

**MINUTES FOR 7<sup>th</sup> EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 27<sup>th</sup> to 28<sup>th</sup> April 2016**

**VENUE:** Brahmputra Hall, 1<sup>st</sup> Floor, Vayu Wing, Ground Floor , Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhawan Aliganj, Jorbagh Road, New Delhi -110003.

**Time :** Meeting held at 10: 00 AM

**7.1 Opening remarks by the Chairman**

**7.2** Confirmation of the Minutes of the 6<sup>th</sup> Expert Appraisal Committee (Industry-2) held during 30th March to 2<sup>nd</sup> April 2016.

The following modifications/correction in the minutes of the 6<sup>th</sup> Expert Appraisal Committee (Industry-2) held during 30th March to 2<sup>nd</sup> April 2016 were confirmed:

Name of the project	Corrections sought	Read as
Capacity enhancement by modernizing the existing grain based distillery (from 100 KLPD to 125 KLPD) & Co-generation Power Plant (3 MW to 3.8 MW) at Village Shyampur, Tehsil Behror, District Alwar, Rajasthan by M/s Globus Sprit Ltd.- reg. EC	<b><u>Number of Working days</u></b>	<b><u>Number of Working days of Distillery will be 350 days.</u></b>
	<b><u>Rice husk/biomass will be used as fuel in the existing boiler</u></b>	<b><u>Rice husk/biomass/coal/pet coke will be used as fuel in the existing boiler.</u></b> To control the SO2 emission, limestone powder feed alongwith pet coke will be used as a sulfur capturing agent.
Establishment of molasses based Distillery (30 KLPD) at Tehsil Azamgarh, District Azamgarh, UP by M/s Kisan Sahkari Chini Mills Ltd.- reg. EC.	In the 2 <sup>nd</sup> para “ M/s Kisan Sahkari Chini Mills Ltd has proposed for Establishment of molasses based Distillery (40 KLPD) alongwith CPP (1 MW) at Village: Sathiaon, Tehsil: Sadar Azamgarh, Distt. Azamgarh, U. P.	M/s Kisan Sahkari Chini Mills Ltd has proposed for Establishment of molasses based Distillery (30 KLPD) alongwith CPP (1 MW) at Village: Sathiaon, Tehsil: Sadar Azamgarh, Distt. Azamgarh, U. P.
Expansion of bulk drug manufacturing unit (1020 TPA) at Choutuppal, District Nalgonda, Telangana by M/s Brundavan Laboratories Pvt. Ltd.-reg. EC.	8 locations during December, 2014 –February, 2015	9 locations during March-May, 2014
	Existing 2 TPH boiler	Existing 2 & 0.9 TPH boilers

### 7.3 Environmental Clearance

#### **7.3.1 Expansion of Bulk Drug Intermediate manufacturing unit situated at SY. Nos. 163, 163/A, 163/B, 164/A &164/B Village Pittampally, Mandal Chityal, District Nalgonda, Telengana by M/s Symed Labs limited (Unit-IV) (formerly Known as Plasma Labs Pvt. Ltd.- reg EC.**

The project proponent and their consultant (M/s Rightsource 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 21<sup>st</sup> and 40<sup>th</sup> Meetings of the Expert Appraisal Committee (Industry -2) held during 30<sup>th</sup> – 1<sup>st</sup> August, 2014 and 18<sup>th</sup> – 19<sup>th</sup> May, 2016 respectively for preparation of EIA-EMP report.

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

M/s Symed Labs limited (Unit-IV) has proposed for expansion of Bulk Drug Intermediate manufacturing unit ( from 109 TPA to 1227TPA) at Sy. Nos. 163, 163/A, 163/B, 164/A &164/B VillagePittampally, Mandal Chityal, District Nalgonda, Telengana. The unit has obtained CTE prior to EIA, Notification 2006. Total plot area is 53986.98 m<sup>2</sup> of which greenbelt will be developed in 17815.70 m<sup>2</sup>. Total 130 personal will be employed. Cost of expansion project is Rs. 40.0 crores. It is reported that no wildlife sanctuary /national park is located within 10 km distance. RF is located at a distance of 7.5 km. Water bodies (i.e. Kandala vagu, Ramalingeshwara Cheruvu, Halia Vagu, Jalu vagu, Devuni Cheruvu, Chinna Vagu and Pedda Vagu) are located within 10 km distance. Following products will be manufactured:

S. N	Product Name	CAS No's	Therapeutic Category	Quantity In Kg/Month	Quantity In Kg/Day
1	Amisulpride	71675-85-9	Neuroleptic agent	1000.00	33.33
2	Carvedilol	72956-09-3	Cardiovascular Agent	4000.00	133.33
3	Carvedilol Phosphate	610309-89-2	Antihypertensive agent	200.00	6.67
4	Carbidopa	93357-67-6	Anti parkinsonian agent	4000.00	133.33
5	Cinitapride Hydrogen tartrate	66564-14-5	Gastroprokinetic Agent	100.00	3.33
6	Dapoxetine Hydrochloride	129938-20-1	Antidepressant	1000.00	33.33
7	Epalrestat	82159-09-9	oral ant diabetic agent	3000.00	100.00
8	Eszopiclone	138729-47-2	Non barbiturate Hypnotic	50.00	1.67
9	Fluconazole	86386-73-4	Antifungal	6000.00	200.00
10	Iron sucrose	8047-67-4	Iron supplement	20000.00	666.67
11	Itopride Hydrochloride	122892-31-3	Antiulcer	4000.00	133.33
12	Ketorolac Tromethamine	74103-07-4	Antipyretic agent	8000.00	266.67
13	Levocetirizine Dihydrochloride	130018-87-0	Antihistamine agent	600.00	20.00

S. N	Product Name	CAS No's	Therapeutic Category		
				Quantity In Kg/Month	Quantity In Kg/Day
14	Levosulpiride	23672-07-3	Antiemetic agent	3000.00	100.00
15	Linezolid	165800-03-3	Antibiotic	18000.00	600.00
16	Mosapride citrate dihydrate	63582-62-2	Gastroprokinetic	4000.00	133.33
17	Ondansetron Hydrochloride	103639-04-9	Antiemetic	1000.00	33.33
18	Pregabalin	148553-50-8	Neuropathic Pain Agent	10000.00	333.33
19	Racecadotril	81110-73-8	Anti diarrheals	6000.00	200.00
20	Tamsulosin Hydrochloride	106463-17-6	Anti-adrenergic	100.00	3.33
21	Tizanidine Hydrochloride	64461-82-1	Skeletal muscle relaxant	100.00	3.33
22	Topiramate	97240-79-4	Anticonvulsant	6000.00	200.00
23	Zotepine	26615-21-4	Neuroleptic agent	2000.00	66.67
24	Zopiclone	43200-80-2	Nonbarbiturate Hypnotic	100.00	3.33
	<b>Total</b>			<b>102250.00</b>	<b>3408.33</b>

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October, 2014 – December, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (40.14 µg/m<sup>3</sup> to 61.58 µg/m<sup>3</sup>), PM<sub>2.5</sub> (9.30 µg/m<sup>3</sup> to 21.63µg/m<sup>3</sup>), SO<sub>2</sub> (7.83 µg/m<sup>3</sup> to 12.1 ug/m3) and NOx (11.65 µg/m<sup>3</sup> to 16.45 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.52 µg/m<sup>3</sup>, 2.21 µg/m<sup>3</sup> and 2.97 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Bagfilter alongwith stack of adequate height will be provided to coal fired boilers (5 TPH & 2 TPH) to control particulate emissions. Adequate stack height and acoustic enclosure will be provided to standby DG set of capacity 500KVA, 250 KVA and 320KVA. Scrubber will be provided to control process emissions viz. SO<sub>2</sub>. Total water requirement will be 271 m<sup>3</sup>/day. Out of which, total fresh water requirement from ground water source will be 199 m<sup>3</sup>/day and remaining water requirement will be met from 72 m<sup>3</sup>/day. Effluent generation will be 131 m<sup>3</sup>/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 evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in the effluent treatment plant (ETP) followed by reverse osmosis (RO). No effluent will be discharged outside the plant premises. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. Catalyst, waste oil and used batteries will be sent to authorized recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Telangana State Pollution Control Board on 19<sup>th</sup> January, 2016. The issues were raised regarding local employment, pollution control measures, village development programmes, plantation 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. Bagfilter and the stack of adequate height shall be provided to coal fired boiler (5 TPH & 2 TPH).
- ii. Scrubber shall be provided to control process emissions viz. SO<sub>2</sub>. 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 199 m<sup>3</sup>/day and prior permission shall be obtained from the CGWA/SGWA.
- v. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. 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. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- 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 19<sup>th</sup> January, 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. As committed, ESR plan should be implemented in nearby villages namely Pittamapally, Veliminedu and Perapally. Implementation of such program shall be ensured accordingly in a time bound manner.
- xiv. As proposed, green belt of 17815.70 m<sup>2</sup> 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.

