

MINUTES OF 14th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 26th to 27th OCTOBER, 2016

VENUE: Teesta, First Floor, Vayu Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan Aliganj, Jorbagh Road, New Delhi -110003.

Time : Meeting to be held at 10: 00 AM

14.1 Opening Remarks of the Chairman

Time : 10: 00 - 10: 15 AM

14.2 Confirmation of the Minutes of the 13th Expert Appraisal Committee (Industry-2) held during 26-27th September, 2016.

	Name of the project	Corrections sought	Read as
11.6.7	Establishment of Active Pharmaceutical Ingredients (APIs) manufacturing industry with R & D activity at Plot No. 27-29, KIADB Industrial Area, Tehsil and District Gouribidanoor, District Chikkaballapur, Karnataka by M/s R L Finechem Pvt. Ltd.- reg EC.	In Para 2.0 the total capacity of the Production should be 460680 kg/annum in place of 340680 kg/annum .	The total capacity of the Production may be read as 460680 kg/annum.

26th October (Day 1)

1st Session: Time: 10.15 AM

14.3 Environmental Clearance

14.3.1 Manufacturing of Synthetic Organic Chemicals (773.6 MTPA) at Sy. No. Parts of 46,50,51,52,53,54,55 & 56, Ananthasagar Village, Chegunta Mandal, Medak District, Telangana by M/s. Astrica Laboratories Private Limited. Reg EC

The project proponent and their consultant (Team labs and consultants.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 34th Meeting of the Expert Appraisal Committee (Industry -2) held during 17th February-19th February, 2015 respectively for preparation of EIA-EMP report. All Synthetic Organic Chemicals (Bulk Drugs and Intermediates) Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Astrica Laboratories Private Limited has proposed for Manufacturing of Synthetic Organic Chemicals (773.6 MTPA) at Sy. No. parts of 46,50,51,52,53,54,55 & 56, Ananthasagar Village, Chegunta Mandal, Medak District, Telangana. Total Plot area is 6.97 Acre, of which area earmarked for greenbelt is 2.3 Acre. Cost of project is Rs. 7.88 Crore. Total capital cost and recurring cost per annum earmarked for EMP is 1.636 crore and 0.653 crore respectively. PP has earlier obtained Environmental Clearance from MoEF&CC vide letter no. F. No. J-11011/270/2008-IA II (I) dated 17.03.2009. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant or Biosphere Reserve located within the distance of 10km from the project site. Project involves following environmental sensitivities:-

1. Ibrahim RF: 0.27 km in West direction
2. Godugupalli RF: 7.8 km in South direction
3. Wadiaram RF: 8.2 Km in southeast direction
4. Sivaipalli RF: 9.7 Km in Northeast direction

Following products will be manufactured:

S.No	Product name	CAS No.	Capacity	
			TPM	Kg/day
1	Terbinafine Hydrochloride	78628-80-5	5	166.67
2	Clopidogrel Hydrogen Bisulfate	135046-48-9	5	166.67
3	Moxifloxacin Hydrochloride Monohydrate	192927-63-2	5	166.67
4	Darifenacin	133099-04-4	3	100.00
5	Olmesartan	144689-63-4	1	33.33
6	Montelukast Sodium	151767-02-1	1	33.33
7	Zidovudine	30516-87-1	5	166.67
8	Ramipril	87333-19-5	1	33.33
9	Duloxetine Hydrochloride	136434-34-9	2	66.67
10	Amolodipine Besylate	111470-99-6	3	100.00
11	Ketorolac Tromethamine	74103-06-3	1	33.33
12	Pantaprazole Sodium	138786-67-1	5	166.67
13	Omeprazole	73590-58-6	5	166.67
14	Lansoprazole	103577-45-3	4	133.33
15	Rabeprazole Sodium	117976-90-6	3	100.00
Total (Maximum 4 Products on Campaign Basis)			20	666.67

List of By-Products

S.No	By-Product name	Capacity	
		Kg/day	TPM
1	Alphapinene	30.67	0.92
2	Tritanol	294.17	8.825
3	Spent HCl	101	3.03
4	Spent Sulfuric Acid (22.5%)	2148.3	64.46

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during May, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (24 µg/m³ to 48 µg/m³), PM_{2.5} (8 µg/m³ to 18 µg/m³), SO₂ (6 µg/m³ to 12 µg/m³) and NO_x (9 µg/m³ to 14 µg/m³) respectively. AAQ modeling

study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $1.89 \mu\text{g}/\text{m}^3$, $0.85 \mu\text{g}/\text{m}^3$, $1.79 \mu\text{g}/\text{m}^3$ and $2.23 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Multi cyclone separator will be provided to coal fired boilers of capacity 3TPH and 2 TPH followed by 30 m stack height. Two DG Sets of 250 KVA each will be used and attached with 4 m stack height. Process emission viz. ammonia, Hydrogen chloride, Sulfur dioxide and Methyl chloride will be scrubbed by using chilled water media.

Total water requirement will be $160.4 \text{ m}^3/\text{day}$. Out of which, fresh water requirement will be $120.4 \text{ m}^3/\text{day}$. Fresh water will be sourced from ground water. Total Wastewater generation will be $47.83 \text{ m}^3/\text{day}$. Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by Multiple Effect Evaporator (MEE) and Agitated Thin Film Drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Ash from boiler will be sent to brick manufacturers.

The Committee exempted the public hearing as per Para 7 (ii) of EIA Notification 2006.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Multi cyclone separator will be provided to coal fired boilers with adequate stack height. Online monitoring system to be installed to stack and emission level to be uploaded to company's website and displayed to the main gate for public.
- ii. Scrubber shall be provided to control process emissions viz. NH_3 , H_2S , and SO_2 . The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- iv. Total fresh water requirement from ground water source shall not exceed $120.4 \text{ m}^3/\text{day}$ and prior permission shall be obtained from the CGWA/SGWA.
- v. Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by Multiple Effect Evaporator (MEE) and Agitated Thin Film Drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises.
- vi. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

- vii. As proposed, the evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Ash from boiler will be sent to brick manufacturers.
- viii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- ix. Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- x. Solvent management shall be as follows :
- Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xii. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Chennai. Implementation of such program shall be ensured accordingly in a time bound manner. Besides, water supply, toilet facility and solar lighting, one rain water harvesting pond, etc shall be created in nearby villages as committed.
- xiii. As proposed, green belt of 2.3 Acre shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

14.3.2 Drug Manufacturing unit of M/s Balaji Formulation Pvt. Ltd. Unit –III at Village Machanpally, Mandal Bommaramaram, District Nalgoda, Telangana- reg EC

The project proponent and their consultant (M/s Right source Industrial Solutions Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 16th Meeting of the Expert Appraisal Committee (Industry -2) held during 20th – 21th February, 2014 for preparation of EIA-EMP report.

All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at central level.

M/s Balaji Formulation Pvt. Ltd., has proposed for setting up of Drug Manufacturing unit of at Village Machanpally, Mandal Bommaramaram, District Nalgoda, Telangana. The project involves following environmental sensitivities:-

1. Reserved forests – Nagineni Palli, kondamadagu, Parvathipuram, China lakshmi puram, mallapur, Venkatapuram
2. Water bodies:- Shamirpet Vagu, Maryala Cheruvu, kotta Cheruvu, Jainpalli Cheruvu, Jagayya Cheruvu, Bibinagar Cheruvu.

Cost of project is Rs.12.68 crore. Total Plot area is 25242.07 m² out of which 8187.20 m² area will be developed as green belt. Following products will be manufactured:

S. No	Name of the Product	CAS Number	Therapeutic category	Quantity In Kg/Month	Quantity In Kg/Day
1	Emtricitabine	143491-57-0	Antiretroviral Agents	3000.00	100.00
2	Fluconazole	86386-73-4	Systemic antifungal.	1000.00	33.33
3	Levocetirizine Dihydrochloride	130018-87-0	Anti allergic agent	2000.00	66.67
4	Losartan potassium	124750-99-8	Cardiovascular Agent.	1000.00	33.33
5	Rabeprazole sodium	117976-90-6	Proton pump inhibitor	2000.00	66.67
6	Rosuvastatin Calcium	147098-20-2	Anti hyper lipidemic.	1000.00	33.33
7	Tenofovir Diisoproxil Fumarate	202138-50-9	Nucleoside Reverse Transcriptase Inhibitors	2000.00	66.67
8	Valsartan	137862-53-4	Cardiovascular Agent	2000.00	66.67
9	Zidovudine	30516-87-1	Antiretroviral.	5000.00	166.67
	Total			19000.00	633.33

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2014 – December, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (40.38 µg/m³ – 62.52 µg/m³), PM_{2.5} (15.30 µg/m³– 22.60 µg/m³), SO₂ (7.90 ug/m³–14.52 ug/m³) and NO_x (12.62 µg/m³–18.65 µg/m³) and CO(0.11 µg/m³ -0.54 µg/m³ respectively. AAQ modeling study for point source emissions

indicates that the maximum incremental GLCs after the proposed project would be $0.46 \mu\text{g}/\text{m}^3$, $1.96 \mu\text{g}/\text{m}^3$ and $2.63 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Cyclone separator followed by bagfilter will be provided to coal fired boiler of 4 TPH capacity, with 32m stack height and two DG Sets of 320 KVA and 180 KVA will be used and connected to 4 m stack height to control particulate emissions. Committee suggested to use Briquettes as a boiler fuel in place of coal, on which PP agreed. Process emission viz. ammonia, Hydrogen chloride, Sulfur dioxide and Methyl chloride will be scrubbed by using chilled water media.

Total water requirement will be $99.5 \text{ m}^3/\text{day}$. Out of which, fresh water requirement will be $78.38 \text{ m}^3/\text{day}$, which will be met from ground water. Total Wastewater generation will be $40 \text{ m}^3/\text{day}$, out of which Industrial effluent and domestic effluent will be $38 \text{ m}^3/\text{day}$ and $2 \text{ m}^3/\text{day}$ respectively. Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS effluent stream will be sent to multiple effect evaporator (MEE) followed by Agitated thin film drier (ATFD). Low TDS effluent stream will be treated in biological treatment unit followed by RO. RO reject will be sent to MEE. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Fly ash will be sent to brick manufacturers. Used oil will be sent to SPCB authorized Recyclers/re-processor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 27th may, 2016. The concerns were raised regarding local employment, waste management, air pollution control measures, soil quality, agricultural yield etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- I. Cyclone separator followed by bag filter and the stack of adequate height shall be provided to Briquettes fired boiler.
- II. Scrubber shall be provided to control process emissions viz. HCl, ammonia and SO_2 . The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- III. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- IV. Total fresh water requirement from ground water source shall not exceed $78.38 \text{ m}^3/\text{day}$ and prior permission shall be obtained from the CGWA/SGWA.

- V. Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS effluent stream will be sent to multiple effect evaporator (MEE) followed by Agitated thin film drier (ATFD). Low TDS effluent stream will be treated in biological treatment unit followed by RO. RO reject will be sent to MEE. No effluent will be discharged outside the plant premises.
- VI. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- VII. As proposed, the evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Fly ash will be sent to brick manufacturers. Used oil will be sent to SPCB authorized Recyclers/re-processor.
- VIII. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- IX. Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- X. Solvent management shall be as follows :
- Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- XI. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- XII. All the issues raised during the Public Hearing/consultation meeting held on 27th May, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- XIII. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on Public Hearing issues and item-wise details along

with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

- XIV. As proposed, green belt of 8187.20 shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation.

14.3.3 Bulk Drug Manufacturing Unit at Plot/Survey nos 447, 450-52, 455 to 476, 482 to 510 at Village Ontimamidi (Kona), Mandal Thodangi, District East Godavari, Andhra Pradesh by M/s Divis Laboratories Limited Unit-IV reg EC.

The project proponent and their consultant (M/s ranky Enviro engineers Limited.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 28th Meetings of the Expert Appraisal Committee (Industry -2) held during 20th – 21st January, 2015 respectively for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Divis Laboratories Limited has proposed for setting up of Bulk Drug Manufacturing Unit at Plot/Survey nos 447, 450-52, 455 to 476, 482 to 510 at Village Ontimamidi (Kona), Mandal Thodangi, District East Godavari, Andhra Pradesh. It is reported that no wildlife sanctuary /national park/ Reserved/ Protected forest is located within 10 km distance. Cost of project is Rs. 600 crore. Total capital cost and recurring cost per annum earmarked for EMP is 60crore and 6 crore respectively. Total Plot area is 670.5 acres ,out of which 221.3 acres area will be developed as green belt. The proposed project has environment potential of 3800. Following products will be manufactured:

S. No	Name of the product	Production Capacity (MTA)
1	(+) N-FormylOcta Base	450
2	Octamandalate Base	780
3	P-Methyl phenyl acetic acid(PMPA)	780
4	2-(1-Cyclohexenyl) ethyl amine(CHEA(100%))	540
5	Atipadichloride	1210
6	2-(S) - Acetoxypropionylchloride	135
7	4-(4-chlorophenyl)cyclohexanecarboxylic acid (4-CPCCA)	50
8	3-Hydroxy acetophenone(3-HAP)	330
9	Benzyladrinone HCl	560
10	2-Acetyl-6-methoxy naphthalene	5000
11	2-(n-Butyl)-4-Chloro-5-formyl imidazole	250
12	Beta-lonylidine ethyl triphenylphosphene bromide	400
13	C10-dialdehyde	150
14	1,2,3-Tri-O-Acetyl-5-deoxy-n-ribofuranose	50
15	Acetonide	132
16	1-Pentynol	84
17	Lycopene	30

S. No	Name of the product	Production Capacity (MTA)
18	Beta-Carotene	100
19	Canthaxanthin	10
20	Apocarotenal	50
21	Lutein	50
22	ZL-Valine	150
23	DL-2,2-Dimethyl cyclopropane-1-carboxylic acid	30
24	Dimethylacetylene di carboxylate	60
25	N-Hydroxysuccinamide	60
26	Iopamedal	300
27	Iohexol	300
28	valsartan	100
29	Astaxanthin (AXN)/Astaxanthin ester	100
30	Losartan(k)	100
31	Mesalamine	200
32	Orlistat	30
33	Alogliptin	10
34	Linagliptin	10
35	Saxagliptin	5
36	Merabegran	20
37	Sofosbuvir	10
38	Dolutegravir	10
39	S-Nicotinprolacrylics	10
40	2-amino-2-(hydroxymethyl)propane-1,3-diol 6-(4-((3-(2,6-dichlorophenyl)-5-isopropylisoxazol-4-yl)methoxy)phenyl)-1-naphthoate (GSK 488062C (API))	1
41	2-(5-chloro-2-(1-isopropyl-3-methyl-1H-pyrazol-5-ylamino)pyridin-4-ylamino)-N-methoxybenzamide hydrochloride (GSK 2256098C (API))	1
42	Esomiprazole	5
43	Pentaprozole	20
44	Viladazone	2
45	Vildagliptin	75
46	(2R)-2-[[4-[(3,4-DIHYDRO-2H-PYRANO[2,3-C]PYRIDIN-6-YL METHYL)AMINO]-1-PIPERIDINYL]METHYL]-1,2-DIHYDRO-3H,8H-2A,5,8A-TRIAZAACENAPHTHYLENE-3,8-DIONE, METHANESULFONATE (1:1) (GSK API)	5
47	(R)-isopropyl-2-((R)-(((2R,3R,4R,5R)-4-Chloro-5-(2,4-dioxo-3,4-dihydropyrimidin-1-(2H)-yl)-3-hydroxy-4-methyltetrahydrofuran-2-yl)methoxy(phenoxy)phosphorylamino)propanoate (MK-3682)	2
48	DTTA Salt	15
49	Ethyl ester	10
50	2,4-Thiazole methyl amine	50
51	5-[4-Methylbiphenyl-2yl]-2-trityl-2Htetrazole	500
52	L-Valine methyl ester HCl	382
53	4-Bromomethylbiphenyl-2-Carbonitrile	630
54	N-Octyl-d-glucamine (NOG)	400

S. No	Name of the product	Production Capacity (MTA)
55	2,4,5-Trifluorophenylacetic acid	350
56	Triazole HCl	350
57	Ethyl -2-Isocyanato Acetate	10
58	1-Methyl-1h-Pyrazole-5-Boronic Acid	10
59	5-Amino-2-Methyl Benzene Sulfonamide	10
60	O-benzyl hydroxylamine hydrochloride	10
61	[(+/-)-trans -1,2-bis(methanesulfonyloxymethyl)cyclohexane	5
62	4-(1,2-benzisothiazole-3-yl)-piperazine	2
63	DL-Nicotine	10
64	P-Methyl-CO- PyrrolidinoPropiophenone HCl	10
65	2-Amino-6-Bromo Pyridine	10
66	6-Chloro Uracil	10
67	3-Phthalimido piperidine	10
68	(R)-3-azidopiperidine	10
69	Chloroquinoxoline	10
70	8-Bromo-7-(but-2-ynyl)-3-methyl-1H Purine-2,6(3H,7H) dione	10
71	3,5-Di-O-benzoyl-2-deoxy-2-fluoro-2-C-methyl-D-robono-y-Lactone	25
72	6-@-2,2,6-Trimethyl-1,4-cyclo hexadione	15
73	(R)-3-aminobutan-1-ol	20
74	Difluorobenzyl amine	20
75	5-Amino-1-isopropyl-3-methyl pyrazole	5
76	2,5-dichloro-4-ido pyridine	5
77	Ranolazine	5
78	(2'R)-N-Benzoyl-2'-deoxy-2'-fluoro-2'-methylcytidine 3',5'-dibenzoate	25
79	2'-deoxy-2'-fluoro-2'-C-methyluridine	25
80	Butorphanol tartrate	20
81	4-Chloro-2-butanone	5
82	Boc-L-3-fluorophenyl alanone	0.5
83	2-Carboethoxy-3-cyano-5-methyl hexanoic acid ethyl ester	2
84	3,4-dihydro-2H-pyrano[2,3-c]pyridin-6-ylmethanol	0.5
85	5-(2-Phenyl ethyl)-2-(Propan-2-Yl)Benzene-1,3-diol	0.5
86	Naproxen	500
87	Gabapentin	500
88	Levodopa	500
89	Carbidopa	500
90	Dextromethorphan HBr	350
91	R&D Products	100
92	Antibiotics	50
93	Steroids	50
94	Enzymes	50
95	Human & Animal Health care products	50
TOTAL		18394.5

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 10 locations during March, 2015 – May, 2015 and submitted baseline data indicates that

ranges of concentrations of PM₁₀ (42.3 – 58.9 µg/m³), PM_{2.5} (14.5– 37.6 µg/m³), SO₂ (8.1–16.2 µg/m³) and NO_x (10.8–23.4 µg/m³) and CO (112 – 175 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.16 µg/m³, 3.95 µg/m³ and 6.53 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total power requirement for the proposed project will be met through APTRANSCO and a power grid of 15000 KW substations will be set up within premises of proposed project. Twelve DG Sets will be used of 1500 KVA capacity, out of which 2 will be used as stand by. The Steam requirement for the proposed project will be met through 12 no.s of coal fired boiler of capacity 24TPH each, out of which 2 boilers will be used as stand by. Bag filter/ESP will be provided to coal fired boiler which is attached with stack of height 40m.

Total water requirement will be 6500 m³/day Out of which, fresh water requirement will be 4300 m³/day, which will be sourced from Jammeruvagu, Samarlakota canal and Thandava River in phase-1 and alternate sources for freshwater requirement will be Pumpa and Eleswaram canal. Total Wastewater generation will be 4325 m³/day, out of which 2200 m³/day will be reused. Wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporators (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. Treated effluent will be reused or discharged into sea. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. Organic waste and solvent distillation residue will be sent to Cement Industries. Inorganic waste, ETP sludge and MEE salts will be sent to TSDF. Used oil will be sent to SPCB authorized Recyclers/re-processor.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 22nd June, 2016. The concerns were raised regarding local employment, waste management, air pollution control measures, soil quality, agricultural yield etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After deliberation, the committee deferred the proposal for want of following additional information;

1. Revised water balance chart with special emphasis on water recycling and reuse.
2. Action plan to be drawn at the rate of 5% of project cost under ESR activities.

The above information may be up uploaded through online on Ministry website

14.3.4 Exploratory Drilling of 22 Wells (Onshore) in Ramanathapuram PML, Tamil Nadu by M/s ONGC. reg EC.

The project proponent and their consultant (M/s Senes Consultants India Pvt Ltd) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 11th Meeting of the Expert Appraisal Committee (Industry -2) held during 26th-27th August 2013 respectively for preparation of EIA-EMP report.

M/s ONGC has proposed for Exploratory Drilling of 22 Wells (Onshore) in Ramanathapuram PML, Tamil Nadu. The total area of this block is 493.21 Km². Proposed depth of well will be 3000-4000 m. It is reported that Sakkarkotai bird sanctuary, Gulf of Mannar Marine National Park(GMMNP) and Biosphere Reserve falls within 10 Km distance of project site. Application for wildlife clearance is already filed by ONGC on 21/08/2015 to the Chief Wildlife Warden, Gulf of Mannar Park, Ramnathapuram District, Tamilnadu.

