, Meharnagar RF at 5.3 km in northwest direction and Jalalpur RF at 6.7 km in Northwest direction.

(vii) Ambient air quality monitoring was carried out at eight locations during December 2016 - February 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (25-50 µg/m³), PM_{2.5} (13-18 µg/m³), SO₂ (9-12 µg/m³) and NO₂ (9-14 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.43 µg/m³, 5.02 µg/m³, and 7.48 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) The total water requirement is 468.3 KLD out of which 298.27KLD will be fresh water and 170 KLD is recycled water. Fresh water requirement shall be met from ground water.

(ix) Total effluent of 191.06 m³/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 146.56 m³/day is segregated and sent to stripper. Stripper condensate shall be disposed to cement industries for co-processing/TSDF. Stripper bottom is sent to multiple effect evaporators (MEE) and agitated thin film dryer (ATFD). Condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and domestic wastewater of 44.5 KLD in biological treatment plant followed by Reverse Osmosis. RO rejects are sent to MEE and permeate is reused in cooling towers make-up and scrubbers.

(x) Power requirement after expansion will be 2250 kVA including existing 250 kVA and will be met from TS Transco. Existing unit has 1 no. DG sets of capacity 1 x 250 kVA, additionally 2 x 1000 kVA DG set is proposed as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG set of 2 x 1000 kVA in addition to existing DG sets stack (height 4 m for 250 kVA) which will be used as standby during power failure.

(xi) Existing unit has 1 x 2 TPH coal fired boiler, 1 lakh K.cal h thermic fluid heater and proposed 2 x 10 TPH coal fired boilers as part of expansion. Bag filters and a stack with height of 35 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm³) for proposed 2 x 10 TPH and 15m for existing 1 x 2 TPH coal fired boiler respectively.

(xii) Details of Process emissions generation and its management.

The process emissions contain Ammonia, Carbon dioxide, Hydrogen, Hydrogen Bromide, Bromine, Hydrogen Chloride and Sulfur dioxide. Ammonia, Hydrogen chloride, Hydrogen Bromide, Bromine and Sulphur dioxide are sent to scrubber in series. Ammonium Chloride from ammonia scrubbing, Sodium chloride from HCl scrubbing, Sodium bromide from HBr and Bromine Scrubbing and Sodium Bisulfite from Sulphur dioxide Scrubbing are sent to ETP. The other gases Carbon dioxide are let out into atmosphere following a standard operating procedure, while Hydrogen gas is let out into atmosphere through a water column

(xiii) Details of solid waste/Hazardous waste generation and its management.

Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and solvent recycling operation by distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boilers generate ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

(xiv) Public Hearing for the proposed project has been conducted by the Telangana State Pollution Control Board on 12.07.2017 at 10.00 AM near industry site.

(xv) Details of Certified compliance report submitted by RO, MoEF&CC.

The unit was established in 2002 in the name of Venlar Labs (P) Ltd. and involved in recovery of Piperzine ML's. The unit obtained consent for manufacturing of intermediates vide order no. 5099/PCB/ZO/RCP/CFE/2005-819 dated 23.12.2005. The unit was taken over by Hazelo Lab Pvt. Ltd in 2015.

Hazelo Lab Pvt. Ltd., renewed the Consent to operate vide order no. TSPCB/RCP/NLG/HO/2017-810 dated 30.05.2017 valid till 31.01.2022.

(xvi) Following are the list of proposed manufacturing capacities

Existing Products List

S.No	Product	Quantity (Kg/day)
Group - A		
1	N-(2-Methyl-5-aminophenyl)-4-(3-pyridyl)-2-pyrimidine amine	116.7
2	4-[(4-Methylpiperazin-1-yl) methyl] benzoic acid dihydrochloride	133.3
3	2, 3-Epoxy-2-methyl-N-[4-cyano-3-(trifluoromethyl) phenyl] propanamide	61.1
4	Ethyl-N- phthaloyl-p-amino -L- phenyl alaninate Hydrochloride	16.7
5	2-Deoxy- 2,2- Difluoro -D- Erythro- Penta furanousulose- 3,5- Dibenzoate	22.2
	Total Group -A	350
Group - B		
1	Bis- (2- Chloroethyl) Amine Hydrochloride	83.3
2	N-Acetyl Cytosine	41.7
3	Benzonitrile 4- (1h- 1,2,4 - Triazol-1-yl Methyl)	55.6
4	N-Phthaloyl,D, L Glutamic Acid anhydride	69.4
5	2', 3' - Di-O-acetyl - 5' - deoxy -5- fluorocytidine	100
	Total Group -B	350
	Total Production capacity on worst case i.e., for Group - A or Group - B	340

Manufacturing Capacity - After Expansion

S.No	Product	CAS No.	Capacity (TPD)
1	Amlodipine Besylate	88150-42-9	0.33
2	Bupropion HCl	34841-39-9	0.83
3	Clopidogrel Hydrogen Sulfate	113665-84-2	0.33
4	Desvelofloxin Succinate	386750-22-7	0.17
5	Divolproex Sodium	76584-70-8	0.57
6	Dulaxetine HCl	136434-34-9	0.17

7	Esomeprazole Mg Dihydrate	217087-09-7	0.33
8	Glimepiride	93479-97-1	0.17
9	Mesalamine	89-57-6	0.17
10	Metaprolol Succinate	37350-58-6	0.5
11	Pantoprazole Sodium Sesquihydrate	138786-67-1	0.5
12	Pragabalin	148553-50-8	0.5
13	Rosuvastatin Calcium	287714-41-4	0.1
14	Sertraline HCl	79559-97-0	0.33
15	Tramadal	27203-92-5	0.67
16	Valcyclovir Hydrochloride Monohydrate	124832-27-5	0.33
17	4-[4-Chloro-1-oxobutyl]-2,2- dimethyl phenyl acetic acid methyl ester	154477-54-0	0.1
18	N2-(1-(S)-ethoxy carbonyl-3-phenyl propyl-N6-trifluoro acetyl-L-lysine	116169-90-5	0.17
19	2-[2-[3(S)-[3-[2-(7-Chloro-2-Quinoliny)-ethenyl]phenyl]-3-hydroxypropyl]phenyl-2-propanol	142569-70-8	0.1
20	2,8-Diazo bicycloNonane	151213-42-2	0.17
21	2,3,4,5-Bis-O- (1- methylethylidene)-b-D-fructopyranose	20880-92-6	0.83
22	2- Acetyl Ethoxy acetyl methoxy ether		1.13
23	N,N-Carbonyl di imidazole	530-62-1	1.67
24	(2S,3S,5S)-2-Amino-3-Hydroxy-5-Tert-Butylcarbonyl Amino 1,6-diohenyl	183388-64-9	0.1
25	Trans-4-(4-chlorophenyl)-cyclohexane carboxylic acid	49708-81-8	0.1
26	Guanine	73-40-5	1.67
27	Poly allyl amine HCl	71550-12-4	0.5
28	Tert-butyl 2-((4R,6S)-6-((E)-2-(4-(4-fluorophenyl)-6-isopropyl-2-(N- methyl methane sulfonamido) Pyrimidin - 5-yl) vinyl)-2,2-dimethyl-1,3-dioxane-4-yl-) acetate		0.17
29	5-Cyano phthalide	82104-74-3	0.67
30	1,1-Cyclohexanediactic acid	07-11-4335	1.67
31	Carbamyl Methyl-5-Methyl hexanoic Acid	181289-15-6	0.5
32	2',3'-Di-O-acetyl-5'-deoxy-5-fluorocytidine	161599-46-8	0.13
33	N-(2-Methyl-5-aminophenyl)-4-(3-pyridyl)-2-pyrimidine amine		0.33
34	4-[(4-Methylpiperazin-1-yl)methyl]benzoic acid dihydrochloride		0.33
35	2, 3-Epoxy-2-methyl-N-[4-cyano-3-(trifluoromethyl)		0.17

	phenyl] propanamide		
	Worst Case: 20 products on Campaign basis		14.20

List of By-Products - After Expansion

S.No	Product	Stage	By-Product	Quantity	
				Kg/day	TPM
1	Clopidogrel hydrogen sulfate	I	p-toluene sulfonic acid	180.8	5.4
2	1,1-Carbonyl diimidazole	I	Trichloro methanol	2782.5	83.5

List of Utilities

S.No	Utility	Permitted	Proposed	After Expansion
1	Coal Fired Boilers (TPH)	1 x 2	2 x 10	2 x 10 1 x 2
2	Thermic Fluid Heater (K.Cal)	1 Lac	---	1 Lac
3	DG Sets (kVA)*	1 x 250	2 x 1000	2 x 1000 1 x 250

* DG sets will be used during load shut down periods only

38.3.2.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the expansion project of synthetic organic chemicals (Bulk Drug and Intermediates) manufacturing unit from 105 TPA to 5183 TPA by M/s Hazelo Lab Pvt Ltd (Formerly known as Venlar Labs (P) Ltd) in a total area of 33.485 acres at Sy.Nos.240, 242, 243, 247, 248 & 249, Dothigudem Village, Pochampally Mandal, District Yadadri Bhuvanagiri (Telangana).

The project/activities are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 31st March, 2016. Public hearing was conducted by SPCB on 12th July, 2017. It was observed that, out of total 530 (23+507) written representations received regarding public hearing, 521 (14+507) have opposed expansion of the unit.

Total water requirement is estimated to be 1468.3 KLD of which fresh water demand of 298.27 KLD, is proposed to be met from ground water. The remaining water of 170 KLD shall be obtained from recycled water.

Total effluent generated from different industrial operations is estimated to be 191.06 cum/day. The high COD/TDS stream of 146.56 cum/day is segregated and sent to stripper. Stripper condensate shall be disposed to cement industries for co-processing/TSDF. Stripper bottom is sent to multiple effect evaporators (MEE) and agitated thin film dryer (ATFD). Condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

The unit was established in 2002 in the name of M/s Venlar Labs (P) Ltd and hence requires no prior environmental clearance. The unit obtained consent for manufacturing of intermediates vide letter dated 23rd December, 2005. The unit was taken over by M/s Hazelo Lab Pvt Ltd in 2015.

Consent to operate for the present capacity 0.34 TPD has been obtained from the State PCB vide letter dated 30th May, 2017, which is presently valid up to 31st January, 2022.

38.3.2.3 *The EAC, after deliberations, insisted for more inputs, clarifications and/or necessary actions in respect of the following:*

- *Existing environmental clearance dated 23rd November, 2010 to be transferred from M/s Venlar labs (P) Ltd to M/s Hazelo Lab Pvt Ltd. The same was already stipulated in the ToR dated 31st March, 2016, but no proposal for the same has been submitted so far on the Ministry's portal.*
- *Compliance of terms and conditions of the earlier EC dated 23rd November, 2010 from the concerned Regional Office of the Ministry.*
- *Revised water balance for the fresh water requirement reduced by 20%.*
- *Addressing the issues raised during public hearing to be supported with comments from SPCB/State Government.*

The proposal was deferred for the needful on the above lines

Agenda No.38.3.3

Expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility of total capacity 11601 TPA with 3 MW coal/husk/pellets based Captive Power Plant by M/s Porus Laboratories Pvt Ltd Unit-IV at Sy. No. 87, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b and 108/2, Village Akkireddigudem, Tehsil Musunuru, District Krishna (Andhra Pradesh)

[IA/AP/IND2/62432/2015, J-11011/265/2015-IA-II(I)]

38.3.3.1 The project proponent and the accredited Consultant M/s KKB Envirocare Consultants Pvt. Ltd., Hyderabad, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Environmental Clearance to the project Proposed expansion of Active Pharmaceutical Ingredients (APIs)) & API Intermediates manufacturing Unit with R&D facility (11601 TPA) and 3 MW Coal / Husk / Pellets fired Captive Power Plant at Sy.No: 87, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b and 108/2, Akkireddigudem (V), Musunuru (M), Krishna District, Andhra Pradesh by M/s Porus Laboratories Pvt. Ltd., Unit-IV.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 2nd EAC meeting held during 16th December, 2015 and reconsidered in 7th EAC meeting held during 28th April, 2016 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter no. J-11011/265/2015-IA II(I) dated 23-01-2017.

(iii) Proposal for ToR Amendment was considered in 33rd EAC meeting held during 24th January, 2018 and Amended ToR copy was issued dated 07-05-2018.

(iv) All projects are listed at S.N. 5 (f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(v) Ministry has issued EC earlier vide letter no. J-11011/1101/2007-IA-II (I); dated 02-02-2009 to the existing project in favour of M/s. Porus Laboratories Pvt. Ltd., Unit-IV (formerly Porus Drugs & Intermediates Pvt. Ltd)

(vi) Existing land area is 64818 m², additional 37433.41 m² land will be used for proposed expansion. Total area would be 102251.41 m² (10.23 Ha). Industry will develop greenbelt in an area of 46.21 % i.e. 47248.64 m² out of total area of the project.

(vii) The estimated project cost is Rs. 80.25 Crores including existing investment of Rs.24.96 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 31 crores including existing Rs. 4.3 Crores and the Recurring cost (operation and maintenance) will be about Rs. 38.12 crores per annum.

(viii) Total Employment will be 200 persons as direct & 100 persons indirect after expansion. Industry proposes to allocate Rs. 138 lakhs of 2.5% of capital cost towards Corporate Social Responsibility (Enterprise Social Commitment).

(ix) As per the MoEF&CC OM vide F. No. 22-65/2017-IA.III dated 01-05-2018, industry proposes to allocate Rs. 55 lakhs i.e., 1% of capital cost towards Corporate Environment Responsibility.

(x) There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10km distance. River Tammileru is flowing at a distance of 8.4 km in E direction. Water bodies like Vempadu Major Canal is at a distance of 0.23 km in W direction; Pond near Akkireddigudem is at a distance of 0.4 km in E direction; Pond near Ramanakkapeta is at a distance of 1.15 km in W direction; Ramalinga Cheruvu is at a distance of 4 km in SE direction; Pappana Cheruvu is at a distance of 5 km in SW direction; Nalla Cheruvu is at a distance of 6 km in SE direction; Pedda Cheruvu is at a distance of 3.3 km in E direction.

(xi) Ambient air quality monitoring was carried out at 9 locations during March to May 2016 and submitted baseline data indicates that ranges of concentrations of PM₁₀:18- 49µg/m³, PM_{2.5}: 9-24µg/m³, SO₂: BDL-14.6µg/m³ and NO₂: BDL-15.8µg/m³ respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.82 µg/m³, 9.47 µg/m³ and 6.65 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xii) Total water requirement is 1587 m³/day of which fresh water requirement of 758 m³/day will be met from ground water through bore wells and private tankers. Effluent of 938 KLD quantity will be treated through Effluent Treatment plant. The plant will be based on Zero Liquid discharge system.

(xiii) Power requirement after expansion will be 950 kVA including existing 700 kVA and will be met from Andhra Pradesh State Power Distribution Corporation limited (APSPDCL). Existing unit has 2 DG Sets of 320 kVA & 380 kVA capacities, additionally 2 nos. of DG sets of 1000 kVA and 3 nos. of 500 kVA will be used as standby during power failure. Stack height of 11 m for 1000 kVA DG set each, 9 m for 500 kVA each will be provided as per CPCB norms to the proposed DG sets. Industry is also proposing 3 MW Coal / Husk / Pellets fired Captive Power Plant.

(xiv) Existing unit has 5 TPH coal fired boiler. Additionally 30 TPH Coal / Husk / Pellets fired boiler for 3 MW Captive Power Plant, 10 TPH and 8 TPH boiler coal/husk/pellets fired boilers will be installed. Electrostatic Precipitator with a stack of height of 55 m for 30 TPH boiler, Multi cyclone separator & bag filter with a stack of height of 40 m for 10 TPH and 30 m for 8 TPH boiler will be installed for controlling the Particulate emissions within statutory limit of 115 mg/Nm³ for proposed boilers. Proposed 8 TPH boiler in addition to the existing 1 lakh Kcal/hr Diesel fired Thermic Fluid Heater will be standby after expansion. Existing 5 TPH boiler will be dismantled after expansion.

(xv) Details of Process emissions generation and its management.

S.No	Process Emission	Maximum Quantity (kg/day)	Treatment
1	HCl	871.9	• Scrubber with water / caustic solution
2	Monomethylamine	230.9	• Scrubber with water
3	H ₂	91.4	• Diffused with flame arrestor
4	CO ₂	1407.7	• Dispersed into atmosphere
5	SO ₂	500	• Scrubber using caustic solution.

Details of Solid waste/ Hazardous waste generation and its management.

Details of Solid Waste/ Hazardous Waste generation and its management:				
S. No.	Source	Proposed Quantity (TPD)	Handling Method	Disposal
1.	Organic residue	11.2	HDPE Drums	Sent to SPCB Authorized Cement industries / TSDF
2.	Spent Carbon	3.7		
3.	Distillation Bottom Residue (1% of spent solvents)	1.8		
4.	Inorganic & Evaporation salt (Process)	62.4	HDPE Bags	
5.	Evaporation salt (Non-Process)	3.5		
6.	ETP Sludge	10		
7.	Boiler Ash	42	Stored in covered area	Sold to Cement industries/ Brick Manufacturers
Other Hazardous Waste generation from the Plant				
8.	a) Detoxified Container / Liners drums, HDPE Carboys, Fiber Drums	1000 Nos./ month	Designated covered area	Disposed to SPCB Authorized agencies after complete detoxification
	b) PP Bags	200 Kg/month		
9.	Spent solvents (with moisture) (solvents 178+water 7)	185 KLD	Stored in Drums / Tanks	Sent to In-house Solvent Recovery System
10.	Recovered Solvents from spent solvents	165 KLD	Stored in Drums / Tanks	Recovery within the premises duly sending the residue to Authorized agencies
11.	Spent Mixed solvents (13 from SRS + 4 from ETP)	17 KLD	Stored in Drums / Tanks	Recovery within the premises / Sent to SPCB Authorized agencies
12.	Waste oils & Grease	3 KL/A	Stored in Drums	Sent to SPCB Authorized agencies for reprocessing / recycling.
13.	Used Lead acid Batteries	100 Nos. / annum	Designated covered area	Sent to suppliers on buy-back basis.
14.	Misc. Waste (spill control waste)	24 TPA	Stored in Drums	TSDF
15.	Spent Catalyst	8.4 TPA	Stored in Drums	Sold to suppliers on buy-back basis.

Non-Hazardous Waste Generation, Handling and Disposal

S. No.	Waste	Quantity (TPD)	Quantity (TPA)	Handling	Disposal option
1.	Used Insulation waste, PVC Scrap, HDPE & PP scrap, Paper waste, Used Thermocouple waste, Glass scrap, Iron scrap, SS scrap, Aluminium & other Metal Scrap, Cotton waste (used aprons/ uniforms, etc.), Packing wood etc.,	1	360	Storage yard	Sent to outside agencies for recycling
2.	Kitchen waste from canteen	0.2	72	HDPE Drums	Composted on site and reused for green belt

Biomedical Waste and E- Waste Generation, Handling & Disposal

S. No.	Waste	Quantity (kg/day)	Quantity (TPA)	Disposal option
1.	Category : Yellow (h) Decontaminated media from Microbiology Lab	20	7.2	Pre-treat to sterilize with non-chlorinated chemicals on-site as per BMW Rules and sent to PCB authorized agency for incineration.
2.	Category: White Waste sharps from OHC (Needles, syringes, scalpels, blades, glass, etc.)	0.10	0.036	Autoclaving and sent to PCB authorized agency.
3.	Category : Yellow (c) Soiled Waste from OHC (cotton, dressings, soiled plaster casts, other material)	0.30	0.108	Sent to PCB authorized agency for incineration.
4.	e – waste	10	3.6	Sent to authorized E-waste collection centres/ registered dismantlers / authorized recyclers/ return back to manufacturers.

(xvi) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 16-02-2018. The main issues raised during the public hearing are related to 1) Additional employment with preference to locals in expansion, 2) Proper environmental protection measures during expansion, 3) Plantation development, 4) Rain water harvesting pits outside the premises, 5) Conducting medical camps.

(xvii) Certified Compliance report for EC and CFO conditions were issued by Andhra Pradesh State Pollution Control Board dated 22-03-2018 (As per the MoEF&CC Circular vide No. J-11013/6/2010-IA.II (Part) dated 07-09-2017).

(xviii) The details of products and capacity as under:

S. No.	Product	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)
1.	Bisphenol Acetophenone	--	--	120
2.	P-Phenolphthalein bisphenol (or) 2-Phenyl-3,3-Bis (4-Hydroxyphenyl) Phthallimide (PPPBP)	--	3600	3600
3.	1,5-Bis-[2,6-dimethyl-4-(2-methyl-2-propenoxy) phenyl]-penta-(2,6-dimethyl-1,4-phenyleneoxide (MX-9000)	--	500	500
4.	Tetramethyl bisphenol acetone (TMBPA)	--	--	99.6
5.	[1,1,1-Tri-(4-hydroxyphenyl)] ethane (THPE)	--	--	99.6
6.	4-Hydroxybenzonitrile (HBN)	--	--	99.6
7.	4-Nitro-N-Methyl Phthalimide (4-NPI)	--	5000	5000
8.	3-[2-(Dimethylamine)ethyl]-N-methyl-1H-indole-5-methane sulfonamide	--	--	132
9.	Sumatriptan Succinate	6	--	6
10.	Ciprofloxacin Hydrochloride	600	--	600
11.	Metformin Hydrochloride	600	--	240
12.	Venlafaxine Hydrochloride	12	--	12
13.	Sertraline Hydrochloride	24	60	60
14.	Celecoxib	60	(-24)	36
15.	Clopidogrel Hydrogen Bisulfate	60	300	360
16.	Enrofloxacin	360	(-348)	12
18.	Gabapentin	24	576	600
Dropped products (as per EC dated 2-2-2009)				
1	Ibuprofen	1200	0	0
2	Paracetamol	1200	0	0
3	Pioglitazone	12	0	0
Total Production Capacity		3000 (any 3 products)	---	11600.8
R&D activity		--	0.2	0.2
Total Production Capacity (18 products at a time and R&D) With 3 MW Captive Power Plant				11,601 (all products)

List of By-products after expansion

S. No.	By-Product	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Product
1.	Piperazine ML's	3512.4	0	3512.4	Ciprofloxacin Hydrochloride
2.	N-Ethyl Piperazine ML's	2183.4	(2110.6)	72.8	Enrofloxacin
3.	Spent Sulfuric Acid	--	88243	88243	4-Nitro-N-Methyl Pthalimide
Dropped By-products					
1	Hydrochloric Acid (25%)	3960	0	0	Ibuprofen
2	Aluminium hydroxide gel	5255.5	0	0	Ibuprofen
3	Cromic Sulphate solution	2501.7	0	0	Ibuprofen

38.3.3.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the expansion project of Active Pharmaceutical Ingredients (APIs) & API Intermediates manufacturing Unit with R&D facility from 3000 TPA to 11601 TPA by M/s Porus Laboratories Pvt Ltd Unit-IV in a total area of 10.23 ha at Sy.No 87, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b and 108/2, Village Akkireddigudem, Mandal Musunuru, District Krishna (Andhra Pradesh).

The project/activities are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 23rd January, 2017, followed by amendments therein on 7th May, 2018. Public hearing was conducted by SPCB on 16th February, 2018.

Total water requirement is estimated to be 1587 cum/day of which fresh water demand of 758 cum/day, is proposed to be met from ground water through bore wells and private tankers.

Total effluent generated from different industrial operations is estimated to be 938 cum/day. Treated effluent of 829 KLD will be recycled in cooling tower makeup and used in boilers. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

The Ministry had earlier issued EC vide letter dated 2nd February, 2009 in favour of M/s Porus Drugs & Intermediates Pvt Ltd for expansion of bulk drugs manufacturing unit of capacity 3000 TPA at Survey No.106, 107/1&2, Village Akkireddigudem, Mandal Musunuru, District Krishna (Andhra Pradesh). The proposal for transfer of EC in the name of M/s Porus Laboratories Pvt Ltd Unit-IV was not found acceptable due to discrepancy in survey nos./address.

Consent to Operate for the present industrial operations has been obtained from the State PCB vide letter dated 24th October, 2016, which is presently valid up to 30th November, 2021.

38.3.3.3 *The EAC, after deliberations and in view of admissibility of the proposal in the name of the applicant, desired for transfer of existing environmental clearance dated 2nd February, 2009 from M/s Porus Drugs & Intermediates Pvt Ltd to M/s Porus Laboratories Pvt Ltd. Further, in view of substantial changes in survey nos, the proposal was not taken forward.*

Agenda No.38.3.4

Agrochemicals manufacturing unit by M/s Crystal Crop Protection Pvt Ltd at plot No. D2/CH/14, GIDC industrial estate, Dahej-2, Taluka Vagra, District Bharuch (Gujarat)

[IA/GJ/IND2/34766/2015, J-11011/07/2016-IA II (I)]

38.3.4.1 The project proponent and accredited Consultant M/s Aqua-Air Environmental Engineers Pvt Ltd made a detailed presentation on the salient features of the project & informed that:

(i) The proposal is for Environmental Clearance to Proposes Pesticide Technical (3525 MTPA) manufacturing unit at Plot No. D2/CH/14, GIDC Industrial Estate, Dahej-2, Dist: Bharuch (Guj.) by M/s. Crystal Crop Protection Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (industry-2) in its 38th EAC meeting held during 25th June, 2018 and recommended Terms of References (ToRs) for the project. The ToR has been issued by Ministry vide letter No. J-11011/07/2016-IA II (I) dated 21/06/2016.