**7.3.2 Manufacturing of Agrochemicals (Capacity 6930 MTPA) at Sy. No. 163, 164 & 165, Udumulapadu Village, Dhone Mandal, Kurnool District, Andhra Pradesh by M/s Agrisol (India) Pvt. Ltd. – reg EC.**

The project proponent and their consultant (M/s Team Labs & Consultant) 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 34<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry -2) held during 17<sup>th</sup> – 19<sup>th</sup> February, 2013 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. Agrisol (India) Pvt. Ltd. has proposed for manufacturing of Agrochemicals (Capacity 6930 MTPA) at Sy. No. 163, 164 & 165, Udumulapadu Village, Dhone Mandal, Kurnool District, Andhra Pradesh. Plot area is 33 acres, out of which greenbelt will be developed in 11 acres. Cost of project is Rs. 30 Crore. It is reported that no national park/wildlife sanctuary is located within 10 km distance. North Dhone RF (5.7 Km), South Dhone (6.5 Km) and Veldurthi RF (9.6 Km) are located within 10 km distance. Proposed unit will be implemented in the two phases. Following products will be manufactured:

S.N.	Product Name	CAS No	Capacity (TPA)
1	Acephate	30560-19-1	1320
2	Cartap Hydrochloride	15263-52-2	1320
3	Clodinafop Propargyl	105512-06-9	330

4	Difenoconazole	119446-68-3	330
5	Diafenthiuron	80060-09-9	660
6	Emamectin benzoate	137512-74-4	165
7	Ethephon	16672-87-0	990
8	Ethiprole	181587-01-9	330
9	Fipronil	120068-37-3	330
10	Flonicamid	158062-67-0	330
11	Foramsulfuron	173159-57-4	330
12	Glufosinate	51276-47-2	330
13	Glyphosate	1071-83-6	1320
14	Imidacloprid	138261-41-3	660
15	Imazethapyr	81335-77-5	330
16	Iprobenfos (Kitazin)	26087-47-8	330
17	Mesosulfuron	208465-21-8	330
18	Metribuzin	21087-64-9	330
19	Nitenpyram	150824-47-8	330
20	Penoxsulam	219714-96-2	330
21	Picoxystrobin	117428-22-5	330
22	Pretilachlor	51218-49-6	330
23	Prothioconazole	178928-70-6	330
24	Pyraclostrobin	175013-18-0	330
25	Spirotetramat	203313-25-1	330
26	Sulfosulfuron	141776-32-1	330
27	Thiocyclam	31895-22-4	330
28	Thiamethaxam	153719-23-4	1320
Total Phase I(3 Products on Campaign Basis)			3960
Total Phase II (3 Products on Campaign Basis)			2970
Total after Phase II (6 Products on Campaign Basis)			<b>6930</b>

#### List of By-Products

S.No	Name of the product	By-product	Capacity	
			Kg/day	TPA
1	Acephate	Ammonium Acetate	1430.8	472.2
2	Cartap Hydrochloride	Sodium Sulphite	3682.7	1215.3
3	Clodinafop Propargyl	Potassium Chloride	639.5	211.0
4	Diafenthiuron	Calcium Chloride	764	252.1
5	Flonicamid	Sodium Sulphite	529.3	174.7
6	Glufosinate	Ammonium Sulphate	730	240.9
7	Metribuzin	Dimethyl Sulfate	523.2	172.7
8	Thiocyclam	Sodium Sulphite	743.1	245.2
9	Thiomethaxam	Potassium Chloride	1022	337.3

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2015 – May, 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (21 µg/m<sup>3</sup> to 40 µg/m<sup>3</sup>), PM<sub>2.5</sub> (12 µg/m<sup>3</sup> to 26 µg/m<sup>3</sup>), SO<sub>2</sub> (6 µg/m<sup>3</sup> to 13 µg/m<sup>3</sup>) and NO<sub>x</sub> (9 µg/m<sup>3</sup> to 16 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/m<sup>3</sup>, 0.05 µg/m<sup>3</sup>, 0.23 µg/m<sup>3</sup> and 0.09 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>

and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Bagfilter will be provided to coal fired boiler ( 8 TPH, Phase-I and 8 TPH , Phase- 2) to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl, SO<sub>2</sub>, NH<sub>3</sub> and NH<sub>3</sub>. Total water requirement will be 385 m<sup>3</sup>/day for Phase – I & II. Out of which fresh water requirement from ground water source will be 249 m<sup>3</sup>/day and remaining water requirement (135 m<sup>3</sup>/day) will be met from recycled. Effluent generation will be 145 m<sup>3</sup>/day after phase II. 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 evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. Sewage will be treated in Sewage Treatment Plant. 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.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 1st October, 2015. The issues were raised regarding anticipated pollution issues, local employment, waste management, 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 recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering 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 3<sup>rd</sup> February, 2006 and amended time to time shall be followed by the unit.
- ii. Bagfilter shall be provided to additional coal/briquette/lignite fired boiler to control particulate matter. Continuous air emission monitoring system to be installed from the stack.
- iii. Scrubber will be provided to control process emissions viz. HCl, SO<sub>2</sub>, NH<sub>3</sub> and NH<sub>3</sub>. 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 equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- iv. Chilled brine circulation system should be provided to condensate solvent vapors and reduce solvent losses. It should be ensured that solvent recovery should not be less than 95%.
- v. All necessary steps should be taken for monitoring of VOCs in the plant.
- vi. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
- vii. Total water requirement from ground water source should not exceed 249 m<sup>3</sup>/day and prior permission should be obtained from the Competent Authority.

- viii. Industrial effluent generation should not exceed 145 m<sup>3</sup>/day. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises.
- ix. Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.
- x. The Company shall carry out bioassay test for the treated effluent in the guard pond. Ground water quality monitoring including the pesticides shall be carried out every month the monitored data shall be submitted to the Ministry's Regional Office, Bhopal and APPCB.
- xi. The Company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-boundary movement) Rules, 2008 for management of hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company should undertake measures for fire fighting facilities in case of emergency.
- xii. As proposed, ETP sludge and inorganic waste should be sent to TSDF site. High calorific value waste such as spent organic should be sent cement plant for co-incineration.
- xiii. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xiv. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
- xv. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility 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. Implementation of such program shall be ensured accordingly in a time bound manner.
- xvi. As proposed, green belt over an area of 11 acres 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.

### **7.3.3 Proposed specialty chemicals at plot no. D-2/CH-12, GIDC, Industrial Estate, village Dahej, Teshil, Vagra, district Bharuch, Gujarat by M/s Indofil Industries- reg EC.**

The project proponent and their consultant (M/s Eco Chem Sales & Services) 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 13<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry -2) held during 18<sup>th</sup> November, 2013 – 20<sup>th</sup> November, 2013 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 Indofil Industries Ltd. have proposed for setting up of Specialty Chemicals Plant at Plot no. D-2/CH-12,GIDC Industrial Estate, Village Dahej, Tehsil Vagara, District Bharuch, Gujarat. Plot area is 1,01,900 m<sup>2</sup> out of which greenbelt will be developed in 33,330 m<sup>2</sup>. Narmada River is flowing at a distance of 17 Km. Arabian Sea is 3 Km away from the project site. It is reported that no national park/biosphere reserve/wildlife sanctuary etc is located within 10 Km. Cost of project is Rs. 480 crores. Following products will be manufactured:

<b>Sr. No.</b>	<b>Name of the Proposed Products</b>	<b>Quantity (MTPA)</b>
<b>A</b>	<b>EBDC FUNGICIDES PRODUCTS</b>	
1	Mancozeb & its Formulation 25000	25000
2	Maneb & its Formulation 500	500
3	Zineb & its Formulation 5000	5000
4	Propineb & its Formulation 5000	5000
<b>A1</b>	<b>HERBICIDES</b>	
1	Glyphosate Tech and its Intermediates Volume	30000
<b>B</b>	<b>SPECIALITY CHEMICALS</b>	
1	Solution Polymers	3634
2	Re-dispersible Powder	11571
3	Plastic Modifiers	20055
4	Acrylic Emulsions	2635
<b>C1</b>	<b>SYNTHESIS TECHNICAL PRODUCTS</b>	
1	Tricyclazole and / or its intermediates: HMBT	1000
2	Myclobutanil	135
3	Metalaxyl	125
4	Cymoxanil	300
5	Dodine	150
6	Hexaconazole	200
7	Propiconazole	300
8	Propargite	400
9	Difenturon	200
10	Tebuconazole	300
11	Difenconazole	200
12	Thifluzamide	200
13	Bispyribac	65
	<b>Sub-total of above 13Products</b>	<b>3575</b>
<b>C2</b>	<b>Out of following 10 products, only 1 product shall be made at a time</b>	
1	Thiamethoxam	225
2	Epoxyconazole	
3	Prothioconazole	
4	Fluazinam	
5	Azoxystrobin	
6	Pyraclostrobin	
7	Boscalid	
8	Cyazofamid	

9	Penconazole	
10	Cyproconazole	
<b>C3</b>	<b>Out of following 5 products, only 1 product shall be made at a time</b>	
1	Spirodiclofen	200
2	Spiromesifen	
3	Tolfenpyrod	
4	Clodinofop	
5	Pretilachlor	
	Total of (C1 + C2 +C3) products	3575 + 225 + 200 = 4000
<b>D</b>	<b>AGRO FORMULATION</b>	
1	Powder Formulation	32000
2	Liquid Formulation	10000
	<b>OR</b>	
1	Glyphosate Formulations	70000