The Latitude and Longitude of the proposed wells is given below:

S.N.	Well No.	Latitude	Longitude
1	W1	9°16'41.67"N	78°49'7.38"E
2	W2	9°16'40.92"N	78°54'27.78" E
3	W3**	9°18'32.3"N	78°54'52.1"E
4	W4*	9°22'4.8"N	78°56'12.4"E
5	W5	9°17'28.10"N	78°47'16.90" E
6	W6	9°14'37.67"N	78°43'27.85" E
7	W7**	9°17'21.03"N	78°47'3.10"E
8	W8**	9°20'57.81"N	78°47'32.46" E
9	W9	9°18'34.43"N	78°47'48.74" E
10	W10	9°18'44.24"N	78°44'24.88" E
11	W11	9°18'55.57"N	78°49'49.55" E
12	W12	9°20'14.98"N	78°52'24.98" E
13	W13	9°21'16.79"N	78°52'3.12"E
14	W14**	9°24'17.54"N	78°52'7.16"E
15	W15*	9°27'02.00"N	78°53'43.10" E
16	W16	9°27'10.58"N	78°53'1.76"E
17	W17	9°28'25.26"N	78°51'41.43" E
18	W18	9°24'39.49"N	78°55'19.31" E
19	W19*	9°19'33.0"N	78°58'34.70" E
20	W20*	9°18'46.69"N	78°59'31.12" E
21	W21*	9°18'12.80"N	79° 2'32.9"E
22	W22	9°17'23.2"N	79°0 4'16.7"E

(Note:- Wells marked with (*) does not require CRZ clearance. Wells marked with (**)) are the locations updated on basis of findings from geological studies)

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during July, 2014 - September, 2014 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (38.7 µg/m³ to 51.6 µg/m³), PM_{2.5} (19.4 µg/m³ to 24.6 µg/m³) SO₂ (7.8 µg/m³ to 10.7 µg/m³), NO_x (10.9 µg/m³ to 13.7 µg/m³), CO(1.1 mg/m³ to 1.1 mg/m³), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project

would be 0.59 µg/m³, 0.70 µg/m³ and 11.70 µg/m³ with respect to PM, SO₂ and NO_x respectively. The resultant concentrations are within the NAAQS. Power requirement of drilling rig will be met by 4 DG Sets of 900 KVA capacity and 1 DG set will be used as stand by. Fuel consumption will be 6 m³/day per well.

Fresh water requirement will be 25 m³/day/ well, which will be transported from nearby source through water tanker. Total wastewater generation will be around 6 m³/day. Water Based drilling mud will be used. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to the Authorized recyclers. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the situation when the well is unsuccessful, the well bore will be plugged with cement/concrete. All fuels, lubricants and chemicals will be kept in a well-designed storage facility with regular inventory checking. Used and unused chemicals will be stored in a lined & bounded area. Waste oil/spent oil/waste batteries will be sold to registered recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meetings conducted by the Tamil Nadu Pollution Control Board on 14/05/2015 in Ramanathapuram District. The issues were raised regarding Environmental impact on biodiversity of gulf of Mannar, negative impact on Agricultural land, negative impact on ground water; name of villages where drilling activity is proposed, CSR Work etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee noted that 4 wells are close to coast line and ONGC informed that these well fall outside the CRZ zone. However, relevant documents are not given by PP. Therefore, after detailed deliberations, the Committee deferred the proposal for want of clarification/certification from Anna University w.r.t. of 4 wells not falling under CRZ zone.

14.3.5 Bulk Drugs & Intermediates and Chemicals Manufacturing Plant at Plot No. - F-2, MIDC Chincholi, Ta: Mohol, Dist. Solapur, Maharashtra by M/s. Challa Chlorides Pvt. Ltd. reg EC.

The project proponent and their consultant (M/s Green Circle, Inc.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 20th Meeting of the Expert Appraisal Committee (Industry -2) held during 23rd– 24th June, 2014 respectively for preparation of EIA-EMP report.

M/s. Challa Chlorides Pvt. Ltd. has proposed for setting up of Bulk Drugs & Intermediates and Chemicals Manufacturing Plant at Plot No. - F-2, MIDC Chincholi, Ta: Mohol, Dist. Solapur, Maharashtra.

During presentation the committee noted that Ministry has awarded the TOR with public hearing, however, PP submitted the EIA-EMP without conducting public hearing. After deliberation, the committee advised PP to conduct public hearing and resubmit the revised EIA-EMP report.

14.3.6 Proposed expansion and adding new products (Para Formaldehyde & purification of silver) in the existing premise Plot No. 1398, Village e Moti Bhoyan, Tehsil Kalol, District Gandhinagar Gujarat by M/s Balaji Formalin Pvt. Ltd. reg EC.

The project proponent and their consultant (M/s San Envirotech. Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 38th Meeting of the Expert Appraisal Committee (Industry -2) held during 20th– 21st April, 2015 respectively for preparation of EIA-EMP report.

All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

Ministry has issued EC vide letter J-11011/625/2009-IA II (I) dated 24.08.2010 for manufacturing of Formaldehyde.

M/s Balaji Formalin Pvt. Ltd. has proposed for expansion of production capacity & introducing new products (Para Formaldehyde & purification of silver) in the existing premise Plot No. 1398, Village Moti Bhoyan, Tehsil Kalol, District Gandhinagar Gujarat. Cost of project after proposed expansion is Rs. 18 Crores out of which, capital cost and recurring cost per annum earmarked for EMP is 1 crore and 0.20 crore respectively. Total plot area is 4281 m². Out of which, 1500 m² (35%) will be developed as green belt. It is reported that no national park/ Reserved/ Protected forest/Biosphere Reserve is located within 10 km distance. Thol lake bird sanctuary is at a distance of 3 Km from project site. List of existing and proposed products are as follows:

S. No	Products	Existing Quantity (MTPM)	Additional (MTPM)	Total (MTPM)
1	Formaldehyde	5000	7500	12500
2	Para Formaldehyde	0	835	835
3	Reprocessing of silver	0	1.5	1.5

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October - December, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60.5 µg/m³ to 79.8 µg/m³), PM_{2.5} (27.3 µg/m³ to 41.7 µg/m³), SO₂ (13.0 µg/m³ to 26.0 µg/m³) and NO_x (14.3 µg/m³ to 27.6 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.134 µg/m³ 0.672 µg/m³ and 0.656 µg/m³ with respect to PM, SO₂ and NO₂ respectively. The resultant concentrations are within the NAAQS. The total power requirement after the proposed expansion will be increased from 400 KVA to 1350 KVA, which will be sourced from UGVCL. Existing unit has one DG set of 400 KVA and one additional DG set of capacity 1000 KVA will be used and will be kept stand by. Tail gas treatment incinerator will be used and will be connected to 18 m stack height.

Total water requirement after proposed expansion will increased from 129 m³/day to 610 m³/day ,Out of which, fresh water requirement will be increased from 104 m³/day to 535 m³/day which will be met through Narmada water supply. Total Wastewater generation will be 41.58 m³/day, out of which industrial effluent generation will be 128 m³/day . Wastewater generated from silver refining and cooling bleed off will be directly sent to force effect evaporator and then sent to mechanical evaporator. Condensate from evaporator will be reused in process hence there will be no discharge of industrial effluent outside the premises. plant is based on ZLD scheme . Domestic wastewater will be sent to soak pit followed by evaporator.

Evaporation salt will be sent to TSDf (SEPPL). Used oil will be sent to SPCB authorized Recyclers/re-processor. Discarded containers will be sold to authorized Recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meetings conducted by the Gujarat Pollution Control Board Board on 09/05/2016 in Ramanathapuram District and. The issues were raised regarding employment, Validity of EC obtained for previous unit, details of tree plantation,. Water requirement for existing plant, CSR activities, Solid waste generation etc The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

The Committee deliberated upon the certified compliance report of MoEF&CC Regional Office at Bhopal. It is reported that some specific and general conditions are not complied.

After deliberations, the Committee sought the following additional information:

- (i) Action taken report on non-compliance points reported by the respective RO of MEF&CC.
- (ii) Year wise detailed plan on Enterprise Social Commitment (ESC) based on local needs to be drawn to tune of 5 % of project cost with financial and physical breakup/details.
- (iii) Revise water balance chart to be submitted. Water requirement need to be reworked.
- (iv) A copy of application seeking NBWL clearance w.r.t. Thol Bird Sanctuary to be provided.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website.

14.3.7 Expansion of existing Resin Manufacturing Unit by adding new synthetic organic chemicals products at Sy. No. 1418, Village Rajpur, Tehsil Kadi, District Mehsana, Gujarat by M/s Shreenathji Rasayan Pvt. Ltd. reg EC.

The project proponent and their consultant (M/s Bhagwati Enviro Care Private Limited) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded in the 44th Meetings of the Expert Appraisal Committee (Industry -2) held during 20th – 21st July 2015 respectively for preparation of EIA-EMP report.

All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

Ministry has issued Environmental clearance to for the existing unit vide letter no. J-11011/495/2007 IA II (I) dated 26.12.2007.

M/s Shreenathji Rasayan Pvt. Ltd. has proposed for Expansion of existing Resin Manufacturing Unit by adding new synthetic organic chemicals products at Sy. No. 1418, Village Rajpur, Tehsil Kadi, District Mehsana, Gujarat. It is reported that no wildlife sanctuary /national park/ Reserved/ Protected forest is located within 10 km distance. Cost of proposed expansion project is Rs. 14 crore. Total capital cost and recurring cost per annum earmarked for EMP is 0.62 crore and 0.17 crore respectively. Total Plot area is 19805.523 m², out of which 6600 m² (33%) area will be developed as green belt. The proposed project has manpower potential of 18. Following products will be manufactured:

Sr. No.	Name of product	Existing (MT/Month)	Proposed (MT/Month)	Total after Expansion (MT/Month)
01	Formaldehyde	2083	7084	9167
02	Urea Formaldehyde Concentrate (UFC-85)	0.00	1667	1667
03	Hexamine	0.00	833	833
04	Para formaldehyde (96%)	0.00	1667	1667
05	Urea Formaldehyde Concentrate (UF) (liquid resin & powder resin)	0.00	1250	1250
06	Melamine Formaldehyde (liquid resin & powder resin)	0.00	1250	1250
07	Resole type Phenol Formaldehyde (PF) (Liquid Resin)	0.00	417	417
08	Resole type Phenol Formaldehyde (PF) (Powder Resin)	0.00	183	183
09	Novolac type phenol formaldehyde (PF) (Powder Resin)	0.00	417	417
10	UF Molding powder	0.00	833	833
11	MF Molding powder	0.00	833	833
Total		2083	16434	18517

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 – December, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (66.44 – 78.82 µg/m³), PM_{2.5} (27.53– 40.79 µg/m³), SO₂ (8.26–42.21 ug/m³) and NO_x (11.77–42.21 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.439 µg/m³, 2.416 µg/m³ and 1.59 µg/m³ with respect to PM, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The total power requirement after the proposed project will be 1625 KW which will be

met through Uttar Gujarat Vij Co. Ltd. +Power plant (clean energy).One existing briquette fired boiler along with 1 additional hydrogen fired boiler will be used. Bag filter followed by stack of height 33 m will be used as pollution control measure for existing boiler. Three stage absorption column will be used to control process emissions.

Total water requirement after expansion will be 442 m³/day Out of which, fresh water requirement will be 361 m³/day, which will be sourced from Gujarat supply board /Private tanker/Gram Panchayat. Total Wastewater generation after expansion will be 17 m³/day, out of which industrial effluent generation will be 15 m³/day. Industrial effluent will be treated in ETP. Domestic effluent will be disposed in septic tank followed by soak pit. ETP sludge will be sent to TSDF. Used oil will be reused for lubrication of plant machinery. Discarded Bags and containers will be return to supplier.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 18th March, 2016 at project site. The concerns were raised regarding local employment ,air and water pollution, health and development of village , fuel used in boiler, Type of waste generated from industry, waste management, air pollution control measures etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. As proposed, the additional steam requirement will be met from the existing boilers as well from hydrogen fired boiler.
- ii. Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented.
- iv. Total fresh water requirement from Gujarat supply board/gram panchayat shall not exceed 361 m³/day
- v. Trade effluent shall be treated in ETP. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- vi. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- vii. 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.

- viii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.
- ix. Fly ash shall be stored separately as per CPCB guidelines so that it shall 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 shall be avoided.
- x. Solvent management shall be as follows :
- Reactor shall be connected to chilled brine condenser system
 - Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents shall be stored in a separate space specified with all safety measures.
 - Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- xi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. .
- xiii. As proposed, green belt of 6600 m² shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

Lunch Break: 1:30 PM – 2.00 PM

2nd Session: Time: 2.00 PM

Reconsideration of EC

14.3.8 Proposed Fine Chemical Intermediates Manufacturing Unit at Plot No. E-18, Taluka Mohol, Chincholi MIDC Area, District Solapur, Maharashtra by M/s OC Specialties Pvt. Ltd.

Proposal was considered by EAC (Industry-2) in its meeting held during 26th to 27th May, 2016 and the Committee desired following information :

- i. Ambient air quality for all parameters including CO and VOC to be reanalysed for one month.
- ii. Copy of application submitted for clearance from NBWL.
- iii. Quantify the impact on great Indian bustard sanctuary by the proposed unit.
- iv. Commitment to replace coal by biomass briquettes
- v. Analyse cleaner/green manufacturing process vis-à-vis conventional process.

PP has submitted the above additional information. The resultant concentration of all ambient air quality parameters are within the NAAQS. The PP has submitted an online application on 09.02.2016 for seeking Wildlife clearance from NBWL. The status of application is pending at chief wildlife warden. It was informed that major impact on great Indian bustard sanctuary due to proposed unit would be emission of fly ash due to burning of coal, for which PP has committed to use briquette instead of coal. As analyzed by PP, greener manufacturing process has following benefits:-

- i. Removal of HCL Fumes generation.
- ii. No heavy metal residue generation.
- iii. Avoids the generation of huge acidic aqueous waste along with recycling of Resin.
- iv. Prevention from involvement of hazardous elements in the process etc.

After detailed deliberations, the Committee found the additional information and final EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.
- ii) Multi-cyclone followed by bag-filter shall be provided to coal/ biomass fired boiler and Thermic fluid heater.
- iii) Scrubbers shall be provided to control process emission viz. SO₂, HNO₂, NH₃ and HCl. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
- iv) 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.
- viii. Total fresh water requirement from MIDC shall not exceed 18 m³/day.
- ix. Effluent generation shall not exceed 24.5 m³/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporators (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises.
- x. Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xi. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- xii. Evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. ETP sludge, MEE salt and Distillation residue will be sent to CHWTSDF. Process residue will be sent to the persons/CHWTSDF.
- xiii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from SPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- xiv. 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.

- xv. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on need of local people and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Nagpur.

14.3.9 Expansion of the Sugar unit (3500 to 5000 TCD) and Co-generation power plant (24 MW) at village & Tehsil Walwa, district Sangli, Maharashtra by M/s Padmabushan Krantiveer Dr. Nagnath Anna Nayakawadi Hutatma Kisan Ahir Sahakari Sakhar Karkhana Ltd.- reg. EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 6th meeting held during 30th March to 02nd April, 2016 and the Committee sought following additional information:

- (i) Certified compliance report to environmental condition of the existing environmental clearance.
- (ii) Water consumption seems to be higher side. Rework on the water balance chart and submit the revised water balance chart.
- (iii) Letter of confirmation from accredited consultant

Accordingly, PP has submitted the following information:

- (i) Certified compliance report dated 10.08.2016 has been submitted.
- (ii) Revised water balance chart has been submitted by PP. As per revised water balance, the fresh water consumption during the season will be 586.13 m³/day and in the off season fresh water requirement will be 492.55 m³/day and effluent generation will be 494.20 and 246.74 during season and off season respectively.
- (iii) Letter of confirmation has been submitted regarding accredited consultant.

After detailed deliberations, the Committee found the additional information and final EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) ESP alongwith stack of adequate height shall be provided to bagasse fired boiler to control particulate emission within 50mg/Nm³.
- ii) Total fresh water requirement from Krishna River shall not exceed 3670 m³/day during season. No ground water shall be used.
- iii) Water consumption also to be restricted to 100 liters / ton initially and further to 50 Liters/ton cane crushed in a time bound manner as per the CPCB guidelines.
- iv) Effluent generation shall not exceed 1180 m³ /day during season. Effluent shall be treated in ETP treated and domestic waste water will be treated in STP only. ETP

should be designed to treat the BOD upto 30 mg/lit of effluent standard even in case of land disposal.

- v) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vi) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Nagpur and SPCB.
- vii) Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.
- viii) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash shall be stored separately.
- ix) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- x) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xi) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xii) As proposed, green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiii) All the commitments made during the Public Hearing/Public Consultation meeting held on 26thAugust, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xiv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Nagpur. Implementation of such program shall be ensured accordingly in a time bound manner.

14.3.10 Development drilling Of 22 Wells in East Godavari district (Godavari Onland PML Block), A.P. by M/s ONGC Ltd.-reg EC.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 6th meeting held during 30th March to 02nd April, 2016 and the Committee sought following additional information:

- i. Coordinate of wells to be given with nearby village locations/habitats
- ii. Detailed development plan to drawn w.r.t existing and proposed wells along with group gathering station.

Accordingly, PP has submitted the following information:

- (i) The coordinates of the stack position of Proposed Wells and the development plan in respect of the proposed wells field-wise are as follows:

S. No.	Well	Latitude	Longitude	Installation to be connected to	Remarks
1	MDDF	16°48'14.76"N	81°54'06.04"E	Mandapeta GCS	
2	MDDH	16°47'07.86"N	81°56'18.94"E	Mandapeta GCS	
3	MDDI	16°48'14.76"N	81°54'06.04"E	Mandapeta GCS	
4	MDDA	16°46'51.13" N	81°55'30.45"E	Mandapeta GCS	
5	MDDQ	16°47'55.49"N	81°53'04.96"E	Mandapeta GCS	Cluster Location to be drilled from surface position of MD#7
6	MDDR	16°47'55.49"N	81°53'04.96"E	Mandapeta GCS	Cluster Location to be drilled from surface position of MD#7
7	MDDS	16°47'55.49"N	81°53'04.96"E	Mandapeta GCS	Cluster Location to be drilled from surface position of MD#7
8	MDDO	16°48'05.00" N	81°54'01.50"E	Mandapeta GCS	Cluster Location to be drilled from surface position of MD#3
9	KVDZ	16°20'32.80"N	81°47'27.77"E	Mori GCS	
10	KWDV	16°23'31.07"N	81°55'10.03"E	Kesanapalli West GGS	
11	KWDX	16°23'31.07"N	81°55'10.03"E	Kesanapalli West GGS	

12	KWDZ	16°23'52.90"N	81°56'15.00"E	Kesanapalli West GGS	
13	KWEA	16°24'23.38"N	81°56'49.48"E	Kesanapalli West GGS	
14	KWEC	16°23'47.64"N	81°55'19.60"E	Kesanapalli West GGS	
15	VGDA	16°37'49.54"N	81°56'16.96"E	NA	Well to be under Direct Marketing as per MoPNG Rules

During presentation PP informed that out of 22 wells, only 15 well will be drilled.

- (ii) PP has submitted detailed development plan w.r.t existing and proposed wells along with group gathering station.

In addition, the committee observed that EIA-EMP report of the project has been prepared by ONGC itself. The Committee referred the communication of this Ministry to ONGC wherein it was informed that to avoid the conflict of interest, EIA-EMP report should be prepared by independent consultant.

Therefore, the Committee deferred the proposal till the EIA-EMP report is certified by the accredited consultant other than ONGC and same shall be revisited to Committee for confirmation.

14.4 Terms of Reference (TOR)

14.4.1 **Setting up of 30 KLPD distillery in existing premises of sugar plant at Gat No.340,348,349,350, Village- Ghodasgaon, Tehsil-Muktainagar, Dist-Jalgaon, Maharashtra by M/s Sant Muktai Sugar & Energy Ltd. – reg TOR**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Sant Muktai Sugar & Energy Ltd has proposed for Setting up of 30 KLPD distillery in existing premises of sugar plant at Gat No.340, 348, 349, 350 village-Ghodasgaon, Tehsil-Muktainagar, Dist-Jalgaon, Maharashtra. It is reported that no national parks, Reserve/ protected forest, Wildlife Sanctuaries lies within 10 km distance. Purna river is flowing at a distance of 3 Km from project site.

Total plot area is 115300 m², Out of which 33 % area will be developed as green belt. The plant is located adjacent to existing sugar mill. Capital Cost of project is Rs. 52.70 Crores. Followings products will be manufactured:

S. No.	Unit	Existing	Proposed Capacity	Total
1	Distillery (ethanol)	-	30 KLPD	30 KLPD
2	Sugar production	250 MTPD	-	250 MTPD
	By Products			
	Press mud	100 MTPD	-	100 MTPD
	Molasses	100 MTPD	-	100 MTPD

Total power requirement is 687.5 KWH which is sourced from State electricity board and steam requirement will be 6.5 T/hr. Existing unit has two bagasse fired boilers of capacity 32 TPH capacity each. PP has proposed for one additional slop/bagasse fired boiler of capacity 12TPH capacity. Existing boilers is equipped with Multi cyclone dust collector and connected with stack of 60 m height and additional boiler will be connected to ESP with stack of 48 m height. Two DG Set of 325 KVA and 80 KVA capacity will be used and HSD will be used as fuel. Total water requirement for the proposed distillery unit will be 844 m3/day, out of which total fresh water requirement will be 300 m3/day, which will be sourced from ground water through tube well.