(iii) All Products are listed at S.N. 5(b) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Company has acquired 30000 m² land for proposed plant from GIDC. Industry will be developed Greenbelt in an area of 30 % i.e. 10000 m² out of 30000 m² total area of the project.

(v) The estimated project cost is Rs.12 Crores. Total Capital cost earmarked towards environmental pollution control measures is Rs.2.0 Crore and recurring cost (Operation and Maintenance) will be around Rs.1.5 Crore per annum. Total employment will be 45 people as direct and 50 person indirect after expansion. Industry purposes to allocate Rs. 0.24 Cr of 2% towards Corporate Social Responsibility. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River/water body –Narmada River is flowing at a distance of 5.3 Km in South Direction.

(vi) Ambient air quality monitoring is carried out at 8 locations during March 1, 2017 to May 31, 2017. The dispersion of pollutants in the atmosphere is a function of several meteorological parameters viz. temperature, wind speed and direction, mixing depths, inversion level, etc. The ambient air samples were collected and analyzed for Particulate Matter (PM₁₀), Particulate Matter (PM_{2.5}), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Ozone (O₃), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH₃), Benzene (C₆H₆), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), HC, & VOCs were monitored at site and nearby villages for identification, prediction,

evaluation and assessment of potential impact on ambient air environment. The PM₁₀ values at all the locations in residential/rural areas ranged between 72.5 – 80.50 $\mu\text{g}/\text{m}^3$ respectively in pre-monsoon season. Similarly, the values of PM_{2.5} varied in the range of 40.08 – 45.99 $\mu\text{g}/\text{m}^3$. The PM₁₀ and PM_{2.5} concentrations at all the AAQM locations were primarily caused by local phenomena including vehicular activities and natural dust getting air borne due to manmade activities and blowing wind. The values of NO_x at all the locations in residential/rural areas were observed to be in the range of 14.06 – 18.36 $\mu\text{g}/\text{m}^3$. The values of SO₂ at all the locations in residential/rural areas ranged between 11.97 – 17.29 $\mu\text{g}/\text{m}^3$. The values of O₃ at all the locations in residential/rural areas ranged between 10.02 – 10.75 $\mu\text{g}/\text{m}^3$. At all the air quality monitoring locations in residential/rural areas, the values of NO_x, SO₂ & O₃ were observed to be within limits. The values of CO at all the locations in residential/rural areas ranged between 1.12 – 1.20 mg/m^3 . The values of NH₃ at all the locations in residential/rural areas ranged between BDL – 1.75 $\mu\text{g}/\text{m}^3$. The values of Ni at all the locations in residential/rural areas ranged between 10.05 – 10.15 ng/m^3 . The values of VOCs at all the locations in residential/rural areas ranged between 0.2 – 0.8 ppm. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement will be 162 m³/day of which fresh water requirement of 162 m³/day and will be met from GIDC Water Supply.

(viii) Low COD & Low TDS Treated Effluent (60 KL/Day) will be treated in ETP then it will discharge into deep sea through GIDC pipeline. High COD Stream (20 KL/Day) from process will be neutralized in ETP and then evaporated in MEE. MEE Condensate will be treated in ETP and then Treated effluent will be discharged into deep sea through GIDC Pipeline.

Total water requirement will be 162 m³/day which will meet through GIDC water supply. Total wastewater generation will be 80 m³/day. Low COD and low TDS effluent (60 m³/day) will be sent to propose ETP consists of primary & secondary treatment facility for treatment. High COD and high TDS stream (20 m³/day) shall go to MEE for treatment and MEE condensate will be sent back to Aeration tank of ETP. The final treated water from ETP will be sent to GIDC drain for final disposal. High COD/TDS stream (20 m³/day) shall be evaporated in MEE and MEE Condensate will be sent to ETP for further treatment and finally it will be sent to GIDC drain for final disposal.

(ix) Total Power Requirement - 1000 KVA from DGVCL from Dakshin Gujarat Vij Company Limited (DGVCL). Stack (Height – 11 m) will be provided as per CPCB norms to the proposed DG Set.

(x) Unit will have 5 TPH Agro waste/FO/LDO base 1 No. steam boiler and 1000 KVA – 1 D.G.Set. Multi Cyclone Separator with Bag Filter, scrubber with a stack of height of 30m, 11 m will be installed for controlling the Particulates Matter (PM) within statutory limit of 115 mg/Nm^3 for the proposed boilers.

(xi) Details of Process emissions generation and its management

Unit will have 3 No of process gas emission. Two Stage scrubber with a stack of height of 11 m will be installed for controlling the process gas emission.

(xii) Details of Solid waste / Hazardous waste generation and its management.

S. No.	WASTE DETAILS	WASTE CATEGORY	QUANTITY (MT/Year)	MODE OF DISPOSAL
1.	ETP Sludge	Sch-I/ 35.3	300	Collection, Storage, Transportation and Disposal at Nearest TSDF for Secured Landfill
2.	Process Sludge	Sch-I/ 29.1	250	Collection, Storage, Transportation and Disposal at Nearest TSDF or sell to Cement Industry
3.	Distillation Residue	Sch-I/ 20.3	180	Collection, Storage, Transportation and Co-processing in Cement Industries or incineration at Common Incineration facility
4.	MEE Salt	Sch-I/ 35.3	350	Collection, Storage, Transportation and Disposal at Nearest TSDF
5.	Used Oil	Sch-I/ 5.1	0.5	Collection, Storage, Transportation & recycle to GPCB authorized recycler
6.	Discarded Drums/Bags/Containers	Sch-I/ 33.1	10	Decontamination, Storage & sent to actual recycler
7.	35% HCl	Sch-I/ 29.6	45	Collection, Storage, Transportation & Sell to end user
8.	Inorganic Salt	Sch-I/ 29.1	1050	Collection, Storage, Transportation and Disposal at Nearest TSDF
9.	Spent Sulphuric Acid	Sch-I/ 29.6	350	Collection, Storage, Transportation & Sell to end user

(xiii) Public Hearing is not applicable as plant is located in notified Industrial Estate (Dahej)

(xiv) Following are the list of proposed products:-

S. No.	Product	Class	Quantity (MT/Year)	CAS No.	LD50
1	Boscalid	Fungicide	30	188425-85-6	50 mg/kg
2	Cyproconazole	Fungicide	20	94361-06-5	1010 mg/kg
3	Difenaconazole	Fungicide	20	119446-68-3	2010 mg/kg
4	Flutriafol	Fungicide	30	76674-21-0	1140 mg/kg
5	Epoxiconazole	Fungicide	40	133855-98-8	3160 mg/kg
6	Hexaconazole	Fungicide	200	79983-71-4	2189 mg/kg
7	Kresoxim methyl	Fungicide	30	143390-89-0	2150 mg/kg
8	Mancozeb	Fungicide	400	8018-01-7	4500 mg/kg
9	Metalaxyl	Fungicide	100	57837-19-1	3100 mg/Kg
10	Pencycuron	Fungicide	30	66063-05-6	2000 mg/kg
11	Propiconazole	Fungicide	100	60207-90-1	1211 mg/kg
12	Propineb	Fungicide	30	12071-83-9	3708 mg/kg
13	Prothioconazole	Fungicide	25	178928-70-6	2500 mg/kg

14	Thiophnate methyl	Fungicide	100	23564-05-8	5000 mg/kg
15	Tricyclazole	Fungicide	100	41814-78-2	2000 mg/kg
16	Bispyribac Sodium	Herbicide	100	125401-75-4,	2250 mg/kg
17	Clodinfob-propargyl	Herbicide	100	105512-06-9	2271 mg/kg
18	Dicamba	Herbicide	20	1918-00-9	1190 mg/kg
19	Diuron	Herbicide	20	330-54-1	3400 mg/kg
20	Imezathapyr	Herbicide	100	81335-77-5	2150 mg/kg
21	Metribuzine	Herbicide	100	21087-64-9	1090 mg/kg
22	Oxyfluorfen	Herbicide	100	42874-03-3	5000 mg/kg
23	Pendimethalin	Herbicide	400	40487-42-1	1421 mg/kg
24	Penoxsulam	Herbicide	40	219714-96-2	5000 mg/kg
25	Propanil	Herbicide	40	709-98-8	2500 mg/kg
26	Propaquizafop	Herbicide	100	111479-05-1	2000 mg/kg
27	Quizalofop ethyl	Herbicide	100	76578-14-8	1210 mg/kg
28	Terbuthylazine	Herbicide	50	5915-41-3	1000 mg/kg
29	Alphamethrin	Insecticide	50	67375-30-8	79 mg/kg
30	Diafenthiuron technical	Insecticide	100	80060-09-9	2068 mg/kg
31	Fenpyroximate	Insecticide	100	134098-61-6	2000 mg/kg
32	Flubendiamide	Insecticide	250	272451-65-7	5000 mg/kg
33	Profenofos	Insecticide	100	41198-08-7	358 mg/kg
34	Thiamethoxam	Insecticide	200	153719-23-4	1563 mg/kg
35	Triazophos	Insecticide	200	24017-47-8	66 mg/kg
Total			3525		

38.3.4.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Pesticide Technical manufacturing unit of capacity 3525 TPA by M/s Crystal Crop Protection Pvt Ltd in a total area of 30000 sqm at Plot No. D2/CH/14, GIDC Industrial Estate, Dahej-2, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 21st June, 2016 with exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total fresh water requirement is estimated to be 162 cum/day to be met from GIDC water supply.

Total effluent generated from different industrial operations is estimated to be 80 cum/day. Low COD/TDS effluent of 60 m³/day shall be sent to ETP consisting of primary & secondary treatment facility for treatment. High COD/TDS stream of 20 m³/day shall be sent to MEE for treatment and MEE condensate shall be directed to aeration tank of ETP. The final treated water from ETP shall be sent to GIDC drain for final disposal.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

38.3.4.3 *The EAC, after deliberations, insisted for inputs, clarifications and necessary actions in respect of the following:-*

- *The product list contains four pesticides namely, Boscalid, Alphanethrin, Triazophos & Profenofos having LD₅₀ less than 1000 mg/kg, which are reported to be highly toxic and thus need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.*
- *Considering the safety precautions, risk assessment study should be carried out using 3-D modelling.*

The proposal was deferred for the needful on the above lines

Agenda No.38.3.5

Setting up Agrochemicals, Intermediates and Specialty chemicals by M/s United Phosphorus Limited (UPL) at Plot No. D-3/6, Dahej-III, GIDC Industrial Estate, Village Kadodara, Taluka Vagra, District Bharuch (Gujarat)

[J-11011/306/2016- IA II(I)) (IA/GJ/IND2/58497/2016]

38.3.5.1 The project proponent and the accredited consultant M/s Siddhi Green Excellence Pvt Ltd, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project having proposed new unit at Plot No. D-3/6, Dahej– III GIDC Industrial estate (within PCPIR region), Village Kadodara, Taluka-Vagra, Dist. Bharuch, State-Gujarat, India by M/s. UPL Limited.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 14th meeting held during 26/10/2016 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter no. J-11011/306/2016-IA II (I) dated 13-12-2016.

(iii) Sectors covered as per Schedule of EIA Notification of the Government of India, Ministry of Environment, Forest & Climate Change, New Delhi, vide S.O. 1533 dated 14th September, 2006. Pesticides Industry and Pesticide Specific Intermediates (Excluding Formulations) at Sr. No. 5(b) under category 'A' Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) at Sr. No. 5(f) Thermal Power Plants at Sr. No. 1(d). Project is appraised at Central Level by Expert Appraisal Committee (EAC)

(iv) Total plot area is 755495.16 sqm will be used for proposed project. Industry will develop Greenbelt in an area of ~34.81 % i.e., 263005.16 sq. m out of total area of the project. The estimated cost of the project shall be Rs.2388.19 Crore. Total capital cost earmarked for pollution control measures is Rs.209 Crore and the Recurring cost (operation and maintenance) will be about Rs.14.15 Crore per annum. Total Employment will be 700 nos. persons as permanent employees & 1300 nos. people's contractual basis for proposed project. Industry proposes to allocate Rs.60 crore @ of 2.5 % of total project cost towards Corporate Social Responsibility. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. There is Dahej Reserved

Forest towards west side from project site (~9.6 km). Bhukhi river is flowing at a distance of 14.32 in SEE direction.

(v) Ambient air quality monitoring was carried out at 8 locations (including project site) during October 2016 to December 2016 and the baseline data indicates that ranges of concentrations of PM₁₀ (77-89µg/m³), PM_{2.5} (18-38µg/m³), SO₂ (20-31µg/m³) and NO_x (20-33µg/m³) (98th percentile values) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.31 µg/m³ with respect to PM₁₀. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vi) Total water requirement shall be 12453 m³/day of which fresh water requirement of 7795 m³/day will be met from GIDC reservoir. (Total fresh water requirement is @ 9313 KLD from GIDC.As per Additional TOR No.II, GIDC water requirement is reduced from 9313 KLD to 7795 KLD).Overall water consumption reduction is 38%. Effluent of 2134 KLD quantity will be treated through GIDC drainage network to deep sea.

(vii) 4 MWPH electricity power shall be obtained from Dakshin Gujarat Vij Company Ltd. (DGVCL) & for remaining power requirement Captive power plant of 55 MWH will be installed for power generation. Captive Power plant shall be installed according to GPCB/CPCB guidelines and in three phases-55 MWPH (Phase-1:20MWPH + Phase-2:20MWPH+ Phase-3 :15 MWPH)

DG sets (4 nos.) of 2000 KVA each shall be used as standby during power failure. Stack (height 20 m of each) will be provided as per CPCB norms to the proposed DG sets.

(viii) Flue Gas Emissions& proposed control measures:

S. No.	Stack Attached to	Stack Height in Meter	Fuel used and Rate of consumption	Parameter	Permissible Limits	Control Measures provided
1.	Boiler 130 TPH x 2 nos.- for captive power plant (20 MW)	100 x 2 nos.	Briquettes/ Coal- 2180.3 MT/day	Particulate Matter	100 mg/Nm ³	ESP + water scrubber for each boiler
2.	Boiler 100 TPH – for captive power plant (15 MW)	100	Or Natural gas- 1026037.4 NM ³ /day	SO ₂	100 ppm	
3.	Boiler 31 TPH x 2 nos.	55 x 2 nos.	Or Furnace Oil 969 MTPD	NOx	50 ppm	Multi Cyclone separator, Bag filter & water Scrubber
4.	Boiler 20 TPH x 2 nos.	31 x 2 nos.		Particulate Matter	150 mg/Nm ³	
5.	Boiler 40 TPH x 2 nos.	55 x 2 nos.		SO ₂	100 ppm	
6.	Boiler 10 TPH x 2 nos.	31 x 2 nos.		NOx	50 ppm	
7.	Thermic fluid heater- 1 (4 lakh Kcal/ Hr)	30 x 3 nos.	Natural gas- 1329 NM ³ /day			-
8.	Thermic fluid heater- 1		Natural gas- 3986 NM ³ /day			

	(12 lakh Kcal/ h)					
9.	Thermic fluid heater-1 (1.5 lakh Kcal/ h)		Natural gas-498 NM ³ /day			
10.	DG set (2000 KVA x 4 nos.)	20 x 4 nos.	Diesel- 847 L/h	To be used as stand by during power failure		

(ix) Process gas emissions& proposed control measures:

Stack No.	Stack attached to	Air pollution Control System	Height (M)	Air emission	
				Pollutant Name	Permissible limit (mg/NM ³)
(A) Ethylenediamine (EDA)					
1.	2-Stage Water scrubber of Vapor Liquid separator	Water scrubber	30	NH ₃	175
(B) Dicamba					
2.	Bag filter attached to SPD	Bag Filter	30	PM	20
(C) Dimethyl Phosphoroamidothioate (DMPAT)					
3.	Reactor	2-Stage Caustic scrubber	30	PCl ₃	09
4.	NH ₃ recovery column	2-Stage water scrubber	30	NH ₃	175
(D) Isocyanates & Chloroformates					
5.	Reactor	1 st solvent +2 nd water+3 rd caustic scrubber	30	Phosgene	NIL
6.	Reactor	2-Stage water & Caustic scrubber	30	HCl	20
(E) Tri Methyl Phosphite(TMP) / Tri Ethyl Phosphite (TEP)					
7.	PCl ₃ storage tank	Dilute Caustic scrubber	30	PCl ₃	0 9
8.	Reactor	Dilute HCl scrubber	30	NH3	175
9.	Wet scrubber attached to SPD	Water Scrubber	30	PM	150
(F) Meta Phenoxy Benzaldehyde (MPBAD)					

10.	Reactor	Alkali Scrubber	30	Bromine	05
(G) Acephate					
11.	Reactor	2-Stage water scrubber	30	NH ₃	30
12.	Bag filter attached to SPD	Bag Filter	30	PM	20
(H) Sulphur-WDG (Wettable Dispersible Granule)					
13.	Bag filter attached to SPD	Bag Filter	30	PM	20
(I) Chloroacetyl Chloride					
14.	Reactor	2-Stage water scrubber	30	HCl	20
15.	Reactor	Caustic scrubber	30	SO ₂	40
(J) Methoxyacetyl Chloride					
16.	Reactor	Water Scrubber	30	HCl	20
17.	Reactor	Caustic scrubber	30	SO ₂	40
(K) 2-Chloro-3, 3-tri fluoropropen-1,2 dimethylcyclopropane Carbonyl chloride					
18.	Reactor	Water Scrubber	30	HCl	20
19.	Reactor	Caustic scrubber	30	SO ₂	40
(L) DV Acid Chloride					
20.	Reactor	Water Scrubber	30	HCl	20
21.	Reactor	Caustic scrubber	30	SO ₂	40
(M) DL-Methionine					
22.	Reactor	Water Scrubber	30	NH ₃	175
(N) Acrolein, 1-Methylamino-1-Methylthio-2-Nitroethene , Sodium Cyanide ,Potassium Cyanide and Cyanuric Chloride					
23.	Combined fume incinerator 1 & 2 (2 nos.)	Thermal destruction	30	PM HCl SO ₂ NO _x H ₂ S HC (Organic Trace) HCN	150 20 40 25 45 20 30
(O) Sodium Cyanide					
24.	Reactor	NH ₃	30	NH ₃	175

		absorber in H ₂ SO ₄ scrubber			
(P) Potassium Cyanide					
25.	Reactor	NH ₃ absorber H ₂ SO ₄ scrubber	30	NH ₃	175
(Q) Cyanuric Chloride					
26.	Reactor (Crystalizer)	HCl absorber Water scrubber	30	HCl	20
(R) Tri Methyl Phosphide					
27.	Spray dryer of CaCl ₂	Water scrubber	30	PM	150
(S) Glufosinate					
28.	From Reactor to water scrubber & its vent to Stack	Alkali scrubber	30	HC	20
29.	From Reactor to water scrubber & its vent to Stack	Water scrubber	30	NH ₃	30
30.	From Reactor to water scrubber & its vent to Stack	Caustic scrubber	30	HC + NH ₃	20 + 30
31.	From Reactor to water scrubber & its vent to Stack	Caustic scrubber	30	PCl ₃	09
32.	From Tank to water scrubber & its vent to Stack	Caustic scrubber	30	HCl	20
33.	From Reactor to water scrubber & its vent to Stack	Carbon Absorption Tower	30	VOC + HC	60 + 20
(T) Aluminium Phosphide					
34.	Reactor	Water scrubber	30	P ₂ O ₅ / PM	5 / 20
35.	AP furnace	Water scrubber	30	P ₂ O ₅ + PM	5 / 20
36.	AP Blender	Water scrubber	30	Phosphine	NIL

(U) Magnesium Phosphide					
37.	Reactor	Water scrubber	30	P ₂ O ₅ / PM	5 / 20
38.	MP furnace	Water scrubber	30	P ₂ O ₅ + PM	5 / 20
39.	MP Blender	Water scrubber	30	Phosphine	NIL
(V) Zinc Phosphide					
40.	Reactor	Water scrubber	30	P ₂ O ₅ / PM	5 / 20
41.	ZP furnace	Water scrubber	30	P ₂ O ₅ + PM	5 / 20
(W) Captive Incinerator (2 nos)					
42.	Incinerator Plant (for solid & liquid)	Caustic scrubber attached to incinerator plant	30	PM HCl SO ₂ CO TOC Total dioxin & Furans Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V & their compounds	50 50 200 100 (daily avg.) 20 0.2 ng TEQ/Nm ³ (8 hr sampling) 1.5 mg/Nm ³ (2 hr sampling)
43.	Stack attached to Bag Filter-2 nos. for pesticide formulation products.	Bag filter	30	PM	20

(x) Hazardous / Non-Hazardous Wastes Management:

S. No.	Type of Waste	Category (As Per Sch-2016)	Generation per Annum	Source of Generation	Mode of Storage & treatment	Mode of Disposal
1.	ETP sludge/STP Sludge	35.3	5200 MT	From ETP/STP	Store in impervious storage area with roofing near ETP / STP	Send to TSDF site of M/s BEIL at Dahej for landfilling
2.	Used Oil	5.1	250 KL	Machinery	Store in drums	Sale to

					in H.W. storage area (with shed and impervious flooring)	CPCB registered re-processor / recycler
3.	Discarded containers / bags / liners	33.1	Containers - 21666 Nos. (435 MT) / Bags - 21666 Nos. (217 MT) / Liners - 21666 Nos. (435 MT)	Raw material containers / bags	Collection, decontamination and store in impervious storage area with roofing	recycle/reuse into process or sale to GPCB authorized dealers and scrap processors or contaminated drums to M/s. BEIL at Dahej
4.	Organic Residue	29.1	52378*** MT	From process	Store in drums / Tanks in H.W. storage area (with shed and impervious flooring)	Send to Cement Industry for co processing / CHWIF site of M/s. BEIL at Ankleshwar for Incineration
5.	Aqueous Waste	29.1	4243 *** MT	From process	Store in drums / Tanks in H.W. storage area (with shed and impervious flooring)	Send to Cement Industry for co processing / CHWIF site of M/s. BEIL at Ankleshwar for Incineration
6.	Inorganic Salts from Evaporation / Process	35.3	128690** MT	From process	Stored in drums / bags in H.W. storage area (with shed and impervious flooring)	Send to TSDF site of M/s. BEIL at Dahej for landfilling
7.	Date - expired and off	29.3	150 MT	From process	Stored in drums / bags in H.W. storage	CHWIF site of M/s. BEIL at

	specification pesticides				area (with shed and impervious flooring)	Ankleshwar for Incineration / captive incineration
8.	Used Batteries	B1 (B1020)	300 Nos.	From process plant	Stored in drums / bags in H.W. storage area (with shed and impervious flooring)	Sale it to MoEF&CC authorized recycler
9.	Spent filter Material	36.2	120 MT	From process	Stored in drums / bags in H.W. storage area (with shed and impervious flooring)	Send to CHWIF site of M/s. BEIL at Ankleshwar for Incineration
10.	Spent solvent	29.4	6500 KL	From process	Stored in drums / tanks in H.W. storage area (with shed and impervious flooring)	Recovery / sale to GPCB approved recyclers / Send to CHWIF site of M/s. BEIL at Ankleshwar for Incineration / captive incineration
11.	Contaminated cotton waste	33.2	30 MT	From process plant	Stored in drums / bags in H.W. storage area (with shed and impervious flooring)	Send to TSDF site of M/s. BEIL at Dahej for landfilling / Send to CHWIF site of M/s. BEIL at Ankleshwar for Incineration / captive incineration
12.	Insulation Waste	33.1	40 MT	From Equipment	Stored in drums / bags in H.W. storage	Send to TSDF site of M/s. BEIL at

					area (with shed and impervious flooring)	Dahej for landfilling
13.	Non recyclable Plastic waste	33.1	45 MT	Raw material containers / bags	Stored in drums / bags in H.W. storage area (with shed and impervious flooring)	Send to TSDF site of M/s. BEIL at Dahej for landfilling
14.	Used PPE	33.1	10 MT	From process plant	Stored in drums / bags in H.W. storage area (with shed and impervious flooring)	Send to TSDF site of M/s. BEIL at Dahej for landfilling
15.	Incineration ash	37.2	4000 MT	From incinerator	Packed in HDPE bags and stored in designated place (with shed and impervious flooring)	Send to TSDF site of M/s BEIL at Dahej for landfilling
16.	Spent Catalyst	29.5	50 MT	From process	Stored in Bags/drums in designated place (with shed and impervious flooring)	Send to CHWIF site of M/s. BEIL at Ankleshwar for Incineration
17.	HCl sol. (28-32%)	29.6	99894 MT	Hexa methylene diisocyanate, Chloroacetyl Chloride, Methoxyacetyl Chloride, 2-Chloro-3, 3-tri fluoropropen-1,2 dimethylcyclopropane Carbonyl chloride, Acid Chloride, Cyanuric chloride	To be stored in tanks	By selling to actual user.

** Sr No 6 Inorganic Salts from Evaporation / Process – Unit will segregate & recover valuable salts (By-product) from stream & sold to end users.

***Unit will try to send maximum organic residue waste to cement industries; balance quantity will be sent to common incineration facilities/Captive Incineration. In case of capacity constraint at Common Incineration, the unit will set up captive incinerator as per CPCB guidelines.