#### List of By-products

Sr. No.	Name of the Proposed By-Products	Quantity (MTPM)	End use
1	Manganese Carbonate (MnCO <sub>3</sub> )	980	Sold to MnSO <sub>4</sub> Manufacturer.
2	Sodium Sulphate (Na <sub>2</sub> SO <sub>4</sub> )	1200	Collection, Storage and Sold to end users.
3	Spent Sulphuric Acid	2	Collection, Storage and Sold to end users.
4	Aq. Hydrochloric Acid rs. (Conc. 30% )	120	
5	Aq. Sodium Bromide (Conc.17% )	150	
6	Aq. Potassium Bromide (Conc.16% to 29% )	175	
7	Aq. Hydrobromic Acid (Conc. 30% )	50	
8	Formic Acid (conc. 50%)	100	
9	(Conc. 20% to 25 %)	25	
10	Aq. Sodium Sulphite	50	

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during March, 2014 – May, 2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (52.4 µg/m<sup>3</sup> to 96.5 µg/m<sup>3</sup>), PM<sub>2.5</sub> (21.2 µg/m<sup>3</sup> to 43.9 µg/m<sup>3</sup>), SO<sub>2</sub> (10.1 µg/m<sup>3</sup> to 19.4 µg/m<sup>3</sup>) and NO<sub>x</sub> (22.5 µg/m<sup>3</sup> to 46 µg/m<sup>3</sup>) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.30 µg/m<sup>3</sup>, 4.04 µg/m<sup>3</sup> and 1.315 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and

NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

It was informed that ESP will be provided to coal fired boiler to control particulate matters. Adequate stack height will be provided to gas fired thermos pack. Adequate stack height will be provided to DG set. Alkali scrubber will be provided to Incinerator. Scrubbers will be provided to control process emissions viz. HCl, HBr, NH<sub>3</sub>, CS<sub>2</sub>, H<sub>2</sub>S etc. Bagfilter will be provided to spray dryer.

Total water requirement will be 2711 m<sup>3</sup>/day. Out of which, total fresh water requirement from River Damangang through GIDC Vapi will be 1500 m<sup>3</sup>/day and remaining water requirement (1311 m<sup>3</sup>/day) will be met from treated effluent/recycled water. Effluent generation will be 1323 m<sup>3</sup>/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 evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in the effluent treatment plant (ETP) followed by reverse osmosis (RO). No effluent will be discharged outside the plant premises. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. Catalyt, waste oil and used batteries will be sent to authorized recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 27<sup>th</sup> January, 2016. The issues were raised regarding type of pollution, pollution control measures, coal consumption and its transportation, local employment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberation, Committee sought following additional information:

1. Due to availability of natural gas, commitment to be given for use of Natural gas in place of coal fired boiler.
2. Item-wise detailed plan with time schedule w.r.t. ESR activities for 2.5% of project cost to be drawn.

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

#### **7.3.4 Expansion of Specialty Fine Chemicals (from 420 MTPM to 1300 MTPM) at Plot No. 408, 409, Phase-II, GIDC Estate, Vapi, District Valsad, Gujarat by M/s Ganesh Polychem Ltd. – reg EC.**

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

All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However due to CPA identified by CPCB, the project is treated as A category and appraised at Canter by Expert Appraisal Committee (I)

M/s Ganesh Polychem Ltd. has proposed for expansion of Specialty Fine Chemicals (from 420 MTPM to 1300 MTPM) at Plot No. 408, 409, Phase-II, GIDC Estate, Vapi, District Valsad, Gujarat. The existing plot area is 9467 m<sup>2</sup>. Additional plot area will be 9510 m<sup>2</sup> and total after expansion will be 18986 m<sup>2</sup> of which green belt will be developed in the area of 5697Sq.m. The total cost of the expansion project is Rs. 51.0 crore. It is reported that there is no National Park, Wildlife Sanctuary, Tiger/Elephant reserve or Biosphere reserve within the distance of 10 km from the plant site. Interstate Boundary (Union territory - Daman) is located at a distance of 5 Km. Followings are the existing and the proposed products to be manufactured:-

Sr. no.	List of products	Production quantity (MT/Month)		
		Existing	After expansion	Remark
	Sulfone Derivatives			
1	DCDPS (4,4-'Dichloro Diphenyl Sulfone) And/ Or	300	1300	Either one or more than one product but total quantity not exceeds 1300 MT/Month. Maximum production capacity of DCDPS,DHDPS and DADPA will be 1000 MT/Month, 100 MT/Month And 200 MT/Month respectively.
2	DHDPS (4,4-' Dihydroxy Diphenyl Sulfone) And/ Or	90		
3	DADPS (4,4-' Diamino Diphenyl Sulfone) And/ Or	30		
4	Similar Sulfone Derivatives	0		
	<b>Total</b>	<b>420</b>	<b>1300</b>	
	<b>List of by- product</b>			
	Sodium Chloride	82.8	196.1	By products of DADPS & DHDPS
	Cuprous Oxide/ Hydroxide	0	11.3	By products of DADPS
	Dilute Sulphuric acid	0	14824	By products of DCDPS
	<b>Total</b>	<b>82.8</b>	<b>15031.4</b>	

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 9 locations during March, 2014 to May, 2014 and submitted baseline data which indicates that ranges of concentrations of PM<sub>10</sub> (75.8 µg/m<sup>3</sup> to 97.8 µg/m<sup>3</sup>), PM<sub>2.5</sub> (38.6 µg/m<sup>3</sup> to 57.7 µg/m<sup>3</sup>), SO<sub>2</sub> (21.5 µg/m<sup>3</sup> to 35.0 µg/m<sup>3</sup>) and NO<sub>x</sub> (35 µg/m<sup>3</sup> to 49 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.01 µg/m<sup>3</sup>, 0.45 µg/m<sup>3</sup>, 1.545 µg/m<sup>3</sup> and 0.61 µg/m<sup>3</sup>, with respect to NO<sub>x</sub>, PM SO<sub>2</sub> and NH<sub>3</sub>. The resultant concentrations are within the NAAQS.

ESP will be provided to coal fired boiler to control particulate emissions. Scrubber will be provided to SO<sub>3</sub> storage tank, SO<sub>3</sub>, DMS dry tank, main reactor and Glass line dumping vessel to control SO<sub>3</sub> emission. Scrubber will be provided to DADPS Plant process stack to control NH<sub>3</sub>. Water consumption will be increased from 297 m<sup>3</sup>/day to 866 m<sup>3</sup>/day after expansion. Out of which, fresh water requirement from GIDC water supply will be 703.4 m<sup>3</sup>/day after expansion and balance water requirement (126 m<sup>3</sup>/day will be met from recycled/treated effluent. Effluent generation will be increased from 160 m<sup>3</sup>/day to 324 m<sup>3</sup>/day after expansion. Existing effluent will be treated in the existing ETP and treated effluent will be discharged into CETP. Proposed additional effluent ( 164 m<sup>3</sup>/day ) will be treated in the ETP and treated effluent will be

recycled/reused by using RO and MEE. ETP waste, MEE salt will be sent to TSDF. Spent carbon, recovered solvent, Off specification product will be sent to TSDF.

After detailed deliberation, Committee sought following additional information:

- 1 Commitment to use natural gas in place of coal fired boilers
2. Reanalyzing the water samples within 10 km radius of water bodies including groundwater.

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

### **7.3.5 Integrated Sugar unit (5000 TCD), Distillery (65 KLPD) alongwith Co- generation Power Plant (35 MW) at village Kallapur, Tehsil Badami, District Bagalkot, Karnataka by M/s M R N Cane Power India Ltd.**

The project proponent and their consultant (Ultra tech Environmental Consultancy & Lab) 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 during the 32<sup>nd</sup> Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 20<sup>th</sup> -21<sup>st</sup> 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. M R N Cane Power India Ltd. has proposed for setting up of integrated Sugar unit( 5000 TCD ), Distillery (65 KLPD) alongwith Co- generation Power Plant (35 MW) at village Kallapur, Tehsil Badami, District Bagalkot, Karnataka. Plot area is 233 acres. Cost of the project is Rs. 401.23 Crore. Mallaprabha River is flowing at a distance of 7 km. It is reported that no tropical forest/ biosphere reserve/national park/ wildlife sanctuary /coral formation are located within 10 Km distance. PP confirmed that sugar plant will be operated for 240 days. Co-generation Power Plant and Distillery will be operated for 330 days.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 5 locations during March, 2015 to May, 2015 and submitted baseline data which indicates that ranges of concentrations of PM<sub>10</sub> (40 µg/m<sup>3</sup> to 92 µg/m<sup>3</sup>), PM<sub>2.5</sub> (14 µg/m<sup>3</sup> to 18 µg/m<sup>3</sup>), SO<sub>2</sub> (27 µg/m<sup>3</sup> to 30 µg/m<sup>3</sup>) and NO<sub>x</sub> (13 µg/m<sup>3</sup> to 12 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.2 µg/m<sup>3</sup> and 1.0 µg/m<sup>3</sup>, with respect to PM and SO<sub>2</sub>. The resultant concentrations are within the NAAQS. The Committee noted that the values of CO are reported in the range from 1.6 µg/m<sup>3</sup> to 2.0 µg/m<sup>3</sup> at page 89 of EIA – EMP report, which seems to be incorrect. The Committee suggested them to recheck the value.