Total spent wash generation after proposed expansion will be 252 m3/day, which will be treated through bio-methanation plant followed by concentration in MEE and composting. Solid waste will be disposed as per CPCB guidelines.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
10. Action plan to control ground water pollution.

11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard.
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).

B. Additional TOR

- i. 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.
- ii. Surface water to be used from Hathnoor project.

It was recommended that 'TORs' along with Public Hearing prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.2 Setting up of 80 KLPD distillery (ethanol plant) Gat No 74,75,76, Village- Warphal, Tehsil- Partur, Dist-Jalna, Maharashtra by M/s Shraddha Energy and Infra projects Pvt. Ltd. By M/s Shraddha Energy & Infracorps Pvt. Ltd.-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Shraddha Energy and Infra projects Pvt. Ltd. has proposed for setting up of 80 KLPD distillery (ethanol plant)Gat No 74,75,76, Village- Warphal, Tehsil- Partur, Dist-Jalna, Maharashtra. It is reported that no national parks, Reserve/ protected forest, Wildlife Sanctuaries and water body lies within 10 km distance.

Total plot area is 218965 m². Distillery will be developed in 4000 m² area, of which green belt will be developed in 2024 m² area. Proposed expansion will be done in existing plant premises. Total Cost of project is Rs. 130 Crores. The proposed project has an employment potential of 77 during operational phase. Followings products will be manufactured:

S. No.	Unit	Existing	Proposed Capacity	Total
1	Distillery (ethanol)	-	80 KLPD	80 KLPD
2	Sugar production	250 MTPD	-	250 MTPD
3	Cogeneration Power plant	12 MW	-	12 MW
	By Products			
	Bagasse	750 MTPD	-	750 MTPD

	Press mud	100 MTPD	-	100 MTPD
	Molasses	100 MTPD	-	100 MTPD

Total power requirement is 1733.16 KWH and will be sourced from State electricity board during Off-season. DG set of 500 KVA and 320 KVA capacities will be used. Existing unit has two bagasse fired boilers of capacity 38 TPH and one additional slop/bagasse fired boiler of 32TPH capacity will be used. Existing boilers are connected to wet scrubber followed by stack of 45 m height and proposed additional boiler will be connected to ESP followed by stack of 60 m height.

Total water requirement for the sugar as well as distillery plant after proposed distillery unit will be 1814 m3/day out of which total fresh water requirement will be 1665 m3/day, which will be sourced from ground water through tube well. Total effluent generation after proposed project project will be 1228 m3/day, which will be treated in biomethanation plant followed by concentration in MEE and composting. Solid waste will be disposed as per CPCB guidelines.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard.
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).

B. Additional TOR

- i. 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.
- ii. Surface water to be obtained from dudhna lower project. No ground water shall be extracted.
- iii. Detailed plan for water reduction to be drawn

It was recommended that 'TORs' along with Public Hearing prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.3 Manufacturing of PVA Emulsion & Synthetic Wood Adhesive at 65-F & G, Soham Industrial Park, Part-II, Block No. 312 & 313, Village Timba, Tahsil Daskroi, Bareja-Mahijada, Navapura, Dholka Road, district Ahmedabad, Gujarat by M/s Ratankamal Industries- reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the projects related to synthetic organic chemicals located outside the industrial estate are listed in para 5(f) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s Ratankamal Industries has proposed for Manufacturing of PVA Emulsion & Synthetic Wood Adhesive at 65-F & G, Soham Industrial Park, Part-II, Block No. 312 & 313, Village Timba, Tahsil Daskroi, Bareja-Mahijada, Navapura, Dholka Road, district Ahmedabad, Gujarat As per form 1, there is no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Sabarmati river is flowing at a distance of 8.9 Km from project site.

Area requirement for proposed project is 1869 m² of which greenbelt will be developed in the area of 500 m². Total Cost of the proposed project is Rs 1.25 crore, capital cost proposed for the environment protection measures will be Rs 15 Lacs. PP did not provide the details regarding employment potential of this proposed project.. Followings products will be manufactured:

S. NO	Name of the Product	Proposed Capacity(MT/Month)
1	PVA Emulsion	800
2	Synthetic Wood Adhesive	400
	Total	1200

Total power requirement for the proposed project will be 50 HP and will be sourced from Torrent Power Ltd. and D.G set of 30 KVA capacity will be installed. RDF Pellets fired boiler of 6.9 MT/Month capacity will be used and will be attached with Dust collector/ multi cyclone followed by stack of height 30 m. Fuel used for the DG Set will be diesel with capacity 10 lit/day and attached with stack of height 4m.

Total water requirement for the proposed project will be 28.81 m³/day, out of which fresh water requirement will be 26.91 m³/day. Against which 2.7 m³/day wastewater will be generated. will be sourced from Borewell and DM water purchased from outside source. Total effluent generation will be 2.7 m³/day. Waste water will be reused in process. Domestic waste water will be sent to septic tank followed by soak pit.

Process waste will be incinerated. Used oil and Empty barrels will be self reused. Empty bags will be sent to authorised recyclers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, etc.,
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
12. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i. 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.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.4 Setting up of Fine Chemicals & Pesticides Intermediates Manufacturing plant at plot no. D-2/Ch/121, GIDC Estate, Dahej, Tal: Vagra, dist: Bharuch, Gujarat by M/s. F.K.FINECHEMICALS-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. The project falls under Category 5(f) - synthetic organic chemicals & 5(b) Pesticide Intermediates as per the EIA Notification, 2006. Due to pesticide, the project is treated as category and appraised by Expert Appraisal Committee (I).

M/s. F.K.FINECHEMICALS has proposed for Setting up of Fine Chemicals & Pesticides Intermediates Manufacturing plant at plot no. D-2/Ch/121, GIDC Estate, Dahej, Tal: Vagra, dist: Bharuch, Gujarat. As per form 1, there is no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Narmada river is flowing at a distance of 13 Km away from project site.

Total area requirement for proposed project is 5000 m² of which greenbelt will be developed in the area of 656 m². Cost of the proposed project is Rs 6 crore, capital cost for the environment protection is Rs 50 Lacs. Followings products will be manufactured:

List of Products Along With Production Capacity

SR. NO.	PRODUCT NAME	PROPOSED CAPACITY (MT/MONTH)
FINE CHEMICALS		
1	4-Methoxy Benzaldehyde	100
2	4-Methoxy benzyl Alcohol	35
3	4-Methoxy Benzyl Acetate	5
4	4-Methyl Phenyl Acetate	5
5	4-Methoxy Benzyl Acetone	1
6	4-Methoxy Phenyl Acetic Acid	20
7	4-Methoxy Phenyl Acetone	2
8	4-Methoxy Benzyl Amine	2
9	4-Methoxy Toluene	10
10	Tyramine Base	5
11	Tyramine Hydrochloride	5
12	3-Benzyloxy Propio Nitrile	2
13	3-Amino Propyl Imidazole	10
14	Triacetin	120
15	Cyclohexyl Ethyl Methoxy Phenyl Acetamide	10
PESRTICIDE INTERMEDIATES		
1	2,4,6-Trimethyl Benzaldehyde	15
2	4, 4'-Dihydroxy benzophenone	15
3	2,4-Dichloro Meta Cresol	15
TOTAL		377 MT/Month

LIST OF BY-PRODUCTS

BY- PRODUCTS	QUANTITY (MT/Month)
SODIUM SULFATE	85

MnSO ₄	1386
ANISINIC ACID	20
ACETIC ANHYDRIDE	2
SODIUM ACETATE	7
SODIUM BROMIDE	12
SODIUM SULPHITE	6

Total power requirement for the proposed Project will be 300 KVA which will be sourced from DGVCL and D.G set of 300 KVA will be used as stand by. Coal/Bio-fuel/agro waste/ wood briquette fired Boiler of capacity 3 TPH capacity will be used and Thermo pack unit of capacity 6 lac K cal will be used. Cyclone separator followed by bag filter and Scrubber will be used as air pollution control system to control particulate and process emission for both boiler and Thermopack unit and connected with 15 m stack height.

Total fresh water requirement for the proposed project will be 167m³/day, which will be sourced from GIDC water supply. Against which 50 m³/day wastewater will be generated. The wastewater will be treated in proposed effluent treatment plant consisting of primary treatment, MEE and Secondary & Tertiary Treatment & send it to plant for reuse purpose. Domestic waste water will be treated in septic tank followed by soak pit.

ETP sludge, carbon sludge, Nacl and MEE salt will be sent to TSDF site. Used oil, Discarde containers, HDPE bag will be sent to authorised vendors. Distillation residue, organic impurities will be sent to CHWIF.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including ssegregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.

10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
15. Commitment that no banned pesticides will be manufactured.

B. Additional TOR

- i. 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.

It was recommended that '**TORs' along with Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.5 Expansion of Ammonia & Urea Plants within the existing plant premises t Tahsil Naharkathiya, district Dibrugarh, Assam by M/s BVFCL-reg TOR.

The project proponent did not attend the meeting. The Committee decided to consider the proposal through online system as and when applied by the proponent.

14.4.6 Proposed Dyes, Dye Intermediates & Agrochemical Intermediates In Existing Dye Formulation Unit at Plot No: C/387, 388, 389, Gidc, Villlage Sayakha, Tahsil Vagara, District Bharuch, Gujarat by M/s. Polychem Industries-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. The project falls under Category 5(f) - synthetic organic chemicals & 5(b) –Pesticide Intermediates as per the EIA notification, 2006, Due to pesticide in nature, the project is treated as Category 'A' and appraised by Expert Appraisal Committee (I).

M/s. Polychem Industries has proposed for manufacturing of Proposed Dyes, Dye Intermediates & Agrochemical Intermediates In Existing Dye Formulation Unit at Plot No: C/387, 388, 389, GIDC, Villlage Sayakha, Tahsil Vagara, District Bharuch, Gujarat. As per form 1, there is no national parks, Reserve/ protected forest and Wildlife

Sanctuaries lies within 10 km distance. Narmada river is flowing at a distance of 13 Km away from project site.

Total plot area is 68,459 m² of which greenbelt will be developed in the area of 20654.92 m². Cost of the proposed project is Rs 100.57 crore, capital cost earmarked for the environment protection measures is Rs 5 crores. Followings products will be manufactured:

SR. NO.	PRODUCT NAME	QUANTITY (MT/MONTH)
EXISTING		
1.	FORMULATION OF POWDER DYE (Through mixing/blending & Spray Drying only)	1426 MT/M
PROPOSED		
1.	<u>ACID DYES [AZO]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes	75 MT/M
2.	<u>ACID DYES [ANTHRAQUINONES/CONDENSED]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes	
3.	<u>ACID DYES [METAL COMPLEX]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	
4.	<u>BASIC DYES [AZO]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes	100 MT/M
5.	<u>BASIC DYES [ANTHRAQUINONES/CONDENSED]</u> A. Yellow Dyes	

	<ul style="list-style-type: none"> B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures 	
6.	<p><u>DIRECT DYES [AZO]</u></p> <ul style="list-style-type: none"> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures 	200 MT/M
7.	<p><u>DIRECT DYES [CONDENSATION]</u></p> <ul style="list-style-type: none"> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures 	
8.	<p><u>DISPERSE DYES [AZO]</u></p> <ul style="list-style-type: none"> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures 	1000 MT/M
9.	<p><u>DISPERSE DYES [ANTHRAQUINONES/CONDENSED]</u></p> <ul style="list-style-type: none"> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures 	
10.	<p><u>DISPERSE DYES [CYANATION]</u></p> <ul style="list-style-type: none"> A. Red Dyes B. Blue Dyes 	
11.	<p><u>REACTIVE DYES [AZO]</u></p> <ul style="list-style-type: none"> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes 	

	F. Green Dyes G. Black Dyes & Mixtures	
12.	<u>REACTIVE DYES [ANTHRAQUINONES/CONDENSED]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	200 MT/M
13.	<u>SOLVENT DYES [AZO]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	
14.	<u>SOLVENT DYES [ANTHRAQUINONES/CONDENSED]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	75 MT/M
15.	<u>PIGMENT DYES [AZO]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	
16.	<u>PIGMENT DYES [ANTHRAQUINONES/CONDENSED]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	75 MT/M
17.	<u>OPTICAL BRIGHTENERS/ CARBONLESS PAPER DYES/ STAINS [AZO]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes	

	D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	
18.	<u>OPTICAL BRIGHTENERS/ CARBONLESS PAPER DYES/ STAINS [CONDENSATION]</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	150 MT/M
19.	<u>VAT & SOLUBLE VAT DYES</u> A. Yellow Dyes B. Orange Dyes C. Red Dyes D. Blue Dyes E. Violet Dyes F. Green Dyes G. Black Dyes & Mixtures	50 MT/M
20.	<u>INTERMEDIATES [AGROCHEMICALS & DYESTUFFS]</u> A. 2,3-Dibromopropionyl Chloride B. 2,6-Dibromo Para-toluidine C. MDEAMS D. MDPAMS E. EBA [Ethyl Benzene Aniline] F. Aldehydes [EBA,DEA, DEMAP] G. OBSA / BDSA H. 2,4-Dichloro Aceto / Valerophenone I. Dimethyl Sulphide J. Valeryl Chloride K. H-Acid L. DASA M. Vinyl Sulphone Ester N. Schaeffer's Acid O. Bronner's Acid	450 MT/M
21.	<u>AUXILIARIES</u> A. Naphthalene suphonated formaldehyde condensate B. Phenol suphonated formaldehyde condensate C. Melamine suphonated formaldehyde condensate	150 MT/M
22.	<u>TURQUOISE CPC SUPHONATED & CONDENSED DYES</u>	75 MT/M
TOTAL		4026 MT/M

LIST OF BY-PRODUCTS

BY-PRODUCTS	EXISTING QUANTITY	PROPOSED QUANTITY (MT/Month)	TOTAL QUANTITY (MT/Month)
Sodium Sulphite/Sodium Bisulphite	--	20	20

Total power requirement for the proposed project will be 2000 KVA which will be sourced from DGVCL and 2 D.G set of 750 KVA each will be used as stand by.

Total Fresh water requirement for the proposed project will be 385 m³/day which will be sourced from GIDC water supply. Against which 360 m³/day and 28 m³/day industrial and domestic wastewater will be generated. The High TDS effluent will be sent to MEE followed by ATFD while Low COD stream will be sent to ETP followed by RO. Domestic waste water will be treated in Sewage treatment plant. Distillation residue, ETP Sludge, Process waste, iron sludge etc will be sent to TSDF site.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.

14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
15. Commitment that no banned pesticides will be manufactured.

B. Additional TOR

- i. 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.

It was recommended that '**TORs' along with Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.7 Setting up captive plants for Resin Production (100000 Tons/Annum) at 97/1, 98 & 99, village Routhu Suramala, Teshil hottambedu, district Chittoor by M/s Green Ply Industries-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic organic chemicals located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Green Ply Industries has proposed for Setting up captive plants for Resin Production (100000 Tons/Annum) at 97/1, 98 & 99, village Routhu Suramala, Teshil hottambedu, district Chittoor. It is reported that there is no Biosphere , mountains, wildlife sanctuaries exists within 10 Km area of project site. Project involves following environment sensitivities:-

- i. Kalangi River- 4 Km
- ii. Swarnamukhi River- 5.7 Km
- iii. Udipudi Reserved Forests– 6.7 Km, Anjuru RF 7.2 Km ,Venumbaka RF 8 Km, Ugumudi RF 8.6 Km ,Ekollu PF 12.6 Km and Kesaram RF 13 Km.

Total plot area is 196.21 Acre of which greenbelt will be developed in the area of (33%). Cost of the proposed project is Rs.13.75 crore. The proposed Project has an employment potential of 500.

Total power requirement for the project is 500 KW which will be sourced from state electricity board. Total 20000 MT/ Annum steam will be required. Total water requirement for the proposed project will be 10 m3/day, which will be sourced from Telegu Ganga Canal and ground water. Total waste water generation will be 10 m3/day which will be treated in ETP. No Solid waste is generated.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- ii. 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.
- iii. EIA –EMP should include all details of existing project and cumulative impact including water requirement to be assessed.

It was recommended that '**TORs' along with Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.8 Setting up of Agrochemicals, Intermediates and Specialty chemicals (capacity - 307000 MTPA) Plot No. D-3/6, Dahej-III, GIDC Industrial Estate, Village-Kadodara, Taluka- Vagra, Dist. Bharuch, State- Gujarat by M/s. United Phosphorus Limited (UPL Ltd.)-reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of

References for the preparation of EIA-EMP. All Pesticides based industry are listed at S.N. 5(b) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s. United Phosphorus Limited (UPL Ltd.) has proposed for Setting up of Agrochemicals, Intermediates and Specialty chemicals (capacity - 307000 MTPA) Plot No. D-3/6, Dahej-III, GIDC Industrial Estate, Village-Kadodara, Taluka- Vagra, Dist. Bharuch, State-Gujarat. There are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km.

Total plot area is 755495.16 m² of which greenbelt will be developed in the area of 250,000 m² (34%). Cost of the proposed project is Rs.2388.195 crore. The proposed project has an employment potential of 600. Followings products will be manufactured;

List of product:

Sr. No.	Name of Products	CAS Number	Production Capacity MT/Annum	Production Capacity MT/Month	Category
1	S Metolachlor	87392-12-9	5000	416.67	Pesticide (Herbicide)
2	Dicamba	1918-00-9	5000	416.67	Pesticide (Herbicide)
3	Propanil	709-98-8	10000	833.33	Pesticide (Herbicide)
4	Clodinafop	114420-56-3	2000	166.67	Pesticide (Herbicide)
5	Asulam	3337-71-1	4000	333.33	Pesticide (Herbicide)
6	Azoxystrobin	131860-33-8	2000	166.67	Pesticide (Fungicide)
7	Bifenthrin	82657-04-3	500	41.67	Pesticide (Insecticide)
8	Acephate	30560-19-1	30000	2500.00	Pesticide (Insecticide)
9	Pilot Plant /multi purpose plant (MPP) (As Azoxystrobin)	131860-33-8	1000	83.33	
10	Acrolein	107-02-8	2000	166.67	Intermediate Chemical
11	Ethylenediamine (EDA)	107-15-3	30000	2500	Intermediate Chemical
12	Dimethyl Phosphoroamidothioate (DMPAT)	71-44-3;17321-47-0	30000	2500	Intermediate Chemical
13	Isocyanates / Chloroformates				Intermediate Chemical
	13.1	3-4 dichloro Phenyl isocyanate Or/ and	102-36-3	20000 (either or / and combined capacity)	
	13.2	3-Chloro Phenyl Isocyanate Or/ and	2909-38-8		
	13.3	M-Tollysocyanate Or/ and	621-29-4		
	13.4	Phenyl Isocyanate Or/ and	103-71-9		
	13.5	3-Chloro-4 Methyl Phenyl Isocyanate Or/ and	28479-22-3		
13.6	Isopropyl Phenyl Isocyanate Or/ and	31027-31-3			

Sr. No.	Name of Products	CAS Number	Production Capacity MT/Annum	Production Capacity MT/Month	Category
13.7	Benzofuranol Chloroformate Or/ and	--			
13.8	Para Chloro Phenyl Isocyanate Or/ and	104-12-1			
13.9	Hexa methylene diisocyanate Or/ and	822-06-0			
13.10	3,5 dichloro phenyl isocyanate Or/ and	34893-92-0			
13.11	2,6 Di Isopropyl phenyl isocyanate Or/ and	28178-42-9			
13.12	Cyclo hexyl isocyanate Or/ and	3173-53-3			
13.13	Ortho Chloro Phenyl Isocyanate Or/ and	3320-83-0			
13.14	Para Toluenesulfoynylsocyanate Or/ and	4083-64-1			
13.15	Para nitro benzyl chloroformate Or/ and	4457-32-3			
13.16	Hexyl Isocyanate Or/ and	2525-62-4			
13.17	Phenyl ChloroFormate Or/ and	1885-14-9			
13.18	Para nitro phenyl chloroformate Or/ and	7693-46-1			
13.19	Ethyl ChloroFormate Or/ and	541-41-3			
13.20	Methyl Chloroformate Or/ and	79-22-1			
13.21	N-Methyl Phenyl carbonyl Chloride Or/ and	4285-42-1			
13.22	2,6-Difluoro benzoyl isocyanate Or/ and	60731-73-9			
13.23	2-Methoxy carbonyl benzylsulphonyl isocyanate Or/ and	--			
13.24	Chloro amino phenol Per fluoro methyl vinyl ether (3-CAP PMVE)Or/ and	--			
13.25	Cyclo Hexyl Alkyl Di isocyanate Or/ and	3173-53-3			
13.26	Benzophenone	119-61-9			
14	Tri Methyl Phosphite (TMP) / Tri Ethyl Phosphite (TEP)	121-45-9 / 122-52-1	5000	416.67	Intermediates chemicals
15	Meta Phenoxy Benzaldehyde (MPBAD)	39515-51-0	3000	250.00	Intermediate Chemical
16	Methoxy Methyl Acrylate (MAM)	34846-90-7	1000	83.33	Intermediate