Non Hazardous Waste Generation

S. No.	Type of Waste	Quantity Per Annum	Source of Generation	Mode of Storage and Treatment	Mode of disposal
1	Ash	119383 MT	From combustion of coal, briquettes in boilers	Store in silos in boiler area	Sale to cement industries / brick manufacturer / actual users

(xi) Public hearing may be exempted as project is located in Dahej-III estate which is covered within PCPIR region and PCPIR has received Environmental Clearance.

(xii) The details of products and capacity as under: -

S. No	Product	CAS Number	LC50	LD50	Production Capacity TPA	Sector as per EIA Notification 2006
Pesticide (Technical)- EC Required as per EIA Notification 2006						
1	S Metolachlor	87392-12-9	Inhale 4 H - Rat - 2.61 mg/L	Oral - Rat - 2672 mg/kg	5000	5(b) Pesticide (Herbicide)
2	Dicamba	1918-00-9	Rainbow trout) - 28 mg/l	Oral - Rat - 1267 mg/kg	5000	5(b) Pesticide (Herbicide)
3	Propanil	709-98-8	Rat - >5000 mg/kg	Oral - Rat - >2500 mg/kg	10000	5(b) Pesticide (Herbicide)
4	Clodinafop	114420-56-3	Inhale 4 H - Rat - 2.325 mg/m3	Oral - Rat - 1829 mg/kg	2000	5(b) Pesticide (Herbicide)
5	Asulam	3337-71-1	Inhale 6 H - Rat > 1.8 mg/l	Oral - Rat - >4000 mg/kg	4000	5(b) Pesticide (Herbicide)
6	Azoxystrobin	131860-33-8	Inhale 4 H - Rat - 0.96 mg/L	Oral - Rat > 5000 mg/kg	2000	5(b) Pesticide (Fungicide)
7	Bifenthrin	82657-04-3	Daphnia - 48 hr- 0.00015 mg/l	Oral - Rat 54.5 mg/kg	500	5(b) Pesticide (Insecticide)
8	Acephate	30560-19-1	Inhale- 4H- >15	Oral - Rat -	30000	5(b) Pesticide

			mg/L	1447 mg/kg		(Insecticide)
9	Pilot Plant /multipurpose plant (MPP) (As Azoxystrobin)	131860- 33-8	Inhale 4 H - Rat - 0.96 mg/L	Oral - Rat > 5000 mg/kg	1000	5(b) Pesticide
10	Atrazine	1912-24- 9	Inhale 4 H - Rat 5.8mg/L	Oral - Rat >3000 mg/kg	5000	5(b) Pesticide (Herbicide)
11	Glufosinate	51276- 47-2	Inhale 4 H - Rat 1.26 mg/L	Oral - Rat - 2000 mg/kg	10000	5(b) Pesticide (Herbicide)
12	Sulphur WDG (Wettable Dispersible Granule)	7704-34- 9	Not Listed	Oral - Rat - >2000 mg/kg Dermal - Rabbit > 2000 mg/Kg	30000	5(b) Pesticide (Fungicide)
13	Aluminium Phosphide	20859- 73-8	Not Listed	Oral - Rat -8.7 mg/kg	12000	5(b) Pesticide (Rodenticide)
14	Magnesium Phosphide	12057- 74-8	Inhale 4 H - Rat 0.015 ppm	Oral - Rat - 11.2 mg/kg	600	5(b) Pesticide (Rodenticide)
15	Zinc Phosphide	1314-84- 7	Not Listed	Oral - Rat - 910mg/k g	2400	5(b) Pesticide (Rodenticide)
A. Pesticide (Technical)Total Quantity					119500	
Intermediate & Specialty Chemicals- EC Required as per EIA Notification 2006						
16	Acrolein	107-02-8	Inhale 4 H - Rat - 8.3 mg/m3	Oral - Rat - 29 mg/kg	2000	5(b) Pesticide Intermediate Chemical
17	Ethylenediamine (EDA)	107-15-3	Inhale 4 H - Rat - 14.7 mg/m3	Oral - Rat - 1200 mg/kg Dermal - Rabbit - 560 mg/Kg	30000	5(f) Intermediate Chemical

18	Dimethyl Phosphoroamidothioate (DMPAT)	17321-47-0	Not Listed	Inhale - Rat- 980 mg/kg	30000	5(b) Pesticide Intermediate Chemical
19	Isocyanates / Chloroformates					5(b) Pesticide Intermediate Chemical
19.1	3-4 dichloro Phenyl isocyanate Or/ and	102-36-3	Inhale 4 H - Rat - 2700 mg/m3	Oral - Rat - 91 mg/kg	20000 (either or / and combined capacity)	
19.2	3-Chloro Phenyl Isocyanate Or/ and	2909-38-8	Inhale 4 H - Rat - 42 mg/m3	Oral - Rat - 4200 mg/kg Dermal - Rabbit - Not Listed		
19.3	M-Tolyl Isocyanate Or/ and	621-29-4	Not listed	Not Listed		
19.4	Phenyl Isocyanate Or/ and	103-71-9	Inhale 4 H - Rat - 22 mg/m3	Oral - Rat - 800 mg/kg Dermal - Rabbit - 7130 mg/Kg		
19.5	3-Chloro-4 Methyl Phenyl Isocyanate Or/ and	28479-22-3	Not listed	Not listed		
19.6	Isopropyl Phenyl Isocyanate Or/ and	31027-31-3	Not listed	Rat- 5045 mg/kg		
19.7	Benzofuranol Chloroformate Or/ and	1637460-55-9	Not listed	Not listed		
19.8	Para Chloro Phenyl Isocyanate Or/ and	104-12-1	Inhale 4 H - Rat - 113 mg/m3	Oral - Rat - 138 mg/kg		
19.9	Hexa Methylene Diisocyanate Or/ and	822-06-0	Inhale 4 H - Rat - 120-350 mg/m3	Oral - Rat - 746 mg/kg		
19.10	3,5 dichloro phenyl isocyanate Or/ and	34893-92-0	Not listed	Not Listed		
19.11	2,6 Di Isopropyl phenyl isocyanate Or/ and	2162-74-5	Not Listed	Oral - 13 mg/kg		

19.1 2	Cyclo hexyl isocyanate Or/ and	3173-53-3	Not listed	Not listed		
19.1 3	Ortho Chloro Phenyl Isocyanate Or/ and	3320-83-0	Inhale 4 H - Rat - 0.05 mg/L	Oral - Rat > 2000 mg/kg		
19.1 4	Para Toluenesulfoynyl Isocyanate Or/ and	4083-64-1	Not listed	Not listed		
19.1 5	Para nitro benzyl chloroformate Or/ and	4457-32-3	Not listed	Not Listed		
19.1 6	Hexyl Isocyanate Or/ and	2525-62-4	Not listed	Not Listed		
19.1 7	Phenyl ChloroFormate Or/ and	1885-14-9	Inhale 4 H - Rat 280 mg/m3	Oral - Rat - 1745 mg/kg		
19.1 8	Para nitro phenyl chloroformate Or/ and	7693-46-1	Not listed	Not Listed		
19.1 9	Ethyl ChloroFormate Or/ and	541-41-3	Inhale 4 H - Rat 72.5 mg/L	Oral - Rat - 270 mg/kg Dermal - Rabbit - 7120 mg/Kg		
19.2 0	Methyl Chloroformate Or/ and	79-22-1	Inhale 4 H - Rat - 44 ppm	Oral - Rat -60 mg/kg		
19.2 1	N-Methyl Phenyl carbonyl Chloride Or/ and	4285-42-1	Not listed	Not Listed		
19.2 2	2,6-Difluoro benzoyl isocyanate Or/ and	60731-73-9	Not listed	Not Listed		
19.2 3	2-Methoxy Carbonyl Benzylsulphonyl Isocyanate Or/ and	74222-95-0	Not available	Not available		
19.2 4	Cyclo Hexyl Alkyl Di isocyanate Or/ and	10347-54-3	Not listed	Not listed		
19.2 5	Benzophenone	119-61-9	Not Listed	Oral - Mouse- 2895 mg/kg Dermal - Rabbit - 3535 mg/Kg		
20	Tri Methyl Phosphite (TMP) /	121-45-9	Not Listed	TMP- Oral -	5000	5(b) Pesticide

	Tri Ethyl Phosphite (TEP)	/		Rat - 1600 mg/kg Dermal - Rabbit - 2600 mg/Kg/ TEP- Oral - Rat - 1840 mg/kg		Intermediate chemicals
21	Meta Phenoxy Benzaldehyde (MPBAD)	39515-51-0	Not Listed	Oral - Rat - 1222 mg/kg	3000	5(f) Intermediate Chemical
22	Methoxy Methyl Acrylate (MAM)	34846-90-7	Not listed	Not Listed	1000	5(f) Intermediate Chemical
23	Aminoacetonitrile Sulfate (AANS)	5466-22-8	Inhale 4 H - Rat 270 mg/m3	Oral - Rat - 100 mg/kg	1000	5(f) Intermediate Chemical
24	Acid Chloride					5(f) Intermediate Chemical
24.1	Chloroacetyl Chloride	79-04-9	Not listed	Oral - Rat - 220 mg/kg Dermal - Rabbit - 662 mg/Kg	3000	
24.2	Methoxyacetyl Chloride	38870-89-2	Inhale 4 H - Rat 4.1 mg/l	Oral - Rat - 2.465 mg/kg Dermal - Rabbit - 2.0 mg/Kg	400	
24.3	2-Chloro-3, 3-tri fluoropropen-1,2 dimethylcyclopropane Carbonyl chloride	78246-90-9	Not Listed	Not Listed	600	
24.4	DV Acid Chloride	52314-67-7	Not Listed	Not Listed	1000	
	CS₂ Based Product					5(f) Intermediate

							Chemical
25	25.1	Potassium Ethyl Xanthate Or/ and	140-89-6	Not Listed	Oral - Rat - 1700 mg/Kg	5000 (either or / and combined capacity)	
		Sodium Isopropyl Xanthate Or/ and	140-93-2	Not Listed	Oral - Rat - 1500 mg/Kg		
		Potassium Isopropyl Xanthate Or/ and	140-92-1	Not Listed	Not Listed		
		Potassium Amyl Xanthate	2720-73-2	Not Listed	Oral - Rat - 1000 mg/kg		
	25.2	Dimethyl Cyanoiminodithiocarbamate (CCITM)	10191-60-3	Not Listed	Not Listed	1000	
	25.3	1,6-Bis (N,N-dibenzylthiocarbamylthio) hexane	151900-44-6	Not Listed	Not Listed	2000	
	25.4	1-Methylamino-1-Methylthio-2-Nitroethene	61832-41-5	Not Listed	Not Listed	2000	
26		Di Methyl Sulfoxide	67-68-5	Not Listed	Oral - Rat - 14500 mg/kg	10000	5(b) Pesticide Intermediate Chemical
27	27.1	Sodium Cyanide	143-33-9	Not Listed	Oral - Rat - 4.7 mg/kg Dermal - Rabbit - 10.4 mg/Kg	5000	5(f) Specialty Chemical
	27.2	Potassium Cyanide	151-50-8	Not Listed	Oral - Rat - 5 mg/kg Dermal - Rabbit - 5 mg/Kg	500	5(f) Specialty Chemical
	27.3	Cyanuric Chloride	108-77-0	Inhale 4 H - mouse- 2.7 ppm	Oral - Rat - 485 mg/Kg	15000	5(f) Specialty Chemical
	27.4	DL-Methionine	59-51-8	Not Listed	Not Listed	10000	A-5(f) Specialty chemical
B. Intermediate & Specialty Chemicals Total						147500	

Quantity						
28	Captive Power Plant (3 Nos)	-			55 MWPH (Phase-1 (20) + Phase-2 (20) + Phase-3 (15) MWPH)	1(d) Power plant
Total quantity (A+B) (EC required)					267000	
# Pesticide Formulation- EC Not required #						
29	Liquid formulations	-			20000	Pesticide Formulation
30	Solid Formulations	-			20000	
C. # Pesticide Formulation Total quantity #			EC not applicable		40000	
TOTAL (A+B+C)					307000	

Note:

5(b): Pesticides industry and pesticide specific intermediates (excluding formulations)

5(f): Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates **excluding** drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)

1(d): Thermal Power plants

Not applicable as per EIA notification, 2006.

List of By Products

S No.	By product	State	MT/Annum	By product from (source)
1.	Piperazine (PIP)	Solid	9510	Ethylenediamine (EDA)
2.	Diethylenetriamine (DETA) - (95-99%)	Liquid	3300	
3.	Amino Ethyl Piperazine (AEP) - (95-99%)	Liquid	1650	
4.	Amino Ethyl Ethanol Amine (AEEA) - (95-99%)	Liquid	990	
5.	Hydroxy Ethyl Piperazine (HEP) - 98%	Liquid	660	
6.	Ammonium Sulphate Solution- 10-20%	Liquid	18435	
7.	Ammonia Solution – 10%	Liquid	5979.6	
8.	Aluminium Hydroxide	Solid	579.96	Benzophenone
9.	Potassium Chloride (25-30%)	Liquid	1749.96	Dicamba
10.	Methyl acetate - (95-99%)	Liquid	3810	Azoxystrobin, + Azoxystrobin Pilot Plant
11.	Methanol (98-99 %)	Liquid	1266	Asulam, +Azoxystrobin, Pilot Plant+Azoxystrobin
12.	Anhydrous Ammonia or	Gas	2075.04	Tri Methyl Phosphite(TMP) / Tri Ethyl Phosphite (TEP)
13.	20% aqs. Ammonia	Liquid	10379.04	
14.	Ammonium Chloride soln - 15-20%	Liquid	43521.24	
15.	Calcium chloride solution 30% or	Liquid	24000	

16.	Calcium Chloride powder	Solid	8000.04	
17.	Di Calcium Phosphate (DCP) Sludge	Solid	540	
18.	Aluminium Chloride solution –(20-25%)	Liquid	8454	Meta Phenoxy Benzaldehyde (MPBAD)
19.	Meta Bromo Benzaldehyde - (95-99%)	Liquid	1290	
20.	Aqs. Potassium Chloride (20-25%)	Liquid	7770	
21.	Dimethoxy methane - (95-99%)	Liquid	722.04	Aminoacetonitrile Sulfate (AANS)
22.	Ammonium acetate (28-35%)or	Liquid	70680	Acephate
23.	Acetic Acid & Ammonium sulphate - (95-99%)	Liquid	83400	
24.	Ammonium sulphate & Sodium Acetate (30%)	Liquid	106560	
25.	Hydrochloric Acid sol. (28-32%)	Liquid	65817.96	Hexa methylene diisocyanate
26.	Methyl Mercaptan	Gas	710.04	1-Methylamino-1-Methylthio-2-Nitroethene
27.	Steam	Gas	1382400	Power Plant
28.	30% Hydrochloric Acid Solution	Liquid	3156	Chloroacetyl Chloride
29.	30% Hydrochloric Acid Solution	Liquid	440.04	Methoxyacetyl Chloride
30.	30% Hydrochloric Acid Solution	Liquid	276	2-Chloro-3, 3-tri fluoropropen-1,2 dimethylcyclopropane Carbonyl chloride
31.	30% Hydrochloric Acid Solution	Liquid	527.04	Acid Chloride
32.	31% Sodium Sulphite Solution	Liquid	14377.8	Scrubbing of SO ₂
33.	Ethyl Acetate sol. (90-95%)	Liquid	6000	Glufosinate
34.	Ammonia sol.-20%	Liquid	600	
35.	Ammonium Chloride	Solid	26559.96	
36.	Magnesium Chloride Sol. (25-28%) OR	Liquid	33159.96	
37.	Magnesium chlorate -50%	Liquid	33159.96	
38.	Phosphoric Acid (60%)	Liquid	1800	Aluminium Phosphide
39.	Phosphoric Acid (60%)	Liquid	120	Magnesium Phosphide
40.	Phosphoric Acid (60%)	Liquid	386.4	Zinc Phosphide
41.	40% Ammonium sulphate	Liquid	1061.04	Sodium Cyanide
42.	40% Ammonium sulphate	Liquid	79.8	Potassium Cyanide
43.	40% Ammonium sulphate	Liquid	2415	Cyanuric chloride
44.	30% Hydrochloric Acid solution	Liquid	29676	

All applicable by-products will be considered in Hazardous Waste as per Hazardous & Other Wastes (Management & Trans-Boundary Movement) Rules 2016

38.3.5.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for manufacturing Pesticide Technical - 119500 TPA, pesticide specific intermediates & specialty chemicals - 147500 TPA and the captive power plant of 55 MWPH (Phase 1 - 20MWPH, Phase - 20 MWPH & Phase 3 - 15 MWPH) by M/s UPL Ltd in a total area of 755495.16 sqm at Plot No.D-3/6, Dahej- III GIDC Industrial estate (within PCPIR region), Village Kadodara, Taluka Vagra, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates'; 5(f) 'Synthetic organic chemicals industry' & 1(d) 'Thermal Power Plants' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 13th December, 2016 with exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 12453 cum/day of which fresh water demand of 7795 cum/day, is proposed to be met from GIDC reservoir.

Total effluent generated from different industrial operations is estimated to be 2134 cum/day and shall be treated primary, secondary and tertiary treatment facilities followed by RO and MEE. The treated effluent of 2134 KLD shall be discharge into deep sea via GIDC drain.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

38.3.5.3 *The EAC, after deliberations, insisted for inputs, clarifications and necessary actions in respect of the following:-*

- The product list contains certain pesticides or the pesticide specific intermediates having LD₅₀ less than 1000 mg/kg, which are reported to be highly toxic and thus need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.*
- Considering the safety precautions, risk assessment study should be carried out using 3-D modelling.*

The proposal was deferred for the needful on the above lines.

Agenda No.38.3.6

Setting up Fine Chemicals & Pesticides Intermediates Manufacturing plant by M/s F.K. Fine chemicals at plot no. D- 2/Ch/121, GIDC Estate, Dahej, Taluka Vagra, District Bharuch (Gujarat)

[J-11011/320/2016-IA II (I)) (IA/GJ/IND2/57806/2016)]

38.3.6.1 The project proponent and accredited consultant_M/s Aqua-Air Environmental Engineers Pvt Ltd made a detailed presentation on the salient features of the project & informed that:

(i) The proposal is for environmental clearance to Proposes Fine Chemicals (332 MTPA) and Pesticide Intermediates (45 MTPA) manufacturing unit at Plot No. D-2/CH/121, GIDC Estate, Dahej-II, Taluka Vagra, District Bharuch (Gujarat) by M/s F. K. Fine Chemicals.

(ii) The project proposal was considered by the Expert Appraisal Committee (industry-2) in its 38th EAC meeting held during 25th June, 2018 and recommended Terms of References (ToR) for the project. The ToR has been issued by Ministry vide letter No. J-11011/320/2016-IA II (I) dated 13/12/2016.

(iii) All Products are listed at S.N. 5(b) & 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Company has acquired 5000 m² land for proposed plant from GIDC. Industry will be developed Greenbelt in an area of 33 % i.e. 5000 m² out of 1656 m² total area of the project. The estimated project cost is Rs.12 Crores. Total Capital cost earmarked for pollution control measures is Rs.2.5 Crore and recurring cost (Operation and Maintenance) will be around Rs.0.7 Carore per annum. Total employment will be 40 people as direct and 35 person indirect after expansion. Industry purposes to allocate Rs. 0.30 Cr @ 2.5% towards Corporate Social Responsibility.

(v) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. River/water body –Arabian Ocean is at a distance of 13.8 km in East.

(vi) Ambient air quality monitoring is carried out at 8 locations during December 1, 2016 to February 28, 2017. The dispersion of pollutants in the atmosphere is a function of several meteorological parameters viz. temperature, wind speed and direction, mixing depths, inversion level, etc. The ambient air samples were collected and analyzed for Particulate Matter (PM₁₀), Particulate Matter (PM_{2.5}), Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Ozone (O₃), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH₃), Benzene (C₆H₆), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), HC, & VOCs were monitored at site and nearby villages for identification, prediction, evaluation and assessment of potential impact on ambient air environment. The PM₁₀ values at all the locations in residential/rural areas ranged between 71.56 – 75.35 µg/m³ respectively in pre-monsoon season. Similarly, the values of PM_{2.5} varied in the range of 41.62 – 44.66 µg/m³. The PM₁₀ and PM_{2.5} concentrations at all the AAQM locations were primarily caused by local phenomena including vehicular activities and natural dust getting air borne due to manmade activities and blowing wind. The values of NO_x at all the locations in residential/rural areas were observed to be in the range of 14.0 – 18.36 µg/m³. The values of SO₂ at all the locations in residential/rural areas ranged between 11.97 – 17.29 µg/m³. The values of O₃ at all the locations in residential/rural areas ranged between 10.48 – 11.02 µg/m³. At all the air quality monitoring locations in residential/rural areas, the values of NO_x, SO₂ & O₃ were observed to be within limits. The values of CO at all the locations in residential/rural areas ranged between 1.12 – 1.28 mg/m³. The values of NH₃ at all the locations in residential/rural areas ranged between BDL – 1.75 µg/m³. The values of Ni at all the locations in residential/rural areas ranged between BDL – 10.86 ng/m³. The values of VOCs at all the locations in residential/rural areas ranged between 0.2 – 0.7 ppm. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement will be 167 m³/day of which fresh water requirement of 125 m³/day and will be met from GIDC Water Supply. All the Effluent (46 KL/Day) will be neutralized in ETP and then evaporated in MEE. MEE Condensate will be reused in cooling tower. Total water requirement will be 167 m³/day which will meet through GIDC water supply. Total wastewater generation will be 46 m³/day ETP will be neutralized in ETP and then evaporated in MEE. MEE Condensate will be reused in cooling tower. Domestic wastewater will be disposed through soak pit or septic tank.

(viii) Total Power Requirement - 300 kVA from DGVCL from Dakshin Gujarat Vij Company Limited (DGVCL). Stack (Height - 5 m) will be provided as per CPCB norms to the proposed DG Set.

(ix) Unit will have 3 TPH Coal/Bio-fuel/Agrowaste/Wood briquete base 1 No. steam boiler and 300 kVA – 1 DG.Set. Multi Cyclone Separator with Bag Filter, scrubber with a stack of height of 15m, 5 m will be installed for controlling the Particulates Matter (PM) within statutory limit of 115 mg/Nm³ for the proposed boilers.

(x) Details of Process emissions generation and its management
Unit will have 2 No of process gas emission. Two Stage scrubber with a stack of height of 11 m will be installed for controlling the process gas emission.

(xi) Details of solid waste / hazardous waste generation and its management.

Category No.	Name of Waste	Total Quantity (MT/Month)	Mode Of Disposal
Schedule-I (5.1)	Used Oil	0.2	Collection, Storage, Transportation and Sent to GPCB approved recycler
Schedule-I 35.3	ETP Sludge	20	Collected, Storage, Transported and Disposed at nearest TSDF site.
Schedule-I 33.1	Discarded containers	5	Collected, Storage, Decontaminated & sold to GPCB authorized vendors.
Schedule-I 33.1	HDPE Bags	1	Collected, Storage, Decontaminated & sold to GPCB authorized vendors.
Schedule-I 36.1	Distillation Residue	36	Collection, Storage, Transportation & Sent to Cement Industry for co-processing or Sent to nearest CHWIF.
Schedule-I 29.1	Organic Impurities	2	Collection, Storage, Transportation & Sent to Cement Industry for co-processing or Sent to nearest CHWIF.
Schedule-I 29.6	HCl (32%)	31	Collection, Storage, Transportation and Reuse in plant premises.
Schedule-II B-36	Sodium Sulfate	85	Collection, Storage, Transportation and sell to Sodium Sulfate powder manufacture.
Schedule-II B-36	MnSO ₄	1386	Collection, Storage, Transportation and sell to Manganese Sulfate powder manufacture.
Schedule-I 29.6	Anisic Acid	20	Collection, Storage, Transportation and sell to Complex Organic compound manufacturer.
Schedule-I 29.4	Spent Solvent (Toluene,	181	Collection, Storage and Reuse in Plant premises.

	Methanol, Acetic Acid)		
Schedule-II B-36	Acetic Anhydride	2	Collection, Storage, Transportation and sell to Pharmaceutical industry or Cellulose Acetate manufacturer.
Schedule-II B-36	Sodium Acetate	7	Collection, Storage, Transportation and sell to Textile Industries or Food Industries.
Schedule-II B-36	NaCl	10	Collection, Storage, Transportation and Disposed at nearest common TSDF site
Schedule-II B-36	Sodium Bromide	15	Collection, Storage, Transportation and sell to Bromide compound manufacturer or Bromine recovery unit.
Schedule-II B-36	Sodium Sulphite	6	Collection, Storage, Transportation and sell to Pulp and Paper industry or chemical manufacturing industry.
Schedule-I 29.5	Carbon Sludge	3	Collection, Storage, Transportation & Sent to Cement Industry for co-processing or Disposal at CHWIF site.
Schedule-I 29.1	Mesitylene	38	Collection, Storage, Transportation and sell to lacquers, paints, and varnish manufacturer.
Schedule-I 35.3	MEE Salt	25	Collection, Storage, Transportation and Disposed at nearest common TSDF site
Schedule-I 29.5	Spent Catalyst (Ra-Ni)	1	Collection, Storage, Transportation and return back to supplier for regeneration.