Fresh water requirement from river Malaprabha for sugar unit, Co-generation power plant and Distillery will be 505 m<sup>3</sup>/day, 308 m<sup>3</sup>/day and 560 m<sup>3</sup>/day. Effluent from sugar, co-generation power and condensate will be treated in the ETP comprising, anaerobic, aerobic and tertiary treatment unit. The spent wash from molasses based distillery will be concentrated in MEE and mixed with bagasses and burnt as fuel in boiler. Condensate water is treated in

condensate water ETP and reused as cooling water make up. Bagasse ash will be sent to soil conditioner. Spent wash lagoon capacity will be for 5 days. Boiler ash will be composted alongwith press mud. ETP sludge will be sent for composting.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 30th December, 2015. The issues were raised regarding adverse impact on surrounding villages, local employment, payment to cane growers, etc. Few sections of public have made objections against the project.

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

- i. As proposed, Electrostatic precipitator (ESP) alongwith stack of adequate height should be provided to bagasse/coal fired boiler to control particulate emissions within 50 mg/Nm<sup>3</sup>.
- ii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.
- iii. Total fresh water requirement from Malprabha River shall not exceed 505 m<sup>3</sup>/day for sugar unit, 308 m<sup>3</sup>/day for Co-generation power plant and 560 m<sup>3</sup>/day for Distillery. No ground water shall be used without permission. Effort shall be made to use recycled water from sugar and condensate of MEE for the co-generation power unit.
- iv. Spent wash generation from molasses based distillery shall not exceed 8 Kl/Kl of alcohol. The spent wash from molasses based distillery will be concentrated in MEE and mixed with bagasses and burnt as fuel in boiler to achieve 'Zero' discharge. Effluent from sugar, spentlees, utilities effluent and evaporator Condensate shall be treated in effluent treatment plant and recycled/reused in process. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained.
- v. Spent wash shall be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 5 days.
- vi. Effluent from sugar unit should be treated in the effluent treatment plant with adequate treatment with standard of 30 mg/l of BOD.
- vii. 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.
- viii. As proposed, no effluent from sugar, distillery and co-generation power plant should be discharged outside the premises and Zero discharge shall be achieved.
- ix. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should 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 should be monitored.

- x. Bagasse/coal storage should be done in such a way that it does not get air borne or fly around due to wind.
- xi. Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided. Bagasse ash and coal ash should be stored separately.
- xii. Occupational health surveillance programme should be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre should be strengthened and the regular medical test records of each employee should be maintained separately.
- xiii. Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xiv. All the issues raised during the public hearing/consultation meeting held on 30<sup>th</sup> December, 2015 should be satisfactorily implemented.
- xv. As proposed, green belt over 33% of plot 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.
- xvi. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.

**7.3.6 Grain based Distillery Unit (120 KLPD) alongwith Captive Power Plant (5 MW) at Village Khuleperiya Mouza-Karia, P.S. Bagnan, Howrah District, West Bengal by M/s. Madhusala Distilleries Pvt. Ltd. – reg EC.**

The project proponent and their consultant (M/s Pioneer Enviro) 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 during the 18<sup>th</sup> & 42<sup>nd</sup> Reconstituted Meetings of the Expert Appraisal Committee (Industry) held during 28<sup>th</sup> - 30<sup>th</sup>, 2014 and 16<sup>th</sup> – 17<sup>th</sup> June, 2015 for preparation of EIA-EMP report.

Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Madhusala Distilleries Pvt Ltd. has proposed for setting up of Grain based Distillery Plant (120 KLD) with 5 MW Power Plant at Dag. No. of Mouza Karia: 321-328, 332,333, 336-339, 347, 348, 349, 350, 351-353, 357-361, 367-374, 380-390, 398-404, 406-421, 424,443, 445 and 449 & Dag Nos. of Mauza- Khuleperiya; 226, 293, 294, 295, PS Bagnan, Dist. Howrah, WB. Total plot are is 43.27 acres of which area earmarked for greenbelt is 14 acres. Cost of

project is Rs. 120 Crore. There are no national parks/ sanctuaries/ reserve forests/protected forests within 10 Km distance of the project. River Roopnarayan & River Damodar flow at a distance of 3.5 kms and 3.2 kms from the project sites.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations for the month of December, 2014 – February, 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (19.5 µg/m<sup>3</sup> to 42.6 µg/m<sup>3</sup>), PM<sub>2.5</sub> (12.8 µg/m<sup>3</sup> to 25.5 µg/m<sup>3</sup>), SO<sub>2</sub> (6.3 µg/m<sup>3</sup> to 10.9 µg/m<sup>3</sup>) and NO<sub>x</sub> (7.2 µg/m<sup>3</sup> to 13.7 µg/m<sup>3</sup>) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.1 µg/m<sup>3</sup>, 3.3 µg/m<sup>3</sup> and 1.3 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS. ESP will be provided to coal/imported coal/biomass fired boiler to control particulate emissions.

Total fresh water requirement from ground water source will be 1200 m<sup>3</sup>/day. Spent wash will be decanted. Thin slop will be concentrated. Concentrate will be mixed with wet cake to form DWGS. DWGS will be dried to form DDGS. No effluent will be discharged outside the plant premises and 'Zero effluent discharge concept will be followed. DDGS will be sold as cattle feed/fish/prawn feed. Ash generated will be given to brick manufacturers/cement plant. ETP sludge will be used as manure.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the West Bengal Pollution Control Board on 22nd December, 2015. The issues were raised regarding CSR activity, Socio economic development activities, plantation, local employment ; 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 recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering accord of environmental clearance:

- i. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated.
- ii. ESP alongwith stack of adequate height shall be provided to coal/imported coal/biomass to control particulate emission within 50mg/Nm<sup>3</sup>.
- iii. Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- iv. Total fresh water requirement from ground water source shall not exceed 1200 m<sup>3</sup>/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- v. Spent wash generation 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 DDGS. 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.

- vi. Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.
- vii. No effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.
- viii. 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 shall be carried out for parameters required for drinking water purposes.
- ix. No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.
- x. biomass storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xi. 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.
- 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 material 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 of 33% of the plot area should 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 commitment made regarding issues raised during the Public Hearing/consultation meeting held on 22<sup>nd</sup> December, 2015 shall be satisfactorily implemented.
- xvi. At least 5 % of the total cost of the project should 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 Bhubaneswar. As informed, activities to be emphasized on sanitation, education and medical facilities of the area in consultation of concerned town panchyat and action plan to be drawn. Implementation of such program shall be ensured accordingly in a time bound manner.

### **7.3.7 Expansion of Irugur storage installation at Ravathur PO, Irugur village, Taluka Sulur, District Coimbatore, Tamilnadu by M/s Bharat Petroleum Corporation- reg EC.**

The project proponent and their consultant (M/s Vimta Labs 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 SEIAA-TN/F.-2012/CBE/TOR-178/2013 dated 7.05.2014 for preparation of EIA-EMP report.

All the Isolated Storage & Handling of Hazardous Chemicals are listed at S.N. 6(b) under Category 'B' and appraised at the Central level due to integrated project of pipeline.

BPCL is planning to increase the storage capacity (from 1,04,719 KL to 1,81,836 KL) for HSD and MS and also for conversion of storage of products in the existing two tanks from HSD to MS and SKO at Irugur installation at Coimbatore district, Tamil Nadu. Noyyal river is flowing at a distance of 0.6 km, SE from the site boundary. There are no 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. Nearest habitation is Ravathur village is located at about 0.8 km in ESE. Nearest railway station is Irugur railway station at about 2.7 km in SW. Nearest highway, NH 47 is about 0.7 km west of the facility boundary. Noyil river is flowing at a distance of 0.7 km.