Sr. No.	Name of Products	CAS Number	Production Capacity MT/Annum	Production Capacity MT/Month	Category				
					Chemical				
17	Aminoacetonitrile Sulfate (AANS)	5466-22-8	1000	83.33	Intermediate Chemical				
18	Acid Chloride				Intermediate Chemical				
	18.1	Chloroacetyl Chloride	79-04-9	3000		250.00			
	18.2	Methoxyacetyl Chloride	38870-89-2	400		33.33			
	18.3	2-Chloro-3, 3-tri fluoropropen-1,2 dimethylcyclopropane Carbonyl chloride	--	600		50.00			
	18.4	DV Acid Chloride	52314-67-7	1000		83.33			
	CS2 Based Product								
19	19.1	Potassium Ethyl Xanthate Or/ and Sodium isopropyl Xanthate Or/ and Potassium isopropyl Xanthate Or/ and Potassium amyl Xanthate	140-89-6 140-93-2 140-92-1 2720-73-2	5000 (either or / and combined capacity)	416.67	Intermediate Chemical			
		19.2	Dimethyl Cyanoiminodithiocarbonate (CCITM)				10191-60-3	1000	83.33
		19.3	1,6-Bis (N,N-dibenzylthiocarbamylidithio)hexane				151900-44-6	2000	166.67
		19.4	1-Methylamino-1-Methylthio-2-Nitroethene				61832-41-5	2000	166.67
	20	Di Methyl Sulfoxide	67-68-5	10000	833.33		Intermediate Chemical		
21	21.1	Sodium Cyanide	143-33-9	5000	416.66	Specialty Chemical			
	21.2	Potassium Cyanide	151-50-8	500	41.67	Specialty Chemical			
	21.3	Cyanuric Chloride	108-77-0	15000	1250	Specialty Chemical			
	21.4	Atrazine	1912-24-9	5000	416.67	Pesticide (Herbicide)			
	21.5	DL-Methionine	59-51-8	10000	833.33	Speciality chemical			
22	Glufosinate	51276-47-2	10000	833.33	Pesticide (Herbicide)				
23	Sulphur WDG (Wet Dry Granule)	7704-34-9	30000	2500.00	Pesticide (Fungicide)				
24	Aluminium Phosphide	20859-73-8	12000	1000	Pesticide (Rodenticide)				
25	Magnesium Phosphide	12057-74-8	600	50	Pesticide (Rodenticide)				
26	Zinc Phosphide	1314-84-7	2400	200	Pesticide (Rodenticide)				
27	Captive Power Plant (3 Nos)	--	55 MWPH (Phase-1 20 + Phase-2 20 + Phase-3 15 MWPH)		Power plant				
28	Liquid formulations	--	20000	1666.67	Pesticide Formulation				

Sr. No.	Name of Products	CAS Number	Production Capacity MT/Annum	Production Capacity MT/Month	Category
29	Solid Formulations	--	20000	1666.67	
TOTAL			307000	25583.33	

List of Byproduct:

Sr. No.	Name of By product	State of By Product	MT/month	By product from (source)
1.	Piperazine (PIP)	Solid	792.5	Ethylenediamine (EDA)
2.	DiethyleneTriamine (DETA) - (95-99%)	Liquid	275	
3.	Amino Ethyl Piperazine (AEP) - (95-99%)	Liquid	137.5	
4.	Amino Ethyl Ethanol Amine (AEEA) - (95-99%)	Liquid	82.5	
5.	Hydroxy Ethyl Piperazine (HEP) - 98%	Liquid	55	
6.	(NH ₄) ₂ SO ₄ SOLUTION - 10-20%	Liquid	1536.25	
7.	Ammonia Solution – 10%	Liquid	498.3	
8.	Al(OH) ₃	Solid	48.33	Benzophenone
9.	Potassium Chloride (25-30%)	Liquid	145.83	Dicamba
10.	Methyl acetate - (95-99%)	Liquid	317.50	Azoxystrobin,+ Azoxystrobin Pilot Plant
11.	Methanol (98-99 %)	Liquid	105.5	Asulam, +Azoxystrobin, Pilot Plant+Azoxystrobin
12.	Anhydrous Ammonia or	Gas	172.92	Tri Methyl Phosphite(TMP) / Tri Ethyl Phosphite (TEP)
13.	20% aqs. Ammonia	Liquid	864.92	
14.	NH ₄ Cl soln - 15-20%	Liquid	3626.77	
15.	Calcium chloride solution 30% or	Liquid	2000	
16.	Calcium Chloride powder	Solid	666.67	
17.	DCP Sludge	Solid	45	
18.	Aluminium Chloride solution - 20-25%	Liquid	704.5	Meta Phenoxy Benzaldehyde (MPBAD)
19.	Meta BromoBenzaldehyde - (95-99%)	Liquid	107.5	
20.	Aqs. KCl (20-25%)	Liquid	647.5	
21.	Dimethoxy methane - (95-99%)	Liquid	60.17	Aminoacetonitrile Sulfate (AANS)
22.	28-35% Ammonium acetate or	Liquid	5890	Acephate
23.	Acetic Acid & Ammonium sulphate - (95-99%)	Liquid	6950	
24.	Ammonium sulphate & Sodium Acetate (30%)	Liquid	8880	
25.	HCl sol. (28-32%)	Liquid	5484.83	Hexa methylene diisocyanate
26.	Methyl Mercaptan	Gas	59.17	1-Methylamino-1-Methylthio-2-Nitroethene
27.	Steam	Gas	115200	Power Plant
28.	30% HCl Solution	Liquid	263	Chloroacetyl Chloride

Sr. No.	Name of By product	State of By Product	MT/month	By product from (source)
29.	30% HCl Solution	Liquid	36.67	Methoxyacetyl Chloride
30.	30% HCl Solution	Liquid	23	2-Chloro-3, 3-tri fluoropropen-1,2 dimethylcyclopropane Carbonyl chloride
31.	30% HCl Solution	Liquid	43.92	Acid Chloride
32.	31% Sodium Sulphite Solution	Liquid	1198.15	Scrubbing of SO ₂
33.	Ethyl Acetate sol. (90-95%)	Liquid	500	Glufosinate
34.	Ammonia sol.-20%	Liquid	50	
35.	Ammonium Chloride	Solid	2213.33	
36.	Magnesium Chloride Sol. (25-28%) OR	Liquid	2763.33	
37.	Magnesium chlorate -50%	Liquid	2763.33	
38.	Phosphoric Acid (60%)	Liquid	150	Aluminium Phosphide
39.	Phosphoric Acid (60%)	Liquid	10	Magnesium Phosphide
40.	Phosphoric Acid (60%)	Liquid	32.2	Zinc Phosphide
41.	40% Ammonium sulphate	Liquid	88.42	Sodium Cyanide
42.	40% Ammonium sulphate	Liquid	6.65	Potassium Cyanide
43.	40% Ammonium sulphate	Liquid	201.25	Cyanuric chloride
44.	30% HCl solution	Liquid	2473	
TOTAL			52970.41	Excluding steam @ 115200 MT/M

Total Power requirement will be 57 MWH which will be met by DGVCL and captive power plant of 55 MWH which will be installed. 3 Natural gas based thermic fluid heaters of capacity 4 Lakh Kcal/hr, 12 Lakh Kcal/hr, 1.5 Lakh Kcal/hr, all of which are attached to stack of height 30 m will be used.

12 nos of boilers of capacity i.e (2 x 130 TPH), (2 x 31 TPH), (2 x 100 TPH), (2 x 20 TPH), (2 x 40 TPH), (2 x 10 TPH) will be used. Fuel used for the boiler will be Briquette/Coal (2180.3 MT/day) or Natural gas (1026037.4 NM³/day) or Furnace oil (969 MTPD). 4 no.s of DG Sets(4 X 2000 KVA) will be used as stand by.

Total Water requirement for proposed project will be 9313 m³/day which will be sourced from GIDC supply. Total effluent generation after expansion will be 2627 m³/day, out of which domestic effluent would be 90 m³/day and industrial effluent generation will be 2537 m³/day. Effluent will be segregated at the source. High TDS effluent will be sent to MEE followed by RO. RO reject will be sent to ETP. Treated effluent from ETP will be discharged into GIDC drainage for final disposal into deep sea through common effluent conveyance pipeline. Domestic effluent will be treated in STP.

ETP sludge/ STP sludge, Inorganic salts, contaminated cotton waste, Insulation waste, Non recyclable plastic waste, Used PPE and Incineration Ash will be sent to TSDF. Organic residue, Aqueous waste, Date-expired and off specification pesticides, spent filter material and spent catalyst will be sent to CHWIF.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, CS₂ etc., (* - as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i. 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.
- ii. Reduce the water requirement with comprehensive plan.
- iii. Risk assessment to be carried out.
- iv. Adequate Odour management plan to be drawn.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.9 Proposed expansion by adding 60 KLPD Molasses based Ethanol Plant along with 2 MW Co-generation Power Plant in Existing Distillery Plant at Village Bhadson, Umri Road, Tehsil Indri, District Karnal (Haryana) by M/s. Piccadily Agro Industries Limited-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Piccadily Agro Industries Limited has proposed for expansion by adding 60 KLPD Molasses based Ethanol Plant along with 2 MW Co-generation Power Plant in Existing 90 KLPD Molasses/ grain based Distillery Plant at Village Bhadson, Umri Road, Tehsil Indri, District Karnal (Haryana). It is reported that no national Park, wildlife Sanctuary, biosphere reserve falls within 10 Km of project site. The project includes following environment sensitivity:

- Bir Seonti Reserved Forest (7.5 km)
- Chautang Nadi Seasonal (2.5 km)
- Sirsa Branch Canal (3.0 km)
- Khand Nala Seasonal (7.5 km)
- Western Yamuna Canal (5.5 km)

Total plot area is 28.3 Ha., out of which 9.3 Ha (33%) of the area has already been developed as greenbelt. The plant is located adjacent to existing sugar mill. Capital Cost of expansion project is Rs 47 Crores. Capital cost and recurring cost per annum earmarked for Environmental Protection Measure is Rs .10 crores and Rs 1 Crore respectively. Molasses will be transported through pipelines from own sugar mill located next to distillery. The proposed project has an employment potential of 60. Followings products will be manufactured:

S. No.	Unit	Existing capacity	Proposed capacity	Total Capacity
1	Ethanol plant	90 KLPD	60 KLPD	150 KLPD
2	Cogeneration Power Plant	3.0 MW	2.0 MW	5.0 MW

Total power requirement will be 1.2 MW, which will be sourced from own 2 MW Cogeneration power plant and 1 D.G set of 500 KVA will be used as stand by. Baggase/ Rice Husk/Biogas fired boilers of capacity 25TPH will be used. ESP/ Bag filter will be provided to boilers to control particulate emissions with adequate stack height. and stack of adequate height.

Total water requirement for the proposed unit will be 526 m³/day, which will be sourced from ground water. Spent wash generated during Molasses operation will be concentrated in Multi-effect evaporator and then used for Bio-composting.

Boiler ash will be used in bio-composting & also given to nearby brick manufacturers. Yeast sludge & Digesters sludge will be finally disposed as Mixing with Press Mud. The company will utilize the spent wash for manufacturing bio-compost within the premises, with proper labelling and marketing of the finished compost, in sealed bags, bearing the name and seal of our industry and the composition of the bio-compost.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR:

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses and their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of piezometers to be proposed around spent wash holding tank and composting yard.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Action plan to control odour pollution.
13. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).

B. Additional TOR

- i. 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.
- ii. Compliance to existing EC to be submitted duly inspected by the Regional Office.

It was recommended that '**TORs' along with Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.4.10 Expansion of resins at Plot No. A-1/2002, Phase IV, GIDC Estate, Vapi, Tahsil Pardi, District Valsad, Gujarat by M/s Micro Resins Pvt Ltd.-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic organic chemicals located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' but due to applicability of general condition i.e. CPA of the project site and 5 km distance from the trans-boundary, it is treated as 'A' and appraised by Expert Appraisal Committee (I).

M/s Micro Resins Pvt Ltd has proposed for Expansion of resins at Plot No. A-1/2002, Phase IV, GIDC Estate, Vapi, Tahsil Pardi, District Valsad, Gujarat. It is reported that there are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km.

Existing plot area is 529 m², additional 1504 m² land will be required under proposed expansion. After proposed expansion the total plot area will be 2702 m² of which 33 % area will be will be developed as green belt. Cost of the proposed expansion project is Rs. 2 crore. Existing and proposed products are as follows:

Sr. no.	Name of Product	Quantity in MT /M		
		Existing	Proposed	Total After Expansion
1	Drying of Ketonic Resin	100	0	100
2	Drying of poly vinyl Butyl Resin	50	0	50
3	Printing Ink & Resin (through Mixing only)	200	0	200
4	Ketonic Resin	0	250	250
5	Ketone free Formaldehyde Resin	0	50	50
6	PVB (Poly Vinyl Butryl Resin)	0	50	50
7	Adhesion Promoter TA -10	0	50	50
8	Acrylic Resin & Acrylic Emulsion	0	300	300
9	Phenolic Resin, Terpene Phenol Resins & Alkyl Phenol Resins	0	300	300
10	PU Resins	0	100	100
11	Oil Based Polyester Polyols	0	200	200

12	Polyamide Resins	0	200	200
13	Maleic Resin	0	100	100
Total		350	1600	1950
By product: Turpentine		0	4	4

Existing unit has One Thermic fluid heater of 2 lakh kcal/hr capacity. Two steam boilers of 800 Kg/hr and 1000 Kg/hr will be installed and will be attached with 11 m and 18 m stack height respectively. Wet scrubber will be used to control particulate emission. One DG set of 500 KVA capacity will be attached to 11 m stack height and will be used as stand by. Source of electricity would be Dakshin Gujarat viz. Co. Ltd.

Existing fresh water requirement is 1 m³/day. After proposed expansion fresh water requirement for industrial process will be 102.157 m³/day, which will be sourced through GIDC water supply. Total industrial effluent generation after expansion will be 96.473 m³/day. High COD generated from Process stream will be sent to primary unit of ETP followed by MEE and spray dryer. Low COD generated from process stream, waste water from boiler and cooling tower will be sent to ETP which after Waste water generated will be drained to GIDC drainage after CETP.ETP waste will be sent to TSDF Site. for final disposal. Discarded container sold to the authorized vendor. Used oil will be sent to registered refiners.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, etc.,
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
12. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i. 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.
- ii. Recommendation from State Pollution control board to be submitted.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report

14.4.11 Installation of 1 x 900 MT capacity mounded LPG storage vessel at Pattikalan-Rampur Indane Bottling Plant, Tehsil: Swar, District: Rampur, Uttar Pradesh by M/s IOCL-reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the projects related to Isolated storage & handling of hazardous chemicals are listed in para 6(b) of schedule of EIA Notification, 2006 covered under category 'B' but due to general conditions applicability i.e interstate boundary between Uttar Pradesh state and Uttarakhand state. it is listed in category 'A' and appraised at central level.

M/s IOCL has proposed for Installation of 1 x 900 MT capacity mounded LPG storage vessel at Pattikalan- Rampur Indane Bottling Plant, Tehsil: Swar, District: Rampur, Uttar Pradesh. During presentation PP informed that this plant is located in UPSIDC. It is reported that no Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Kosi river is flowing at a distance of 500 m from the project site.

Total cost of project is 22.14 Crores. Plant will be installed within the occupied area of IOCL. Total area is 33 Acre out of which, 11 acre area is available for green belt. The proposed project will provide employment to 100 peoples.

The details of existing and proposed capacity of storage tanks are as follows:

S. No.	Unit	Existing Capacity	Proposed Capacity	Total Capacity
1	Storage	1400 MT	900	2300 MT
2	LPG Storage Vessels	3X150 MT	0	

Existing water requirement is 3 m³/day. No additional water will be required, which will be met by borewell within plant premises.

The Power requirement will be met by Uttarakhand Power Corporation Limited and DG sets of capacity 500 KVA (2 Nos.), 250 KVA & 100 KVA will be used as stand by.

A. Specific TOR:

1. Details on list of hazardous chemicals to be stored alongwith storage quantities at the facility, their category (as per MSIHC Rules), MSDS.
2. Mode of receiving hazardous chemicals in isolated storages and mode of their dispatch.
3. Layout plan of the storage tanks and other associated facilities.
4. Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps, monitoring equipments, systems for emissions control safety controls including relief systems.
5. Arrangements to control loss/leakage of chemicals and management system in case of leakage.
6. Risk Assessment & Disaster Management Plan
 - Identification of hazards
 - Consequence Analysis
 - Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.
 - Onsite and offsite emergency preparedness plan.

B. Additional TOR

- i. 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.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report

14.4.12 Proposed expansion of pesticide unit for manufacturing of technical pesticide khasra no. 143 village- Biratiya Kalan, Tehsil- Raipur, district Pali, Rajasthan by M/s Intech Pharma Pvt. Ltd.- reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. The project falls under Category 5(b) –Pesticide Intermediates as per the EIA notification, 2006 and appraised by Expert Appraisal Committee (I).

Rajasthan State Pollution Control Board has issued CTO vide F. No. F(Tech)/pali(Raipur)/201(1)/2013-2014/925-926 and order no 2014-15/Pali/2156/3182 dated 31.12.2014 for Methyl Bromide plant to M/s Intech Pharma Pvt Ltd. situated at Khasra no. 143 village – Biratiya Kalan, Tehsil- Raipur, Distt-Pali, Rajasthan. The Committee noted that methyl bromide has been mentioned to be production of technical pesticide rather formulation. PP informed that CTO has been issued without mentioning formulation on which the Committee suggested PP, they seek the clarification from SPCB till the finalization of minutes. However, no documents have so far been submitted by PP in this regard. Therefore, it is case of violation under E(P), Act, 1986 by not following the stipulation given in EIA, Notification, 2006.

4.5 Any other

14.5.1 Proposed expansion project with Backward Integration-Manufacturing of Manmade fiber-Partially Oriented Yarn(POY)/Fully Drawn Yarn(FDY)/Polyester Staple Fiber PSF) (3,65,000MTPA) and Polyester Textured Yarn (PTY) (2,75,966MTPA) through continous Polymerization process at Survey No. 193,196/1,197,1,1, 197/1/2, 197/2/1, 153P,154, 155/1, 155/2, 201/1/1-IP Notified Industrial Zone Village Surangi, Silvassa (U.T. of D&NH) by M/s DNH spinners Pvt. Limited- reg EC Amendment in EC.

Ministry had issued Environmental Clearance to M/s DNH spinners Pvt. Limited vide letter No.J-11011/199/2011-IA II (I) dated 12th July 2012 for expansion project with Backward Integration-Manufacturing of Manmade fiber-Partially Oriented Yarn(POY)/Fully Drawn Yarn(FDY)/Polyester Staple Fiber PSF) (3,65,000MTPA) and Polyester Textured Yarn (PTY) (2,75,966MTPA) through continous Polymerization process at Survey No. 193,196/1,197,1,1, 197/1/2, 197/2/1, 153P,154, 155/1, 155/2, 201/1/1-IP Notified Industrial Zone Village Surangi, Silvassa (U.T. of D&NH).

Now, PP has requested vide letter dated 12th February 2016 for exemption of specific condition No. (i) of existing EC regarding obtaining clearance under the Wildlife(Protection) Act-1972 from standing committee of National Board of Wildlife for above project.

A request from Member Secretary, Pollution Control Committee, DD&DNH, Daman is also received regarding clarification for obtaining clearance under the Wildlife(Protection) Act-1972 from the Standing committee of NBWL in view of the Notification S.No.2413(E) dated 4.9.2015. The Committee noted

that MoEF&CC has issued a notification regarding declaration of Eco sensitive zone of 100 meters around D&NH wildlife sanctuary vide S.O. 2413 (E) dated 04.09.2015 and as per letter and certified map issued by Chief Wildlife warden, D&NH, Silvassa project location is 450 m away from the nearest boundary of Eco-sensitive zone.

After detailed deliberations, the committee recommended aforesaid amendment in the existing Environmental Clearance.

14.5.2 Expansion by adding Manufacturing of Manmade Fiber (fully drawn yarn-FDY, Mother Yarn & Nylon Yarn) located at Sy. No. 179/1/1, Village Silli, Dadara & Nagar Haveli by M/s Shubhalakshmi Polyesters Ltd.- Amendment in TOR

Ministry had issued TOR with Public Hearing to M/s Shubhalakshmi Polyesters Ltd. vide letter No.J-11011/174/2014-IA II (I) dated 3rd November 2014 for Expansion by adding Manufacturing of Manmade Fiber (fully drawn yarn-FDY, Mother Yarn & Nylon Yarn) located at Sy. No. 179/1/1, Village Silli, Dadara & Nagar Haveli. The TOR was awarded with public hearing.

Now, Project Proponent has applied online application vide dated 10th May 2016 seeking amendment in TOR's for exemption of Public Hearing and also extension in validity of existing TOR's.

As per MOEF&CC O.M No.J-11013/41/2006-Ia-II(I) (Part) dated 8th October 2014, the validity of TOR has been extended from 2 years to 3 years. As such the existing TOR is valid till 2nd November 2017.