(xii) Public Hearing is not Applicable as plant is located in notified Industrial Estate (Dahej)

(xiii) Following are the list of proposed products: -

S. NO.	PRODUCT	PROPOSED CAPACITY (TPM)	CAS No.	LD ₅₀
FINE CHEMICALS				
1	4-Methoxy Benzaldehyde	100	123-11-5	1510 mg/kg
2	4-Methoxy benzyl Alcohol	35	105-13-5	5000 mg/kg
3	4-Methoxy Benzyl Acetate	5	104-21-2	2250 mg/kg
4	4-Methyl Phenyl Acetate	5	101-41-7	2.550 mg/kg
5	4-Methoxy Benzyl Acetone	1	104-20-1	3,330 mg/kg
6	4-Methoxy Phenyl Acetic Acid	20	104-01-8	1,550 mg/kg
7	4-Methoxy Phenyl Acetone	2	122-84-9	3,330 mg/kg
8	4-Methoxy Benzyl Amine	2	2393-23-9	--
9	4-Methoxy Toluene	10	104-93-8	1920 mg/kg
10	Tyramine Base	5	51-67-2	980 mg/kg
11	Tyramine Hydrochloride	5	60-19-5	710 mg/kg
12	3-Benzoyloxy Propio Nitrile	2	6328-48-9	1250 mg/kg
13	3-Amino Propyl Imidazole	10	5036-48-6	1780 mg/kg
14	Triacetin	120	102-76-1	1920 mg/kg

15	Cyclohexyl Ethyl Methoxy Phenyl Acetamide	10	--	--
PESTICIDE INTERMEDIATES				
1	2,4,6-Trimethyl Benzaldehyde	15	487-68-3	--
2	4, 4'-Dihydroxy benzophenone	15	611-99-4	5000 mg/kg
3	2,4-Dichloro Meta Cresol	15	17788-00-0	215-464 mg/kg
TOTAL		377 MT/Month		

38.3.6.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up fine chemicals and pesticide specific intermediates manufacturing unit of total capacity 325 TPM (Fine chemicals-310 TPM, Pesticide specific intermediates-15 TPM) by M/s F. K. Fine Chemicals in a total area of 5000 sqm at Plot No. D-2/CH/121, GIDC Estate, Dahej-II, Taluka Vagra, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 13th December, 2016 with exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 167 cum/day, of which fresh water demand of 125 cum/day is proposed to be met from GIDC water supply. The project proponent committed to delete pesticide specific intermediates having LD₅₀ less than 1000 mg/kg from the product list and thus the fresh water requirement has been reduced to 110 cum/day accordingly.

Total effluent generated from different industrial operations is estimated to be 46 cum/day, which is further reduced to 40 cum/day due to deletion of toxic products. The effluent shall be neutralized in ETP and then evaporated in MEE. MEE Condensate shall be reused in cooling tower. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

38.3.6.3 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*

- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Solvent management shall be carried out as follows:
 - (i) Reactor shall be connected to chilled brine condenser system.
 - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (iv) Solvents shall be stored in a separate space specified with all safety measures.
 - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 110 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- The company shall undertake waste minimization measures as below:-
 - (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 material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.

- (f) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*

Agenda No.38.3.7

Synthetic organic chemicals industry (dyes & dye intermediates; bulk by M/s SNF Flopam India Pvt Ltd at Survey No 141/1/2 and 142/1 National Highway 8A, Varsana, PO: Gopalpuri, Gandhidham Kutch (Gujarat)

[IA/GJ/IND2/62913/2017, IA-J-11011/74/2017-IA-II(I)]

38.3.7.1 The project proponent and the accredited consultant M/s Eco Care Solutions made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project Synthetic Organic Chemicals Industry (dye & dye intermediates) at 141/1/2 and 142/1 by M/s SNF Flopam India Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 17th meeting and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No.J-11011/74/2017-IA.II (I) dated 07/07/2017 (In case of EC Proposal)

(iii) All are listed at S.N. 38.3.7 of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Existing land area is 2,84,615 sqm, no additional land will be used for proposed expansion. Industry has already developed / will develop greenbelt in an area of 33 % i.e. 94,000 sqm of total area of the project. The estimated project cost is Rs. 400 Crore (Proposed) to be incurred from captive funds. Total capital cost earmarked for pollution control measures is Rs.250 Lacs and the

Recurring cost (operation and maintenance) will be about Rs. 41 Lacs per annum. Total Employment will be 125 persons approx as direct & 125 persons indirect after expansion. Industry proposes to allocate Rs. 77 Lacs @ 5/2.5 % towards Corporate Social Responsibility.

(v) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. Within 10 km distance from the project site. River/ water body sang river is flowing at a distance of 9.8 km in W direction.

(vi) Ambient air quality monitoring was carried out at 8 locations during March,2017 to May,2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (62.09 – 70.37 µg/m³), PM_{2.5} (30.55 – 36.04 µg/m³), SO₂ (14.40 – 20.34 µg/m³) and NO₂ (22.22 - 30.01 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.03132 µg/m³, 8.30908 µg/m³ with respect to PM, Ammonia. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement is 2945 m³/day of which fresh water requirement of 2945 m³/day will be met from GWSSB (Gujarat Water Supply & Sewerage Board). Effluent of 645 KL/Day quantity will be treated through in house ETP and it will be partially re-used for cooling purpose (400 m³/day) and remaining (221 m³/day) along with treated sewage (24 m³/day) be used for plantation within premises. The plant will be based on Zero Liquid discharge system (if applicable).

(viii) Power requirement after expansion will be 16300 KW and will be met from PGVCL (Paschim Gujarat Vij Company Ltd.). DG sets (5 nos.) 3x550 kVA and 2x250 kVA are used as standby during power failure. Adequate stack height will be provided as per CPCB norms to the proposed DG sets.

(ix) Boiler will be installed. APCM will be not required because of the natural gas are used as a fuel with a stack of height of 12 m will be installed for controlling the particulate emissions within the statutory limit of the proposed boilers.

(x) Details of Process emissions generation and its management.

S. No.	Stack attached to	Height of stack, m	Fuel	Fuel Consumption	APCM System	Expected Pollutant
1.	Boiler	12	Natural Gas	2200 NM ³ /hour	None	PM SOx NOx
2.	D. G. Sets 3 X 550 kVA 2X 250 kVA	18	HSD	250 Lit/hour (Max)	None	PM SOx NOx
3.	Powder dissolution Vessels	12	--	--	Scrubber	PM
4.	Powder Reaction Vessels	12	--	--	Scrubber	PM
5.	Powder Dryers	12	--	--	Scrubber	PM NH ₃
6.	Finish goods Tank – 1	12	--	--	None	PM
7.	Finish goods Tank – 2	12	--	--	None	PM

S. No.	Stack attached to	Height of stack, m	Fuel	Fuel Consumption	APCM System	Expected Pollutant
8.	Emulsion product line	12	--	--	Scrubber	PM
9.	Liquid production line	12	--	--	Scrubber	PM
10.	Acrylamide Raw material storage scrubber	12	--	--	Scrubber	PM
11.	Acrylamide filtration scrubber	12	--	--	Scrubber	PM
12.	Acrylamide reactor scrubber-1	12	--	--	Scrubber	NH ₃
13.	Acrylamide reactor scrubber-2	12	--	--	Scrubber	NH ₃
14.	Acrylamide reactor scrubber-3	12	--	--	Scrubber	NH ₃
15.	Acrylamide reactor scrubber-4	12	--	--	Scrubber	NH ₃
16.	Acrylamide reactor scrubber-5	12	--	--	Scrubber	NH ₃
17.	Acrylamide reactor scrubber-6	12	--	--	Scrubber	NH ₃

(xi) Details of Solid waste/ Hazardous waste generation and its management.

S. No.	Hazardous Waste	Category	Quantity	Management of Waste
1	Air Filter ash	35.1	20.5 MT/Year	Collection, Storage, transportation disposal at TSDF approved by board
2	Catalyst empty bags	33.1	2 MT/Year	Collection, Storage, decontamination, transportation disposal by selling to authorized recycler
3	Plastic and Glass contaminated Lab equipment	23.1	2.75 MT/Year	Collection, Storage, transportation and incineration at TSDF approved by board
4	ETP Sludge	35.3	60 MT/Year	Collection, Storage, transportation disposal at TSDF approved by board
5	Diatomite waste (spent filtration media)	36.2	50 MT/Year	Collection, Storage, transportation disposal at CHWIF

(xii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 06/02/2018. The main issues raised during the public hearing are related to as below:

- Regarding disposal of waste water
- CSR Activities
- Job Opportunities

- Regarding greenbelt & tree plantation
- Hazardous Waste Disposal
- Air Pollution & Environment Health & Safety

(xiii) The details of products and capacity as under:

S. No	Product	Quantity (MT/year)
1	Acrylamide (100 %)	1,20,000
2	Poly Acrylamide Powder	60,000
3	Poly Acrylamide Liquid	42,000
4	Poly Acrylamide Emulsions	36,000
	Total	2,58,000

38.3.7.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up synthetic organic chemicals (dye & dye intermediates) manufacturing unit of capacity 258000 TPA by M/s SNF Flopam India Pvt Ltd in a total area of 70 acres at Sy. No. 139/1, 141/1/2 and 142/1, 147/1 National Highway 8A, Varsana, PO: Gopalpuri, Gandhidham, Kutch (Gujarat)

The project/activities are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 7th July, 2017. Public hearing was conducted by SPCB on 6th February, 2018.

Total fresh water requirement is estimated to be 2945 cum/day, to be met from GWSSB (Gujarat Water Supply & Sewerage Board).

Total effluent generated from different industrial operations is estimated to be 645 cum/day and shall be treated through in-house ETP and partially re-used for cooling purpose (400 m³/day) and remaining (221 m³/day) along with treated sewage (24 m³/day) shall be reused for plantation within premises. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

38.3.7.3 *The EAC, after deliberations, desired for inputs, clarifications and necessary actions in respect of the following:*

- *Discrepancy in the survey no and plot area vis-a-vis the Form-1 submitted and the ToR dated 7th July, 2017.*
- *As per the ToR dated 7th July, 2017 and accordingly the public hearing conducted by the SPCB, was for Survey No.141/1/2 & 142/1 covering an area of 42 acres. Whereas, the present proposal involves more survey nos.139/1, 141/1/2, 142/1 & 147/1 having total area of 70 acres. As such, the said public hearing not in conformity with the EIA Notification, 2006, may not be acceptable.*
- *Firm commitment from the concerned regulatory authority to meet the surface water requirement of 2945 cum/day.*

The proposal was deferred for the needful on the above lines.

Agenda No.38.3.8

Expansion of Bulk Drugs and Intermediates Manufacturing Unit by M/s Suven Life Sciences Ltd at Sy. No. 99, 101- 109, Oasaigudem Village, Suryapet Mandai, District Nalgonda (Telangana)

[IA/TG/IND2/74780/2013, J-11011/340/2013-IA II (I)]

38.3.8.1 The project proponent and the accredited Consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project and informed that: -

(i) The Proposal is for Environmental Clearance (EC) for proposed expansion of synthetic organic chemicals (Bulk Drug and Intermediates) manufacturing unit at Sy. No.99, 101-109, Dasaigudem Village, Suryapet Mandal and district, Telangana by M/s Suven Life Sciences Ltd.

(ii) The project proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 16th meeting held on 20th-21st February, 2014 and recommended Terms of References (ToR) for the project. The ToR was issued by Ministry vide letter no. J-11011/340/2013-IA II (I) dated 01.05.2014 and subsequently issued extension of validity of TOR till 01.05.2018 vide letter no. F.No. J-11011/340/2013-IA II (I) dated 25.07.2017.

(iii) All Synthetic organic chemicals manufacturing units located outside notified industrial area are listed at S.No. 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) The unit was established in 1981 in the name of Caffinhal Organic & Pharmaceutical Limited for manufacturing of Theophylline and Caffeine and subsequently it was taken over by Suven Pharmaceuticals (P) Ltd in 1989.

Suven Pharmaceuticals Limited obtained Consent to establishment vide order no. 148/PCB/C.ESTT/RO-NLG/EE-N/2001-1103 dated 08.09.2001 and subsequently obtained consent to operate vide order no. APPCB/ PTN/ NGL/ 1/ HO/ W/ 2003/ 80-890 dated 21.06.2003.

(v) Existing land area is 70 acres land will be used for proposed expansion. Industry is already developed Greenbelt in an area of 33.57% i.e., 23.5 acres out of 70 acres of area of the project site. The estimated project cost for proposed expansion is Rs.25 crores. Total capital cost earmarked for pollution control measures is Rs.11.7 crores and the recurring cost (operation and maintenance) will be about Rs.13.91 crores per annum. Total Employment will be 160 persons as direct and 40 persons indirect after expansion. Industry proposes to allocate Rs.62.5 lakhs @ 2.5 % towards Corporate Social Responsibility.

(vi) It is reported that No National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River/water body Musi River is passing from NW to SW at a Distance of 6.8 km in SW direction to the site. There is one reserve forests within the impact area; Indergonda RF is at 5 km in southeast direction.

(vii) Ambient air quality monitoring was carried out at Seven locations during October 2016 to December 2016 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (29-56 µg/m³), PM_{2.5} (8-18 µg/m³), SO₂ (5-14 µg/m³) and NO₂ (6-13 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.13 µg/m³, 7.24 µg/m³, and 5.46 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) The total water requirement is 681.5 KLD out of which 456.5 KLD will be fresh water and 225 KLD is recycled water. Fresh water requirement shall be met from ground water. The unit obtained permission for withdrawal of ground water from State Ground water department.

(ix) Total effluent of 239.6 m³/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 171.6 m³/day is segregated and sent to stripper. Stripper condensate shall be disposed to cement industries for co-processing/TSDF. Stripper bottom is sent to multiple effect evaporators (MEE) and agitated thin film dryer (ATFD). Condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and domestic wastewater of 68 KLD are treated in biological treatment plant followed by Reverse Osmosis. RO rejects are sent to MEE and permeate is reused in cooling towers make-up.

(x) Power requirement after expansion will be 2100 kVA including existing 1100 kVA and will be met from TS Transco. Existing unit has 2 no.s DG sets of capacity 1 x 500 kVA and 1 x 600 kVA, additionally 1 x 1000 kVA DG set is proposed as standby during power failure. Stack (height 6.5 m) will be provided as per CPCB norms to the proposed DG set of 1 x 1000 kVA in addition to existing DG sets stack (height 5 m for 500 kVA) and (height 5 m for 500 kVA) which will be used as standby during power failure.

(xi) Existing unit has 1 x 3 TPH and 1 x 4 TPH coal fired boilers and proposed 2 x 10 TPH coal fired boilers as part of expansion. It is proposed keep 1 x 10 TPH boiler as standby. Bag filters and a stack with height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm³) for proposed 2 x 10 TPH and existing 1 x 3 TPH and 1 x 4 TPH coal fired boilers respectively. It is proposed to establish 1 Lac K.cal/hr Thermic Fluid heater as part of expansion for process requirement.

(xii) Details of Process emissions generation and its management.

The process emissions contain Ammonia, Hydrogen Chloride, Sulfur dioxide, Hydrogen Bromide, Carbon dioxide, Nitrogen, Oxygen and Hydrogen. Ammonia, Hydrogen Chloride, Sulfur dioxide, Hydrogen Bromide emissions are sent to a scrubber and the resultant scrubbing effluent sent to ETP. The other gases are Carbon dioxide, Nitrogen, Oxygen, which are let out into atmosphere following a standard operating procedure while Hydrogen gas let out into atmosphere through water column.

(xiii) Details of solid waste/Hazardous waste generation and its management.

Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and solvent recycling operation by distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boilers generate ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue

and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

(xiv) Public Hearing for the proposed project has been conducted by the Telangana State Pollution Control Board on 22.03.2018 at 11.00 AM near industry site.

(xv) Details of Certified compliance report submitted by RO, MoEF&CC.

The unit was established in 1981 in the name of Caffinhal Organic & Pharmaceutical Limited for manufacturing of Theophylline and Caffeine and subsequently it was taken over by Suven Pharmaceuticals (P) Ltd in 1989.

Suven Pharmaceuticals Limited obtained Consent to establishment vide order no. 148/PCB/C.ESTT/RO-NLG/EE-N/2001-1103 dated 8th September, 2001 and subsequently obtained consent to operate vide order no. APPCB/ PTN/ NGL/ 1/ HO/ W/ 2003/ 80-890 dated 21st June, 2003. The unit changed its name from Suven Pharmaceuticals Limited to Suven Life Sciences Limited in 2003.

Suven Life Sciences has a valid Consent to operate vide letter no. TSPCB/RCP/NLG/CFO&HWM/HO/2016-224 dated 23rd April, 2016 valid till 31st March, 2021.

(xvi) Following are the list of proposed manufacturing capacities

S.No	Product	Capacity	
		Kg/Day	TPM
Group -1			
1	CyanoAcetic Acid	470	14.1
2	Methyl-2-(Chloromethyl Phenyl)-3-Methoxy-2-Acrilate(MCPMA)	470	14.1
	Total - I (Worst Case 1 Product on Campaign Basis)	470	28.2
Group -2			
3	Theobromine (TBN)	120	3.6
4	3-Isocromanone (3-ISC)	148	4.4
5	4,6-Dichloro pyrimidine (4,6-DCPY)	117	3.5
6	5-CTA	149	4.5
7	ADM	146	4.4
8	Bromo Iodo Benzene (BIB)	143	4.3
9	2-Chlorothioxanthene-9-one (2-CTX)	149	4.5
10	D-Mannose	150	4.5
11	FADCP	150	4.5
12	MPC	150	4.5
13	8-chloro theophylline (8-CTP)	148	4.4
14	D-Penicillamine	71	2.1
15	Fenoprofen Calcium	64	1.9

16	Piperinyl alcohol	148	4.4
17	5-Bromo-2-iodo pyrimidine	145	4.4
18	Fluoro Phenyl Methanone	143	4.3
19	Chloro propyl amino pyrazole	64	1.9
20	2-Chloro-4-Methyl pyrimidine (CMP)	147	4.4
21	2,4-Diamino-6-hydroxy pyrimidine (DAHP)	148	4.4
22	Tetrazole Aldehyde (TTA)	150	4.5
23	S- Indoline-2-carboxylic acid (ICA)	150	4.5
24	BCAC	150	4.5
25	3-Hydroxy tetrahydrofuran (HTF)	109	3.3
26	4-Chloroethyl Iodo Pyrimidine (CEIP)	142	4.3
	Total - II (Worst Case 1 Product on Campaign Basis)	150	4.5
Group -3			
27	2,4-Dichloropyrimidine	144	4.3
28	5-Cyano pthalide	150	4.5
29	Homoveratryl Amine (HVA)	148	4.4
30	Cyanoacetamide	146	4.4
31	4,6-Dichloro -2-Methyl Pyrimidine	142	4.3
32	Malonic acid	148	4.4
33	2,5 Diamino-4,6-Dichloro Pyrimidine (DADCP)	150	4.5
34	2-Amino-5-Chloro Benzamide (ACB)	150	4.5
35	Methyl Cyano Acetate	149	4.5
36	Ethyl Cyano Acetate	149	4.5
37	Barbituric Acid (BBA)	148	4.4
38	123-Trizole	150	4.5
39	Chloro Ethoxy Ethyl Acetate (CEEA)	150	4.5
40	Methyl -Napthalene -1-Methyl -amine Hydrochloride (NAP)	148	4.4
41	4-Hydroxy-5-Methyl Pyrrolo[2,1-f][1,2,4] triazine-6-carboxylicacid ethyl ester (PTZN)	81	2.4
42	2-Chloro-5-Iodo Benzoic Acid (CIBA)	149	4.5
43	3-Hydroxy- N-benzyl pyrrolidine (BHP)	150	4.5
44	3,5-Diacetoxy acetophenone (DAAP)	150	4.5
45	Dibenzoyl Tartaric Acid (DBTA)	150	4.5
46	Dimethyl thiophenol (DTP)	150	4.5
47	2,5-Dimethylamino-2-phenyl Butan-1-OI (RC-105)	108	3.2
48	L-Xylose	145	4.4
49	Lamotrigine Open Form	148	4.4
50	Pamabrom	146	4.4
51	Benzoin	148	4.4
52	Capacitabine	108	3.2
53	Adenine	61	1.8
54	Dimethyl Phenyl Isothiocyanate	147	4.4
55	2,4-Dichloro-5-Nitro pyrimidine (DCNPY)	115	3.5
56	DDH	142	4.3
57	2-Methyl Pyrrolidine Carboxylic Acid	74	2.2
	Total - III (Worst Case 1 Product on Campaign Basis)	150	4.5
	Grand Total (I + II + III) - 3 Products	770	23.1

Manufacturing Capacity– After Expansion

S.No	Product	Capacity	
		Kg/Day	TPM
1	Methyl-2-(Chloromethyl Phenyl)-3-Methoxy-2-Acrlate (MCPMA)	2168	65
2	5-Cyano pthalide	336	10
3	4-hydroxy-5-methyl pyrrolo[2,1-f][1,2,4]triazine-6-carboxylic acid ethyl ester (PTZN)	81	2
4	Gabapentine	96	3
5	Divalproex Sodium	300	9
6	Azacytocine	112	3
7	4,6-dichloro pyrimidine (4,6- DCPY)	227	7
8	Adenine	132	4
9	1-[[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl]piperidine-4-carbothiomide (MPC)	787	24
10	Losartan potassium (LP)	150	5
11	Theobromine (TBN)	243	7
12	Malonic acid	324	10
13	Cyanoacetamide	380	11
14	Barbituric Acid (BBA)	500	15
15	Imatanib	299	9
16	5-Fluoro-4,6-Dichloro pyrimidine (5-Fluro-4,6-DCPY)	303	9
17	1,2,3-Trizole	472	14
18	Chloro Ethoxy Ethyl Acetate (CEEA)	521	16
19	Entacapone	100	3
20	Calcium Acetate	180	5
21	Carprofen	71	2
22	Tetra hydro ribo furanose	83	2
23	2,4-Dichloro-5-methyl pyrimidine (2,4-DCMPY)	330	10
24	Piperinyl alcohol	208	6
25	2-Chloro-4-Methyl pyrimidine (CMP)	522	16
26	Chloroethylido pyrimidine	248	7
27	Cyano Acetic Acid (CAA)	1144	34
28	Lamotrigen	188	6
29	Methyl Cyanoaceate (MCA)	1136	34
30	Ethyl Cyanoaceate (ECA)	2600	78
31	Tomsulosin	30	1
32	Homoveratryl Amine (HVA)	167	5
33	D-Mannose	410	12
34	Verapamil HCl	182	5
35	Nitazoxanide	250	8
36	Zolmitripton	100	3
37	2-methyl pyrrolidinecarboxylic acid	133	4
38	Hydroxy tetrahydrofuran	213	6
39	2,5-diamino 4,6-dichloro pyrimidine (DADCP)	332	10
40	1-Tert-butoxy carbonyl amino cyclobutane carboxylic acid	280	8

	(BCAC)		
41	Benzhydrol Thioacetamide (BTA)	285	9
42	Benzoin	356	11
43	2-n-Butyl-4-formyl-5-chloro imidazole (BCFI)	297	9
44	Fenoprofen Calcium dihydrate	110	3
45	Capacitabine	170	5
46	Chloro propyl amino pyrazole	99	3
47	Fluoro Phenyl Methanone	229	7
48	3,5-Diacetoxy acetophenone (DAAP)	521	16
49	1-Bromo -2-iodo benzene (BIB)	474	14
50	L-Xylose	274	8
51	5-Bromo-2-iodo pyrimidine	176	5
52	8-chloro theophylline	259	8
53	S- Indoline-2-carboxylic acid	210	6
54	2,4-Dichloro-5-Nitro pyrimidine (DCNPY)	116	3
55	Dimethyl thiophenol	311	9
56	2-Amino-5-Chloro Benzoic acid (ACB acid)	267	8
57	Methyl-Napthalene-1-Methyl-amine Hydro chloride (NAP)	382	11
58	3-Hydroxy- N-benzyl pyrrolidine (BHP)	200	6
59	Valsartan	86	3
60	Carbonyl amino cyclobutiric acid	228	7
61	Metane sulfonyl-L-lucyne	202	6
62	2,4-Diamino-6-hydroxy pyrimidine (DAHP)	247	7
63	5-Chlorothiophene-2-carboxylic acid (5-CTA)	396	12
64	3,5-Dibenzoyl tartaric acid (DBTA)	436	13
65	Pamabromo	332	10
66	2-chloro-5-iodo benzoic acid	492	15
67	Tetra hydro isoquinoline (THIQ)	153	5
68	2,4-Dichloropyrimidine (2,4-DCPY)	345	10
69	Doxofylline	365	11
70	Dimethyl dithiophosphoric	71	2
71	Aripiprazole	143	4
72	Phentramine hydrochloride	200	6
73	D-Penicillamine	80	2
74	dimethyl phenyl isothiocyanate	216	6
75	2-Chlorothioxanthene-9-one (2-CTX)	367	11
76	2,6-dichloro-4,8-dipiperdine-1-yl-pirimido5,4d)pyrimidine (DDH)	250	7
77	Homoveratryl Amine (HOVA)	428	13
78	Thiozole-5-carboxaldehyde	182	5
79	2,5-Dimethylamino-2-phenyl Butan-1-OI (RC-105)	267	8
80	Amino Dimaleate (ADM)	418	13
81	2,4,5-Trichloro pyrimidine (TCPY)	198	6
82	4,4-Nitro phenyl-3-marpholine(NPMP)	116	3
	Worst case- 6 Products on campaign basis	8356	251