The existing BPCL – Irugur Installation facility has 19 tanks (14 above ground and 5 underground) for the storage of MS, HSD, SKO and Ethanol, which is received through the CCK pipeline from Kochi Refinery Limited. In order to accommodate the additional products, BPCL – Irugur installation facility have planned to expand their tank storage capacity by installing 4 additional storage tanks. The proposed expansion project involves installation of storage tanks by constructing additional tankage of 60,000 KL for HSD and 17,117 KL for MS. Further, the project also involves conversion of 1 x 17157 KL HSD tank into MS and 1 x 6130 KL HSD tank into SKO and allied facilities like tank wagon loading facilities as required. The current expansion activity will be executed within the current premises of 37.19 ha (91.909 acres) itself. No additional land will be acquired. Cost of project is Rs. 82 Crore.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 10 locations during May, 2015 – July, 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (30.1 µg/m<sup>3</sup> to 55.3 µg/m<sup>3</sup>), PM<sub>2.5</sub> (16.2 µg/m<sup>3</sup> to 26.7 µg/m<sup>3</sup>), SO<sub>2</sub> (9.2 µg/m<sup>3</sup> to 12.8 µg/m<sup>3</sup>) and NO<sub>x</sub>(12.1 µg/m<sup>3</sup> to 16.7 µg/m<sup>3</sup>) respectively. Emissions from the DG sets are directed through exhaust pipes at a height of 3.5 meters above building and as per norms. No additional water is required as part of the proposed expansion. The total water requirement of 5KL/day will be used only for domestic consumption. The domestic wastewater is being treated in the existing Sewage Treatment Plant (STP) with a capacity of 15KL/day and the treated water is being used for plantation development.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Tamil Nadu Pollution Control Board on 5th February, 2015. Issues raised during meeting were dilapidated road condition, local employment, proper

transportation system etc. The Committee noted that information sought through representation have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

**Lunch Break: 1:30 PM – 2.00 PM**

**2<sup>nd</sup> Session: Time: 2.00 PM**

**7.3.8 Expansion of Molasses based Distillery (from 75 KLPD to 150 KLPD) at Village Barkatpur, Tehsil Najibabad, District Bijnore, Uttar Pradesh by M/s Uttam Sugar Mills Limited.- reg EC.**

The project proponent and their consultant (M/s J M Environet 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 during the 21<sup>st</sup> Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 30<sup>th</sup> July, 2014 - 1<sup>st</sup> August, 2014 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 Uttam Sugar Mills Ltd. has proposed for expansion of Molasses based Distillery (from 75 KLPD to 150 KLPD) at Village Barkatpur, Tehsil Najibabad, District Bijnore, Uttar Pradesh. Uttam Sugar Mill has commenced its operations from October 4, 1993 with the name Associated Sugar Mills. Environmental Clearance for the existing distillery was granted vide MoEF letter no. J-11011/428/2006-IA II (I) dated 22<sup>nd</sup> September, 2008. It is reported that no national parks/wildlife sanctuaries/biosphere reserves/ reserved/protected forest are located within 10 km. Malan River is flowing at a distance of 1.5 km while Ganga River is flowing at a distance of 6 Km. Total plot area is 50 acres of which greenbelt will be developed in 16.5 acres of land. Cost of expansion project is Rs. 100 Crore. Rs. 25 Crore and Rs. 5 Crore per annum are earmarked towards capital cost and recurring cost per annum for pollution control measures. Distillery will be operated for 270 days in a year.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during October,2014 to December,2014 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (61.5 µg/m<sup>3</sup> to 88.1 µg/m<sup>3</sup>), PM<sub>2.5</sub> (27.6 µg/m<sup>3</sup> to 40.0 µg/m<sup>3</sup>), SO<sub>2</sub> (5.9 µg/m<sup>3</sup> to 11.5 µg/m<sup>3</sup>) and NO<sub>2</sub> (15.9 µg/m<sup>3</sup> to 23.0 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.02 µg/m<sup>3</sup> and 3.42 µg/m<sup>3</sup> for PM and NO<sub>2</sub> respectively. The resultant concentrations are within the NAAQS. Bagfilter will be provided to bagasse & biogas fired boiler to control particulate Emissions. Fresh water requirement from ground water source

will be increased from 747 m<sup>3</sup>/day to 1452 m<sup>3</sup>/day after expansion. Spent wash will be sent for anaerobic treatment followed by concentration in multiple effect evaporator (MEE). Concentrated spent wash will be mixed with press mud generated from sugar unit for manufacturing organic manure. Yeast sludge, digesters sludge & boiler ash will be mixed with pressmud & finally disposed as bio-manure.

The Committee deliberated upon the certified compliance report dated 2.2.2016 issued by the Regional Office, Lucknow. The compliance report was found to be satisfactory.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the UP Pollution Control Board on 7<sup>th</sup> November, 2015. The issues were raised regarding disposal of flyash, treatment of effluent; spillage of waste while transportation 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 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) Bagfilter alongwith stack of adequate height shall be provided to bagasse/coal fired boiler to control particulate emission within 50mg/Nm<sup>3</sup>.
- ii) Total fresh water requirement from ground water source for distillery shall not exceed 1452 m<sup>3</sup>/day and prior permission shall be obtained from SGWA/CGWA.
- 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 in bio-methanation reactor. Treated spent wash will be evaporated in MEE and concentrated spent wash will be bio-composted by mixing with press mud generated from sugar unit to achieve 'Zero' discharge. Evaporator Condensate shall be treated in polishing pond and recycled/reused in process. Sewage shall be treated in the STP. 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 15 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 Lucknow and UPPCB.

- viii) Bagasse/biomass 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 16.5 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.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 7<sup>th</sup> November, 2015 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 Lucknow. Implementation of such program shall be ensured accordingly in a time bound manner.

**7.3.9 Greenfield project of Chlor-Alkali plant of 600 MTD (2x300 MTD) and Captive Power Plant of 32 MW at Khasra no. 15/11, 12,13, 18/3, 19,20, 17/7/2, 12/2, 13, 14, 15, 17, 18/1, 24/2, 25/1, Village Landha, Tehsil Saha and District Ambala, Haryana by M/s Shree Ganesh Fats (P) Ltd. – reg EC.**

The project proponent and their consultant (Kadam Enviro) 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 during the 21<sup>st</sup> Reconstituted

Meeting of the Expert Appraisal Committee (Industry) held during 22<sup>nd</sup> – 23<sup>rd</sup> December, 2014 for preparation of EIA-EMP report.

All units producing Chlor Alkali listed at S.N. 4(d) are treated as category A due to its location outside the notified industrial area and have production capacity more than 300TPD.

M/s Shree Ganesh Fats (P) Ltd. has proposed for setting up of Chlor-Alkali plant of 600 MTD (2x300 MTD) and Captive Power Plant of 32 MW at Khasra no. 15/11, 12,13, 18/3, 19,20, 17/7/2, 12/2, 13, 14, 15, 17, 18/1, 24/2, 25/1, Village Landha, Tehsil Saha and District Ambala, Haryana. Plot area is 5.2 hectare (52000 m<sup>2</sup>) of which greenbelt will be developed in 33%(15600 m<sup>2</sup>). Cost of project is Rs. 580 Crores for phase 1 & 2. It is reported that no protected area, local legislation for their ecological landscape, cultural or other related value are located within 10 km distance. Total 10 water bodies have been informed ( without defining the name ) to be located within 10 km radius. Following products are proposed to be manufactured;

Sl. No.	Products	Proposed Quantity (MTPA)
1	Caustic Soda ( Lye)/Flakes	208800
2	Chlorine	183000
3	Hydrogen	80000
4	Hydrochloride acid	7200
5	Sodium Hypo Chloride	1800
6	Dilute Sulphuric Acid	4,200

Coal/biomass based thermal power plant (32 MW) will be installed.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during January, 2015 to March, 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (44 µg/m<sup>3</sup> to 156 µg/m<sup>3</sup>), PM<sub>2.5</sub> (26 µg/m<sup>3</sup> to 76 µg/m<sup>3</sup>), SO<sub>2</sub> (8 µg/m<sup>3</sup> to 20.3 µg/m<sup>3</sup>) and NO<sub>x</sub> (10 µg/m<sup>3</sup> to 48 µg/m<sup>3</sup>) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 9.57 µg/m<sup>3</sup>, 16.34 µg/m<sup>3</sup>, 0.058 µg/m<sup>3</sup> and 0.030 µg/m<sup>3</sup> for PM, SO<sub>2</sub>, HCl and Cl<sub>2</sub> respectively. The resultant concentrations are within the NAAQS except PM<sub>10</sub>. PM<sub>10</sub> exceeds due to vehicular movement, rural activities such as cow dung etc. ESP will be provided to coal/biomass fired boiler to control particulate emissions. Scrubber will be provided to control process emissions viz. Cl<sub>2</sub> and HCl. Total water requirement will be 1729 m<sup>3</sup>/day of which fresh water requirement will be 1344 m<sup>3</sup>/day and remaining quantity (384 m<sup>3</sup>/day) will be met from recycled/treated effluent. Wastewater generation will be 389 m<sup>3</sup>/day and treated in the ETP followed by RO and MEE. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept will be followed. Used oil will be sent to authorized re-processors. Brine sludge will be sent to TSDF. Fly ash will be sent to cement unit/brick manufacturing.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Haryana State Pollution Control Board on 15<sup>th</sup> June, 2015. The issues were raised regarding anticipation of ground water problem, nature of wastewater, impact of process emission, local development, risk assessment etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. After detailed deliberation, Committee sought following additional information:

1. Viability of project w.r.t. environmental angle.
2. To assess the impact on groundwater due its excessive extraction, a groundwater modeling study to be conducted by reputed institution covering long term impact to groundwater and base flow of the river. Measures to be taken for sustainability of groundwater.
3. Commitment to use of biomass/rice husk in boiler in place of coal
4. Risk analysis and management in handling of toxic material including Cl<sub>2</sub>

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

**7.3.10 Molasses based Distillery (60 KLPD), Power Generation (22.5 MW) and Sugar Unit (4400 TCD) at Gut No. 332 A, 332 B/2, 332 C, 221, Village Upalve, Tehsil Phaltan, District Satara, Maharashtra by M/s Swaraj India Agro Ltd. – reg EC.**

The project proponent and their consultant (MITCON Consultancy & Engineering Services) 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 during the 19th Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 28th– 30th May, 2014 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 Swaraj India Agro Ltd. has proposed for setting up of Molasses based Distillery (60 KLPD) and Power Generation Unit (2.5 MW) at Gut No. 332 A, 332 B/2, 332 C, 221, Village Upalve, Tehsil Phaltan, District Satara, Maharashtra. Proposed plant will be installed as the existing unit of Sugar unit (4400 TCD) and Cogeneration power plant (19.5 MW). Total plot area is 63 acre of which greenbelt will be developed in 18 acres. The cost of project is Rs. 311.2 Crore. Out of which, Rs. 22.45 Crore and Rs. 63.83 Crore are earmarked towards capital cost and recurring cost per annum. No. of working days of distillery is 333 days. No. of working days of Cogen Power plant during season is 160 days and off season is 55 days. It is reported that there is no ecological sensitive area and protected areas within 10 Km distance. Open scrub RF near Palvan Stony waste PF near Uplave is located within 10 Km distance. Banganga dam is located at a distance of 7 km.