PP has submitted the documents regarding notification of the area where the site is located. PP also submitted a letter from Planning and Development Authority of Dadra & Nagar Haveli dated 13/02/2015 vide letter no DNHHPDA/GNL/105(53)/2013/155. Accordingly the Committee exempted the project from public hearing.

After deliberation, the Committee recommended the aforesaid amendment for exemption of Public Hearing in existing the TOR issued on 3rd November 2016.

14.5.3 Proposed 70 KLPD distillery unit by M/s Sagar Sugar and Allied Products Limited at village Nelavoy district Chittoor, Andhra Pradesh- reg amendment in EC.

Ministry had issued EC to M/s Sagar Sugar and Allied Products Limited vide letter No.J-11011/99/2002-IA II (I) dated 19th November 2003 for Proposed 70 KLPD distillery unit by M/s Sagar Sugar and Allied Products Limited at village Nelavoy district Chittoor, Andhra Pradesh.

Now, PP has applied online vide dated 29th July 2015 for change of name from M/s Sagar Sugar and Allied Products Limited to SNJ Sugar and Products Limited.

After detailed deliberations, the committee recommended aforesaid change of name in the existing Environmental Clearance subject to submission of compliance of EC conditions stipulated in existing Environmental Clearance.

27th October, 2016 (Day 2)

1st Session: Time: 10:00 AM

14.6 Environmental Clearance

14.6.1 Proposal for expansion of bulk drug products at Plot no. A 1128, RIICO Industrial area Phase III, Village Bhiwadi, Tehsil Tijara, District Alwar, Rajasthan by M/S Auronext Pharma Ltd reg EC.

The project proponent and their consultant (M/s Enkay Enviro Services Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 26th Meeting of the Expert Appraisal Committee (Industry -2) held during 29th – 30th October, 2014 respectively for preparation of EIA-EMP report.

MoEF&CC has issued Environmental clearance vide letter no. 1012/69/1995 dated 22.05.1996 to M/s Dee Pharma.

M/S Auronext Pharma Ltd. has proposed for expansion of bulk drug formulation products at Plot no. A 1128, RIICO Industrial area Phase III, Village Bhiwadi, Tehsil Tijara, District Alwar, Rajasthan. Cost of proposed expansion project is Rs. 40 Crores. Total capital cost and recurring cost per annum earmarked for EMP is 2.59 crore and 0.1425 crore respectively. Existing plot area is 10112 m². No additional land will be required for the proposed expansion. Out of which, 3337 m² (33 %) will be developed as green belt. It is reported that there are no national parks/Wildlife sanctuaries lies with 10 Km distance of Project site. Four reserved forest are present within the 10 Km distance of project site i. e. Rangla reserved forest, Chaupanki Reserved forest, Godhan protected forest and Indauri Nala. Total man power requirement after proposed expansion will be 400.

Existing unit is manufacturing sterile bulk drug to tune of 38.4 TPA and vial filling to the tune of 30 million vials per annum. Now, the unit is proposing to replace existing product Ampicillin Sodium Sterile by a Carbapenem Sterile bulk drugs (API). Following products will be manufactured under expansion:

S. No.	Product	Quantity (kg/year)
1a	Mertopenem Trihydrate Sterile	24000

1b	Sodium Carbonate Sterile	4000
1(1a+1b)	Meropenem for injection (Sterile blend of Meropenem & Sodium Carboante)	28000
2a	Imipenem Monohydrate Sterile	7000
2b	Cilastatin Sodium Sterile	7200
2c	Sodium Bicarbonate Sterile	1000
2 (2a+2b+ 2c)	Imipenem & Cilastatin for Injection (Sterile Blend of Imipenem, Cilastatin Sodium & Sodium Bicarbonate)	15200
3.	Doripenem Monohydrate Sterile	3000
4.	Lyophiliz vials of Ertapenem for Injection 6 Millions Vials	
5.	Filling of vials of dry powder injection (Formulation) 30 Millions Vials	

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during December 2014 - February, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (51.9 µg/m³ to 90.4 µg/m³), PM_{2.5} (26.5 µg/m³ to 53.6 µg/m³), SO₂ (5.1 µg/m³ to 9.7 µg/m³), NO_x (18.9 µg/m³ to 35.6 µg/m³) and CO (785 µg/m³ to 1652 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.6 µg/m³, 0.3 µg/m³, 21 µg/m³, 11.7 µg/m³, and 7 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂, NO_x and CO respectively. The resultant concentrations are within the NAAQS.

The total power requirement will be increased from 1525 KVA to 2500 KVA and will be sourced from JVVNL. The unit has existing DG Sets (2 x 500 KVA). Further, the unit will added either four DG Sets of 500 KVA or two of 1000 KVA or two of 500 KVA & one of 1000 KVA). Wet scrubber followed by Stack of height 33 m will be provided as pollution control measure for Furnace Oil fired boiler of capacity 4 TPH.

Fresh water requirement will be increased from 30 m³/day to 70 m³/day, which will be met through RIICO water supply and ground water. Total Wastewater generation will be 41.58 m³/day, out of which industrial effluent generation will be 60 m³/day. The entire effluent generated will be treated in ETP. ETP sludge, Spent catalyst will be sent to UCCI. Spent oil, Spent solvent and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. Organic waste and solvent distillation residue will be sent to Cement Industries. Inorganic waste, ETP sludge and will be sent to TSDF. Used oil will be sent to SPCB authorized Recyclers/re-processor.

During presentation committee noted that PP did not conduct the public hearing. PP requested to exempt the public hearing as project is located inside the RIICO Industrial area Phase III. The committee agreed to with exemption of public hearing. However, it was stated that Ministry need to process formally for public hearing exemption before consideration of project for EC.

After deliberations, the Committee sought the following additional information:

- (i) Recheck the VOC for one month.
- (ii) Commitment to send spent organic waste to cement industry.

- (iii) Revise water balance chart to be submitted. Water requirement need to be reworked.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website.

14.6.2 Setting up of 30 KLPD (rectified spirit/ENA/Ethanol) molasses based Distillery plant with 1 MW plant Sy.No.37, Village & Post Jainapur, Taluka Chikodi, District Belagavi, Karnataka by M/s Om Sugars Limited. reg EC {(J-11011/273/2015-IA II (I))}

The project proponent and their consultant (M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 3rd Meeting of the Expert Appraisal Committee (Industry -2) held during 18th-19th January, 2015 for preparation of EIA-EMP report.

All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Om Sugars Limited. has proposed for Setting up of 30 KLPD (rectified spirit/ENA/Ethanol) molasses based Distillery plant with 1 MW plant Sy.No.37, Village & Post Jainapur, Taluka Chikodi, District Belagavi, Karnataka. Total plot area is 19.35 Acres. Out of which, area earmarked for greenbelt is 7.0 acres. The cost of the project is 52.37 crores, out of which capital cost and Recurring cost/ annum will be Rs 8.12 crores and Rs 2.59 crores for environmental management plan. It is reported that there is no National Parks/ Wild Life Sanctuaries/ Biosphere Reserves/RF within 10 km radius area of project site. There are three protected forest are present within 10 Km of project site. The distillery plant will be operated maximum of 270 days/ annum. Following product will be manufactured:

S. No	Product list	Capacity
1	Rectified spirit/ ENA/ Ethanol	30 KLPD
2	C0-gen power plant	1.0 MW
By product		
3	CO ₂	22.8 TPD
4	Bio-mannure	5400 TPA
5	Biogas	430 m3/hr

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2015 to February, 2016 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (15.7 µg/m³ to 52.3 µg/m³), PM_{2.5} (10.2 µg/m³ to 31.3 µg/m³), SO₂ (6 µg/m³ to 12.5 ug/m³) and NO_x (6.1 µg/m³ to 15.7 µg/m³) CO (220 µg/m³ to 536 µg/m³ respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.43 µg/m³ and 4.3 µg/m³ with respect to PM and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing sugar and co-gen unit has three boilers of 20 TPH, 20 TPH and 35 TPH respectively. Air pollution control device for existing bagasse fired boiler is wet scrubber. Steam requirement for the proposed Distillery project will be met from the 10 TPH Bagasse fired boiler. ESP will be provided to proposed Bagasse fired boiler as pollution control measures and will be connected with 30 m stack height.

Total water requirement of the project will be 660 m³/day, out of which fresh water requirement will be 300 m³/day which will be sourced from Doodh ganga river and harvested rain water. Total wastewater generation from proposed project will be 355 m³/day Spent wash will be treated Bio digester followed by Multiple effect Evaporator (MEE). The Concentrated biomethanated spentwash will be sent to biocomposting by utilizing the press mud from sugar plant. Plant is based on ZLD scheme.

Yeast sludge will be biocompost along with Biomethanated evaporated spent wash. Boiler ash will be used as manure. Sludge from ETP will be used as manure.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meetings conducted by the Karnataka State Pollution Control Board on 02.07.2016 in Ramanathapuram District and. The issues were raised regarding Pollution control equipments and technologies, Noise pollution, Treatment of trade waste and spent wash, Sale of boiler ash to cane suppliers free of cost, sale of manure to farmers at cheaper rate. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee, on the basis of the information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) ESP shall be provided to the bagasse fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- ii) Total fresh water requirement for distillery from Doodh ganga river shall not exceed 300 m³/day. No ground water shall be drawn for industrial purposes.
- iii) Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery shall be treated through Bio digester followed by Multiple effect Evaporator (MEE). The Concentrated biomethanated spentwash will be sent to biocomposting by utilizing the press mud from sugar plant. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- iv) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 30 days capacity.
- v) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Continuous online (24 x7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be uploaded on company's website and provided to the respective RO of MEF&CC, CPCB and SPCB.
- viii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office and SPCB.
- ix) Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.
- x) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- xi) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xii) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xiii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiv) As proposed, green belt over 7 acres of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xv) All the commitments made during the Public Hearing/Public Consultation meeting held on 20.7.2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvi) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time

bound manner. Besides, one rain water harvesting pond shall be created in nearby villages.

14.6.3 Expansion & Debottlenecking of Petrochemical Complex, Nagothane Manufacturing Division (NMD) at MIDC, Tehsil Roha, District Raigarh, Maharashtra by M/s Reliance Industries Limited reg EC.

The project proponent and their consultant (M/s ERM India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 46th Meeting of the Expert Appraisal Committee (Industry -2) held during 20th-21st August, 2015 respectively for preparation of EIA-EMP report.

All Petrochemical Complexes are listed at S.No. 5(c) under category 'A' and appraised at central level.

SEIAA has issued Environmental clearance vide letter no. SEAC-2013/CR-TC-1 date 5th September, 2014 for expansion and debottlenecking at Nagothane manufacturing division, district Raigarh.

M/s Reliance Industries Limited has proposed for Expansion & Debottlenecking of Petrochemical Complex, Nagothane Manufacturing Division (NMD) at MIDC, Tehsil Roha, District Raigarh, Maharashtra. The existing plot area is 744 ha, out of which 298 ha area is greenbelt. No additional land is required for proposed expansion. The cost of proposed project is Rs. 2338 Crores. Total cost earmarked for EMP is 95 crores. It is reported that there is no National Parks/ Wild Life Sanctuaries/ Biosphere Reserves/RF within 10 km radius area of project site.

S. N.	Products	Production (MTA)		
		Existing	Proposed	Total
1.	Ethylene	4,00,000	1,80,000	5,80,000
2.	Propylene	90,000	40,000	1,30,000
3.	Ethylene Glycol	70,000	1,30,,000	2,00,000
4.	Ethylene Oxide	60,000	10,000	70,000
5.	Low Density Polyethylene (LDPE)	1,20,000	0	1,20,000
6.	Linear Low Density Polyethylene (LLDPE) & High Density Polyethylene (HDPE)/Metallocene	3,00,000	50,000	3,50,000
7.	Polypropylene	1,50,000	0	1,50,000
8.	Butene -1	15,000	0	15,000
9.	Acetylene	3,000	0	3,000
10.	Recycle Polyethylene Terephthalate (R PET)	16,000	0	16,000

11.	Reliance Paraffin Dehydrogenation Catalyst-10 (RPDC-10)	60	0	60
12.	Alumina Balls and powder	4.8	0	4.8
13.	Ethoxylates	1,25,000	0	1,25,000
14.	Hexene-1	15,000	5,000	20,000
15.	Utilities			
	1. Power	85 MW	15MW	100MW
	2. DM Water	340 m ³ /hr	60 m³/hr	400 m ³ /hr
	3. Nitrogen	10,600 Nm ³ /hr	10,600 Nm³/hr	21,200 Nm ³ /hr
15	Township	1,41,965 Sq.m	72,966 Sq.m+ 71,111 Sq.m(to be retained from existing township)	1,44,077 Sq.m
By-products				
S. N.	By-Products	Production (MTA)		
		Existing	Proposed	Total
1.	Acetylene Black	2,400	0	2,400
2.	Mixed Oil (Pyrolysis Gasoline-RARFS, Pyrolysis Fuel Oil)	23,000	27,000	50,000
3.	C4 cut	24,000	6,000	30,000
4.	Polyethylene Glycol	7,500	22500	30000
5.	Tar (GC)	30	0	30
6.	Prepoly powder	30	5	35
7.	Oligomer	15,000	5,000	20,000
8.	CO ₂	40,000	50000	90000

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October 2015 to January 2016 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (26.9 µg/m³ to 71.3 µg/m³), PM_{2.5} (7.4 µg/m³ to 29.9 µg/m³), SO₂ (3.4 µg/m³ to 10.6 ug/m³) and NO_x (6.6 µg/m³ to 19.3 µg/m³) CO(0.5 mg/m³ to 1.1 mg/m³ Ozone (3.2 µg/m³ to 9 µg/m³), C₆H₆(1.1 µg/m³ to 5.8 µg/m³), NH₃ (5 µg/m³ to 20.4 µg/m³), VOC(0 µg/m³ to 42.1 µg/m³) and HC Methane (0.5 PPM to 1.23 PPM) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.1 µg/m³, 17.3 µg/m³, 16.2 µg/m³ and 1.6 µg/m³ with respect to PM, CO, NO_x & HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Power required for the proposed project will be met from existing CPP. In this proposed project CPP capacity will be enhanced from 85 MW to 100 MW. State grid supply and DG Sets will be used as stand by.

Fresh water requirement will be increased from 36000 m³/day to 40000 m³/day, which will be sourced from MIDC. The effluent generated will be treated in the existing ETP with 10,000 m³/d capacity. The treated effluent will be recycled into the system, reused in the green belt and excess will be discharged to Dharamtar Creek. . ETP sludge, Spent catalyst will be sent to UCCI . Spent oil, Spent solvent and used batteries from the DG sets are sent to authorize recyclers. Fly ash will be sent to brick manufacturers. Organic waste and solvent distillation residue will be sent to Cement Industries. Inorganic waste, ETP sludge and will be sent to TSDF. Used oil will be sent to SPCB authorized Recyclers/re-processor.

Public hearing is exempted as per Section 7 (I), III stage (3), Para (i) (b) of EIA Notification 2006.

The committee discussed the compliance status of existing EC and found that major environmental conditions have been complied. However, minor non compliance points related to uploading compliance report of conditions stipulated in EC is yet to be uploaded in the web site. The Committee found satisfactory response.

After deliberation, the Committee sought the following information

- I. As water requirement if on higher side, therefore, revised water balance with measures of recycle and resuse to submitted.
- II. As committed photograph of green belt to be submitted.
- III. Action plant to be drawn at the rate of 2.5% of project cost under ESR activities.

14.6.4 Setting up of grain based distillery unit (200 KLPD) at Village Dakshin Simla, Police Station Kharagpur, Tehsil Kharagpur-I, District West Medinipur, West Bengal by M/s Svaksha Distillery Ltd. reg EC.

The project proponent and their consultant (M/s Ace Engineers and Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 2nd Meeting of the Expert Appraisal Committee (Industry -2) held during 16th– 17th December, 2015 respectively for preparation of EIA-EMP report. All Grain based distillery(>60 KLPD) are listed at SN 5(g) (ii) under category 'A' and appraised at central level.

M/s Svaksha Distillery Ltd. has proposed for Setting up of grain based distillery unit (200 KLPD) at Village Dakshin Simla, Police Station Kharagpur, Tehsil Kharagpur-I, District West Medinipur, West Bengal. Plot area for distillery plant is 8.40 ha, of which, area earmarked for greenbelt is 2.80 ha. Total cost of project is Rs. 197.50 Crores. Total capital cost and recurring cost per annum earmarked for EMP will be 17.80 crore and 3.45 crore respectively. It is reported that there is no National Parks/ Wild Life Sanctuaries/ Biosphere Reserves/RF within 10 km radius area of project site. Following product will be manufactured:

S.N.	Units / Product/By Product Phase	Proposed Quantity
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1	Distillery plant (Rectified Spirit / ENA / Ethanol)	200 KLPD
2	Cogeneration Power Plant (Electricity)	10 MW
3	Bottling of country/ IMFL Liquor	16000 cases/day
	By Products	
1	DDGS (Dried Distillers Grains with Soluble)	100 MTPD
2	Fusel Oil	2 MTPD
3	CO ₂	150 TPD
4	Corn oil	10 MTPD

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2015 – February 2016 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (47 µg/m³ to 61 µg/m³), PM_{2.5} (19 µg/m³ to 31 µg/m³), SO₂ (5.1 µg/m³ to 11 µg/m³) and NO_x (10.2 µg/m³ to 19.7 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 8 µg/m³ and 3.5 µg/m³ respect to PM, and SO₂, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Total power requirement will be 6 MW which will be sourced from own co-gen unit. Proposed unit will use 2 X 35 TPH Rice husk/ coal fired boiler but committee suggested to use Briquette in place of Rice husk/ coal. PP agrees with the suggestion. Two DG sets of 500 KVA capacity will be used as a standby. ESP along with adequate stack height will be provided to biomass fired boiler to control particulate emission.

Fresh water requirement from ground water will be 1760 m³/day. Spent wash generation will be 945 m³/day. Spent wash will be treated through decanter and concentrated in MEE to form DWGS. DWGS will be sent to dryer to form DDGS. Other wastewater will be treated in ETP.

Used oil and spent oil will be sold to authorized recyclers. Fly ash generated from the project will be used in own brick manufacturers unit.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the West bengal Pollution Control Board on 8th July, 2016 at Mahashakti Mahasangha Satkui. Dist-paschim Medinipur West Bengal. The concerns were raised on local employment, Pollution control measures, Environmental impact etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee found the final EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) ESP alongwith stack of adequate height shall be provided to Briquette fired boiler to control particulate emission within 50mg/Nm³.

- ii) Total fresh water requirement of 1760 m³/day will be met from ground water and prior permission shall be obtained from the CGWA/SGWA.
- iii) Spent wash generation from grain based distillery shall not exceed 6 KI/KI of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DOGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- iv) Spent wash shall be stored in SS tank. The storage of spent wash shall not exceed 5 days capacity.
- v) No effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhubaneswar and SPCB.
- viii) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- ix) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- x) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xi) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xii) As proposed, green belt over 2.80 ha of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

- xiii) All the commitments made during the Public Hearing/Public Consultation meeting held on 8th July, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xiv) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs particularly village named Dakshin Simla and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.

14.6.5 Setting up of grain based distillery (125 KLPD) along with 3.5 MW Co-generation Power Plant at RIICO Industrial Area, Village Guwadi & Majhari, Tehsil Shahabad, District Baran, Rajasthan by M/s Carya Chemicals And Fertilizers Pvt. Ltd reg EC.

The project proponent and their consultant (M/s J M EnviroNet (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded in the 1st Meeting of the Expert Appraisal Committee (Industry -2) held during 30th November– 1st December, 2015 respectively for preparation of EIA-EMP report.

All Grain based distillery(>60 KLPD) are listed at SN 5(g) (ii) under category 'A' and appraised at central level

M/s Carya Chemicals and Fertilizers Pvt. Ltd. has proposed for Setting up of grain based distillery (125 KLPD) along with 3.5 MW Co-generation Power Plant at RIICO Industrial Area, Village Guwadi & Majhari, Tehsil Shahabad, District Baran, Rajasthan. Total plot area is 36.42 ha. Total area earmarked for distillery unit will be 8.09 ha of which area earmarked for greenbelt will be 2.7 ha (33%). Total cost for the project is 190 crores. Total capital cost and recurring cost per annum earmarked for EMP is 25 crore and 2.5 crore respectively. No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridors etc. falls within 10 km radius of the plant site. However Bhojal RF is situated at a distance of 2 km in N direction, Sahroi PF is situated at distance of 7.5 km in NW direction, Jhimiya PF is situated at distance of 8 km in W direction. Dabar PF is situated at distance of 5.5 km in ESE direction, Somera Bhojal PF is situated at distance of 2 km in NE direction, Nonera PF is situated at distance of 3.5 km in SW direction and Bichi PF is situated at distance of 7.55 km in SSW direction. Tilapsi Nadi is flowing at a distance of 2 km in NE direction, Kuno river is flowing at a distance of 2 km in WNW direction and Karai nadi is flowing at a distance of 2.5 km in S direction.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2015 – December, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (65.2 µg/m³ to 85.2 µg/m³), PM_{2.5} (25.2 µg/m³ to 42.1 µg/m³), SO₂ (5.4 µg/m³ to 10.9 ug/m³) and NOx (15 µg/m³ to 22.5 µg/m³) . AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.07 µg/m³, 2.55 µg/m³ and 2.17 µg/m³ with respect to PM₁₀, SO₂ and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total power requirement for the proposed project will be 2.8 MW which will be sourced from Co generation power plant of 3.5 MW. Two DG Sets of capacity 1000 and 500 KVA capacity with adequate stack height will be used as stand by. Steam requirement for the proposed project will be met by Rice husk/ Indian coal/ Pet coke fired boiler of 36 TPH. ESP alongwith stack of 60 m height will be provided to boiler to control particulate emission.