List of By-Products – After Expansion

S.No	Product	Stage	By-Product	Capacity	
				Kg/day	TPM
1	Methyl-2-(Chloromethyl Phenyl)-3-Methoxy-2-Acrlate	IV	Sodium Sulfate	1467.9	44.0
		V	Sodium hydrogen Sulfate	810.2	24.3
		VI	Potassium chloride	671.5	20.1
2	5-Cyano Phthalide	IV	Sodium Sulfate	313.9	9.4
3	4-hydroxy-5-methyl pyrrolo[2,1-f][1,2,4]triazine-6-carboxylic acid ethyl ester (PTZN)	I	Methylamine hydrochloride	43.9	1.3
4	Gabapentine	II	Ammonium Sulfate	228.8	6.9
5	4,6-Dichloro pyrimidine crude	I	Formic acid	81.0	2.4
		II	Phosphoric acid	301.8	9.1
6	1-[[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl]piperidine-4-carbothiomide (MPC)	I	Sodium Sulfate	415.5	12.5
7	Losartan potassium	III	5,5 Dimethyl hydantoin	26.5	0.8
8	Theobromine	IV	Sodium bromide	154.2	4.6
9	4,6-Dichloro-5-fluoro pyrimidine crude	I	Formic acid	92.8	2.8
		II	Phosphoric acid	359.2	10.8
10	Entacapone		Aluminium hydroxide	28.8	0.9
11	Carprofen	I	Acetic acid	30.7	0.9
		III	Boric acid	5.9	0.2
		V	Sodium acetate	25.3	0.8
12	2-Chloro-4-Methyl pyrimidine	I	Sodium Sulfate	337.3	10.1
13	Lamotrigine	II	Sodium phosphate	39.6	1.2
14	Tamsulosin Hydrochloride	III	Potassium chloride	4.5	0.1
		IV	Sodium Sulfate	18.5	0.6
		V	Potassium bromide	12.9	0.4
		VII	Sodium Bromide	8.2	0.2
15	Verapamil Hydrochloride	III	Sodium bromide	38.7	1.2
16	Zolmitriptan	I	Sodium Sulfate	164.4	4.9
17	2-methyl pyrrolidinecarboxylic acid	I	Lithium iodide	167.4	5.0
18	3-Hydroxy tetra hydrofuran	II	Boric acid	314.0	9.4
			Sodium Sulfate	761.6	22.8
19	Benzhydryl Thioacetamide	II	Sodium bromide	79.5	2.4
20	2-Butyl-4-formyl-5-chloro imidazole	II	Ammonium phosphate	236.8	7.1
21	Fenoprofen Calcium Dihydrate	IV	Potassium Sulfate	80.3	2.4
			Manganese dioxide	80.1	2.4
22	Capacitabine	I	Pyridine Hydrochloride	66.0	2.0
		II	Sodium acetate	85.2	2.6
23	Chloro propyl amino pyrazole	II	Lithium chloride	37.4	1.1
24	5-Bromo-2-Iodo benzene	I	Sodium Sulfate	279.6	8.4
25	2,4-Dichloro-5 nitro	II	Phosphoric acid	230.0	6.9

	pyrimidine(DCNPY)				
26	Dimethyl thiophene	II	Zinc chloride	306.4	9.2
27	N-Methyl naphthalenemethylamine	II	Monomethyl amine HCl	148.0	4.4
28	3-Hydroxy- N-benzyl pyrrolidine	II	Boric acid	137.0	4.1
29	Valsartan	II	Triethyl amine HBr	55.1	1.7
		III	Triethyl amine HCl	33.8	1.0
		IV	Succinic acid	59.6	1.8
30	Methane Sulfonyl L-leucine	I	Potassium Sulfate	47.8	1.4
		III	Boric acid	28.0	0.8
31	2,4-Diamino-6-hydroxy pyrimidine	I	Sodium nitrate	166.3	5.0
32	Pamabrom	I	Sodium bromide	103.4	3.1
33	2-chloro-5-iodo benzoic acid	II	Potassium acetate	192.0	5.8
34	Tetra Hydro Isoquinoline	III	Hydrobromic acid	83.2	2.5
35	2,4-Dichloropyrimidine	I	Phosphoric acid	453.8	13.6
36	Dimethyl phenyl isothiocyanate	I	Sodium Sulfate	123.2	3.7
37	2-Chlorothioxanthene-9-one	III	Sulfuric acid	145.6	4.4
38	2,6-dichloro-4,8-dipiperidine-1-yl-pirimido5,4d)pyrimidine (DDH)	I	Spent Sulfuric acid	400.0	12.0
		IV	Phosphoric acid	145.3	4.4
39	Thiozole 5 Carboxyaldehyde	I	Acetic acid	72.8	2.2
		III	Phosphoric acid	192.4	5.8
		IV	Hydrobromic acid	71.6	2.1
40	2,5-Dimethylamino-2-phenyl Butan-1-ol (RC105)	III	Methyl sodium Sulfate	195.3	5.9
		IV	Aluminium chloride	184.6	5.5
41	2,4,5-Trichloro pyrimidine (TCPY)	II	Phosphoric acid	213.7	6.41

List of Utilities

S. No	Description	Capacity		
		Existing	Proposed	Total after Expansion
1	Coal Fired Boilers	1 x 3 TPH 1 x 4 TPH	2 x 10 TPH*	2 x 10 TPH 1 x 3 TPH and 1 x 4 TPH
2	Thermic Fluid Heater	---	1 lakh K.cal/hr	1 Lakh KCal/hr
3	DG Set**	500 KVA 600 KVA	1000 KVA	1 x 1000 KVA 1 x 600 KVA 1 x 500 KVA

* 1 x 10 TPH boiler shall be kept as standby

**DG sets will be used during load shut down periods only.

38.3.8.2. During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of synthetic organic chemicals (Bulk Drug and Intermediates) manufacturing unit from 23.1 TPM to 251 TPM by M/s Suven Life Sciences Ltd in a total area of 70 acres at Sy. No.99, 101-109, Village Dasaigudem, Mandal and District Suryapet (Telangana).

The project/activities are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 1st May, 2014 and its validity was extended till 1st May, 2018 vide Ministry's letter dated 25th July, 2017. Public hearing was conducted by SPCB on 22nd March, 2018.

Total water requirement is estimated to be 681.5 cum/day of which fresh water demand of 456.5 cum/day (100 cum/day from the Suryapet Municipality + 356.5 cum/day from ground water). The remaining water of 225 cum/day shall be obtained from recycled water. The unit has obtained permission for withdrawal of ground water of 392.4 cum/day from State Ground water department vide letters dated 12th February, 2014 and 19th May, 2018.

Total effluent generated from different industrial operations is estimated to be 239.6 cum/day. The high COD/TDS stream of 171.6 m³/day is segregated and sent to stripper. Stripper condensate shall be disposed to cement industries for co-processing/TSDF. Stripper bottom is sent to multiple effect evaporators (MEE) and agitated thin film dryer (ATFD). Condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The unit was established in 1981 in the name of M/s Caffinhal Organic & Pharmaceutical Limited for manufacturing of Theophylline and Caffeine, and was taken over by M/s Suven Pharmaceuticals (P) Ltd in 1989. M/s Suven Pharmaceuticals Limited has obtained consent to establishment dated 8th September, 2001 and consent to operate on 21st June, 2003. The unit changed its name from M/s Suven Pharmaceuticals (P) Limited to M/s Suven Life Sciences Limited in 2003.

Consent to operate for the present capacity has been obtained from SPCB vide letter dated 23rd April, 2016, presently valid till 31st March, 2021.

38.3.8.3 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*

- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Solvent management shall be carried out as follows:
 - (a) Reactor shall be connected to chilled brine condenser system.
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 100 cum/day from the Suryapet Municipality and 356.5 cum/day to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- The company shall undertake waste minimization measures as below:-
 - (i) Metering and control of quantities of active ingredients to minimize waste.
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (iii) Use of automated filling to minimize spillage.
 - (iv) Use of Close Feed system into batch reactors.
 - (v) Venting equipment through vapour recovery system.

- (vi) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*

Day Two - 26th June, 2018

Agenda No.38.3.9

Expansion of fertilizer and Energy Improvement Project of Ammonia and Urea plants by M/s Mangalore Chemicals and Fertilizers at Panambur, Mangalore, District Dakshina Kannada, (Karnataka)

[J-11011/159/2016- IA II(I); IA/KA/IND2/55271/2016]

38.3.9.1 The project proponent and the accredited consultant M/s EQMS India Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for environmental clearance to the project for Expansion of fertilizer plant by M/s Mangalore Chemicals and Fertilizers at Panambur, Mangalore, District Dakshina Kannada (Karnataka).
- (ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 11th meeting held on 20-21 July 2016 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/159/2016- IA II(I) dated 23rd September 2016.
- (iii) All projects are listed at S.No. 5(a) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry had issued ECs earlier vide letter no. J-11011/105/2007-IA-II(I) dated 18th July, 2007, J-11011/133/2009-IA-II(I) dated 3rd June, 2009, SEIAA:8:IND:2009 dated 30th July, 2009 and J-11011/34/2010-IA-II(I) dated 6th February, 2013 in favour of M/s Mangalore Chemicals and Fertilizers Ltd.

(v) Existing land area is 776996 sqm and no additional land will be required for proposed expansion. Greenbelt has already been developed in an area of 33% i.e., 258999 sqm out of total area of the project. The estimated project cost is Rs.1547 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.56 crores and the Recurring cost (operation and maintenance) will be about Rs.10 crores per annum.

(vi) Total employment generation will be 950 (750- existing and 200 for expansion) persons as direct and 700 (500- existing and 200 for expansion) persons indirect after expansion. Industry proposes to allocate Rs 3.5 crores towards Corporate Environment Responsibility.

(vii) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Gurupur River is flowing at a distance of 285 m in east direction.

(viii) Ambient air quality monitoring was carried out at 8 locations during December 2016 to February 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (40-92 µg/m³), PM_{2.5} (18-46 µg/m³), SO₂ (4-10.2 µg/m³) and NO₂ (8.3-17.7 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.6 µg/m³, 0 µg/m³ and 0 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Existing water requirement is 8928 cum/day, no additional water will be required. No additional effluent will be generated. The plant is based on Zero Liquid discharge system.

(x) Existing power requirement is 45000 kVA, no additional power will be required. Existing unit has 8 DG sets of each 7500 kVA capacity. Stacks (height 44 m each) are provided as per CPCB norms to the existing DG sets.

(xi) Existing unit has three Furnace Oil fired boilers of capacity 40, 35 and 5 TPH respectively. No additional boiler will be required for proposed expansion. There will not be any gaseous emission from SNF/ PCE plant after expansion.

(xii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 11th January, 2018. The main issues raised during the public hearing are related to employment for local people and CSR activities.

(xiii) Certified compliance report has been submitted by RO, MoEF&CC vide letter dated 26th October, 2017.

(xiv) The details of products and capacity are as under:-

Plant	Capacity (TPA)		
	Existing	Proposed	Total
Ammonia	2,47,500	81,000	3,28,500

Urea	4,29,000	1,40,400	5,69,400
DAP/NPK	4,01,500	10,00,000	14,01,500
Sulphonated Naphthalene Formaldehyde (SNF)/ Poly Carboxylate Ether (PCE)	85,000	18,000	103,000

38.3.9.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for Expansion/modernization of fertilizer plant (Ammonia from 247500 to 328500 TPA, Urea from 429000 to 569400 TPA, DAP/ NPK from 401500 to 1401500 TPA and SNF/PCE from 85000 to 103000 TPA) by M/s Mangalore Chemicals and Fertilizers) in a total area of 192 acres at Panambur, Mangalore, District Dakshina Kannada (Karnataka).

The project/activity is covered under category A of item 5 (a) 'Chemical fertilizers' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry

The project also involves energy conservation schemes/measures as a part of modernization of the fertilizer plant in order to be compliant with the National Urea Policy of the Government of India. Accordingly, it is envisaged to bring down the energy consumption from the present of 6.62 to 5.5 Gcal/tonne of urea even after the proposed expansion (Natural gas as raw material and fuel).

The ToR for the project was granted on 23rd September 2016. Public hearing was conducted by the SPCB on 11th January, 2018.

The present water requirement of 8928 cum/day is being supplied by Mangalore City Corporation, and no additional water will be required for the proposed expansion. Also, there would be no change in effluent generation (Trade effluent-1290 cum/day, Domestic effluent-250 cum/day). All the industrial effluent generated from cooling tower and boiler blow down shall be treated in RO plant and then recycled. As such, the plant is based on Zero Liquid discharge system.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent

Ministry had earlier issued ECs in favour of M/s Mangalore Chemicals and Fertilizers (I) with the details as under:-

S. No	Date of EC	Details
1	18 th July, 2007	Revamping of Di-Ammonium Phosphate (DAP) Fertilizer Plant (255500 to 401500) at Panambur, Mangalore, Dakshina Kannada, Karnataka
2	3 rd June, 2009	Setting up of specialty mixture of nutrient manufacturing plant at Panambur, Mangalore, Dakshina Kannada, Karnataka
3	30 th July, 2009	Installation of Sulphonated Napthalene Formldehyde plant of Capcity 85000 TPA at Panambur, Mangalore, Dakshina Kannada, Karnataka.
4	6 th	Conversion of Feed Stock from Naptha to NG/RLNG in the fertilizer plant and

	February, 2013	fuel from furnace oil to NG/RLNG in steam generating boilers and captive power plant and enhancement in the production of Ammonia, Urea, and Ammonium bicarbonate at Panambur, Mangalore, Dakshina Kannada, Karnataka
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The monitoring report on compliance status of above EC conditions issued by the Regional office Bangalore to the project proponent vide letter dated 26th October, 2017 and was found satisfactory.

Consent to Operate for the present industrial operations has been obtained from the State PCB vide letter dated 4th October, 2016, which is presently valid up to 30th June, 2021.

38.3.9.3 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms of 50 mg/Nm³ for particulate matter and/or the NAAQS, The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *The present water requirement of 8928 cum/day is being supplied by Mangalore City Corporation, and no additional fresh water shall be required for the proposed expansion.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *The project proponent shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The project proponent shall undertake waste minimization measures such as: -*
 - (a) *Metering and control of quantities of active ingredients to minimize waste.*
 - (b) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc.*
- *All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 11th January, 2018 shall be satisfactorily implemented*
- *At least 0.25% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines, Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*

- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Transportation of raw materials/products should be carefully performed using GPS enabled vehicles.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No.38.3.10

Setting up of Molasses based distillery (50 KLPD) cum Ethanol plant and expansion of existing sugar mill (2500 TCD to 5000 TCD) and Cogeneration plant (12 MW to 22 MW) by M/s Sadguru Sri Sri Sakhar Karkhana Ltd at Sy.no.234, Village Rajewadi, Tehsil Atpadi, District Sangli (Maharashtra)

[IA/MH/IND2/54022/2016, J-11011/152/2016- IA II(I)]

38.3.10.1 The project proponent and the accredited consultant M/s Mantras Green Resources Ltd. made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for environmental clearance to the project for setting up of 50 KLPD molasses based distillery at Sy.No.234, village- Rajewadi, Taluka Atpadi, District Sangli (Maharashtra) by M/s. Sadguru Sri Sri Sakhar Karkhana Limited (SSSKL).
- (ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 9th Expert Appraisal Committee (INDUSTRY-2) meeting held during 27-28, June 2016. The TOR has been issued by Ministry vide letter No. J-11011/152/2016-IAII (I) dated 2nd August 2016.
- (iii) All Molasses based distilleries are listed at S.N. 5 (g) of schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central level by Expert Appraisal Committee (EAC).
- (iv) Existing plant has sugar unit of having capacity 2500 TCD & Captive Power Plant of capacity 12 MW. No EC is required for the present operation.
- (v) Existing land area is 241192 sqm, additionally 178142.62 sqm land area will be required for proposed expansion. Green belt will be developed in 80937.1 sqm out of total area of the project.
- (vi) The estimated project cost is Rs.252.196 crore including existing investment of 137.196 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 818 lakhs and the Annual Recurring cost will be about Rs 142 lakhs per annum. Current employment is 417 persons and new expansion will proposed direct 235 persons (Proposed Distillery 45 persons & Proposed Sugar & Cogen 190 persons) employment. Thus total 652 persons will be employed Industry proposes to allocate Rs 15,36,000.0 Lakh @ 2.6% towards Corporate Social Responsibility.

(vii) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc lies within 10 km. Manganga River is flowing at a distance of 6 km in South direction.

(viii) Ambient air quality monitoring was carried at Total 8 sampling locations during October to December 2016. The minimum and maximum range of PM_{10} was $41 \mu g/m^3$ – $69 \mu g/m^3$, the range of $PM_{2.5}$ was $9 \mu g/m^3$ to $32 \mu g/m^3$, SO_2 was $9 \mu g/m^3$ – $20 \mu g/m^3$, NO_x was $16 \mu g/m^3$ – $34 \mu g/m^3$ and CO concentrations was 0.40 to 0.66 mg/ m^3 . AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $69 \mu g/m^3$, $20 \mu g/m^3$ and $34 \mu g/m^3$ with respect to PM_{10} , SO_x and NO_x . All the results of air quality were observed below the standard limits prescribed by NAAQS. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total fresh water requirement is 763.42 cum/day (486.96 cum/day for Distillery & 276.96 cum/day for Sugar mills) of which fresh and will be met through Mhasvad Dam (Rajewadi village).

(x) Effluent of 184 cum/day will be generated and the same will be sent for treatment to the existing ETP of 360 cum/day. The Plant will be based on Zero Liquid discharge system.

(xi) Power requirement will be increased from 4 to 9.5 MW, proposed to be met from proposed Co-gen Plant. Existing unit has 2 DG sets. Stack will be of 60 mts as per CPCB norms to the existing DG sets of which will be used as standby during power failure.

(xii) Existing sugar unit has 70 TPH Fired Boiler. Additionally 50 TPH fired boiler will be installed for distillery unit. ESP with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers. Generated CO₂ will be compressed liquefied and sold to consumers.

(xiii) Spent wash will be generated from the distillery process will be treated in bio-digester as primary treatment and MEE will be used for bio-compost as secondary treatment. Biocompost (28 MT/day) will be generated and will be sold to nearby farmers as fertilizer. Total ash generated is estimated to be around 6 MT/day out of which 4.8 MT/day will be fly ash and 1.2 MT/day will be bottom ash and it will be collected in ash silo. Collected bottom ash will be used as manure and fly ash will be sold to brick manufacturers. Spent Oil from the gear boxes, DG set is being reused for chains, bullock carts, and conveyor belts and if in excess is disposed to the authorized vendors as per the Hazardous Wastes (Management and Handling) Amendment Rules, 2003.

(xiv) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 10th October 2017.

38.3.10.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up molasses based distillery of 50 KLPD (Fuel Ethanol/Extra Neutral Alcohol/Absolute Alcohol/Rectified Spirit) by M/s Sadguru Sri Sri Sakhar Karkhana Ltd (SSSSKL) in a total area of 103.62 acres at Sy.no.234, Village Rajewadi, Tehsil Atpadi, District Sangali (Maharashtra). The project also includes expansion of existing sugar mill from 2500 TCD to 5000 TCD and Cogeneration plant from 12 MW to 22 MW.

The project/activity is covered under category A of item 5 (g)(i) 'All Molasses based distilleries' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry

The ToR for the project was granted on 2nd August, 2016. Public hearing was conducted by the SPCB on 28th July, 2017.

Total water requirement for first run is estimated to be 987 cum/day, out of which fresh water intake of 764 cum/day (487 cum/day for distillery and 277 cum/day for sugar & co-gen plant) is mainly proposed to be met from rain water harvesting/moisture from sugar cane. However, to meet the shortfall, if any, water supply would be met from Mhasvad Dam, Rajewadi. Necessary permission in this regard has been obtained from the concerned regulatory authority. The project proponent has committed to reduce the fresh water requirement to 300 cum/day (6 Kl/Kl of Alcohol).

Effluent of 184 cum/day will be generated and sent for treatment to the existing ETP of capacity 360 cum/day. Spent wash will be taken to bio-methanation plant for primary treatment for production of biogas. Concentrated spent wash will be sent for bio-composting, which will be sold to nearby farmers as fertilizer. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

38.3.10.3 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 300 cum/day (6 Kl/Kl of Alcohol) proposed to be met from rain water harvesting facility/moisture from sugar cane. During emergency and as back up, the fresh water shall be sourced from Mhasvad Dam. Prior permission shall be obtained from the concerned regulatory authority in this regard.*
- *The spent wash after evaporation shall be taken for bio-methanization and composted using press mud. The spent lees and evaporator condensate shall be provided physico chemical treatment for the treated water to be reused for dilution of molasses or in cooling tower as make up water.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*

- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- The company shall undertake waste minimization measures as below:-
 - 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 material substitutes in other processes.
 - c) Use of automated filling to minimize spillage.
 - d) Use of Close Feed system into batch reactors.
 - e) Venting equipment through vapour recovery system.
 - f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.
- At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- CO₂ generated from the process shall be bottled and sold to authorized vendors.

Agenda No.38.3.11

Capacity Expansion of NCU, MEG, HDPE, PP Units & Setting up Catalyst Manufacturing Unit by M/s Indian Oil Corporation Limited at Panipat Refinery & Petrochemical Complex

[IA/HR/IND2/73327/2016, J-11011 /106/2012-IA.II(I)]

38.3.11.1 The project proponent and the accredited consultant M/s ABC Techno Labs India Private Limited made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Expansion of the Production Capacities for Naphtha Cracker (NCU), Mono Ethylene Glycol (MEG), High Density Polyethylene (HDPE) and Polypropylene Unit (PP) and setting up Catalyst Manufacturing Unit at Panipat Refinery & Petrochemical Complex, Panipat (Haryana).

(ii) The project proposal was considered by the Expert Appraisal Committee in its 17th meeting held during December 26th to 29th 2016 and recommended Terms of References (ToR) for the project. The ToR has been issued by Ministry vide letter No. J-11011/106/2012-IA II (I) dated 15th March, 2017.

(iii) All products are listed at S No. 5(c) schedule of Environmental Impact Assessment (EIA) notification under category 'A' and are appraised at central level by Expert Appraisal Committee (EAC).

(iv) Total land area is 800 Ha. Green belt has already been developed in an area of 273 Ha out of total area of the project. The estimated project cost is Rs.1500 Crore.

(v) Additional manpower required for capacity expansion of Naphtha Cracker Unit(NCU), Mono Ethylene Glycol(MEG),High Density Polyethylene(HDPE) and Polypropylene Unit (PP) and setting up Catalyst Manufacturing Unit is approximate 15 nos.The Industry proposes to allocate the funds towards Corporate Social Responsibility as per its IOCL's policy.

(vi) It is reported that as per form-1, no National Parks, Wildlife Sanctuaries, Biosphere reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc lies within 10 km.

(vii) Ambient air quality monitoring was carried out at 8 locations during December 2016 to February 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (41.0 - 95.6 µg/m³), PM_{2.5} (31.1-57.6 µg/m³), SO₂ (18.0-32.5 µg/m³) and NO_x (27-43 µg/m³) respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement will be increased from 43200 cum/day to 47643 cum/day. The effluent generated from proposed projects will be marginal and same shall be treated in existing ETPs (Effluent Treatment Plant).

(ix) Power requirement will be 7.6MW and will be met through existing captive power plant having capacity 235 MW.(Currently use@ 140MW). No additional boiler will be installed.

(x) Solid/hazardous waste generation will be marginal and intermittent which shall be handled as per existing systems.

(xi) Public hearing for the proposed project was exempted as per the provisions contained in para 7(ii) of the EIA, Notification 2006.

(xii) The Certified compliance report submitted by RO, MoEF& CC vide letter no. 4-83/2004-RO(NZ)/180-181 dated 15th February, 2018.

(xiii) Following are the list of existing and proposed facilities:-

S. No	Facilities	Existing capacity	Proposed Capacity	Remarks
1.	NCU (In term of	800 KTA	947 KTA	Revamp
2.	MEG (In term of product)	300 KTA	425 KTA	Revamp
3.	HDPE (In term of	300 KTA	351 KTA	Revamp
4.	PP in term of product	600 KTA	780 KTA	Revamp
5.	Catalyst Manufacturing	-	1500 KTA	New

38.3.11.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for capacity expansion of Naphtha Cracker, Mono Ethylene Glycol, HDPE & Polypropylene Units and setting up Catalyst Manufacturing Unit of 1500 MTPA (500 MTPA FCC additives and 1000 MTPA DHDS/DHDT catalyst) at the existing Panipat Refinery & Petrochemical Complex, Panipat (Haryana). The project involves expansion of lower hydrocarbons (mainly Ethylene) from 800 KTA to 947 KTA, MEG from 300 to 425 KTA, HDPE from 300 KTA to 351 KTA and PP from 600 to 780 KTA.

The project/activity is covered under category A of item 5 (c) 'Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry

The ToR for the project was granted on 15th March, 2017. Public hearing was exempted as per the provisions contained in para 7(ii) of the EIA, Notification 2006.

Total water requirement will be increased from 43512 cum/day to 47955 cum/day, proposed to be met from Western Yamuna Canal. The project proponent has already the permission from the concerned regulatory authority (Irrigation Department, Government of Haryana) for drawl of 5199 cum/hr of canal water (for Petro-chemical complex), which would easily cater to the increased water demand of nearly 185 cum/hr due to the proposed expansion project.