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2015 to May, 2015 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (15.3 µg/m<sup>3</sup> to 40.1 µg/m<sup>3</sup>), PM<sub>2.5</sub> (8.5 µg/m<sup>3</sup> to 20.1 µg/m<sup>3</sup>), SO<sub>2</sub> (8.1 µg/m<sup>3</sup> to 17.5 µg/m<sup>3</sup>) and NO<sub>x</sub> (10.5 µg/m<sup>3</sup> to 20.5 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.4 µg /m<sup>3</sup>, 10.0 µg /m<sup>3</sup> and 6 µg /m<sup>3</sup> for PM, SO<sub>2</sub> and NO<sub>x</sub> respectively. The resultant concentrations are within the NAAQS. ESP will be provided to spent wash & coal fired boiler to control particulate emissions. Fresh water requirement from ground water source will be 130 m<sup>3</sup>/day for sugar unit; 509 m<sup>3</sup>/day for cogen and 388 m<sup>3</sup>/day for distillery. Further, PP informed that after recycling condensate, fresh water requirement will be reduced. Spent wash generation will be 460 m<sup>3</sup>/day and concentrated in MEE followed by

incineration in the spent wash fired boiler. Ash from bagasse will be sent to farmers. Fly ash from coal will be used for brick manufacturing.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 4th December, 2015. The issues were raised regarding project cost, action plan to treat effluent; greenbelt; 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 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 alongwith stack of adequate height shall be provided to spent wash & coal fired boiler to control particulate emission within  $50\text{mg}/\text{Nm}^3$ .
- ii) Total fresh water requirement from ground water source for 130 m<sup>3</sup>/day for sugar unit; 509 m<sup>3</sup>/day for cogen and 388 m<sup>3</sup>/day for distillery and prior permission shall be obtained from SGWA/CGWA.
- 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 evaporated in MEE and concentrated spent wash will be incinerated in the incineration boiler to achieve 'Zero' discharge. Evaporator Condensate shall be treated in polishing pond and recycled/reused in process. Sewage shall be treated in the STP. 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 18 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.
- xiv) All the commitments made during the Public Hearing/Public Consultation meeting held on 4<sup>th</sup> December, 2015 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.

#### **7.3.11 Proposed Expansion of Active Pharmaceutical Ingredient & Intermediates (47 MTA to 300 MTA) in Existing Unit at Survey No 137, 144P & 145P, village Panelav, Tehsil Halol, District Panchmahal, Gujarat by M/s Alembic Pharmaceuticals Limited (API Unit-II) – reg EC.**

The project proponent and their consultant (Aqua-Air Environmental Engineers Pvt. Ltd. Stay order no. SCA/4979/2012 dated 24/1/2013) 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 during the 24<sup>th</sup> Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> – 30<sup>th</sup> September, 2014 for preparation of EIA-EMP report.

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

M/s Alembic Pharmaceutical Limited (API Unit-II) has proposed for expansion of Active Pharmaceutical Intermediates (47 MTA to 300 MTA) in existing unit at Survey No 137, 144P & 145P, village Panelav, Tehsil Halol, District Panchmahal, Gujarat. Total plot area is 37332 m<sup>2</sup>, of which greenbelt and other forms of greenery will be developed on 20194 m<sup>2</sup> ( i.e. 54% of total

area). Total cost of project including cost of existing unit is Rs. 32 crore. Out of this, Rs. 2.68 crore is earmarked for environment management system. Pratappur Talav is located at a distance of 8.67 Km. Reserve Forest and Gugal reserve forest are located within 10 km distance. Following products will be manufactured:

Sr. No.	Product	Existing capacity (MTPA )	Proposed After expansion (MTPA )
1.	Candesartan Cilexetil	5	300
2.	Celecoxib	12	
3.	Irbesartan	2	
4.	Losartan Potassium	12	
5.	MEF Chloride	6	
6.	Moclobemide	2	
7.	Olmesartan	2	
8.	Ropinorole	3	
9.	Valsartan	3	
10.	Bupropion Hydrochloride	-	
11.	Etoricoxib	-	
12.	O Des Venlafaxine S	-	
<b>Total</b>		<b>47</b>	<b>300</b>

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 PM<sub>10</sub> (89.26 µg/m<sup>3</sup> to 75.23 µg/m<sup>3</sup>), PM<sub>2.5</sub> (39.68 µg/m<sup>3</sup> to 45.48 µg/m<sup>3</sup>), SO<sub>2</sub> (10.49 µg/m<sup>3</sup> to 12.35 µg/m<sup>3</sup>) and NO<sub>x</sub> (12.46 µg/m<sup>3</sup> to 15.37 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.4026 µg/m<sup>3</sup>, 0.2516 µg/m<sup>3</sup>, 0.77738 µg/m<sup>3</sup> and 0.037 µg/m<sup>3</sup> with respect to PM, NO<sub>x</sub>, SO<sub>2</sub> and HCl. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Bagfilter will be provided to additional coal fired boiler to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl, Cl<sub>2</sub> and SO<sub>2</sub>. Total water requirement will be increased from 70.8 m<sup>3</sup>/day to 106 m<sup>3</sup>/day after expansion. Out of which fresh water requirement will be 50 m<sup>3</sup>/day and remaining water requirement will be met from recycled/treated effluent. Total wastewater generation will be 55 m<sup>3</sup>/day after expansion and segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through stripper followed by MEE. Low TDS/COD effluent stream will be treated in the ETP and treated effluent will be passed through RO. RO permeate will be recycled/reused in the process. No effluent will be discharged outside the plant premises. ETP sludge and sludge from scrubber will be sent to TSDF. Distillation residue and process waste will be sent to the Authorized recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 12<sup>th</sup> June 2015. The issues were raised regarding ground water deterioration, facilitation of drinking water; ground water pollution; local employment, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

Certified compliance report dated 7.08.2015 issued by the Regional Office, Western Region is submitted. Point wise compliance report was discussed and the committee found few points non-complied. The Committee suggested them to submit action taken report.

After detailed deliberation, Committee sought following additional information:

1. Action taken points on non complied conditions of existing EC.
2. Item-wise detailed plan with time schedule w.r.t. ESR activities for 2.5% of project cost.
3. Status of national park/wildlife sanctuary within 10 km distance.
4. Latest status of court cases.

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

**7.3.12 Expansion of Active Pharmaceutical Ingredient (APIs) in Existing Unit at Survey No. 119, 120 & 121, At & Post village Panelav, Tehsil Halol, district Panchmahal, Gujarat by M/s Alembic Pharmaceuticals Limited (API Unit – I) – reg EC.**

The project proponent and their consultant (Aqua-Air Environmental Engineers Pvt. Ltd. Stay order no. SCA/4979/2012 dated 24/1/2013) 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 during the 24<sup>th</sup> Reconstituted Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup> – 30<sup>th</sup> September, 2014 for preparation of EIA-EMP report.