Total water requirement for the project will be 3861 m³/day, out of which. Fresh water requirement from ground water will be 1082 m³/day. Spent will be treated through decanter and concentrated in MEE to form DWGS. DWGS will be sent to dryer to form DDGS. Plant is based on ZLD. DDGS will be sold as cattle feed. Ash generated from the project will be given to the nearby brick manufacturers / cement plants.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Rajasthan State Pollution Control Board on 20th June, 2016. The concerns were raised on local employment, Air and water pollution control measures, Conservation measures for rain and ground water, Social and economic development of area etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee found the final EIA/EMP report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) ESP shall be provided to Rice husk/ Indian coal/ Pet coke fired boiler to control particulate emission within 50mg/Nm³.
- ii) Total fresh water requirement of 1082 m³/day will be met surface water/rainwater management (for 60 days peak monsoon season) and remaining time ground water shall be extracted with prior permission shall be obtained from the CGWA/SGWA.
- iii) Spent wash generation from grain based distillery shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DOGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- iv) Spent wash shall be stored in SS tank. The storage of spent wash shall not exceed 5 days capacity.
- v) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be

made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhubaneswar and SPCB.

- viii) Rice husk/ coal/ pet coke storage shall be done in such a way that it does not get air borne or fly around due to wind.
- ix) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xi) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiii) As proposed, green belt over 2.7 ha of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 20.06.2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs of village and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.

14.6.6 Expansion of Pesticides industry and pesticide specific intermediates (excluding formulations) from 17562 MTA to 26572 MTA at Plot No. 306/3, Phase II, GIDC Estate, District Valsad, Gujarat by M/s Bayer Vapi Private Limited. reg EC.

The project proponent and their consultant (M/s EQMS India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental

protection measures to be undertaken as per Terms of References (TORs) awarded during the 3rd Meeting of the Expert Appraisal Committee (Industry) held during 18- 19th January 2016 for preparation of EIA-EMP report.

All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Bayer Vapi Private Limited has proposed for Expansion of Pesticides industry and pesticide specific intermediates (excluding formulations) from 17562 MTA to 26572 MTA at Plot No. 306/3, Phase II, GIDC Estate, District Valsad, Gujarat. Total Cost of proposed project is Rs. 582.46 Crore. Total capital cost of air pollution and water pollution control measures is Rs. 2,030 Lacs. Total plot area is 29.4 Ha, out of which green belt will be developed in area of 10.6 ha (36 %). It is reported that no wildlife sanctuary /national park/ Reserved/ Protected forest is located within 10 km distance. Daman Ganga River is flowing at a distance of 3.92 km southwest direction of the plant site. Kolak River is flowing at a distance of 2.62 km northeast direction of the plant site.

Following products will be manufactured:

Sr No	Name of Products	Category	Capacity (MT/Annum)		
			Existing	Proposed	Total Proposed after Expansion
1	Cypermethrin	Insecticides	2496	0	2496
2	Alphamethrin	Insecticides	480	0	480
3	Deltamethrin	Insecticides	504	0	504
4	Permethrin	Insecticides	1374(Either individual or total production of 2 products)	0	1374 (Either individual or total production of 2 products)
5	Transfluthrin	Insecticides			
6	Acrinathrin	Insecticides	45	0	45
7	Imidacloprid	Insecticides	720	0	720
8	Beta Cyfluthrin	Insecticides	982.32 (Either individual or total production of 2 products)	0	982.32 (Either individual or total production of 2 products)
9	Cyfluthrin	Insecticides			
10	Ethofumesate	Herbicide	1560 (Either individual or total production of 2 products)	1740 (Either individual or total production of 2 products)	3300 (Either individual or total production of 3 products)
11	NC 9770	Intermediate			
12	Aclonifen	Herbicide	0	180 (Either individual or total production of 2 products)	180 (Either individual or total production of 2 products)
13	Triafamone	Herbicide	0		
14	Sulphonyl Indole	Intermediate			
15	MetaphenoxyBenzaldehyde	Intermediate	3000	0	3000
16	NaCMTS	Intermediate	1200	0	1200

17	Cypermethric Acid Chloride (CMAC)/ Cypermethric Acid (CMA)	Intermediate	2400	0	2400
18	Cypermethric Acid Chloride from DV Ester	Intermediate	600 (Either individual or total production of 2 products)	0	600 (Either individual or total production of 2 products)
19	Acid Chloride Preparation	Intermediate			
20	Metaphenoxy Benzyl Alcohol	Intermediate	1200	0	1200
21	Becisthemic Acid	Intermediate	180	0	180
22	Chrysanthemic Acid	Intermediate	180 (Either individual or total production of 2 products)	0	180 (Either individual or total production of 2 products)
23	Allethrolones	Intermediate			
24	TCA	Intermediate	410.4 (Either individual or total production of 2 products)	129.6	540 (Either individual or total production of 2 products)
25	RTCMA	Intermediate			
26	DM Base	Intermediate	50.4	0	50.4
27	Fipronil	Insecticides	0	540	540
28	Ethiprole	Insecticides	0	1020	1020
29	Fluopyram	Fungicide	0	3000 (Either individual or total production of 2 products)	3000 (Either individual or total production of 2 products)
30	PYACN	Intermediate			
31	Tembotrione	Herbicide	0	1020	1020
32	Pyrasulfotle	Herbicide	0	300	300
33	Amid Chloride	Intermediate	0	1020	1020
34	Flumethrin	Insecticides	0	60	60
35	R & D Products	Not Specified	0	180	180
B. Product not to be produced after expansion					
1	D. Trans Allethrin	Insecticides	180	(-) 180	0
Total Capacity			17562.12	9009.6	26571.72

Sr No	Name of ByProducts	Capacity (MT/Annum)		
		Existing	Proposed	Total Proposed after Expansion
1.	Aluminum Chloride solution	15768	-7	15761
2.	Recovered Methanol*	1669.2	-858.2	811
3.	Potassium Chloride	543.6	-3.6	540
4.	Potassium bromide/Sodium bromide	6654	-2	6652
5.	Sodium bi-Sulphite*	4076.4	-25.4	4051
6.	Sodium Sulphite solution	1620	-45	1575
7.	Organic Solvent (Mono bromo Toluene)	2095.2	-0.2	2095
8.	Ammonia solution	541.56	-541.56	0
9.	Ammonium Chloride Crystal	1620	-6	1614
10.	Potassium Chloride solution.	3000	-47	2953

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during December, 2015 to February, 2016 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (70 µg/m³ to 113 µg/m³), PM_{2.5} (26 µg/m³ to 54 µg/m³), SO₂ (11.5 µg/m³ to 24.6 µg/m³) and NO_x (15.1 µg/m³ to 33 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4 µg/m³, 2.24 µg/m³ and 1.3 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively in the order. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total power requirement will increase from 29000 to 33000 KVA after proposed expansion which will be sourced from Dakshin Gujarat Vij Company Limited. Additional 03 Nos DG sets having capacity 1500 KVA (01 Nos) and 750 KVA (2 Nos) will be used as standby. 03 Nos Fire hydrant pumps will be operated on DG coupled set shaving capacity 325 KVA each in case of emergency only. Existing unit has 4 x 10 TPH boilers with 45 m stack height. One additional 15 TPH Natural gas fired boiler will be used for steam generation. Two stage scrubbers will be provided to control Cl₂ and HCl with online pH meters. PP confirm that Methyl Chloride, Phosphorous Pentoxide, Ammonia will not be generated from proposed expansion.

Total water requirement after proposed expansion will reduced from 3220 m³/day to 2964 m³/day due to recycling of water, which will be met from GIDC supply. Total Wastewater generation will be reduced from 949 m³/day to 900 m³/day but committee suggested to PP that they can further reduce the wastewater quantity by recycling 65 m³/day of wastewater, which will reduce the fresh water and wastewater generation from 2900 m³/day to 835 m³/day. The wastewater will be segregated at source and treated based on its characteristics viz High COD & High TDS and Low COD & Low TDS. High COD & High TDS effluents will be sent to MEE followed by RO while Low COD & Low TDS effluents will be treated in ETP followed by RO. The treated wastewater is discharged to Common Effluent Treatment Plant (CETP) operated by Vapi Green Enviro Ltd. Formerly known as Vapi Waste & Effluent Management Co. Ltd.

ETP sludge, distillation residue, ash from incineration will be disposed of to TSDF. Process residue will be sent for common incineration. Used/spent oil will be sold to Authorized Recyclers/Processors. Discarded containers/ bag will be sent to the authorized re-processor.

After detailed deliberations, the Committee, on the basis of the information provided and presentation made recommended the project for environmental clearance and stipulated following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.
- ii) Adequate stack height shall be provided to gas fired boiler to control particulate emissions.
- iii) Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control process emissions viz. HCl, SO₂, Cl₂, NO_x, HBr. Acidic scrubber shall be

- provided to process vent to control process emissions viz. NH₃ & HC. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipment so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records maintained.
- v) A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per CPCB guidelines. Focus shall be given for prevention of fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to.
- vi) Company shall take all the measures in order to protect the machineries and equipment for pesticide producing unit from ageing.
- vii) Continuous monitoring system for chlorine, HCl, Cl₂ as well as VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- viii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- ix) Solvent management shall be carried out as follows :
- i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
 - 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 should be provided with breather valve to prevent losses.
- x) Total water requirement from GIDC water supply shall not exceed 2900 m³/day and prior permission should be obtained from the Competent authority.

- xi) Industrial effluent generation shall not exceed 900 m³/day. As proposed, wastewater will be segregated at source and treated based on its characteristics viz High COD & High TDS and Low COD & Low TDS. High COD & High TDS effluents will be sent to MEE followed by RO while Low COD & Low TDS effluents will be treated in ETP followed by RO. The treated wastewater shall be discharged to Common Effluent Treatment Plant (CETP) for final treatment.
- xii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xiii) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.
- xiv) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from MPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency. Membership of TSDF for hazardous waste disposal shall be obtained.
- xv) ETP sludge, inorganic waste shall be sent to TSDF site. High calorific value waste such as spent organic shall be sent to cement factory/incinerated.
- xvi) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 as amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xvii) 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.
- xviii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xix) Green belt should be developed at least in 10.6 ha area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- xx) At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with

time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner

- xxi) All the recommendations made in the risk assessment report should be satisfactorily implemented.

Lunch Break: 1:30 to 2.00 PM

2nd Session: Time: 2.00 PM

Reconsideration of EC

14.6.7 Setting up 80 KLD distilleries at Village Belwara, Tehsil & District Moradabad, Uttar Pradesh by M/s Rana Sugar Limited

Proposal was considered by EAC (Industry-2) in its meeting held during 20th to 21st July, 2016 and the Committee desired following information :

- i. As per TOR, spent wash treatment scheme shall be based on concentration followed by incineration as plant is proposed in the Ganga river basin. Accordingly scheme to be modified.
- ii. Give complete details of the existing sugar plant.
- iii. Information on water requirement, wastewater generation, solid waste management including boiler and its pollution control measures shall be furnished.
- iv. Due to inconsistency in monitoring result, surface water quality and air monitoring to be rechecked and reanalysed.

PP has submitted the above additional information. Details of existing sugar plant has been provided. Total water requirement for proposed project is 800 KLD which will be met by Bore-well and recycled water. PP is adopting Zero Liquid Discharge (ZLD) technique which comprises biomethanation, Multi Effect Evaporator (MEE) and Bio Composting. Spent wash will be used for preparing Manure which will be sold to nearby villagers at the subsidised rate and by doing this no waste water will be released to nearby areas. Boiler ash collected and sold to brick manufacturers. MEE treated spent wash will be used for bio composting. Online effluent quality monitoring system will be installed. It was stated that bio-composting is being employed as per latest CPCB guidelines.

After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i) ESP along with stack of adequate height shall be provided to Bagasse/Coal/Rice Husk/Biogas fired boiler (25 TPH) to control particulate emission within 50mg/Nm³.
- ii) Total fresh water requirement from borewell shall be 800 m³/day for sugar and m³/day for distillery unit. Necessary permission shall be taken from the CGWB/CGA.
- iii) Spent wash generation from molasses based distillery shall not exceed 8 KI/KI of alcohol. The spent wash from molasses based distillery shall be treated through Bio digester followed by Multiple effect Evaporator (MEE). The Concentrated biomethanated spentwash will be sent to biocomposting by utilizing the press mud from sugar plant. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- iv) Spent wash shall be stored in impervious RCC lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 30 days capacity.
- v) As proposed, no effluent from distillery shall be discharged outside the plant premises and Zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area and compost yard shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhopal and SPCB.
- viii) Bagasse/coal storage shall be done in such a way that it does not get air borne or fly around due to wind.
- ix) Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- x) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank. DMP shall be implemented.
- xi) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be

strengthened and the regular medical test records of each employee shall be maintained separately.

- xii) Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiii) As proposed, green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 29th January, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

14.6.8 Proposed expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA at BD Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL – reg EC.

Proposal was considered by EAC (Industry-2) in its meeting held during 23rd to 24th August, 2016 and the Committee desired following information :

1. Variation has been observed in products list reflected in EIA report vis a vis presentation. Comparison of product in tabular form w.r.t. existing and proposed expansion to be given properly.
2. Reasons for high baseline value of PM10 to be given.
3. 1 Month VOC data to be submitted
4. Water balance chart of the existing and proposed unit to be furnished properly.
5. Issues raised during public hearing and commitments made by the project proponent in the form of tabular chart with financial budget for complying with the commitments made.
6. Year wise detailed plan to be redrawn upto 2.5% of project cost out of the issues emerged from public consultation.
7. Detailed traffic management plan to be drawn.

8. Commitment along with timeline for installing mechanical scrapper in oil and grease trap/tank.

PP has submitted the above additional information. Product list in tabular form w.r.t. existing and proposed expansion has been submitted. PM10 concentration has been found above NAAQS at three locations i.e HPCL Colony West, Gawanpada, Terminal area Wadala. The reasons for high baseline value has been reported such as Vehicular movement and vacant triangular plot near freeway. One month VOC data has been submitted. Water balance chart of the existing and proposed unit has been submitted. Year wise detailed plan upto 2.5% of project cost out of the issues emerged from public consultation has been submitted. . PP has proposed for online 'Oil & Grease' analyzer in API separator final discharge which will be integrated with pneumatic rotating drum skimmers. On discussion on traffic management, PP confirmed that Proper Traffic management plan will be drawn be submitted within 3 months.

After detailed deliberations, the Committee found the EIA Report adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. M/s HPCL shall comply with standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
- ii. Continuous on-line stack monitoring for SO₂, NO_x and CO of all the stacks shall be carried out.
- iii. The process emissions [SO₂, NO_x, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
- iv. Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.
- v.
- vi. SO₂ emissions after expansion from the plant shall not exceed 1579 kg/hr and further efforts shall be made for reduction of SO₂ load through use of low sulphur fuel. Sulphur recovery units shall be installed for control of H₂S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.

- vii. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- viii. Flare gas recovery system shall be installed.
- ix. Ambient air quality monitoring stations, [PM₁₀, PM_{2.5}, SO₂, NO_x, H₂S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Kerala State Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.
- x. Total freshwater requirement from BMC after expansion of proposed project shall not exceed 538 m³/hr and prior permission shall be obtained from the competent authority.
- xi. As proposed, Industrial effluent generation shall not exceed 178 m³/hr after proposed expansion and treated in the integrated effluent treatment plant. Treated effluent shall be recycled/reused within the factory premises. Domestic sewage shall be treated in sewage treatment plant (STP).
- xii. Automatic mechanical Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
- xiii. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

14.6.9 Proposed expansion of oil terminal at Jasidh Industrial area, Jasidh, district Deogarh, Jharkhand by M/s IOCL – reg EC.

The project proponent and their consultant (M/s ABC Techno labs India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded by SEIAA vide their letter no EC/ SEIAA/2015-16/798/2015/593/ dated 09.09.2015 for preparation of EIA-EMP report.

All the Isolated Storage & Handling of Hazardous Chemicals are listed at S.N. 6(b) under Category 'B' but due to unavailability of SEIAA, Jharkhand appraised at the Central level.

M/s IOCL has proposed for expansion of oil terminal at Jasidih Industrail area, Jasidh, diustrict Deoghar, Jharkhand. There are no National Park/ ecological sensitive locations, archaeological monuments and places of tourist interests within 10 km radius. No reserved or protected forest block exists within 10 km radius.

Total 27 Acre land area will be required, out of which green belt will be developed in 2.7 Acre area. Cost of project is Rs. 22.03 Crores. Following are the list of existing and proposed Utilities:

Proposed Units		
S. No.	Product	Capacity
1.	MS Tank	1x10592 KL
2.	HSD Tank	1x9025 KL
3.	SKO Tank	1x2100 KL
4.	Tank Truck Filling Bays	4 nos bottom filling loading bays
Existing Units		
Class A		
S. No.	Product	Capacity
1.	MS Tank	2x4241 KL + 1x2212 KL = 10694 KL
2.	Ethanol Tank	3x70 KL = 210 KL
3.	Transmix MS	1x500 KL = 500 KL
Class B		
1.	SKO Tank	1x3006 KL + 2x938 KL = 4882 KL
2.	HSD Tank	2x5303 KL + 2x2604 KL = 15814 KL
3.	HSD Tank	1x20 KL (U/G) = 20 KL

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during February 2016 to April 2016 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (28.4 µg/m³ to 40.1 µg/m³), SO₂ (5.1 µg/m³ to 11 µg/m³) and NO_x(8.1 µg/m³ to 22 µg/m³) respectively. Emissions from the DG sets are directed through exhaust pipes at a adequate stack height as per CPCB guidelines. Fresh water requirement will be increased from 6m³/day to 12 m³/day. The domestic wastewater is being treated in the existing Sewage Treatment Plant (STP). Plant will be based on Zero Liquid Discharge.

Public hearing was exempted as project is located in notified industrial area.

After detailed deliberation, Committee sought following additional information:

1. Certified compliance report of the existing EC duly inspected by MoEF&CC's respective Regional Office
2. Item-wise detailed plan with time schedule w.r.t. ESR activities for 2.5% of project cost.

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website

14.7 Terms of Reference (TOR)

14.7.1 Setting up of 60 KPLD sugarcane juice and molasses based distillery Survey no 47/1, 47/2, 48, 49, 50, 51, 52, 53, Mirwadi, Dahitane, Tal. Daund, Dist. Pune, Maharashtra by M/s Kunjir Bioenergy India LLP.-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Kunjir Bioenergy India has proposed for Setting up of 60 KPLD sugarcane juice and molasses based distillery Survey no 47/1, 47/2, 48, 49, 50, 51, 52, 53, Mirwadi, Dahitane, Tal. Daund, Dist. Pune, Maharashtra. It is reported that no national Park, wildlife Sanctuary, biosphere reserve falls within 10 Km of project site. Mula-mutha river and bhima river are flowing at a distance of 1.56 km and 5.9 Km respectively from the project site.

Total plot area is 45.12 Acres Ha. out of which 17.78 Acres area has been earmarked for green belt. Total cost of project is Rs 69.3576 crores. Capital cost and recurring cost per annum earmarked for Environmental Protection Measure is Rs 2.28 crores and Rs 0.36 Crore respectively. The proposed project has an employment potential of 100. Followings products will be manufactured:

S. No.	Unit	Proposed capacity
1	ENA/RS/AA	60 KLPD

Total power requirement will be 1.140 MW which will be sourced from incineration boiler. Indian coal fired boiler of 22.5 TPH capacity will be used. ESP will be used to control particulate emission.

Total fresh water requirement for the proposed unit will be 600 m³/day , which will be sourced from Mula-Mutha river. Spent wash will be treated in integrated evaporator followed by incineration boiler. Plant is based on ZLD.

Ash will be sold to brick manufacturer. Yeast and CPU sludge will be dried and used as fertilizer or it will be incinerated along with spent wash in the boiler.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

B. Specific TOR

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.

3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of piezometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

B. Additional TOR

- I. 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.