Present effluent generation of 180 cum/hr shall be increased to 188.3 cum/hr, which will be sent for treatment to the existing ETP of capacity 200 cum/hr. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

For the present, SO₂ emission load is restricted to 138 kg/hr as mentioned in the EC dated 22nd February, 2017 for the project at Petro-chemical Complex. There would be marginal increase due to the proposed expansion.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns have been duly addressed by the project proponent

Ministry had earlier issued ECs in favour of M/s Indian Oil Corporation Ltd with the details as under:-

S.	Date of EC	Details
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No.		
1	4 th January, 2005	Naptha Craker Project
2	23 rd May, 2014	Butene-1 Project
3	22 nd February, 2017	Ethylene recovery project

The monitoring report on compliance status of above EC conditions has been forwarded by the Regional office Chandigarh vide letter dated 15th February, 2018, and was found satisfactory.

38.3.11.3 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed with different stacks to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stacks of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 47955 cum/day to be met from Western Yamuna Canal. Necessary permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Regular VOC monitoring to be done at vulnerable points.*
- *The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.*
- *Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.*
- *Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.*
- *The company shall undertake waste minimization measures as below:-*

- (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 material substitutes in other processes.
- (c) Use of automated filling to minimize spillage.
- (d) Use of Close Feed system into batch reactors.
- (e) Venting equipment through vapour recovery system.
- (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- At least 0.25% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

Agenda No.38.3.12

Setting up of Resin manufacturing unit by M/s Ovel Laminate LLP at Survey No.128, village Bahadurgadh, Taluka & District Morbi (Gujarat)

[IA/GJ/IND2/65032/2017, IA-J-11011/273/2017-IA-II(I)]

8.3.12.1 The project proponent and accredited consultant M/s T R Associates made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for Setting up of Resin manufacturing unit by M/s Ovel Laminate LLP at Survey No.128, village Bahadurgadh, Taluka & District Morbi (Gujarat).
- (ii) The project proposal was considered by the expert appraisal committee (Industry 2) in its 24th EAC meeting held during 14-16 June, 2017 and recommended Terms of References (TORs) for the project. The TOR has been issued by Ministry vide letter No. J-11011/273/2017-IA.II (I) dated 7th August, 2017.
- (iii) All Synthetic organic chemicals manufacturing projects located outside the notified industrial area/estate are listed at S.N. 5(f) of the schedule to the Environmental Impact Assessment (EIA)

notification, 2006 are under Category 'A' and are appraised at Central level by the Expert Appraisal Committee (EAC).

(iv) Total land area is 22966 sqm. Green belt will be developed in an area of 35% i.e. 8035 sqm. The estimated project cost is Rs.1.25 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.43 Lakhs and the recurring cost (operation and maintenance) will be about Rs.31 Lakhs per annum. Total employment generation will be 60 persons as a direct. Industry proposes to allocate Rs.3.25Lakhs @ of 2.5% towards Corporate Social Responsibility.

(v) There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc lies within 10 km distance from the project site. River-Machchhu is flowing at a distance of 4.79 km in W direction.

(vi) Ambient air quality monitoring was carried out at 9 locations during October 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (61.30 to 82.20 µg/m³), PM_{2.5} (22.25 to 33 µg/m³), SO₂ (6.1 to 25 µg/m³) and NO₂ (6.1 to 24.16 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.5µg/m³, 0.6µg/m³, 0.85µg/m³ with respect to PM₁₀, SO₂, NO₂. The resultant concentrations are within the National Ambient Air Quality Standards(NAAQS).

(vii) Total water requirement is 35 cum/day, proposed to be met from Borewell/ Open well. Effluent of 12.6 cum/day will be sent to Effluent Treatment Plant followed by Evaporator and Condenser, thus plant will be based on Zero Liquid Discharge system.

(viii) Power requirement will be 350 kVA, proposed to be met from Paschim Gujarat Vij Company Limited (PGVCL). DG set of 380 kVA will be used as standby during power failure. Stack (height 6 m) will be provided as per CPCB norms.

(ix) One Briquettes/Coal fired boiler of 4 TPH capacity will be installed. One Thermic Fluid Heater of 15 Lac Kilo Cal./Hr capacity will be installed. Cyclone Separator followed by Bag Filter with a stack height of 30 m will be installed for controlling the Particulate Emissions (within statutory limit of 150mg/Nm³). condenser will be provided to Dryer to control process emissions.

(x) Details of solid waste/hazardous waste generation and its management are as under:-

S. No.	Description	Category	Quantity (MT/ Month)	Mode of Disposal
1	ETP Sludge + Evaporation residue	35.3	6.3	Collection, storage and Disposal at TSDF Site
2	Used Oil	5.1	0.004	Collection, storage and used within premises as a lubricant / sold to registered recycler.
3	Discarded Plastic bags / Barrels	33.1	0.76	Collection, storage & sell to authorized vendor
4	Edge Cutting Waste	23.1	1.2	Collection, storage & disposal at common Incineration facility

5	Spent carbon	54.3	19.2	Collection, storage, transportation & disposal at common Incineration facility/ sell to authorized vendor
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(xi) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 11th April, 2018. The main issues raised during the public hearing are related local employment and health problems of workers.

(xii) Following are the list of proposed products:-

1.	Phenol Formaldehyde Resin	700
2.	Melamine Formaldehyde Resin	700
3.	Urea Formaldehyde Resin	500

38.3.12.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for Setting up of Resin manufacturing unit by M/s Ovel Laminate LLP in a total area of 22966 sqm at Survey No.128, village Bahadurgadh, Taluka & District Morbi (Gujarat).

The project/activity is covered under category A of item 5 (f) 'Synthetic organic chemicals industry' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry

The ToR for the project was granted on 7th August, 2017. Public hearing was conducted by the State Pollution Control Board on 11th April, 2018.

Total water requirement is estimated to be 52.2 cum/day of which fresh water demand of 35 cum/day shall be met from Borewell/Open well.

Total Effluent of 12.6 cum/day will be sent to Effluent Treatment Plant followed by Evaporator and Condenser. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent

38.3.12.3 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*

- Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- Solvent management shall be carried out as follows:
 - (i) Reactor shall be connected to chilled brine condenser system.
 - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 98% recovery.
 - (iv) Solvents shall be stored in a separate space specified with all safety measures.
 - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 35 cum/day to be met from borewell/Open well. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- The company shall undertake waste minimization measures as below:-
 - (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 material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of at least 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- Continuous online (24X7) monitoring system for stack emissions and the effluent, shall be installed for measurement of flow/discharge and the pollutants concentration, and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.
- The energy sources for lighting purposes shall preferably be LED based.

38.4 Amendment in Terms of Reference

Agenda No.38.4.1

Proposed expansion of Specialty Chemicals, Bulk Drugs, Bulk Drug Intermediates manufacturing and Pesticides formulation unit of M/s Wanksons Chemical Industries Pvt. Ltd. at Plot No.518, GIDC Industrial Estate, Panoli, Taluka Ankleshwar, District Bharuch (Gujarat)

[IA/GJ/IND2/64875/2017, IA-J-11011/292/2017-IA-II(I)]

38.4.1.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 11th August, 2017 in favour of M/s Wanksons Chemical Industries Pvt. Ltd to the project for expansion of Pesticide Technical (80 TPM), Pesticide Specific Intermediates (from 380 TPM To 475 TPM), Specialty Chemicals (from 116 TPM to 126 TPM) manufacturing unit located at Plot No. 518, GIDC Industrial Estate, Panoli, Taluka Ankleshwar, District Bharuch (Gujarat).

38.4.1.2 The project proponent has requested for amendment in the ToR with the details are as under;

S. No.	Point of ToR	Details as per the TOR	To be revised	Justification/Reasons
1	Condition No.1	Grant TOR for Proposed Expansion of Specialty chemicals, Bulk Drugs, bulk drug Intermediates manufacturing and Pesticides Formulation Unit (1436 MT/Month to 1726	Company want to add 4 Nos. of products and their capacity is 105 MT/Month which is pesticide intermediate - 95 MT/Month and specialty Chemicals – 10MT/Month. Means total production capacity will be increase (1726 MT/Month to 1831	As per market scenario, Company has added 4 Nos. of products and their capacity is 105 MT/Month.

		MT/Month).	MT/Month).	
2	Condition No.2	The project activity 'Synthetic Organic Chemicals' is covered under category A of item 5(f) of the schedule to the EIA Notification, 2006 and needs appraisal at Central level by the Expert Appraisal Committee (EAC).	Some of products are pesticide and pesticide intermediates which are covered under category A of item 5(b) of the schedule to the EIA Notification, 2006.	Pesticide Technical (80 MT/Month), Pesticide Specific Intermediates (380 MT/Month TO 475 MT/Month).
2	As per applied TOR Application: Water consumption and waste water generation	Water consumption - 156.5 KL/Day will require and 50.5 KL/Day will generate.	Due to additional the 4 Nos. of products, Additional 10.5 KL/Day water consumption (156.5 KL/Day to 167.0 KL/Day) will require and 10 KL/Day wastewater (50.5 KL/Day to 60.5 KL/Day) will more generate.	Due to additional the 4 Nos. of products.
3.	As per applied TOR Application: Hazardous waste generation and Disposal	As per TOR	Due to additional the 4 Nos. of products, MEE salt and spent solvent from stripper will generate and generate quantity of ETP sludge and Distillation residue will increase.	Due to additional the 4 Nos. of products.

38.4.1.3 During deliberations, the EAC noted that the ToR dated 11th August, 2017 for the proposed expansion project, was based on the details given in Form-1 at that stage and finds mention of the product details as under:-

Product	Category	Existing (TPM)	Proposed (TPM)
Speciality chemicals and Bulk drugs intermediates	5(f)	286	576
Pesticides Formulation	-	1150	1150
Total		1436	1726

Given the project details as above, the proposal requires appraisal by the concerned SEAC/SEIAA at the State level.

Now it is proposed to increase the quantum from 1726 to 1831 TPM which would include pesticides and pesticides specific intermediates also, covered under item 5(b) of the schedule to the EIA Notification, 2006 and thus requires appraisal at the central level.

38.4.1.4 *The EAC, after deliberations and especially in view of change of categorization resulting change in jurisdiction for appraisal/approval of the project, found the proposal for amendment not admissible in letter and spirit of the EIA Notification, 2006. Given the revised scope of the project, the Committee was not inclined to recommend the proposal, but desired for submitting the proposal afresh.*

Agenda No.38.4.2

Establishment of EPS at 'BTSAD', by M/s ONGC Ltd at Bhimavaram, District West Godavari (Andhra Pradesh)

[IA/AP/IND2/62860/2017, IA-J-11011/64/2017-IA-II(I)]

38.4.2.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 31st May, 2017 for the project Establishment of EPS at 'BTSAD', Bhimavaram, District West Godavari (Andhra Pradesh).

38.4.2.2 The project proponent has requested for amendment in the ToR with the details as under:-

S. No	Para of ToR	Details as per the ToR	To be revised as	Justification
1	Addition al ToR	Public Hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of Tabular Chart with financial Budget for complying with the commitments made.	Exemption of Public Hearing	Amendment to the ToR issued is sought in view of the following reasons: 1. Public Hearing was conducted in respect of the proposed activity "Development Drilling of 10 wells in West Godavari District, A.P." at ZPH School Nagendrapuram (V) Nagidipalem Panchayat on 20.01.2018. 2. The above activity is a part of the proposal "Additional Development Drilling of 72 wells in East Godavari, West Godavari and Krishna District for which Standard ToRs issued vide F.No. J-11011/173/2015-IA-II(I). 3. ToRs were also issued to conduct Public Hearing in respect of another proposal "Establishment of EPS at BTSAD, Bhimavaram, West Godavari District, Andhra Pradesh" vide F.No. J-11011/64/2017-IA-II(I) Dated 31 st May

				<p>2017.</p> <p>4. It is to submit that the venue for the Public Hearing conducted as referred at S.No. 1 above is in the vicinity of the location of the proposed EPS at BTSAD as referred in the S.No. 3 above.</p> <p>5. Further, during the Public Hearing presentation it was communicated that the 6 wells out of the 10 proposed wells shall be drilled in Bantumilli South Field in West Godavari District and these wells are proposed to be connected to the proposed EPS at BTSAD.</p> <p>6. The envisaged plan as mentioned at S.No.5 above is duly recorded in the minutes issued by Regional Office of APPCB, West Godavari District.</p> <p>As the Public Hearing was held in January 2018 is in the vicinity of the location of the proposed EPS at BTSAD and in view of the reasons as mentioned at S.No.5 above, amendment of the ToRs to exempt Public Hearing in respect of the proposal as mentioned is sought.</p>
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38.4.2.3 The EAC, after deliberations, agreed to the request for amending the ToR dated 31st May, 2017 granted by the Ministry for the above said project, provided the public hearing already conducted in District West Godavari on 20th January, 2018 for another project 'Additional Development Drilling of 72 Wells' in Andhra Pradesh is in conformity with the provisions of the EIA Notification, 2006.

Agenda No.38.4.3

Proposed expansion of synthetic organic chemicals and pesticide intermediates by M/s Organic Industries Pvt Ltd at Plot No. S/163, GIDC Dahej-I, Taluka Vagra, District Bharuch (Gujarat)

[IA/GJ/IND2/56892/2016, J-11011/315/2016-IA.II(I)]

38.4.3.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated June 15, 2017 for expansion of Pesticide Technical (600 TPM), Pesticide Intermediates (25 TPM to 100 TPM), Synthetic Organic Chemicals (3660 TPM to 2860 TPM), Antioxidant (400 TPM) and Dye Intermediates (600 TPM) in Existing Unit (3500 TPM) located at Plot No. S/163, Gidc, Dahej-I, Taluka Vagra, District Bharuch (Gujarat) in favour of M/s Organic Industries Pvt. Ltd.

38.4.3.2 The project proponent has requested for amendment in the ToR with the details are as under;

S.	Para	of	Details as per the	To be revised as/ read as	Justification/ reasons
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No.	ToR	ToR		
1.	3.0	Followings are the details of existing and proposed products.	<p>We want drop Plant -02 (Herbal Products by Herbal Extracts (Water Based))-1020 MT/Annum, Plant-03 (Existing) – 43920 MT/Annum, Plant - 02A Herbal Products by Herbal Extract (Solvent based) - 1020 MT/Annum, Phosphatised products -100 MT/Annum, Plant -04 D (Single compound, double compound and CBS) - 1200 MT/Month.</p> <p>We want to add new dye intermediates plant (600 MT/Month) and pesticide technical plant (600 MT/Month) and Antioxidant (400 MT/Month). Also want to increase production capacity of Pesticide intermediates from 25 MT/Month to 100 MT/Month.</p> <p>Please refer Annexure - 1 (List of Products & By-products and their capacity).</p>	<p>Market value and selling of herbal extract base product is not good as per market survey.</p> <p>New Products are being added based on the recommendations of several Dye Intermediates and Pesticides MNCs based company.</p>
2.	--	Water consumption and Wastewater generate	<p>Water Consumption increase from (655 KL/Day to 1055 KL/Day) and Wastewater generate increase from (205 KL/Day to 392 KL/Day).</p> <p>Please refer revised Water consumption and Wastewater generate as Annexure-2.</p>	<p>Due to add new dye intermediates plant (600 MT/Month) and pesticide technical plant (600 MT/Month) and Antioxidant (400 MT/Month). Also want to increase production capacity of Pesticide intermediates from 25 MT/Month to 100 MT/Month.</p>
3.	--	Hazardous Waste	<p>New Generate Hazardous Waste like MEE Salt 600 MT/Month, Spent Solvent 150 MT/Month and Iron Sludge 200 MT/Month</p> <p>Increase Hazardous Waste quantity like Dil. HCL (221 MT/Month to 275 MT/Month) and Dil. H2SO4 (227 MT/Month to 1000 MT/Month)</p>	<p>Due to add new dye intermediates plant (600 MT/Month) and pesticide technical plant (600 MT/Month) and Antioxidant (400 MT/Month). Also want to increase production capacity of Pesticide intermediates from 25</p>

				MT/Month to 100 MT/Month.
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Annexure -1

S. No.	Product	AS per TOR			ToR Amendment	CAS No.	LD50
		Existing Capacity (MT/Month)	Additional Capacity (MT/Month)	Total Capacity (MT/Month)			
Plant-01 (Existing)							
1	Potassium Permanganate	700	-	700	700	7722-64-7	1090
2	Boric Acid Technical (All Grades)	2,000	-	2,000	2,000	10043-35-3	2660
3	Borax Decahydrate (All Grades)	700	-	700	700	1303-96-4	6000
4	Di-Sodium Octaborate Tetrahydrate	100	-	100	100	12280-03-4	2000
Plant-02 (Existing)							
5	Herbal Products by Herbal Extracts (Water Based)	85	-	85	00	--	--
	i. Aswagandha – Withania Somanifera						
	ii. Brami – Bacopa Monnieri						
	iii. Andhrographis Pariculata – Kalmegh						
	iv. Asphalt – Shilajit						
	v. Azartica Indica – Neem						
	vi. Asparagus Racemogus – Shatavari						
	vii. Boswillia Serrata – Salaji Guggal						
	viii. Commiphora Mukal – Guggal						
	ix. Garcinia Combogia						
	x. Glycyrliza Glabra – Mulethi						
	xi. Gymnema Sylvester – Gurmar						
	xii. Lagastrolmia Splciosa – Karela						
	xiii. Momordica Pureins – Kaunch						
	xiv. Mucana Pureins – kaunch						
	xv. Ocimum Santium –						

	Tulsi						
	xvi. Terminalia Arjuna – Arjuna						
	xvii. Tribulus Terrestris – Gokharu						
Plant-03 (Existing)							
6	Roasted Bentonite Granules	750	-	750	00	--	--
7	Soil Conditioner	2400	-	2400	00		
8	Plant Growth Regulator	10	-	10	00		
9	NPK Mixed Granulated Fertilizer	500	-	500	00		
Plant-02-A (Proposed)							
10	Herbal Products by Herbal Extract (Solvent based)	-	85	85	00	--	--
Plant-04-A (Proposed) - ETHOXILATES & PROPOXYLATES and there condensates							
11	Ethylene Oxide / Propylene Oxide Condensate	--	334.0	334.0	334.0	75-21-8/ 75-56-9	330/380
12	Anionic Surfactants	--	83.0	83.0	83.0		
	Sodium dodecyl sulfate					151-21-3	1288
	Sodium alkyl sulfate					85338-42-7	2000
	Sodium dodecyl benzene sulfonate					68411-30-3	1330
	Sodium laurate					151-21-3	1288
13	Cationic Surfactants	--	83.0	83.0	83.0		
	Behentrimonium chloride					17301-53-0	7800
	Carbethopendecinium bromide					10567-02-9	30
	Didecyldimethylammonium chloride					7173-51-5	268
	Stearalkonium chloride					122-19-0	1250
14	Blended Surfactants (using Intermediates)	--	166.66	166.66	00	--	--
15	Powder Surfactants	--	83.4	83.4	00	--	--
Plant-04-B (Proposed)							
16	Sulphocuecinated Products	-	20.0	20.0	20.0		
	Diocetyl sodium sulfosuecinated					577-11-7	1900
17	Phosphatised Products	-				--	--
Plant-04-C (Proposed)							

18	Alkonol Amines (Methyl Diethanol Amines)	-	833.4	833.4	1000	105-59-9	1945
	Mono Methyl Amine					74-89-5	698
	Di Methyl Amine					124-40-3	1000
	Mono Ethyl Amine					75-04-7	265
	Di Ethyl Amine					109-89-7	540
	Coco Mono Ethanolamide					68140-00-1	5000
	Coco Di Ethanolamide					68603-42-9	5000
Plant-04-D (Proposed)							
19	Single Compound		100	100	00	--	--
20	Double Compound					--	--
21	CBS (50%, 60% & 70%)					--	--
Plant-05 (Proposed)							
22	Di-Ethyl-Phthalate	-	200	200	200	84-66-2	8600
23	Di-Methyl – Phthalate	-	200	200	200	131-11-3	6900
	Di-Methyl – Sulphate	-	450	450	450	77-78-1	205
25	Di-Methyl - Aniline	-	200	200	200	121-69-7	1410
	Di-Ethyl-Aniline	-	80	80	80	91-66-7	610
27	N-Ethyl-Aniline	-	120	120	120	103-69-5	280
	Ethyl – Benzyl Aniline	-	100	100	100	92-59-1	800
29	Di-Ethyl-Ether	-	100	100	100	2679-89-2	1215
Plant-06 (Proposed)							
30	Sodium Saccharine	-	30	30	30	82385-42-0	14200
31	Lasamide	-	30	30	30	2736-23-4	3
32	3,3’ DINITRODIPHENYL SULFONE	-	30	30	30	1228-53-1	2000
Plant-07 (Proposed) – Pesticide Intermediates							
33	2- Chloro 6- Nitro Benzonitrile	-	25	25	100	6575-07-1	980
34	4 - Amino Dimethyl Pyridine	-				1122-58-3	250
35	4-Amino-2,5-dimethylphenol	-				3096-71-7	840
36	4-Chloro-2,6-dimethylbromobenzene (CLDMBB)	-				615-60-1	--
	Plant-08 (Proposed) – Dye Intermediates						
37	Benzidine 2 – 2 Di	--	--	--	200	117-61-	2000

	Sulphonic Acid (BDSA)					3	
38	Sulpho Tobias Acid (STA)					117-62-4	19400
39	N-Methyl J Acid (NMJ)					22346-43-6	1200
40	EBAMSA					101-11-1	2000
41	Sulpho VS	--	--	--	200	--	--
42	Sulpho OAVS – Ortho Aniline Vinyl Sulphone					121-88-0	5000
43	DMAVS – Dimethyl Aniline Vinyl Sulphone					26672-24-2	800
44	Para Chloro Vinyl Sulphone					10079-20-6	2000
45	4-Sulpho Antranilic Acid					98-43-1	5000
46	DAASDA	--	--	--	200	--	--
47	DASA					16803-97-7	68
48	K-Acid					118-03-6	200
Plant-09 (Proposed) Pesticide Technical							
Fungicide							
49	Hexaconzole (T)					79983-71-4	2000
50	Tebuconzole (T)	--	--	--	200	107534-96-3	5000
51	Propioconzole (T)					60207-90-1	4000
52	1,2,4-Triazole					288-88-0	2300
53	Metalaxyl					57837-19-1	669
Insecticide							
54	Bifenthrin (T)	--	--	--	200	82657-04-3	1280
55	Profenofos (T)					41198-08-7	2560
Herbicide							
60	Pendimethalin (T)	--	--	--	200	40487-42-1	5000
61	Bispyribac Sodium					125401-92-5	2250
Plant-10 (Proposed) ANTIOXIDANTS							
62	TPP(TRIS PHENYL PHOSPHITE)	--	--	--	400	101-02-0	2000
63	DPP(DI PHENYL PHOSPHITE)					4712-55-4	2000
64	PDDP(PHENYL DI					25550-	2000

	ISODECYL PHOSPHITE)					98-5	
65	TDP(TRIS DECYL PHOSPHITE)					25448-25-3	2000
66	TLP(TRIS LAURYL PHOSPHITE)					3076-63-9	2200
67	DPTDP(DI PHENYL TRI DECYL PHOSPHITE)					60628-17-3	2500
68	TDPP(TRIS DIPROPYLENE GLYCOL PHOSPHITE)					26259-91-6	2000
69	DPDP(DI PHENYL ISO DECYL PHOSPHITE)					26544-23-0	24000
70	OTHER ANTIOXIDANT					--	--
	TOTAL	7245	3353.46	10598.46	8060		

NOTE: We want drop Plant -02 (Herbal Products by Herbal Extracts (Water Based))-1020 MT/Annum, Plant-03 (Existing) – 43920 MT/Annum, Plant -02A Herbal Products by Herbal Extract (Solvent based) - 1020 MT/Annum, Phosphatised products -100 MT/Annum, Plant -04 D (Single compound, double compound and CBS) -1200 MT/Annum. We want to add new dye intermediates plant (600 MT/Month), Antioxidant (400 MT/Month) and pesticide technical plant (600 MT/Month). Also want to increase production capacity of Pesticide intermediates from 25 MT/Month to 100 MT/Month. Market value and selling of herbal extract base product is not good as per market survey. New Products are being added based on the recommendations of several Dye Intermediates, Antioxidants and Pesticides MNCs based company.

38.4.3.3 *The EAC, after deliberations, observed that the proposed amendments in the ToR dated 15th June, 2017 involve substantial changes in the proposal in respect of products details, production capacity, water requirement, waste water generation, hazardous waste generation, etc. Accordingly, the Committee preferred for submission of the fresh proposal rather than amending the said ToR.*

The proposal was therefore not recommended.

Agenda No.38.4.4

Expansion of Sugar plant, Co-Generation, Refinery & distillery by M/s Shri Gurudatt Sugars at Gut No.61/A, Akiwat, Takaliwadi Road, Takaliwadi, Taluka Shirol, District Kolhapur (Maharashtra)

[IA/MH/IND2/65076/2017, IA-J-11011/304/2017-IA-II(I)]

38.4.4.1 The Ministry vide letter dated 17th August, 2017 has granted terms of reference to the project for expansion of sugar plant from 6000 TCD to 13000 TCD, Co-generation 21 MW to 90 MW and setting up molasses based distillery of 150 KLPD by M/s Shri Gurudatt Sugars Ltd at Gut No. 61/A, Akiwat- Takaliwadi Road, Takaliwadi, Taluka Shirol, District Kolhapur (Maharashtra).