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

M/s Alembic Pharmaceutical Limited ( API Unit-I) have proposed for expansion of Active Pharmaceutical Ingredient (APIs) in Existing Unit at Survey No. 119, 120 & 121, At & Post village Panelav, Tehsil Halol, district Panchmahal, Gujarat. Total plot area is 68530.26 m<sup>2</sup>, of which greenbelt will be developed on 24000 m<sup>2</sup> (i.e. 35% of total area). Total cost of the expansion project is Rs. 36.81 crore. Out of this, Rs. 4.32 crore is earmarked for environment management system. A river Vishwamitri is flowing at a distance 3.2 km. Following products will be manufactured:

Sr. No.	Product	Existing (MT/M)	Proposed (After Expansion) (MT/M)
1	Clarithromycin	25	75
2	Azithromycin		
3	Roxythromycin		
4	Venlafaxine		
5	Fenofibrate		
6	Irbesartan		
7	Valsartan		
8	Telmisartan		
9	Clonidine Hydrochloride		

10	Modafinil		
11	Leflunomide		
12	Alendronate Sodium		
13	O Desmethyl Venlafaxine		
14	Meprobamate		
15	Vildagliptin		
16	Rivastigmine Tartrate		
17	Topiramate		
18	Lacosamide		
19	Pramipexole Dihydrochloride Monohydrate		
20	Olmesartan Medoxomil		
21	Linezolid		
22	Lercanidipine Hydrochloride		
23	Fluxetine Hydrochloride		
24	Deferasirox		
25	Ropinirole Hydrochloride		
26	Hydrochlorothiazide		
27	Lamotrigine		
28	Metoprolol Tartrate		
29	Metoprolol Succinate		
30	Quetiapine Fumarte		
31	Pentosan Polysulphate Sodium		
32	Levetiracetam		
33	Famotidine		
34	Memantine HCL	0	
35	Pregabalin		
36	Ivabradine		
37	Azilsartan		
38	Etoricoxib		
39	Derifenacin		
40	Celecoxib		
41	Rabeprazole Sodium		
42	Clopidogrel Bisulfate		
43	Felodipine		
44	Prasugrel Hydrochloride		
45	Mexiletine Hydrochloride		
46	Warfarin		
47	Bazedoxifene		
48	Bosentan		
49	Febuxostate		
50	Dronedarone		
51	Dabigatran		
52	Rivaroxaban		
53	Asenapine		
54	Silosodine		
55	Zolmitritan		
56	Iloperidone		
57	Agomelatine		

58	Ticagrelor		
59	Metaxalon		
60	Vilazodone Hydrochloride		
61	Teriflunomide		
62	Nisoldipine		
63	Fesoterodine Furmarate		
64	Minodronic acid		
65	Erlotinib		
66	Gefitinib		

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 PM<sub>10</sub> (80 µg/m<sup>3</sup> to 94 µg/m<sup>3</sup>), PM<sub>2.5</sub> (44 µg/m<sup>3</sup> to 49 µg/m<sup>3</sup>), SO<sub>2</sub> (14 µg/m<sup>3</sup> to 19 µg/m<sup>3</sup>) and NOx (15 µg/m<sup>3</sup> to 19 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.242 µg/m<sup>3</sup>, 0.45218 µg/m<sup>3</sup>, 0.51484 µg/m<sup>3</sup> and 0.15587 µg/m<sup>3</sup> with respect to PM, NOx, SO<sub>2</sub> and HCl. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Bagfilter will be provided to agro-waste/briquettes fired boiler to control particulate emissions. ESP will be provided to imported coal fired boiler. Quencher and alkali scrubber will be provided to incinerator. Scrubber will be provided to control process emissions viz. HCl, Cl<sub>2</sub> and NH<sub>3</sub>. Total Water requirement will be increased from 195 m<sup>3</sup>/day to 397.5 m<sup>3</sup>/day after expansion. Out of which fresh water requirement from ground water source will be 160 m<sup>3</sup>/day. Industrial effluent generation will be 245 m<sup>3</sup>/day, which is proposed to be segregated into high COD/TDS and low COD/TDS effluent stream. High COD effluent will be neutralized, treated through solvent stripper and multi effect evaporator and ATFD. Low COD/TDS effluent stream will be treated in the ETP followed by RO and treated effluent from RO will be recycled/reused for cooling tower make up. No effluent will be discharged outside the plant premises. ETP sludge and sludge from scrubber will be sent to TSDF. Distillation residue and process waste will be sent to Authorized recyclers/re-processors.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 12th June 2015. The issues were raised regarding ground water deterioration, facilitation of drinking water; ground water pollution; any accident case, safety measures, local employment, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

Certified compliance report dated 7.08.2015 issued by the Regional Office, Western Region is submitted. Point wise compliance report was discussed and the committee found few points non-complied. The Committee suggested them to submit action taken report.

After detailed deliberation, Committee sought following additional information:

1. List of existing utilities and additional utilities to be provided.
2. Action taken points on non complied conditions of existing EC.
2. Item-wise detailed plan with time schedule w.r.t. ESR activities for 2.5% of project cost.
4. Latest status of court cases.

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

#### **7.4 Any Other**

##### **7.4.1 Product Mix Change at existing Epichlorihydrin Plant, Manali, Chennai, Tamil Nadu by M/s Tamil Nadu Petroproducts Ltd.- reg. Amendment in EC (F.No.J-11011/280/2013-IA II(I))**

MoEF&CC vide letter no J-11011/280/2013 IA II has issued environmental clearance to M/s Tamil Nadu Petroproducts Ltd. for Product Mix Change at existing Epichlorihydrin Plant, Manali, Chennai, Tamil Nadu with following condition :

“Treated effluent from ETP shall be discharged to sea after conforming to the standards prescribed for the effluent discharge and obtaining permission from the TNPCB”

Now, PP vide letter dated 23.02.2016 has requested for the following amendment:

“the Unit shall discharge the treated effluent through the existing pipeline which is connected to M/s Manali Petro Chemical LTd.’s marine disposal effluent pipeline into the Bay of Bengal after satisfying the Standards prescribed by the TNPCB”

The Committee sought following additional information:

- (i) Give details of role and responsibility of individual unit contributing to the effluent pipeline

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

##### **7.4.2 Expansion of Molasses based Distillery (capacity 50 KLPD to 150 KLPD) at Gut No.398, 399, 400, 423, 424, Village Chitali, Tehsil Rahata, District Ahamadnagar, Maharashtra by M/s John Distilleries Pvt. Ltd.- reg. correction in TOR.**

MoEF&CC vide letter no J-11011/289/2014 IA II (I) dated 4<sup>th</sup> February, 2015 has issued TOR for expansion of Molasses based Distillery (capacity 50 KLPD to 100 KLPD). It was noted that as per form 1 and prefeasibility report, proposal is for expansion of molasses based distillery from 50 KLPD to 150 KLPD in place of 50 KLPD to 100KLPD. Therefore, committee recommended for correction in TOR letter for the said capacity i.e 50 KLPD to 150 KLD.

##### **7.4.3 Expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility (11600.2 TPA) at Sy. No. 87, 98/2, 98/3, 98/4, 98/5, 98/6, 98/7, 99/1c, 99/2c, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b, 108/2, 98/1, 230/2a, 230/2c, 229/13 and 229/8, with 3 MW coal/husk/pellets based Captive Power Plant at Village Akkiredigudem & Ramanakkapeta, Tehsil Musunuru, District Krishna, Andhra Pradesh by M/s Porus Laboratories Pvt. Ltd., Unit-IV- 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 Industry (bulk

drugs and 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 Porus Laboratories Pvt. Ltd. (Unit-IV) has proposed for expansion of Active Pharmaceuticals Ingredients (APIs) and API Intermediates Manufacturing unit with R&D facility (11600.2 TPA) at Sy. No. 87, 98/2, 98/3, 98/4, 98/5, 98/6, 98/7, 99/1c, 99/2c, 92/10, 106/1c, 106/2c, 107/2a, 107/2b, 107/3, 108/1b, 108/2, 98/1, 230/2a, 230/2c, 229/13 and 229/8, with 3 MW coal/husk/pellets based Captive Power Plant at Village Akkireddigudem & Ramanakkapeta, Tehsil Musunuru, District Krishna, Andhra Pradesh.

The proposal was first considered in 2nd EAC (INDUSTRY-2) meeting held during 16th - 17th December, 2015. After detailed deliberations, the Committee deferred the proposal and recommended to revise the proposal with adequate site plan and with full details of expansion in comparison to existing products through online. Now PP has submitted the requisite information and realign the layout.

MoEF&CC has issued EC vide letter no. J-11011/1101/2007- IA II (I) dated 02.02.2009. CFE for change in product mix has been obtained vide no. 508/PCB/CFE/RO-VJA/HO/2014 dated 29.11.2014. Further, CFO for change in product mix was obtained vide letter no. APPCB/VJA/13734/CFO/HO/2015-16 dated 13.03.2015

No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor falls within 10 km radius of the project site. There are 8 reserved forests within 10 km radius study area; Ramanakkapeta R.F. at 0.85 km (NW) and Ramanakkapeta R.F. at 4.8 km (NW); Somavaram R.F. at 3 km (NE); Lopudi R.F. at 4.5 km (E); Tummagudem R.F. at 3.9 km (N) and Tummagudem R.F. at 7 km (N); Arugolanupeta R.F. at 8 km (NW) and Annavaram R.F. at 8.5 km (SW). Vempadu Major Canal is at 0.23 km (W) and Tammilery River is at 8.4 km (NE) to the project site.

Plot area is 25009 m<sup>2</sup> of which greenbelt will be developed in the area of 8590 m<sup>2</sup>. Cost of project is Rs. 81.052 Crore including existing investment of Rs. 24.967 Crore. Rs. 31 Crore is earmarked towards capital investment on Pollution control measures and Rs. 38 Crore per annum is kept towards recurring cost. About 300 direct and indirect employments are generated out of this project. Followings are existing and proposed products.