It was recommended that 'TORs' along with Public Hearing prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.2 Expansion of Sugar Plant from 3500 TCD to 10000 TCD and cogeneration unit (14 MW to 60 MW) and establishment of 120 KLPD distillery along with incineration boiler (5 MW) at Sy No 241/C3, 158/2, 251/a, 257/1, 248/1, 267/B, 248/B/1b, 263/2a, 269/C, 240/A, 247/A, 241/B, 243/A,247/B, 247/D, 241/C1, 241/C2 of Birrabbi Village, 157/3, 157/1 at Village Kotihal, Taluka Hoovina Hadagali, District Bellary, Karnataka by M/s Mylar Sugars. Reconsideration of TOR

Proposal was considered by EAC (Industry-2) in its meeting held during 20th to 21st July, 2016 and committee suggested to PP to first commission the plant and get full details of flora and fauna and also analyze the impact of 3500 TCD of existing sugar plant on nearby reserved forest before consideration of expansion.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Mylar Sugars has proposed for expansion of Sugar Plant from 3500 TCD to 10000 TCD and cogeneration unit (14 MW to 60 MW) and establishment of 120 KLPD distillery along with incineration boiler (5 MW) at Sy No 241/C3, 158/2, 251/a, 257/1, 248/1, 267/B, 248/B/1b, 263/2a, 269/C, 240/A, 247/A, 241/B, 243/A,247/B, 247/D, 241/C1, 241/C2 of Birrabbi Village, 157/3, 157/1 at Village Kotihal, Taluka Hoovina Hadagali, District Bellary, Karnataka.

As per Form-1, it is reported that no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. However, Tumbinakeri reserved forest is situated at a distance of 10 m from the project site. River Tunga Bhadra is flowing at a distance of 6.5 km and Hirehadagali Lake is situated at a distance of 2.5 km from the project site.

Total plot area is 64 Acres, of which 21.5 Acres of the area will be developed as greenbelt. Proposed expansion will be done in existing sugar mill premises hence no additional land will be required. The proposed project has an employment potential of 350. Followings products will be manufactured:

S. No.	Unit	Existing Capacity	Proposed Expansion	Total Capacity after Expansion
1	Distillery	0	120	120
2	Sugar Mill	3500 TCD	6500 TCD	10000 TCD
3	Cogeneration Power Plant	14 mw	46 MW (incidental generation)	60 MW

During construction power requirement will be 500 kwh and will be sourced from KPTCL. After construction, power will be met from own co-gen unit. Bagasse fired boiler of 5 MW capacity will be used to generate steam.

Fresh water requirement during season for 10000 TCD sugar and 60 MW cogen, 120 KLPD distillery along with 5 MW incineration boiler will be 783 m3/day and during off season will be 3115 m3/day. Fresh water requirement for distillery unit will be 2166 m3/day. Source of water will Tunga-Bhadra river.

Spent wash will be treated through evaporation concentration and incineration. Solid waste generated from the industry include Pressmud, ash from sugar industry which is used mixed in the required proportions and sold as manure. Bagasse generated will be used as fuel in the cogeneration boiler.

However, After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR:

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

Sugar

15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and pressmud.
23. Flyash management plan for coal based and bagasse and action plan

24. Details on water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total Suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM 2.5, SO₂*, NO_x*, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (* - As applicable)

B. Additional TOR

- i. 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.
- ii. Only bagasse fired boiler to be used.
- iii. Details of flora-fauna of the reserved forest to be incorporated in EIA-EMP report.
- iv. Cumulative impact on reserved forests and its flora fauna to be assessed in combination of existing sugar unit.
- v. Reduce fresh water requirement of each units and give unit wise break up with detailed plan.
- vi. ETP of sugar plant shall be designed to meet the standard of 30 mg/l of BOD at its outlet in all seasons.
- vii. Compliance of CTO of existing sugar plant to be confirmed from SPCB.
- viii. Appropriate green belt plan to be submitted

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.3 Setting up of pesticide products and dye & resins at Plot No. 119 & 120, Ranpur road, GIDC Dhandhuka, Dist: Ahmedabad, Gujarat by M/s. Veer Polychem- reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All pesticide and Pesticide Intermediates are listed at 5 (b) of EIA, Notification 2006 and to be appraised at central level.

M/s Veer Polychem has proposed for setting up of adding pesticide products and dye & resins at Plot No. 119 & 120, Ranpur road, GIDC Dhandhuka, Dist: Ahmedabad, Gujarat. It is reported that there are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km.

Existing plot area is 4051 m². No additional land will be required for proposed expansion, of which greenbelt will be developed in the area of ha (33%). Cost of the proposed expansion project is Rs.3 crore, out of which cost earmarked for EMP will be 0.5 Crores. The proposed expansion has an employment potential of 60. Followings are the list of existing and proposed products:

S. NO	Name of product	Quantity (MTPM)		
		Existing	Proposed	Total
1	Copper Sulphate	100	0	100
2	Solvent Black 5(Nigrosine Black SS)	0	300	300
3	Solvent Black 7(Nigrosine Black Oil Soluble)	0	100	100
4	Acid Black 2 (Nigrosine Black water Soluble)	0	100	100
5	Plaster of Paris	0	220	220
6	Phenol Formaldehyde Resin	0	50	50
7	PF Moulding Powder	0	50	50
8	2, 4-D Acid (Technical)	0	20	20
9	2, 4-D Ethyl Ester(Technical)	0	20	20
	Total	100	860	960

Total power requirement will be 125 KVA which will be sourced from UGVCL. Existing unit has one wood fired Hot air Generator of 15 MT/month capacity with Cyclone separator to control air pollution attached with 11 m stack height. Additional Two Coal/ briquette fired boiler of capacity 0.5 TPH will be installed with Cyclone separator & bag filter to control air pollution and will be attached to 21m stack height. DG set of capacity 25 KVA will be used as stand by. HSD will be used as a fuel in DG Set. Two stage water scrubber will be used to control process emission from reaction vessel.

Total Water requirement will be increased from 4 m³/day to 88.65 m³/day, out of which fresh water requirement will be 26.25 m³/day which will be met through GIDC water supply. Against which wastewater generation will be increased from 1 m³/day to 68.1 m³/day. Waste water generated from dyes and resin process will be completely recycle in close loop and waste water from pesticide products, washing and utility will be sent to ETP . After primary treatment it will be evaporated and recovered condensate will be reused. Domestic effluent is disposed into septic tank followed by soak pit. ETP sludge and evaporation salt will be sent to TSDF Site for final disposal. Discarded container sold to the authorized recycler. Used oil will be sold to authorized refiners.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
15. Commitment that no banned pesticides will be manufactured.

II. Additional TOR

- I. 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.
- II. Zero Liquid discharge system to be adopted.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.4 Setting up of resins manufacturing plant alongwith laminated sheets at Survey No.: 113/3, Paiki 1, Plot no.1 & 2, Village: Bhunava, Taluka: Gondal, District: Rajkot, Gujarat by M/s Multiply Inc.-reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic organic chemicals located outside the

notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Multiply Inc., has proposed for Setting up of resins manufacturing plant alongwith laminated sheets at Survey No.: 113/3, Paiki 1, Plot no.1 & 2, Village: Bhunava, Taluka: Gondal, District: Rajkot, Gujarat. It is reported that there are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km.

Total plot area is 12026 m², out of which greenbelt will be developed in the area of 3960 m² (33%). Cost of the proposed expansion project is Rs 1.25 crore, out of which cost earmarked for EMP will be 0.35 Crores. The proposed expansion has an employment potential of 75. Followings products will be manufactured;

S.NO	Name of the Product	Proposed Capacity(MT/Month)
1	Phenol Formaldehyde Resin	250
2	Melamine Formaldehyde Resin	250
3	Urea Formaldehyde Resin	150
4	Laminated Sheets	1,90,000

Power requirement will be 180 HP which will be sourced from PGVCL. Coal/ Briquettes fired Thermic fluid heater of capacity 10 lakh kcal/hr and Steam boiler of capacity 4 TPH will be used and cyclone separator followed by bag filter will be used to control particulate emission. with adequate stack height. One DG set of 180 KVA will be used.

Fresh water requirement for proposed project will be 54.3 m³/day, which will be sourced from Borewell. Process effluent, Boiler blowdown, RO reject, Cooling tower blowdown will be collected in intermediate water collection tank and then it will be evaporated in TFH based evaporation system followed by condenser. waste water will be taken to Filter press/ Nutch filter for chemical sludge separation. Plant will maintained Zero liquid discharge.

ETP sludge and Evaporation salt will be sent to TSDF Site. Discarded container sold to the authorized vendor. Used oil will be sent to registered refiners.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, etc., (* - as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.

5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i. 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.
- ii. ZLD scheme to be drawn

It was recommended that '**TORs' along with Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.5 Proposed Agrochemical and Intermediates Manufacturing Plant at Sandila II, Plot B 15-22, UPSIDC, Industrial Area, Tehsil Sandila, Hardoi, Uttar Pradesh by M/s Swarup Chemicals Pvt. Ltd.-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Pesticide related industries are listed at S.N. 5(b) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Swarup Chemicals Pvt. Ltd. has proposed for Setting up of Agrochemical and Intermediates Manufacturing Plant at Sandila II, Plot B 15-22, UPSIDC, Industrial Area, Tehsil Sandila, Hardoi, Uttar Pradesh. It is reported that there are no National Parks, water bodies, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km.

Total plot area is 2.693 ha, out of which 33 % area will be developed as greenbelt. Cost of the proposed expansion project is Rs 15 crore, Capital cost and recurring cost per annum earmarked for Environmental Protection Measure will be Rs 2 crores and Rs 30 Crore

respectively. The proposed expansion has an employment potential of 75. Following products will be manufactured;

S. No	Name of product	Capacity MT/Month
1.	Kresoxym – Methyl	25
2.	Dinotefuron	30
3.	Difenthiuron	50
4.	Pyriproxyfen	50
5.	ZDC	100
6.	Ziram	100
7.	Thiram	100
8.	captan	100
9.	Folpet	100
10.	Metam Sodium	200
11.	Zineb	50
Intermediates		
12.	pthalide	100
13.	N-N Dimethyl carbamoyl chloride	50
14.	N-N Dimethyl thiocarbamoyl chloride	50
Formulation		
15.	Solid Formulation-WDG,WP	500
16.	Liquid Formulation-EC,SL	1000

Power requirement during operational phase will be 800 KVA which will be sourced from UP State Electricity Board and 2 DG Set of 350 KVA will be used as a stand by. Rice husk fired Boiler of 3 TPH capacity will be installed.

Total Water requirement for proposed project will be 90 m³/day, which will be sourced from ground water. Total waste water generation will be 60 m³/day out of which industrial waste water generation will be 48 m³/day, which will be treated in ETP.

Process wastes/ residue, Chemical sludge containing residue insecticides and Date expired and off-specification insecticides will be collected and stored at separate identified place and suitably disposed off to authorized agencies.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR:

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH₃*, chlorine*, HCl*, HBr*, H₂S*, HF*, CS₂ etc., (* - as applicable)

5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

B. Additional TOR

- i. 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.
- ii. Feasibility of bio pesticide to be worked out alongwith proposed pesticide products

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.6 Setting up of 120 KLPD distillery (Rectified Spirit/ Ethyl alcohol/ Extra neutral Alcohol/ Ethanol) with incineration boiler to generate 5 MW power at Sy No 181/1, 181/2, 181/3, 181/4, 181/5, 185/1, 185/2, M Chandragi Village, Ramdurg Taluk, Belagavi District, Karnataka M/s Yaragatti Sugars Pvt Ltd-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Yaragatti Sugars Pvt Ltd has proposed for Setting up of 120 KLPD distillery (Rectified Spirit/ Ethyl alcohol/ Extra neutral Alcohol/ Ethanol) with incineration boiler to generate 5MW power at Sy No 181/1, 181/2, 181/3, 181/4, 181/5, 185/1, 185/2, M Chandragi Village, Ramdurg Taluk, Belagavi District, Karnataka. It is reported that no

national Park, wildlife Sanctuary, biosphere reserve falls within 10 Km of project site. Gudchi Reserved forest is situated at a distance of 7.2 Km and Karakoppa Halla is at a distance of 3.5 Km from the project site.

Total plot area is 33 Acre 39 Guntas, out of which 13 Acres of the area will be developed as greenbelt. Capital Cost of project is Rs 110.01 crores. The proposed project has an employment potential of 340. Followings products will be manufactured:

S. No.	Unit	Proposed capacity
1	ENA/RS/Ethyl alcohol/Ethanol	120 KLPD
2	Power	5 MW

Total power requirement will be 55 Kwh for construction phase sourced from KPTCL and 3 MW during operational phase which will be sourced from incineration boiler. A coal fired boiler of 40 TPH capacity will be used and will be attached to ESP with 70 m stack height. One DG set of 1500 KVA capacity will be used, which attached to stack of 30 m height.

Total water requirement for the proposed unit will be 2166 m³/day out of which fresh water requirement will be 1166 m³/day, which will be sourced from Malprabha river/ borewell. Spent wash will be treated through evaporation concentration followed by incineration. Boiler ash and Yeast sludge will be used as Manure. Used oil will be reused.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR:

- 1 List of existing distillery units in the study area along with their capacity and sourcing of raw material.
- 2 Number of working days of the distillery unit.
- 3 Details of raw materials such as molasses and their source with availability.
- 4 Details of the use of steam from the boiler.
- 5 Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
- 6 Commitment for spent wash generation within 6-8 KL/KL of alcohol produced.
- 7 Proposed effluent treatment system for molasses distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
- 8 Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
- 9 Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank and composting yard.
- 10 Action plan to control ground water pollution.
- 11 Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.

- 12 Action plan to control odour pollution.
- 13 Arrangements for installation of continuous online monitoring system (24x7 monitoring device).

B. Additional TOR

- i. 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.
- ii. Only surface water to be used.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.7 Expansion of Viscose Staple Fibre (1,44,175 TPA to 2,33,600 TPA), Sulphuric Acid (1,47,825 TPA to 2,20,825 TPA), Captive Power Plant (30 MW to 55 MW) along with production of Solvent Spun Cellulosic Fibre (36,500 TPA) at Village - Mehatwas, Birlagram, Tehsil - Nagda, District - Ujjain , Madhya Pradesh by M/s. Grasim Industries Ltd. (Staple Fibre Division)-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Rayon based manmade fibre manufacturing projects are listed at S.N. 5(d) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s. Grasim Industries Ltd. (Staple Fibre Division) has proposed for Expansion of Viscose Staple Fibre (1,44,175 TPA to 2,33,600 TPA), Sulphuric Acid (1,47,825 TPA to 2,20,825 TPA), Captive Power Plant (30 MW to 55 MW) along with production of Solvent Spun Cellulosic Fibre (36,500 TPA) at Village - Mehatwas, Birlagram, Tehsil - Nagda, District - Ujjain , Madhya Pradesh. Existing plant was established in 1954. It is reported that there are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km. Project involves following environmental sensitivities:-

1. Chambal river (0.1 Km)
2. Bagerl Nadi (1 Km)
3. Khajuri Nala (1.5 Km)
4. Banbana Talab (2.5 Km)

Existing plant area is 196.08 ha, out of which greenbelt has already been developed in the 77.04 ha area. Cost of the proposed expansion project is Rs 2500 crore. Capital cost and recurring cost per annum earmarked for Environmental Protection Measure is Rs 100 crores and Rs 10 Crore respectively. The proposed expansion has an employment potential of 2820. Followings products will be manufactured;

S.NO	Name of the Product	Existing Capacity(MT/Month)	Additional capacity	Total capacity after expansion
1	Viscose Staple Fibre(TPA)	1,44,175	89,425 (Debottlenecking:16425 New machine:73000)	2,33,600
2	Solvent spun cellulosic fibre (TPA)	Nil	36,500	36,500
3	Sulphuric Acid (TPA)	1,47,825	73,000	2,20,825
4	Carbon Disulphide (TPA)	31,025	Nil	31,025
5	Sodium sulphate (By Product)	93,714	67,500	1,61,214
6	captive power plant (MW)	30	25	55

Total Power requirement will be increased from 30 MW to 55 MW, which will be sourced from Captive Power Plant. Steam requirement will be increased from 3160 TPD to 6120 TPD, will be sourced from own captive production. Indian coke/ Imported coal/ petcoke will be used in 55 MW capacity CPP. ESP will be used to control air pollution from CPP with 61 m stack height. Alkali Scrubber & Mist Eliminator will be used to control process emission from Sulphuric Acid Plant. Adequate stack height as per CPCB guidelines & Control technology for CS2 recovery will be used to control air emission from Viscose Plant.

Existing fresh water requirement is 32,200 m³/day. Additional fresh water requirement will be 22,678 m³/day. Fresh water will be sourced from Chambal River (Dams & Reservoirs). Total waste water generation will be 36000 m³/day, Out of which industrial effluent generation will be 32,500 m³/day. Industrial effluent will be sent to ETP. Treated effluent will be discharged into drain leading to Chambal river. Domestic wastewater will be treated in STP followed by RO. Treated RO water will be reused in process. ETP waste will be sent to TSDF Site. for final disposal. Discarded container sold to the authorized vendor. Used oil will be sent to registered refiners.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR

1. Details on requirement of raw materials (monomers, solvents, catalysts, *etc.*), its source and storage at the plant.
2. Details on raw material preparation for polymer production process.
3. Details on polymer production process – polymerization, polymer recovery, finishing, polymer spinning and other process in case of specific end-product applications, *etc.*
4. Details of the proposed methods of water conservation and recharging.
5. Details on air emission (SO_x, NO_x, VOC, CO, CO₂, *etc.*) sources – point sources, fugitive emission sources, continuous air emission sources, intermittent air emission sources, *etc.*
6. Details on chemical releases – acetonitrile, CS₂, ethylene, ethylene glycol, HCl, methanol, *etc.*, and its management.
7. Details on existing ambient air quality and expected, emissions for PM₁₀, PM 2.5, SO₂^{*}, NO_x^{*}, CO₂^{*}, CO^{*}, CS₂^{*}, VOC^{*}, H₂S, *etc.*, and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (* - As applicable).
8. Risk assessment should also include leakages & proposed measures for risk reduction.
9. Details of sodium sulphate recovery.

B. Additional TOR

- i. 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.
- ii. Zinc recovery plan to be worked out.
- iii. Use of alternate fuel to be explored
- iv. Proper plan for water reduction to be submitted.
- v. CS₂ to be monitored in ambient air with 5 km of vicinity of project site.

It was recommended that ‘**TOR**’ along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the ‘Generic Structure of EIA’ given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.8 Expansion of Viscose Staple Fibre (1,27,750 to 2,55,500 TPA), Sulphuric Acid (1,38,700 to 2,19,000 TPA), Carbon-Disulphide (54,750 to 65,700 TPA) along with Proposed Solvent Spun Cellulosic Fibre (or Excel Fibre) (36,500 TPA) and Captive Power Plant (55 MW) at Plot No. 1, GIDC Industrial Area, Vilayat, Tehsil: Vagra, District: Bharuch, Gujarat by M/s. Grasim Industries Ltd. (Grasim Cellulosic Division)-reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Rayon based manmade fibre manufacturing projects are listed at S.N. 5(d) under category ‘A’ and appraised by Expert Appraisal Committee (I).

MoEF&CC has issued EC vide letter no. J-11011/463/2007-IA-II(I) dated 20th December, 2007 for green field viscous staple fibre and SEIAA has also issued EC vide letter SEIAA/GUJ/EC/1(d), 4(d) & 5(f)/96/2011 dated 30th May, 2011.

M/s. Grasim Industries Ltd. (Grasim Cellulosic Division) has proposed for Expansion of Viscose Staple Fibre (1,27,750 to 2,55,500 TPA), Sulphuric Acid (1,38,700 to 2,19,000 TPA), Carbon-Disulphide (54,750 to 65,700 TPA) along with Proposed Solvent Spun Cellulosic Fibre (or Excel Fibre) (36,500 TPA) and Captive Power Plant (55 MW) at Plot No. 1, GIDC Industrial Area, Vilayat, Tehsil: Vagra, District: Bharuch, Gujarat. It is reported that there are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km. Narmada river is flowing at a distance of 9 Km from project site.

Existing plant area is 222.63 ha. No additional land will be required for proposed expansion, out of which greenbelt will be developed in the area of 66.78 ha. Cost of the proposed expansion project is Rs 2560 crore. Capital cost and recurring cost per annum earmarked for Environmental Protection Measure is Rs 150 crores and Rs 15 Crore respectively. The total man power requirement after proposed expansion will be 2500. Followings products will be manufactured;

S.NO	Name of the Product	Existing Capacity(MT/Month)	Additional capacity	Total capacity after expansion
1	Viscose Staple Fibre(TPA)	1,27,750	1,27,750 (Debottlenecking:36,500 New machines:91,250)	2,55,500
2	Solvent spun cellulosic fibre (TPA)	Nil	36,500	36,500
3	Sulphuric Acid (TPA)	1,38,700	80,300	2,19,000
4	Carbon Disulphide (TPA)	54,750	10,950	65,700
5	Sodium sulphate (By Product)	83,038	83,038	1,66,076
6	captive power plant (MW)	NIL	55	55

Total Power requirement will be increased from 30 MW to 55 MW, which will be sourced from Captive Power Plant. Steam requirement will be increased from 3160 TPD to 6120 TPD, will be sourced from own captive production. Indian coke/ Imported coal/ petcoke/ bio mass will be used as a fuel in 55 MW capacity CPP. ESP will be used to control air pollution from CPP with adequate stack height. Alkali Scrubber will be used to control process emission from Sulphuric Acid Plant. Alkali Scrubber will be used in Carbon-Disulphide Plant with 100 m stack height. Adequate stack height as per CPCB guidelines & Control technology for CS₂ recovery will be used to control air emission from Viscose Plant.