38.4.4.2 The project proponent has requested for amendment in the said ToR, with the details as under:

S. No.	Para of ToR	Details as per the ToR	To be Revised /Read as	Justification/reasons
1.	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation.	As per received ToR public consultation is mandatory for this project.	Exemption for Public Consultation	Public Hearing has been already conducted for the existing project on Date 24 th August 2016 and the EC has been granted on Date 20 th March 2017. We have made our application for expansion on 31 st May 2017 requesting for exemption from public hearing for the expansion.

38.4.4.3 The proposal was earlier considered by the EAC in its meeting held on 22-24 January, 2018, wherein the EAC noted that the Ministry had earlier issued environmental clearance on 20th March, 2017 to the expansion project of sugar plant. However, consent to operate for the same has not been obtained from the State Pollution Control Board, and the project is yet to be made operational. As such, there seems no locus standii to accept the proposal for further expansion and/or amendment in the standard ToR dated 17th August, 2017 issued by the Ministry.

38.4.4.4 *The EAC, after deliberations, observed that the project for which the public hearing was earlier conducted on 24th August, 2016 and environmental clearance was granted on 20th March, 2017, involved setting up sugar plant of capacity 6000 TCD & co-generation unit of 21 MW. Whereas, the project for which ToR was issued on 17th August, 2017, envisages expansion of sugar plant from 6000 to 13000 TCD, co-gen unit from 21 to 90 MW and setting up 150 KLPD molasses based distillery. The project now involves considerable increase/change in its scope and accordingly, the earlier public hearing may not be acceptable for consideration of the present proposal for EC. The proposal for amendment in the ToR for exemption from public hearing was, therefore, not recommended.*

The Committee, however, agreed for using the base line data already collected during February, 2016 to May, 2017 for preparing the EIA/EMP reports, provided the same is not more than 3 years old while submission of the proposal for EC.

27th June 2018

38.5 Environmental Clearance

Agenda No 38.5.1

Expansion of Drugs Intermediates and Speciality Chemicals Unit (30MTPM to 184 MTPM) by M/s Aarti Industries Ltd (Custom Synthesis Division) at Plot nos. 22/C/1&2, GIDC Estate Phase I, GIDC,Vapi, District & Tehsil Valsad (Gujarat)

[IA/GJ/IND2/32249/2012, J-11011/368/2012-IA-II(I)]

38.5.1.1 The project proponent and their consultant M/s Jyoti Om Chemical Research Centre Pvt Ltd gave a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for expansion of drugs intermediates and speciality chemicals unit (30MTPM to 184 MTPM) of M/s. Aarti Industries Ltd. (Custom Synthesis Division) located at plot no 22/C-1,2, GIDC Estate, 1st Phase, Vapi, Dist:- Valsad, Gujarat.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 6th meeting will be held during 5-7th March, 2013 and recommended Terms of Reference for the project. The ToR has been issued by Ministry vide letter dated 17th April, 2013.

(iii) All products are listed at S.N. 5(f) of schedules of Environmental Impact Assessment (EIA) Notifications under category 'A' due to a specific condition are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has issued EC earlier vide letter dated 7th November, 2008 to the existing project. In favour of M/s Aarti Industries Ltd. (Custom Synthesis Division).

(v) Existing Land area is 26200 Square Meter, no additional land will be used for proposed expansion. Industry will develop greenbelt in an area of 33%, i.e. 2620 sqm. out of total area of the project. The estimated project cost is Rs. 5133.74 Lacs excluding existing investment of Rs. 26.82 crores. Total capital cost earmarked toward environmental pollution control measures is Rs. 285 Lakhs/Annum and the recurring cost (Operation and maintenance) will be about Rs.34 Lakhs per annum. Total employment will be 255 persons as direct and 20 persons indirect after expansion. Industry proposed to allocate Rs. 125 Lakhs @ 2.5% towards corporate social responsibility.

(vi) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tigers/Elephants Reserves, Wildlife Corridors lies within 10 km distance. Daman ganga River is flowing at the distance 1.6 km of in west south direction

(vii) Ambient air quality monitoring was carried out at 8 locations during March 2013 to May 2013 and the baseline data indicates the ranges of concentrations as: PM₁₀ (42-98 µg/m³), PM_{2.5} (8-36 µg/m³), SO₂ (14-45 µg/m³) and NO₂ (13-30 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.45 µg/m³, 6.03 µg/m³ and 2.16 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 530.5 m³/Day of which fresh water requirement of 387 m³/Day will be met from GIDC, Vapi.

(ix) Effluent of 112.8 m³/Day will be treated through RO & MEE. The plant will be based on Zero Liquid Discharge system

(x) Power requirement after expansion will be 2250 kVA including existing 1250 kVA and will be met from Daxin Gujarat Vij Company Ltd State power distribution corporation limited (SPDCL). Existing unit has 02 DG Sets of 320 kVA & 625 kVA Capacity, additionally 2 no of D.G Sets are used as standby during power failure. Stack (Building height+ 5 m) will be provided as per CPCB norms to the proposed DG sets.

(xi) Existing unit has 1.5 & 4 TPH 2 fired boiler. Additionally 00 TPH 00 fired boiler will be installed. Multi Cyclone separator/bag filter with a stack of height of 00 m will be installed for controlling the particulate emission (within statutory limit of 115mg/Nm³) for proposed 00

(xii) Details of Process emission generation and its management is given below:

Process emission is from one stack attached to reactor in FDP-II and Zn V plant, one stack attached to reactor in FDP II and FDP III plants, one stack attached to reactor in TV,BA,CS and Incineration stack. There will be one additional stack attached to reactor in Maxy, SAF, DX VI due to proposed expansion.

(xiii) Detail of solid waste/Hazardous waste and its management is given below:

S. No	Type of hazardous waste	Category no.	Hazardous Waste generation Quantity			Source of waste generation
			Existing As per CCA No AWH 465 37	For Proposed Product	Total	
1	ETP Waste	34.3	30 MT/year	1300 MT/year	1330 MT/year	ETP & MEE
2	Ash from incineration	36.2	7.2 MT/year	19.2 MT/year	26.4 MT/year	Incinerator
3	Distillation residue	28.1	85.2 MT/year	214.8 MT/year	300 MT/year	Process
4	Aqueous effluent (spent organic solvents having water)	28.5	366.6 MT/year	360 MT/year	726.6 MT/year	Process
5	Discarded containers/bags	33.3	12600 Nos/year	12000 Nos/year	24600 Nos/year	Raw material handling
6	Used oil	5.1	80 L/Year	1920 L/Year	2000 L/Year	Lubrication
7	Spent catalyst	35.2	0	20.4 MT/year	20.4 MT/year	Process
8	Off specification products	28.3	0	60 MT/year	60 MT/year	Process
9	Spent carbon	28.2	0	112.8 MT/year	112.8 MT/year	Process

(xiv) Public hearing was exempted due to the location of the project in the Industrial area.

(xv) Certified Compliance report from the RO Bhopal dated 07/09/2017 has been submitted.

(xvi) Following are the list of existing and proposed product.

S. No.	List of product involving unit process like hydrogenation, nitration, condensation, halogenations and esterification	Production quantity in MT/Month as per existing CCA no. AWH. 46537	Proposed Production quantity in MT/Month	Total quantity in MT/Month
1	ZN V, C ₁₅ H ₁₉ NO ₂ .HCl	10.0	0	10.0
2	CS-V(11-chloro-Dibenzo[b,f][1,4]thiazepine	20.0	0	20.0
3	TV-VII((3S) -3-Amino-2,3,4,5-Tetrahydro-2-oxo-1H-1 Benzazepine-1-acetic acid, Tert butyl ester)			
4	TV-INT (Ethyl ,2-(4-Nitrobenzene Sulphonyl)			
5	PAN-IV (11,16,17,21-Tetra hydroxy-pregna-1,4 dine-3,20-dione)			
6	MES-II (2-S-Thiuronium ethane sulphonate)			
7	IB-V (8-Isopropyl -8-azabicyclo [3.2.1]octane-3-y1-2-formyl phenyl acetate)			
8	Fly X ((2S,3as,7as)-1-[2-[1-(Ethoxycarbonyl)-(S)-Propyl] Octahydroindole-2-Carboxylic acid			
9	QN-II (1,2,3,4-Tetrahydro isoquinoline -2-Benzyl CARboxylate PTSA salt)			
10	FL-II HCL (1-[2-Amino-1 (4-Methoxyphenyl) Ethyl] Cyclohexanol Hydrochloride			
11	BA-II (5-methyl-N-[4-(trifluoromethyl phenyl]isoxazole-4-carboxamide			
12	DX I 2-Cyclo hexyl Ethyl amine	0	30	30
13	DX VI Dextro Methopan HBr	0	10	10
14	SAF III Diflunisal	0	4	4

	4-(2,4Difluorophenyl)-Phenol			
15	Maxy VI	0	10	10
16	Caffiene	0	100	100
	Total	30	154	184
By products				
1	Phosphorous Oxychloride (BP)	17.275	-17.275	0
2	30% HCL(BP)	22.96	---	22.96
3	Potassium Bromide and/or	8.9	---	8.9
4	Acetic acid and/or	3.4	----	3.4
5	Sodium Bromide and/or	11.42	----	11.42
6	MCBA	11.6	-----	11.60
7	HCl(30%)	0	48	48
8	Phosphoric acid	0	11.03	11.03
	Total	75.555	41.755	117.31
Co product				
1	Maleic Acid	-----	21	21

38.5.1.2 The proposal was earlier considered by the EAC in its meetings held on 30th March to 2nd April, 2016, 8-9 December, 2016 and 26-29 December, 2016, wherein the committee desired for Action taken report on the non-compliance points duly certified by the RO, MoEF&CC.

38.5.1.3 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of drugs intermediates and specialty chemicals unit from 30 TPM to 184 TPM by M/s Aarti Industries Ltd (Custom Synthesis Division) in a total area of 26,196 sq.mt Plot nos. 22/C/1&2, GIDC Estate Phase I, Vapi, Taluka & District Valsad (Gujarat).

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemical Industries' of Schedule to the EIA Notification, 2006, and requires appraisal by SEAC/SEIAA. However, due to the applicability of general condition (Interstate boundary/CPA), the project was appraised at the central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 17th April, 2013. Public hearing is exempted as the project site is located in the Industrial area.

Total water requirement is estimated to be 530.5 cum/day, of which fresh water requirement of 387 cum/day will be met from GIDC Water Supply.

Total effluent generated from different industrial and domestic operations is estimated to be 150.5 cum/day, which will be treated in ETP followed by RO and MEE and 143.5 cum/day will be reused for industrial purposes. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

The Ministry had earlier granted environmental clearance vide letter dated 7th November, 2008 in favour of M/s Aarti Industries Ltd to the project for expansion of Pharmaceutical/Drugs & Intermediates manufacturing unit from 3 TPM to 30 TPM at Plot No. 22 C/1&2, 1st Phase, GIDC Vapi, District Valsad (Gujarat). The compliance status for the said EC was earlier forwarded by the Regional Office at Bhopal vide letter dated 30th September, 2015.

The proposal was last considered by the EAC in its meeting held on 26-29 December, 2016, wherein the committee recommended the project for environmental clearance subject to certain conditions including submission of the action taken report on non-complied points duly certified by the RO, MoEF&CC. The latest report on compliance status of the environmental clearance from the Regional Office of the Ministry at Bhopal vide letter dated 7th September, 2017, found to be satisfactory and addressing earlier observations of the Committee.

Consent to Operate for the present capacity of 30 TPM speciality chemicals has been obtained from the State PCB vide letter dated 27th March, 2017 and valid up to 31st December, 2021.

38.5.1.4 *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (a) Reactor shall be connected to chilled brine condenser system.*
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 98% recovery.*
 - (d) Solvents shall be stored in a separate space specified with all safety measures.*
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 387 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*

- The storm water from the premises shall be collected and discharged through a separate conveyance system.
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- The company shall undertake waste minimization measures as below:-
 - (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 material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of at least 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- At least 1 % of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- Continuous online (24X7) monitoring system for stack emissions and the effluent shall be installed for measurement of flow/discharge and the pollutants concentration, and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.
- The energy sources for lighting purposes shall preferably be LED based.

Agenda No 38.5.2

Expansion of the Bulk Drug Manufacturing Unit by M/s Hetero Drugs Limited Unit VI – Merger of EC at Village Nallamattipalem, Mandal Nakkapally, Visakhapatnam, Andhra Pradesh

[IA-J-11011/398/2010-IA-II(I)]

38.5.2.1 The project proponent and their consultant M/s Team Labs and Consultants made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for merger of environmental clearance granted in favour of M/s Hetero Drugs Limited (Unit VI) with M/s Hetero Labs Limited (Unit-III). The final EC shall be in favour of M/s Hetero Labs Ltd (Unit-III) with combined production capacities (950 TPM) and pollution loads.

(ii) The Ministry had earlier granted EC vide letter No. J-11011/398/2010-IA II(I) dated 10th September, 2012 for Expansion of the Bulk Drug Manufacturing Unit (60 TPM to 450 TPM) at Village Nallamattipalem, Mandal Nakkapally, Visakhapatnam (Andhra Pradesh) in favour of M/s Hetero Drugs Limited (Unit VI)

(iii) The Ministry vide letter No. J-11011/396/2011-IA II(I) dated 10th September, 2012 had also granted EC for Expansion of the Bulk Drugs by enhancement of Product Mix (60 TPM to 500 TPM) at Narasaraopuram, Nakkapally, Visakhapatnam (Andhra Pradesh) in favour of M/s Hetero Labs Limited (Unit III)

(iv) The Ministry's Regional Office at Chennai vide letter dated 7th December, 2017 has forwarded the report on the compliance status of the conditions stipulated in the ECs.

(v) The combined features after merging of Hetero Drugs Ltd. Unit VI in Hetero Labs Ltd. Unit III is mentioned below;

S. No	Description	Unit	Hetero Drugs Limited Unit VI	Hetero Labs Limited Unit III	After Merging
1	Name of Unit		Hetero Drugs Limited, Unit VI	Hetero Labs Limited, Unit III	Hetero Labs Limited, Unit III
2	Survey No.s and Village		151/1, 151/2 (Part), 158/1, 150 (Part), Nallamattipalem	119, 120, 125 (Part), 126, 138 (Part), Narasapuram	151/1, 151/2 (Part), 158/1, 150 (Part) Nallamattipalem Village, 119, 120, 125 (Part), 126, 138 (Part) Narasapuram Village
3	Mandal		Nakkapally	Nakkapally	Nakkapally
4	District		Visakhapatnam	Visakhapatnam	Visakhapatnam
5	State		Andhra Pradesh	Andhra Pradesh	Andhra Pradesh
6	Site Area	Acres	80	60	140
7	Green Belt	Acres	45	20	65
8	Production Capacity	TPD	15	16.66	31.66
9	Boiler	TPH	1 x 20* 1 x 25*	1 x 20* 1 x 25*	1 x 20* 1 x 25*
10	DG Set	kVA	3 x 1165 2 x 1010 1 x 500 1 x 320	3 x 1165 1 x 1010 1 x 1250	6 x 1165 3 x 1010 1 x 1250 1 x 500

					1 x 320
11	Water Consumption	KLD	935	958	1893
12	Industrial Effluent	KLD	650	676	1326
13	Domestic Wastewater	KLD	45	45	90
15	Organic Residue	TPD	13.475	15.72	29.195
14	Evaporation Salts	TPD	4.039	7.67	11.709
15	Spent Carbon	TPD	2.309	3.8	6.109
16	Inorganic Residue	TPD	3.812	3.657	7.469
17	ETP Sludge	TPD	0.5	0.5	1
* Common utility for HDL Unit VI and HLL Unit III					

The required water is drawn from desalination plant, and the treated effluent is disposed off to marine outfall after confirming discharge standards through guard ponds.

38.5.2.3 During deliberations, the EAC noted the following:

The proposal is for merger of environmental clearance granted in favour of M/s Hetero Drugs Limited (Unit VI) with M/s Hetero Labs Limited (Unit-III). The final EC is proposed to be in favour of M/s Hetero Labs Ltd (Unit-III) with combined production capacities of 950 TPM and pollution loads.

The Ministry vide letter dated 10th September, 2012 had earlier granted environmental clearance for Expansion of the Bulk Drug Manufacturing Unit (60 TPM to 450 TPM) at Village Nallamattipalem, Mandal Nakkapally, Visakhapatnam (Andhra Pradesh) in favour of M/s Hetero Drugs Limited (Unit VI).

The Ministry had also granted another environmental clearance vide letter dated 10th September, 2012 had granted EC for Expansion of the Bulk Drugs by enhancement of Product Mix (60 TPM to 500 TPM) at Narasaraopuram, Nakkapally, Visakhapatnam (Andhra Pradesh) in favour of M/s Hetero Labs Limited (Unit III).

The report on compliance status of the conditions stipulated in the ECs forwarded by Ministry's Regional Office at Chennai vide letter dated 7th December, 2017 was found to be satisfactory.

38.5.2.3 *The Committee after detailed deliberations, was not inclined to the proposal for merger of environmental clearance dated 10th September, 2012 in favour of M/s Hetero Drugs Limited (Unit VI) with the EC dated 10th September, 2012 of M/s Hetero Labs Limited (Unit III). Instead, the Committee suggested the project proponent and recommended for transfer of environmental clearance from M/s Hetero Drugs Limited to M/s Hetero Labs Limited with all terms and conditions remaining unchanged.*

38.6 Amendment in Environmental clearance/others

Agenda No.38.6.1

Setting up a 200,000 KLPA capacity Plant for Paint Manufacturing Facilities by M/s JSW Paints Pvt Ltd at villages Toranagallu & Musenayakana Halli, District Ballari (Karnataka)

[IA/KA/IND2/60157 /2016, J-11011/313 /2016- IA II(I)]

38.6.1.1 The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 23rd October 2017 for Setting up 200,000 KLPA capacity water based decorative paint with 40000 TSRPA emulsion copolymer manufacturing plant at villages Toranagallu & Musenayakana Halli, District Ballari (Karnataka) in favour of M/s JSW Paints Pvt Ltd.

38.6.1.2 The project proponent has requested for amendment in the EC with the details are as under:

S. No	Para of EC	Details as per the EC	To be revised/read as	Justification/reasons
1	14(i)	Solvent management shall be carried out as follows: (i) Reactor shall be connected to chilled brine condenser system. (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery. (iv) Solvents shall be stored in a separate space specified with all safety measures. (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	Need to delete this EC condition	This condition is not applicable as the plant would be water based paint plant and would not be using solvent.
2	14(r)	At least 5% of the total project cost shall be allocated for Enterprise Social Commitment	At least 2.5% of the total project cost shall be	JSW Paints is a start-up company and this is our first plant.

		and the details along with time bound action plan shall be submitted to the Ministry's Regional Office.	allocated for Enterprise Social Commitment and the details along with time bound action plan shall be submitted to the Ministry's Regional Office.	During the presentation, we were advised that 2.5% of the project cost to be spent for Enterprise Social Commitment. Hence, we would request that this may be retained at 2.5%.
3	14(v)	Raw material storage should not exceed 3 days at any point of time	Raw material storage should not exceed 30 days at any point of time	Inventory of 3 days would not be adequate As per our working, the total storage would be 15776 tons. Considering a consumption of 1164 tons per day the inventory would be ~ 14 days. Please refer section 2.7.3 page no 37 of EIA report for details. Copy of the same is attached. Our plant is located away from RM sources. The lead-time from the purchase order to the delivery of the RMs is a minimum of 2 weeks. The industry practice is to maintain inventory of minimum 3 -4 weeks. Hence, we request the condition may be amended to 30 days of storage instead of 3 days.

38.6.1.3 *The EAC, after detailed deliberations, recommended for amendment in specific condition 14 (v) stipulated in the EC, which now to be read as under:*

In case of raw materials identified as the hazardous one under the MSIHC Rules, 1989, the statutory provisions contained therein shall continue to be followed. For the remaining raw materials, storage shall not exceed 30 days at any point of time.

Regarding amendment in specific condition 14(i) for solvent management and 14(r) for Enterprise Social Commitment, the Committee found no merit in the justification/reasons given by the project proponent. The committee further observed that the project proponent is not bound to comply with any of the conditions which are not applicable and the EC may not necessarily requires amendment in that regard.

Agenda No.38.6.2

Expansion of Viscose Staple Fibre Unit, Captive Power Plant and Setting up Solvent Spun Cellulosic Fibre Unit by M/s Grasim Industries Ltd (Grasim Cellulosic Division) at Plot No. 1, GIDC Industrial Area Vilayat, Tehsil Vagra, District Bharuch (Gujarat)

[IA/GJ/IND2/58913/2016, J- 11011/321/2016-IA.II(I)]

38.6.2.1 The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 15th January, 2018 to M/s Grasim Industries Ltd (Grasim Cellulosic Division) for the project for expansion of Viscose Staple Fibre from 1,27,750 TPA to 2,55,500 TPA, Captive Power Plant from 25 MW to 55 MW and setting up Solvent Spun Cellulosic Fibre unit of 36,500 TPA by M/s Grasim Industries Ltd (Grasim Cellulosic Division) at Plot No. 1, GIDC Industrial Area Vilayat, Tehsil Vagra, District Bharuch (Gujarat).

38.6.2.2 The project proponent has requested for amendment in the specific conditions of existing EC with the details are as under:

S. No.	Para of EC	Details as per the EC Letter	To be Revised / Read as	Justification / Reason
1.	Specific Condition no. 10 (iv); Page no. 3	Atleast, 50% of the fuel requirement shall be met from natural gas and rest 50 % may be met from briquette / coal (with Sulphur content less than 0.5 %)	The fuel requirement shall be met from <i>coal (with Sulphur content less than 0.5%) and ETP biomass.</i>	Grasim Industries Ltd. has evaluated different options and said condition renders the whole project economically unviable. The company assures, that adequate provision in terms of ESP, FGD and Bag Filters will be used in order to meet the emission norms of 100mg/m ³ for SO ₂ & NO _x and 30 mg/m ³ for PM.
2.	Specific Condition no. 10 (v); Page no. 3	Proposed effluent generation (27160 KLD) shall be reused after treating / processing through RO, etc. and fresh water requirement	Proposed effluent generation shall be reused after treating / processing through RO, etc. and fresh water requirement shall	Grasim Industries Limited has explored all the feasible options to reduce the fresh water intake & the same will be reduced to 28,000 KLD after treatment with RO plant, instead of 22,000 KLD.

		shall accordingly be restricted to 22,000 KLD.	accordingly be restricted to 28,000 KLD.	
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In reference to specific condition (i) of EC letter dated 15th January, 2018, application has been submitted online on State Portal for change of name in the EC letter dated 30th May, 2011 on 07th May, 2018.

Monitoring report on compliance status of the conditions stipulated by SEIAA in the environmental clearance dated 30th May, 2011 has been obtained from Regional Office, Bhopal dated 30th November, 2017 in reference to specific condition (ii) of EC letter dated 15th January, 2018.

38.6.2.3 The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 27- 28 March, 2018. The Committee, after deliberations, expressed concerns over the project proponent not willing to use natural gas to meet the fuel requirements due to their commercial interests, and insisted for compliance of the said condition from environmental perspective. In case of amendment desired in specific condition (v) due to the proposed change in requirement of fresh water (item 2 above), the committee asked for the revised details, including changes in fresh water requirement separately for different operations, effluent generation and the revised water balance. Regarding generation of solar power of 5 MW, the Committee observed that the said EC specific condition (vii) already permits for the changes desired therein, and thus found no rationale in the justification given by the project proponent.

The proposal was not taken forward and deferred. The Committee desired that the specific condition No.(i)& (ii) of the EC dated 15th January, 2018 shall be complied with and documents shall be submitted.

38.6.2.4 In response to the above observations of the Committee, the project proponent has now submitted the proposal to SEIAA Gujarat on 7th May, 2018 for change of name in the environmental clearance dated 30th May, 2011.

The monitoring report on compliance status of the conditions stipulated by SEIAA in environmental clearance dated 30th May, 2011 followed by amendment dated 22nd March, 2012 has been forwarded by the Regional Office of the Ministry at Bhopal vide letter dated 30th November, 2017, which found to be satisfactory.

38.6.2.5 *The EAC, after detailed deliberations, recommended for amendment in specific conditions 10 (iv) and 10 (v) stipulated in the EC, which now to be read as under:*

10(iv) The fuel requirement shall preferably be met through natural gas. However, in case of gas supply constraints and/or not found techno-economic viable, coal having sulphur content less than 0.5 %/ETP biomass may be used to meet the fuel requirements for the captive power plant/boilers. In any case, adequate air pollution control measures shall be installed to meet the emission standards prescribed under the Environment (Protection) Rules, 1986.

10(v) Treated effluent of 7350 KLD shall be reused/recycled to meet the requirements for different industrial operations and the fresh water demand shall accordingly be restricted to 28,000 KLD.

Agenda No.38.6.3

Expansion of Partially Oriented Yarn(POY), Fully Drawn Yarn(FDY) & Polyester Textured Yarn(PTY) alongwith Gas based Captive Co-generation Heat and Power Plant by M/s Reliance Industries Ltd. (Silvassa Mfg. Divn) at Notified Industrial Zone, Sy. No. 342, village Kharadpada, Naroli, Dadra & Nagar Haveli, U.T - Extension of validity of EC.

[IA/DN/IND/4955/2010, J-11011/429/2010-IA II(I)]

38.6.3.1 The proposal is for extension of validity of the environment clearance granted by the Ministry vide letter dated 8th June, 2011 to the project 'Expansion of Partially Oriented Yarn (POY), Fully Drawn Yarn (FDY) & Polyester Textured Yarn (PTY) along with Gas based Captive Co-Generation Heat and Power Plant in favour M/s Reliance Industries Ltd (Silvassa Mfg. Divn) located at Sy. No. 342, Village Kharadpada, Naroli (UT of Dadra & Nagar Haveli).

38.6.3.2 The project proponent has requested for extension of the validity of the EC with the details are as under;

(i) Said Environmental clearance was received in two phases from which Phase-I Production is implemented while Captive Cogeneration Heat & Power Plant is yet to be implemented. In Phase-II Production capacities are partially implemented (Please refer – Appendix-A).

(ii) The Implementation of granted capacities/ installation was delayed due to various reasons some of them are Over capacity based on market demand till year 2017, variation in CAGR, reliability on grid power & reduced cost of product.

(iii) Extension application was previously submitted in MoEF& CC in year 2015 along with amendment application with proposal No. IA/DN/IND/27325/2015. The TOR was granted for the same application on date 13/07/2015. Environmental Impact Assessment was conducted & submitted to MoEF& CC. Regional Office, MoEF&CC (Bhopal) visited RIL-SMD site on 19th Oct'16 for certifying EC compliance. The RO issued certified monitoring and EC compliance report on dated 26th Oct 2016 and the compliance was found to be generally good. EAC later on recommended to grant Environment Clearance on date 28/07/2017. On date 15/05/2018 the said proposal was delisted by MoEF& CC.

(iv) The Separate application (Online) was submitted on portal on date 24.05.2018 with proposal No.- IA/DN/IND/4955/2010.

(v) Implementation of remaining granted installation will not increase the resource consumption than mentioned in Environmental Clearance dated 08.06. 2018.

Appendix-A

Current status of implementation against the approved production capacities

S. No.	Product	Phase-1	Phase-2	Total Quantity	Status of Implementation of Expansion Proposal
A. Existing					

1	Texturizing & Twisting Yarn	-	-	13,300 MTPM	-
B. Proposed Expansion					
1	Partially Oriented Yarn (POY)	22,500 MTPM	22,500 MTPM	45,000 MTPM	POY Production capacity of 22500 MTPM installed, commissioned and in operation. Rest 22500 MTPM under planning and expected to be installed and commissioned by June 2021.
2	Fully Drawn Yarn (FDY)	7,500 MTPM	7,500 MTPM	15,000 MTPM	FDY production capacity of 12000 MTPM is installed, commissioned and in operation. Remaining is under planning and expected to be installed and commissioned by June 2021.
3	Polyester Texturized Yarn (PTY)	17,000 MTPM	30,000 MTPM	47,000 MTPM	Texturized PTY production capacity of 13700 MTPM has been added to the earlier existing production capacity of 13300 MTPM. The rest is under planning and expected to be installed and commissioned by June 2021.
4	Captive Co-generation Heat & Power Plant (CCHPP)	50 MW	-	50 MW	Captive Cogeneration heat and power plant (CCHPP) is under planning and expected to be installed and commissioned by June 2021.

38.6.3.3 The EAC, after detailed deliberation and given the implementation status of the project, recommended for extension of the validity of the environmental clearance for a period of three years i.e. till 8th June, 2021.

Agenda No.38.6.4

Expansion of Pesticide Technical & Intermediates manufacturing unit by M/s Gujarat Agrochem Ltd at Plot No.2901 to 2906, GIDC, Panoli, District Bharuch (Gujarat)

[IA/GJ/IND2/62032/2017, IA-J-11011/82/2017-IA-II(I)]

38.6.4.1 The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 13th April 2018 to the project 'Expansion of Pesticide Technical & Intermediates manufacturing unit from 110 TPM to 1195 TPM in favour of M/s Gujarat Agrochem Pvt Ltd located at Plot No. 2901 to 2906, GIDC, Panoli, District Bharuch (Gujarat).

38.6.4.2 The project proponent has requested for amendment in the EC with the details are as under:-

S. No.	Para of EC	Details as per the EC	To be revised as/ read as	Justification/ reasons
1.	Condition No. 11 Sub Condition: (a)	Total Production of Pesticides shall include manufacturing at least 10% of bio pesticides	Additional 10% Bio Pesticides shall be manufactured along with Total production of Pesticide Technical & Intermediates.	Pesticide Technical & Intermediates Production i.e. Existing – 110 MTPM Total Proposed – 1195 MTPM + 10% Bio Pesticides – 120 MTPM So Total Proposed after addition of Bio Pesticides = 1315 MTPM

38.6.4.3 The EAC, after detailed deliberations, recommended the proposal for amendment in the environmental clearance dated 13th April, 2018 effecting increase in total production of pesticide technical & intermediates from 1195 TPM to 1315 TPM, including 10% of bio-pesticides.

Agenda No.38.6.5

Expansion of Urea and DAP by M/s Southern Petrochemical Industries Corporation Ltd at Southern Petrochemical Fertilisers Complex, Tuticorin (Tamil Nadu) - Bifurcation of EC

[IA/TN/IND2/73840/2007, J-11011/171/2007-IA II (I)]

38.6.5.1 The proposal is for amendment and bifurcation of environmental clearances granted by the Ministry vide letter dated 5th March, 2008 to the project 'Expansion of Urea and Di-ammonium Phosphate' located at Southern Petrochemical Fertilizer Complex, Tuticorin (Tamilnadu) and vide letter dated 18th March, 2010 to the project 'Installation of Single Super Phosphate production unit at the downstream of existing acid plants with a capacity of 350 MTPD' at SPIC Nagar, Tuticorin (Tamil Nadu) in favour M/s Southern Petrochemical Industries Corporation (SPIC).

38.6.5.2 The project proponent has requested for amendment and bifurcation of ECs in favour of M/s Southern Petrochemical Industries Corporation Ltd and M/s Green Star Fertilizers Limited at SPIC Nagar, Post Office Muthiahpuram S.O. Taluka Tuticorin, District Tuticorin (Tamil Nadu) with the details are as under;

S. No.	Para of EC	Details as per the EC	To be revised/read as		Justification/ reasons
			M/s Southern Petrochemical Industries Corporation Ltd	M/s Green Star Fertilizers Limited	
1.	Para-2 of EC dated 5 th March	M/s Southern	Urea – 6,20,400	Di-Ammonium	As company

	2008 (F. No. J-11011/171/2007 IA-II (I))	Petrochemical Industries Corporation Ltd. proposes to enhance the capacity of Urea, Phosphatic Fertilizers and Aluminium Fluoride through de-bottlenecking.	MTPA	Phosphate – 6,06,100MTPA Aluminium Fluoride - 10,000 MTPA	has bifurcated in to SPIC & Greenstar
2.	Para-3 of EC dated 5 th March 2008 (F. No. J-11011/171/2007 IA-II (I))	Marine outfall system	Marine outflow system to dispose off effluents has also been installed as part of the process optimization and treated effluent as being discharged at the rate of 720 KLD against the Consented Quantity of 6200 KLD		As company has bifurcated in to SPIC & Greenstar
3.	Para-3 of EC dated 5 th March 2008 (F. No. J-11011/171/2007 IA-II (I))	Hazardous Waste	<ul style="list-style-type: none"> Spent Nickel Catalyst - 14M³/yr Spent COMOX catalyst -3M³/yr Spent Iron catalyst – 20 M³/yr Spent ZnO Catalyst – 4 M³/Yr Used Oil – 30 KL/Yr 	<ul style="list-style-type: none"> Spent Vanadium Pentoxide Catalyst -5 M³/yr 	<i>As company has bifurcated in to SPIC & Greenstar</i>
4.	Para-3 of EC dated 5 th March 2008 (F. No. J-11011/171/2007 IA-II (I))	Non-Hazardous solid Waste	250 Kg/d of Calcium Carbonate sludge	2.5 TPA of Sulphur Sludge	<i>As company has bifurcated in to SPIC & Greenstar</i>
5.	A. Specific Conditions: (iV)-EC dated 5 th March 2008 (F. No. J-11011/171/2007 IA-II (I))	Emission Standard		Acid mist concentration shall be within 10mg/Nm ³ Recovered Hydrofluoro silicic acid	<i>As company has bifurcated in to SPIC & Greenstar</i>

				from the fluorine recovery unit shall be reused in the process	
6.	<u>A. Specific Conditions:</u> (Viii)-EC dated 5 th March 2008 (F. No. J-11011/171/2007 IA-II (I))	Water Consumption	Efforts shall be made for water conservation to achieve water consumption less than 8 m ³ /tonne of urea produced		<i>As company has bifurcated in to SPIC & Greenstar</i>
7.	<u>Para-2</u> of EC dated 18 th March 2010 (F. No. J-11011/620/2009 IA-II (I))	M/s Southern Petrochemical Industries Corporation Ltd (SPIC) have proposed for installation of a stream of SSP production unit at the downstream of existing acid plant with a capacity of 350 MTPD at SPIC Nagar, Tuticorin in Tamil Nadu.	Single Super Phosphate : 350 TPD	<i>As company has bifurcated in to SPIC & Greenstar</i>
8.	<u>Para-2</u> of EC dated 18 th March 2010 (F. No. J-11011/620/2009 IA-II (I))	Proposed expansion will be carried within the existing unit producing Urea, DAP and Aluminium Fluoride and intermediate products such as Ammonia, Sulphuric Acid and Phosphoric Acid having plant area of 215 Acres.	461341 Sqm	556116 sq m	<i>As company has bifurcated in to SPIC & Greenstar</i>
9.	<u>Para-3</u> of EC dated 18 th March 2010 (F. No. J-11011/620/2009 IA-II (I))	It is noted that water requirement of 14.4 m ³ /Day will be met from the existing water supply scheme by Tamil Nadu Water Supply and Drainage Board (TWADB).	15178 KLD	3840 KLD	<i>As company has bifurcated in to SPIC & Greenstar</i>

10.	Para-3 of EC dated 18 th March 2010 (F. No. J-11011/620/2009 IA-II (I))	Power requirement of 150 KW will be met from the existing facility (TNEB/Self Generation)	Total power requirement – 17MVA Captive Power – 18.4 MW	Total power requirement – 7MVA Captive Power – 6.0 MW	<i>As company has bifurcated in to SPIC & Greenstar</i>
11.	A. Specific Conditions: (Viii)-EC dated 18 th March 2010 (F. No. J-11011/620/2009	Greenbelt of adequate width and Density in 33% of the plant area shall be provided to mitigate the effects of fugitive emission all around the plant. The development of green belt should be in consultation with the DFO as per the CPCB Guidelines.	152643 Sq. m	283780 Sq. m	<i>As company has bifurcated in to SPIC & Greenstar</i>
12	A. Specific Conditions: (iii)-EC dated 18 th March 2010 (F. No. J-11011/620/2009	Emission Standard		SO ₂ emission level shall be 1 kg/ton of 100% H ₂ SO ₄ produced	<i>As company has bifurcated in to SPIC & Greenstar</i>

38.6.5.3 During deliberations, the EAC noted that the proposal for bifurcation of the environmental clearance dated 5th March, 2008 was necessitated due to the business transfer agreement between M/s Southern Petrochemical Industries Corporation Ltd (SPIC) and M/s Green Star Fertilizers Limited. Accordingly, M/s SPIC shall be manufacturing Urea (620400 TPA), whereas Di-Ammonium Phosphate (606100 TPA), Single Super Phosphate (350 TPD) and Aluminium Fluoride (10000 TPA) has been vested with M/s Green Star Fertilizers Limited.

It was further informed that M/s SPIC has been in operation in a total area of 461341 sqm and M/s Green Star Fertilizers Ltd has occupied an area of 556116 sqm. This makes the total area as 1017457 sqm (251.4 acres) which is not consistent with the area mentioned in the EC dated 18th March, 2010, and needs to be clarified for proposed bifurcation of the EC.

38.6.5.4 *The EAC, after detailed deliberations, suggested for first transfer of the environmental clearance dated 18th March, 2010 from M/s Southern Petrochemical Industries Corporation Ltd to M/s Green Star Fertilizers Limited. A separate proposal in this regard, consistent with the project details mentioned in the said EC, needs to be submitted on the Ministry's portal.*

The proposal for bifurcation of the EC dated 5th March, 2008 only, to be submitted vis-a-vis the business agreement between the two companies.

Agenda No 38.6.6

Expansion of Refinery (20 MMTPA to 46 MMTPA) and Petrochemical Complex by M/s Nayara Energy Limited at Khambalia Post, PO Box 24, District Devbhumi Dwarka (Gujarat) - Terms of Reference

[IA/GJ/IND2/75290/2018, IA-J-11011/320/2006-IA II (I)]

38.6.6.1 The project proponent and their consultant M/s National Environmental Engineering Research Institute (NEERI) made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for ToR to the project “Expansion of Refinery Capacity from 20 MMTPA to 46 MMTPA with Petrochemical Complex” at Vadinar by M/s Nayara Energy Limited.

(ii) The project/activity is covered under category A of item 4(a) ‘Petroleum Refining Industry’ and 5(c) ‘Petrochemical complexes’ of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at Central level by the sectoral EAC in the Ministry.

(iii) Ministry had issued EC earlier vide letter no. J-11011/320/2006-IA-II(I) dated 16th September 2008 and extended on 07/03/2014 to the existing project Expansion of Refinery capacity from 9 MMTPA to 60 MMTPA with Petrochemical complex at Khambhalia, Jamnagar in favour of M/s. Nayara Energy Limited (formerly known as Essar Oil Limited).

(iv) Existing land area is 2275 Ha, no additional land will be used for proposed expansion. Industry has already developed 410 Ha greenbelt and will develop the remaining percentage in an area of out of 33 % of total area of the project. The estimated project cost is Rs.1, 30, 000 Crore (Proposed expansion) excluding existing investment of Rs 51,000 Crore (At Nayara Energy Limited consolidated level). Total capital cost earmarked towards environmental pollution control measures is Rs.3900 crore and the recurring cost (operation and maintenance) will be about Rs.50 crore per annum. Total Employment will be 2,000–3,000 persons as direct & 10,000-15,000 persons indirect after expansion.

(v) Marine National Park/ Sanctuary is located within 10 km distance from the project site.

(vi) Total sweet water requirement will be 434 MLD of which fresh water requirement of 342 MLD will be met from Sea water after desalination. Total Sea water requirement for the same will be 928 MLD.

(vii) Effluent of 93 MLD (Sweet Stream) will be treated through Effluent Treatment Plant & will be reused for Fire water/Service water/Horticulture purposes. Reject water from desalination/RO and Cooling Tower (Sea Water based) blow down of 573 MLD will be Returned to sea via pipeline and is released through diffuser system as recommended by NIO.

(viii) Power requirement after expansion will be 927 MW including existing 160 MW and will be met from Captive Power Plant of Vadinar Power Company Limited - A Subsidiary Company. Existing unit has 30 DG sets of varying capacities, additionally 50 DG sets are used as standby during power failure. Stack height will be provided as per CPCB norms to the proposed DG sets.

(ix) As Company had already conducted Public Hearing dtd 17/10/2006 while obtaining existing EC, It May be exempted for the proposed project under Section 7(ii) of EIA Notification 2006.

(x) The details of products and capacity as under :

S. No	Product Details		Quantity in KTPA	
			Existing	Ultimate
01	Processing of Crude		20 MMTPA	46 MMTPA
	01	LPG	938	785
	02	Kero+ATF	872	624
	03	Naphtha/MS	4200	10726
	04	Gasoline		
	05	HSD	9706	22775
	06	Furnace Oil/ V.G.O.	220	-
	07	Sulphur	318	1610
	08	Bitumen	377	337
	09	Fuel & Loss	1120	6620
	10	Pet Coke	2247	2191
	11	Ethanol	-	110
	01	Propylene/ Polypropylene(PP)	-	1000
	02	Butadiene	-	180
	03	MTBE/ETBE	-	150
	04	Benzene	-	500
	05	PX	-	1400
	06	PTA	-	2400
	07	LAB	-	200
	08	PP	-	1050
	09	HDPE	-	500
	10	LLDPE	-	550
	11	LDPE/ EVA	-	200
	12	MEG/DEG	-	800
	13	SM	-	500
	14	Phenol	-	200
	15	Acetone	-	125
	16	Bisphenol A (BPA)	-	35
	17	Polycarbonate	-	130
	18	N-Butanol	-	50
	19	i- Butanol	-	10
	20	2 Ethyl Hexanol	-	120
	21	Neo Pentyl Glycol (NPG)	-	40
	22	Acrylic acid	-	10
	23	Acrylates (Butyl, Methyl, Ethyl)	-	300
	24	SAP	-	100
	25	Propylene Oxide (PO)/PG/Polyols	-	200

38.6.6.2 During deliberations, the EAC noted the following:

The proposal is for terms of reference to the project for expansion of Refinery from 20 MMTPA to 46 MMTPA and Petrochemical Complex by M/s Nayara Energy Limited in a total area of 2275 ha at Vadinar, Jamnagar (Gujarat).

The project/activity is covered under category A of item 4(a) 'Petroleum Refining Industry' and 5(c) 'Petrochemical complexes' of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at Central level by the sectoral EAC in the Ministry.

The Ministry had earlier granted environmental clearance vide letter dated 16th September, 2008 to the project for expansion of Refinery capacity from 9 MMTPA to 60 MMTPA with Petrochemical Complex at Khabalia, Jamnagar (Gujarat) by M/s Essar Oil Ltd, and the validity of the said environmental clearance was extended till 15th September, 2018. Public hearing for the project was conducted by the SPCB on 17th October, 2006.

With the said environmental clearance, the project proponent could commission the expansion of the refinery from 9 MMTPA to 20 MMTPA only against the sanctioned of 60 MMTPA. The extended period of validity of the environmental clearance would be expiring on 15th September, 2008.

The name of the company has since been changed from M/s Essar Oil Limited to M/s Nayara Energy Limited w.e.f. 25th May, 2018 as per the Certificate of Incorporation, issued by the Registrar of Companies, Ministry of Corporate Affairs. M/s Nayara Energy Limited has now proposed to restrict the expansion of refinery to 46 MMTPA only against that of 60 MMTPA envisaged earlier and for which EC was also obtained. Meanwhile, M/s Nayara Energy Limited has also submitted the proposal for transfer of the said EC in their name.

It is informed that ESZ around the Marine National Park/Sanctuary has been notified and the unit falls outside the ESZ.

38.6.6.3 *The EAC, after deliberations, recommended the project 'Expansion of Refinery from 20 MMTPA to 46 MMTPA and Petrochemical Complex' by M/s Nayara Energy Limited in a total area of 2275 ha at Vadinar, Jamnagar (Gujarat) for grant of ToR for preparation of EIA/EMP reports. The ToR shall include the standard ToR as specified/notified applicable for such project/activity, and the additional terms and conditions as under:*

- *The EC dated 16th September, 2008 and the validity extension letter dated 7th March, 2014 shall be transferred from M/s Essar Oil Ltd to M/s Nayara Energy Ltd.*
- *Public consultation shall be carried out by giving a public notice in local newspapers about revised scope of the project, and for inviting responses in writing, if any, from the concerned persons having plausible stake in the environmental aspects of the project/activity. The project proponent shall be required to address all the environmental concerns expressed during the process, and make appropriate changes in the draft EIA/EMP.*
- *Layout plan earmarking space for development of green belt of 5-10 m width along the plant periphery and also ensuring 33% of the project area to be developed as green area with native species plantation.*
- *3D modelling shall be undertaken for risk and safety assessment.*
- *Latest compliance report for the existing environmental clearance, duly certified by the concerned Regional Office of the Ministry to be submitted.*

- *For the desalination plant, pipeline and other permissible activities, if in CRZ areas, recommendations from the State Coastal Zone Management Authority shall be obtained and submitted to the Ministry while submission of the proposal for EC to the project.*
- *Necessary recommendation/clearance from the Standing Committee of the National Board for Wildlife shall be obtained, if applicable.*

38.7 Any other

Agenda No.38.7.1

Manufacturing of Sodium Cyanide Other Cyanide based products by M/s Hindustan Chemicals Company Ltd at Plot No. 26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat (Gujarat)

[J-11011/466/2011-IA-II(I)]

38.7.1.1 Hon'ble National Green Tribunal (Western Zone) Bench, Pune vide order dated 7th December, 2017 in Appeal No.17/2016 (WZ) in the matter of 'Gujarat Khedut Samaj & others Vs MoEF&CC & others' regarding environmental clearance granted by the Ministry to the expansion project of M/s Hindustan Chemicals Company has directed the following:-

- (a) The EC dated 22nd January, 2016 granted to the expansion project of M/s Hindustan Chemicals Company is set aside.
- (b) The EAC of MoEF shall consider the outcome of the public consultation including public hearing dated 14th November, 2014 along with suggestions/objection/documents made/raised/submitted by the stakeholders including the parties to the appeal, and the EAC shall take appropriate decision in the matter within sixty days and make recommendations accordingly to the MoEF in accordance with law.
- (c) Liberty granted to the parties to make representations to the EAC along with all the relevant material in their possession or control within two weeks.
- (d) MoEF is directed to take decision in light of the recommendations made by the EAC in accordance with law.

38.7.1.2 In compliance of the above directions of Hon'ble Tribunal, the proposal was considered by the Expert Appraisal Committee in its meeting held on 27-28 March, 2018. The Committee, after deliberations, recommended the following:-

- The Appellants may be consulted/heard in person during next meeting of the EAC, along with their submissions and suggestions to the Committee, if any, for better understanding of the case and also for the Committee to take appropriate decision in the matter.
- The Environment Department of the State Government may be requested for their comments on the public hearing conducted by the State Pollution Control Board on 14th November, 2014, and also on the suggestions/objections/documents submitted by the stakeholders. Such comments may address the pollution concerns vis-à-vis the developmental projects in the study area.
- The Ministry may file an application before the Hon'ble Tribunal for extension and seeking adequate time to comply with their orders in letter and spirit.

In line with the above recommendations and subsequent approval in the Ministry, State Government/GPCB was requested vide Ministry's letter dated 12th April, 2018 to provide comments on the public hearing conducted by the State Pollution Control Board on 14th November, 2014, and also the suggestions/objections/documents submitted by the stakeholders at that stage. There has been, however, no response from the State Government so far.

38.7.1.3 During the EAC (Industry-2) meeting held on 24-26 April 2018, the project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt Ltd made a detailed presentation on the project details. The EAC, during the said meeting, noted the following:

The Ministry had granted environmental clearance vide letter dated 22nd January, 2016 in favour of M/s Hindustan Chemicals Company for the project 'Manufacturing of Sodium Cyanide & other Cyanide based products' at Plot No.26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat (Gujarat).

The project/activity is covered under category A of item 5(b) 'Pesticides industry and pesticide specific intermediates (excluding formulation)' of Schedule of Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 17th February, 2012 and the public hearing was reportedly conducted on 14th November, 2014 by the Gujarat Pollution Control Board. However, the proposal for environmental clearance was appraised by the EAC, considering the project site located in notified Industrial area (Olpad Industrial Area) and thus exempting from public consultation/hearing. The EC dated 22nd January, 2016 granted to the project finds mention that public consultation/hearing was exempted as per section 7(i), III stage (3) Para (i)(b) of the EIA Notification, 2006.

The proceedings of public hearing dated 10th November, 2014 conducted by Gujarat SPCB, were made available by the project proponent during the meeting only. The concluding remarks of the same quotes as under:-

'Chairman of the public hearing and District Magistrate informed that this public hearing was commenced at about 4 pm. The people present here were protesting against the company from the very beginning itself. Local public have represented several objections against the company. They have also raised the question about the GIDC land issues. All the representations have been patiently listened to by the panel and also received number of written representations. All this representations will be forwarded to Ministry of Environment and Forest, New Delhi. Company had not given the satisfactory answer and my question also remains unanswered. Company has stated that the replies would be submitted subsequently. Due to heavy protest from the people present here demanded that not only the expansion of the production shall be rejected but the EC sanctioned earlier should also be cancelled. He declared the public hearing completed with expressing thanks to the people.'

The Committee took serious note of the concerns raised during public hearing, which prima-facie appeared to be neither technically concluding nor implying/facilitating consideration of the proposal for grant of environmental clearance. The Committee, however, desired for circulation of the public hearing proceedings to all its members for further deliberations.

The Committee also insisted for detailed comments of the State Government in response to this Ministry's letter dated 12th April, 2018 to decide further course of action.

38.7.1.4 During the meeting, the EAC was informed that the State Government of Gujarat has not replied to this Ministry's letter dated 12th April, 2018 and subsequent reminder dated 14th May, 2018, so far, and the desired comments on public hearing are yet to be made available.

38.7.1.5 *The EAC, after detailed deliberations, sought time to review the public hearing proceedings dated 10th November, 2014. The Committee also suggested the Ministry to follow up with the State Government for seeking their comments to facilitate consideration of the proposal in compliance of the orders of Hon'ble Tribunal.*

Members of the EAC (Industry-2) present during 38th meeting held on 25-27 June, 2018 at MoEF&CC, New Delhi

1	Dr. J. P. Gupta	Chairman
2	Dr. R.K. Singh	Member
3	Prof. J.R. Mudakavi	Member
4	Dr. Ahmed Kamal	Member
5	Prof. (Dr.) H.R.V. Reddy	Member
6	Dr. Nandhini	Member
7	Sh. Paritosh Kumar	Member
8	Prof. (Dr.) Y.V. Rami Reddy	Member
9	Shri S.K. Srivastava	Member Secretary