Existing fresh water requirement is 25000 m³/day. Additional fresh water requirement will be 10000 m³/day. Fresh water will be sourced from Narmada River. Total waste water generation will be 29,350 m³/day out of which total industrial effluent generation after expansion will be 28550 m³/day, which will be sent to ETP for treatment and waste water will be discharged into bed lay of bay of kambhat and domestic effluent would be sent to septic tank followed by soak pit. ETP waste will be sent to TSDF Site. Discarded container sold to the authorized vendor. Used oil will be sent to registered refiners.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR

1. Details on requirement of raw materials (monomers, solvents, catalysts, *etc.*), its source and storage at the plant.
2. Details on raw material preparation for polymer production process.
3. Details on polymer production process – polymerization, polymer recovery, finishing, polymer spinning and other process in case of specific end-product applications, *etc.*
4. Details of the proposed methods of water conservation and recharging.
5. Details on air emission (SO_x, NO_x, VOC, CO, CO₂, *etc.*) sources – point sources, fugitive emission sources, continuous air emission sources, intermittent air emission sources, *etc.*
6. Details on chemical releases – acetonitrile, CS₂, ethylene, ethylene glycol, HCl, methanol, *etc.*, and its management.
7. Details on existing ambient air quality and expected, emissions for PM₁₀, PM 2.5, SO₂^{*}, NO_x^{*}, CO₂^{*}, CO^{*}, CS₂^{*}, VOC^{*}, H₂S, *etc.*, and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (* - As applicable).
8. Risk assessment should also include leakages & proposed measures for risk reduction.
9. Details of sodium sulphate recovery.

B. Additional TOR

- i. Public hearing is exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified industrial area.
- ii. Certified compliance report of existing EC to be submitted.
- iii. CS₂ to be monitored within 5 km radius of the project site
- iv. Proper plan for water reduction to be submitted.
- v. Zinc recovery plan to be submitted.

It was recommended that '**TOR**' along with exemption of Public Hearing prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

14.7.9 Expansion of Viscose Staple Fibre (1,27,750 to 2,33,600 TPA), Sulphuric Acid (1,46,000 to 2,19,000 TPA), Carbon-Disulphide (21,600 to 37,295 TPA) and Captive Power Plant (25 to 45 MW) at Birladham, Village: Kharach, Tehsil: Hansot, District: Bharuch (Gujarat) by M/s. Birla Cellulosic (A Unit of Grasim Industries Ltd.)-reg TOR

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Rayon based manmade fibre manufacturing projects are listed at S.N. 5(d) under category 'A' and appraised by Expert Appraisal Committee (I).

MoEF&CC has issued EC vide letter no. J-11011/130/2006-IA-II(I) dated 15th January 2007 and SEIAA has issued EC vide letter SEIAA/GUJ/EC/5(d) & 1(d)/339/2016 dated 20th May, 2016.

M/s. Birla Cellulosic (A Unit of Grasim Industries Ltd.) has proposed for Expansion of Viscose Staple Fibre (1,27,750 to 2,33,600 TPA), Sulphuric Acid (1,46,000 to 2,19,000 TPA), Carbon-Disulphide (21,600 to 37,295 TPA) and Captive Power Plant (25 to 45 MW) at Birladham, Village: Kharach, Tehsil: Hansot, District: Bharuch (Gujarat). It is reported that there are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km. Kim river is flowing at a distance of 0.5 Km from project site.

Existing plant area is 230 ha. No additional land will be required for proposed expansion project, out of which greenbelt will be developed in the area of 76 ha. Cost of the proposed expansion project is Rs 1800 crore. Capital cost and recurring cost per annum earmarked for Environmental Protection Measure is Rs 54 crores and Rs 10 Crore respectively. The total man power requirement after proposed expansion will be 950. Followings products will be manufactured;

S.NO	Name of the Product	Existing Capacity(MT/Month)	Additional capacity	Total capacity after expansion
1	Viscose Staple Fibre(TPA)	1,27,750	1,05850 (Debottlenecking:14,600 New machines:91,250)	2,33,600
2	Solvent spun cellulosic fibre (TPA)	1,09,500	Nil	1,09,500
3	Sulphuric Acid (TPA)	1,46,000	73,000	2,19,000
4	Carbon Disulphide (TPA)	21,600	15,695	37,295

5	Sodium sulphate (By Product)	96,000	79,751	1,75,751
6	captive power plant (MW)	25	20	45
7	captive power plant (MW) (for Excel fibre)	71	Nil	71

Total Power requirement will be increased from 96 MW to 116 MW, which will be sourced from Captive Power Plant. Steam requirement will be increased from 3160 TPD to 5120 TPD, will be sourced from own captive production. Indian coke/ Imported coal/ petcoke will be used as a fuel in 116 MW capacity CPP. ESP and lime dosing technique will be used to control air pollution from CPP with 61 m stack height. Alkali Scrubber and Mist eliminator will be used to control process emission from Sulphuric Acid Plant. Alkali Scrubber will be used to control process emission from Carbon-Disulphide Plant with 40m stack height. Adequate stack height as per CPCB guidelines & Control technology for CS₂ recovery will be used to control air emission from Viscose Plant.

Existing fresh water requirement is 27350 m³/day. Additional fresh water requirement will be 13600 m³/day. Fresh water will be sourced from Kim River. Total waste water generation will be 27,480 out of which industrial wastewater generation will be 25,080 which will be sent to ETP for treatment and waste water will be discharged into bed lay of bay of kambhat and domestic effluent will be sent to septic tank followed by soak.

ETP waste, Spent Catalyst, Spent Resin and Sulphur /Deashing Sludge will be sent to TSDF Site. Discarded container sold to the authorized vendor. Used oil will be sent to registered re-processors. Fly ash will be sold to Brick & Cement manufacturers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's web site) for preparation of EIA-EMP report:

A. Specific TOR

1. Details on requirement of raw materials (monomers, solvents, catalysts, *etc.*), its source and storage at the plant.
2. Details on raw material preparation for polymer production process.
3. Details on polymer production process – polymerization, polymer recovery, finishing, polymer spinning and other process in case of specific end-product applications, *etc.*
4. Details of the proposed methods of water conservation and recharging.
5. Details on air emission (SO_x, NO_x, VOC, CO, CO₂, *etc.*) sources – point sources, fugitive emission sources, continuous air emission sources, intermittent air emission sources, *etc.*
6. Details on chemical releases – acetonitrile, CS₂, ethylene, ethylene glycol, HCl, methanol, *etc.*, and its management.

7. Details on existing ambient air quality and expected, emissions for PM10, PM 2.5, SO₂*, NO_x*, CO₂*, CO*, CS₂*, VOC*, H₂S, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (* - As applicable).
8. Risk assessment should also include leakages & proposed measures for risk reduction.
9. Details of sodium sulphate recovery.

B. Additional TOR

- i. 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.
- ii. Effluent characteristic to be analysed and submitted.
- iii. Zinc recovery plan to be submitted.
- iv. Proper plan for water reduction to be submitted.
- v. CS₂ to be analysed within 5 km radius of project site.
- vi. Certified compliance report of existing EC to be submitted.

It was recommended that '**TOR**' along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.10 Proposed 30 KLPD Molasses based Distillery along with 2 MW Incidental power generation, Expansion of Sugar Mill (2500 TCD to 7500 TCD) & Co-Generation Power Plant (4.5 MW to 25 MW) within the Existing Plant Premises at Village Arala-Karanguli, Tehsil Shirala, District Sangli, Maharashtra by M/s. Ninaidevi Sakhar Karkhana (A Unit of Dalmia Bharat Sugar and Industries Limited)-reg TOR.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All molasses based distillery are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s Ninaidevi Sakhar Karkhana (A Unit of Dalmia Bharat Sugar and Industries Limited) has proposed for Setting up of 30 KLPD Molasses based Distillery along with 2 MW Incidental power generation, Expansion of Sugar Mill (2500 TCD to 7500 TCD) & Co-Generation Power Plant (4.5 MW to 25 MW) within the Existing Plant Premises at Village Arala-Karanguli, Tehsil Shirala, District Sangli, Maharashtra. The project involves following environmental sensitivities:-

1. Chandoli National Park is at a distance of 6 km
2. Some Reserve Forests
3. Warana River is flowing at a distance of 1.0 Km
4. Chandoli Dam is at a distance of 8.0 km

5. Warna left bank irrigation canal is at a distance of 0.2 km in N direction.

The existing plant area is 28 ha. No additional land is to be acquired for the proposed expansion as it will be carried out within the existing sugar plant premises, out of which 9.24 Ha of the area will be developed as greenbelt. Capital Cost of project is Rs 265 crores. Capital cost and recurring cost per annum earmarked for Environmental Protection Measure is Rs 50 crores and Rs 2.5 Crore respectively. Total man power requirement after proposed expansion will be increased from 320 to 450. Followings products will be manufactured:

S. No.	Unit	Existing capacity	Proposed capacity	Total capacity
1	Distillery(ENA/RS/AA)	Nil	30 KLPD	30 KLPD
2	Incidental power generation	-	2 MW	2 MW
3	Sugar Mill	2500 TCD	5000 TCD	7500 TCD
4	Co-generation power plant	4.5 MW for captive use only	20.5 MW	25 MW

Total power requirement after proposed expansion will be increased from 4.5 MW to 11 MW which will be sourced from own co-generation power plant. Bagasse will be used as a fuel in CPP. ESP will be provided to CPP with adequate stack height.

Total water requirement for the proposed unit will be increased from 565 KLPD to 1125 KLPD in season and from 565 KLPD to 698 KLPD in off season and will be met from warana river. Spent wash will be concentrated in MEE and the concentrated spent wash will be mixed with auxiliary fuel and burnt in the incinerator boiler. Process Condensate will be neutralized and treated in Condensate Polishing Unit (CPU)/ RO and recycled in Fermentation process and for Cooling Tower makeup. ETP for sugar and co-gen is already in place and will be expanded suitably.

ETP Sludge generated after treating waste water generated in sugar unit is being/will be used as manure. Ash is being/will be given to brick manufacturers & Cement Plant. Press Mud generated is being/will be given to the farmers as manure.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (refer Ministry's website) for preparation of EIA-EMP report:

A. Specific TOR:

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.

6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

Sugar

15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
16. Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
17. Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters.
18. Number of working days of the sugar production unit.
19. Details of the use of steam from the boiler.
20. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
21. Collection, storage, handling and transportation of molasses,
22. Collection, storage and handling of bagasse and pressmud.
23. Flyash management plan for coal based and bagasse and action plan
24. Details on water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total Suspended Solids, Total Coliform bacteria etc.
25. Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM 2.5, SO₂*, NO_x*, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (* - As applicable)

B. Additional TOR

- i. 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.

- ii. A copy of letter submitted to NBWL for seeking permission from Chandoli National Park.

It was recommended that '**TORs**' along with **Public Hearing** prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

14.7.11 Expansion of Bulk drugs unit with change in capacity(from 3376.4 TPA to 5783.84 TPA) at Plot no. A-1/A, A-1/B, A-1/C, A-2/B, A-2/C, A-2/D, C8-3/C, C8-3/A, C-7/2, Kudikadu Village, SIPCOT Cuddalore, district Cuddalore, Tamil Nadu by Strides Shasun Limited-reg TOR.

M/s Strides Shasun Limited has proposed for expansion of Bulk drugs unit with change in capacity from 3376.4 TPA to 5783.84 TPA at Plot no. A-1/A, A-1/B, A-1/C, A-2/B, A-2/C, A-2/D, C8-3/C, C8-3/A, C-7/2, Kudikadu Village, SIPCOT Cuddalore, district Cuddalore, Tamil Nadu.

All Synthetic Organic Chemicals (Bulk Drugs and Intermediates) Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised by StateExpert Appraisal Committee (I). However, due the site location in Critically Polluted as identified by CPCB, the project is treated as A category and appraised at Central level.

As per Form-1, it is reported that there are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km. Uppanar river is flowing at a distance of 0.3 Km from project site. Bay of Bengal is at a distance of 1.6 Km from project site. Further, Cuddalore old town is at 3.2 Km; Municipality Hospital - 4.38Km; Alagananda Hospital - 4.32Km; ASR Nursery and Primary School - 9.08Km.

As per the record, Ministry vide letter no J-11011/3/2000-IA II dated 24.10.2000 has issued Environmental clearance to M/s Shasun Chemicals Ltd. for expansion of bulk drugs. The company in the name of M/s Shasun Pharmaceuticals Ltd. has obtained another EC vide letter no. 774/EC/5F dated 24th June, 2014 for 53 products from SEIAA, Tamilnadu.

During presentation, the committee noted that PP has applied for EC in compliance to the order dated 20.10.2016 and 01.08.2016 passed by NGT, Chennai in application no. 103 of 2016 & appeal no. 123 of 2106 (SZ) (THC) in the matter Of Pudducherry Environment Protection Association Vs Union of India & Ors.

As per the order, PP was directed to take the EC from Central level. The direction may read " *The EC granted by SEIAA dated 04.04.2016 amending the EC given on 1.02.2016 stands set aside. However, there is no bar on the part of the project proponent to approach the appropriate, namely MoEF & CC for grant of EC and as and when if such application is made by*

the Project Proponent, the MoEF &CC shall consider the same in accordance with the provisions of EIA Notification, 2006, which include time frame”.

While examining the case, the Committee took a note of apprehension/ representation made by Shri K IRISAPPAN, Secretary, Pudducherry Environment Protection Association to the EAC members. The Committee noted that Shri K IRISAPPAN was applicant in aforesaid court case. The applicant apprehended on submission of manipulated information in form-1 for seeking Terms of reference and processing the violation case. In this background, the Committee also examined the NGT order dated 20.10.2016 wherein vide para-49 specifies the same issue raised by the applicant i.e. wrong/misleading information given in form-1.

However, the Committee again examined the Form-1 submitted by PP and the environmental sensitivities. After deliberation, the Committee deferred the proposal for want of following information;

- (i) Tabular form details of existing and proposed products in context of EC issued by the Ministry and SEIAA, TN.
- (ii) Confirmation from the SPCB on validity of current CTO issued by TNPCB on the existing production w.r.t EC granted by Authorities.
- (iii) Topo sheet within 10 km radius as per scale 1: 25000/50000.

The above information may be up uploaded through online on Ministry website

14.8 Any Other

14.8.1 Proposed 60KLPD molasses based distillery unit at Village Hirepadasalagi, Taluka Jamkhandi, District Bagalkot, Karnataka by M/s Jamkhandi Sugar Ltd. – reg. extension of EC.

Ministry had issued Environmental Clearance to M/s Jamkhandi Sugar Ltd. vide letter No.J-11011/300/2007-IA II (I) dated 9th April 2009 for 60KLPD molasses based distillery unit at Village Hirepadasalagi, Taluka Jamkhandi, District Bagalkot, Karnataka. Further, M/s Jamkhandi Sugar Ltd. had requested to extend the validity of existing EC vide letter dated 8th January 2014. Ministry had extended the validity of existing Environmental Clearance till 8th April 2019, vide this Ministry letter no. No.J-11011/300/2007-IA II (I) dated 16th August 2016.

Now, PP has applied through online to get amendment of following conditions of the EC for the adoption of latest technology and better environmental management of the project.

- (i) Modification in the scheme for spent was handling in the distillery plant.
- (ii) Utilization of concentrated spent wash in the incineration boiler.

After detailed deliberations, while considering the merits of proposed technology, the committee recommended for the proposed amendment in the existing Environmental Clearance.

14.8.2 Proposed Expansion of Specialty Chemicals Manufacturing Unit located at Plot No. 166/1, 171/1, 172,167,168, Village Padana, Gandhidham, District Kutch, State Gujarat by M/s Kutch Chemical Industries Ltd. –Amendment in EC.

Ministry had issued Environmental Clearance to M/s Kutch Chemical Industries Ltd. vide letter No.J-11011/531/2009-IA II (I) dated 10th May 2013 for Expansion of Specialty Chemicals Manufacturing Unit located at Plot No. 166/1-3, 171/1, 172,167,168, Village Padana, Gandhidham, District Kutch, State Gujarat.

Now, PP has applied online vide dated 13th April 2016 for amendment/correction in condition No.2 of Environmental Clearance: List of BY-Products and their quantity which are as under;

LIST OF BY-PRODUCTS

Sr. No	Name of the By Product	Existing Capacity, MT/Month	Additional Capacity, MT/Month	Total Capacity, MT/Month
1	Dil. Hydrochloric Acid (30% - 32%)	23825	5500	29325*
2	Dil. Sulphuric Acid	2000	29000	31000**
3	Dil. Acetic Acid	260	1200	1460
4	Sodium Sulphate Salt (Glauber Salt)	1040	5960	7000

The above is verified with EIA report and found the above list of By-products and correction/amendment is recommended.

* - Captive Consumption to manufacture Chloro Sulphonic Acid & Calcium Chloride + Sale to Actual Users

** - Captive Consumption to manufacture Sulfamic Acid, Vinyl Sulphone & Alum + Sale to Actual Users

After detailed deliberations, the committee recommended aforesaid amendment in the existing Environmental Clearance.

14.8.3 Expansion of cane juice based distillery unit from 60 KLPD to 200 KLPD at Village Samazwadi, Bagalkot, Karnataka by M/s Godavari Biorefineries Ltd. (changed from M/s SomalyaOrgano Chemicals Unit)- reg. Amendment in EC

Ministry had issued Environmental Clearance to M/s Godavari Biorefineries Ltd. (changed from M/s Somalya Organo Chemicals Unit)- vide letter No.J-11011/191/2007-IA II (I) dated 28th March 2008 for Expansion of cane juice based distillery unit from 60 KLPD to 200 KLPD at Village Samazwadi, Bagalkot, Karnataka. Further, amendment was issued in the Existing EC vide dated 2.9.2008 based on Bio-composting technology.

Now, PP has applied online vide dated 12th February 2016 for Change of Technology for spent wash treatment of Distillery based on "Concentration, Incineration" instead of Bio composting alone.

After detailed deliberations, the committee recommended aforesaid amendment in the existing Environmental Clearance.

Additional Item

14.5.1 Integrated Sugar Complex of 5000 TCD Sugar Plant, 33.5 MW Cogeneration Plant and 120 KLPD Ethyl Alcohol (RS/ENA/Ethanol) at Village Gangapur&Siranahalli, Taluka Mundargi, District Gadag, Karnataka by M/s Vijaynagar Sugar Pvt. Ltd. – reg. Amendment in EC.

A. Earlier the aforesaid proposal was placed before 13th EAC meeting held during during 26th to 27 September , 2016 wherein the Committee recommended the following treatment scheme

- i. Spent wash (200 m³/day) shall be treated in bio-digester followed by bio-composting.
- ii. Spent wash (450 m³/day) shall be concentrated in MEE and concentrated spent wash shall be incinerated in the Incineration boiler.

B. Now at the request of PP, the aforesaid item again placed before table, wherein PP has represented on following treatment of spent wash

- i. Spent wash (200 m³/day) shall be treated in by bio-composting for one year only.
- ii. Spent wash (450 m³/day) shall be concentrated in MEE and concentrated spent wash shall be incinerated in the Incineration boiler.

The committee discussed the matter and at request of PP, the Committee recommended the treatment scheme of spent wash through biocompostsing route for one year only. Subsequently, PP should follow the scheme as given at para A above. All the stipulation given as additional stipulation will remain unchanged.

Annexure-I

GENERIC TERMS OF REFERENCE (TOR) IN RESPECT OF INDUSTRY SECTOR

1. Executive Summary

2. Introduction

- i. Details of the EIA Consultant including NABET accreditation
- ii. Information about the project proponent
- iii. Importance and benefits of the project

3. Project Description

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet (quantities) from raw material to products to be provided
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.

- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

5. Forest and wildlife related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

- 10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC)

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13. 'A tabular chart with index for point wise compliance of above TORs.

14. The TORs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports.

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-

EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

**LIST OF PARTICIPANTS OF EAC (Industry-2) IN 14th MEETING OF EAC (INDUSTRY-2)
HELD ON 26-27th October , 2016**

S.N.	Name	Designation	Attendance
1	<u>Dr. J. P. Gupta</u>	Chairman	P
2	<u>Sh. R. K. Singh</u>	Member	P
3	<u>Dr. Ahmed Kamal</u>	Member	P
4	<u>Prof. J.R. Mudakavi</u>	Member	P
5	<u>Dr. Ajay Gairola</u>	Member	Ab
6	<u>Dr. N. Nandini</u>	Member	P
7	<u>Prof. (Dr.) H.R. V Reddy</u>	Member	P
8	<u>Dr. Shashank Shekhar</u>	Member	Ab
9	<u>Ms. Saloni Goel</u>	Member	Ab
10.	<u>Shri Suhas RamchandraPharande</u>	Member	Ab
11.	<u>Shri G. C. Pati</u>	Member	Ab
12	<u>Dr. Sanjay Bist</u>	Member	Ab
13	<u>Sh. Paritosh Kumar, CPCB</u>	Member	Ab
14	<u>Sh. Y.V. Rami Reddy</u>	Member	P
MOEF &CC Representatives			
15	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
16.	Shri A.N. Singh, JD	MEF&CC	Ab
17	Dr. Saurabh Upadhyay, Sc-B	MEF&CC	P