#### Proposed Expansion Products, their Capacity and Therapeutic Category

Sl. No.	Product	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate / Chemical
1	Bisphenol Acetophenone	333.3	120	Chemical
2	P-Phenolphthalein bisphenol (or) 2-Phenyl-3,3-Bis (4-Hydroxyphenyl) Phthallimide (PPPBP)	10000	3600	Chemical
3	1,5-Bis-[2,6-dimethyl-4-(2-methyl-2-propenoxy) phenyl]-penta-(2,6-dimethyl-1,4-phenyleneoxide (MX-9000)	1389	500.4	Chemical
4	Tetramethyl bisphenol acetone (TMBPA)	276.7	99.6	Chemical
5	[1,1,1-Tri-(4-hydroxyphenyl)] ethane (THPE)	276.7	99.6	Chemical
6	4-Hydroxybenzonnitrile (HBN)	276.7	99.6	Chemical

7	4-Nitro-N-Methyl Phthalimide (4-NPI)	13889	5000.4	Chemical
8	Sumatriptan Succinate	16.7	6	Anti-Migraine
9	3-[2-(Dimethylamine)ethyl]-N-methyl-1H-indole-5-methane sulfonamide	366.7	132	Sumatriptan Intermediate
10	Ciprofloxacin Hydrochloride	1666.7	600	Anti-infective
11	Metformin Hydrochloride	666.7	240	Anti-Diabetic
12	Venlafaxine Hydrochloride	33.3	12	Antidepressant
13	Sertraline Hydrochloride	166.7	60	Antidepressant
14	Celecoxib	100	36	Antirheumatic
15	Clopidogrel Hydrogen Bisulfate	1000	360	Antithrombotic, Antiplatelet agent
16.	Enrofloxacin	33.3	12	Antibiotic
17	Pioglitazone Hydrochloride	66.7	24	Anti-Diabetic
18	Gabapentin	1666.7	600	Anticonvulsant
Total Production Capacity (Maximum 18 products at a time).		32224.7	11600	
<b>R&amp;D activity</b>		0.55	0.2	
<b>Total Production Capacity (18 products at a time and R&amp;D).</b>		<b>32225.3</b>	<b>11600.2</b>	<b>Production will be in Phase-I-75% and Phase-II-25%</b>

#### By-products

Sl. No.	By-product	Quantity (kg/day)	Quantity (TPA)	Name of product
1.	Piperazine ML's	9756.67	3512.4	Ciprofloxacin Hydrochloride
2	N- Ethyl Piperazine ML's	202.2	72.8	Enrofloxacin
3.	Spent Sulfuric Acid	245126	88243	4-Nitro-N-Methyl Pthalimide

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (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. ZLD system to be adopted
- iii. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report

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.

**7.4.4 Expansion of Rayon Tyre Cord, Dipped Fabric, Carbon Disulphide and Captive Power Plant (from 7.2 MW to 11.2 MW) at Khasra No.248, 342, 245, 246, 247 at Village and Taluka Ladpura, District Kota, Rajasthan by M/s Shriram Rayons (a unit of DCM Shriram Industries Ltd.)- reg EC.**

**Site Visit Report**

The proposal was considered in 3<sup>rd</sup> EAC meeting held during 18-19<sup>th</sup> January, 2016. After detailed deliberations, the Committee concluded that site visit should be undertaken by the Sub-Committee of EAC. Meanwhile the industry prepare the plan for reduction of fresh water by reuse/recycling and documents related to agreement with charcoal supplier be submitted. Accordingly a sub committee of EAC comprising following members undertook the site visit on 13.04.2016

Dr. J.P. Gupta – Chairman EAC, MoEFCC

Dr. Shashank Shekhar – Member EAC, MoEFCC

Shri Lalit Bokolia – Member Secretary EAC, MoEFCC

Following official of project proponent were present :

- Mr. V.K. Jaitly – Vice President & Factory Head
- Mr. Govind Kumar –General Manager Rayon Expansion Project

- Mr. S. Bali – General Manager Utility, Power House & Projects
- Mr. Kireet Joshi – General Manager Technical Services & QA
- Representatives of the Consultant - M/s. Kadam Environmental Consultants

At the outset, the representative of M/s Shriram Rayons (a unit of DCM Shriram Industries Ltd.) gave detailed presentation covering the important features of their company in the background of international market and demand of their product . The need for future expansion was explained. The proposed project is for expansion of the tyre cord facility – the key product. The cord is manufactured as yarn and dipped fabric based on customer demand. There are only four producers of the high performance rayon tyre cord worldwide, out of which the proponent is one. Representative expressed that the production process consists of the following stages: steeping, shredding, aging, xanthation, dissolving, ripening, spinning, coning, twisting and weaving followed by dipping.

Following important points are covered under the project :

1. The Company is seeking first time for Environmental Clearance and got the exemption of public hearing being a notified industrial zone.
2. Fresh water consumption will be increased from 8900 m<sup>3</sup>/day to 10,149 m<sup>3</sup>/day after expansion and sourced from Right main canal of Chambal River. Wastewater generation will be increased from 5995 m<sup>3</sup>/day to 8629 m<sup>3</sup>/day after expansion and treated in ETP.
3. Treated effluent with quantity of 1910 m<sup>3</sup>/day will be recycled /reused in the process. Remaining treated effluent i.e. 6719 m<sup>3</sup>/day will be discharged into natural drain. Sewage will be treated in the STP.
4. There will be an increase in other utilities and raw materials such as: captive power (from 7.2 MT to 11.2 MW), mustard husk (110 TPD to 266 TPD), coal (135 TPD to 178 TPD), CS<sub>2</sub> (15 MT/Day to 20 MT/Day) and grid power drawal will remain same.
5. Solid sludge bearing Zinc > 5 % will be sent to CTDF site at Udaipur. Used /spent oil will be sent to the authorised vendor. Cellulose waste will be sold to consumers. Fly ash will be disposed as per Fly Ash Notification.

Subsequently, the Committee undertook the spot assessment within the Plant. The Committee visited within process area, roof top of building to assess aerial view of green belt, , Effluent Treatment Plant, Sewage Treatment Plant, Drying bed, boiler zone and fuel handling area and effluent discharge point. Accordingly following observations are made;

- a. At the working zone in the process area, the company maintained good housekeeping practice. The Committee appreciated despite age old plant, the company modernizes and upgraded the machines over period of time.
- b. The on-line real-time monitoring system of the Effluent was seen and found to be working at ETP. It was noted to be a thick layer of sludge deposited in mixing zone at inlet point where doze of lime or caustic is being added to adjust pH of effluent. It may be

due irregular dose of alkaline media without regular measurement of pH. The Committee suggested installing online pH meter and accordingly feeding of lime or caustic could determine and mixed accordingly. This will reduce excess dosing of such material.

c. Similarly, foam was seen at aeration tank and escape of sludge from top of tube settler was observed. All this indicate, the company needs to optimize the plant so that after treatment effluent quality could be improved.

d. The company attempted to recycle the wastewater after STP by adding tertiary treatment. However, it was suggested to go for only secondary treatment if the water to be used for green belt development.

e. Power generation zone and boiler area was seen. It was noted that the company has started the practice of using agro wastes (husk) in place of coal as fuel for generation of steam / power . since there is huge generation of husk in the area, the Committee suggested to go for 100% use of husk and natural gas as feasible. This will reduce drastically ash handling from the coal. However, currently the company needs to keep the track on the use of ash being sold/handed over to private person.

f. The Company has made efforts to develop the green belt within the area and wherever, space available. However, it was suggested the green belt may be increased up to 33% of the plant area as sufficient water could be available from STP. This may be initiated before upcoming monsoon.

g. The CS<sub>2</sub> manufacturing plant working was seen. The team commends the environmental steps taken such as oil scrubbing system and sodium sulphide system. Available records indicate that the emissions are within norms. However, it is recommended that an online system for monitoring of H<sub>2</sub>S and CS<sub>2</sub> be installed at the final plant stack exhaust.

h. Green belt & STP of project proponent's township was seen and found satisfactory. It is recommended to increase plantation further.

i. The relatively high levels of PM10 as noted in EIA report, in Kota has been informed to be due to the additional traffic currently diverted into the city as well as the stone crushing and other chemical / mineral industries present in the area. Hence it is important for the plant to increase plantation to reduce air pollution in the area.

j. Sludge drying bed existing ETP to be maintained properly with adequate water collection system with SDB .

After the deliberation and in light of observation, the sub-Committee recommended the proposed expansion subject to fulfillment of the following conditions :

- I. Efforts need to be made by project proponent to reduce water intake and effluent water discharge by further increasing re-use/recycling. As there lot of scope available by adopting good practices within the ETP. Efforts to be done to make the plant zero discharge.
- II. An online system for monitoring of H<sub>2</sub>S and CS<sub>2</sub> to be installed at the stack exhaust.

- III. Density of the greenbelt to further increased upto 33% by using all open patches. A plantation plan for the same to be prepared and implemented.
- IV. Feed to the existing and proposed boiler should be switched from coal to husk or natural gas.
- V. Project proponent should draw a plan and implement the rainwater/storm water harvesting.
- VI. Improve the upkeep of pipeline by painting / colour coding.

The Committee deliberated upon the site visit report of the Subcommittee in the presence of representative of the Committee. The Committee was of the view that fresh water requirement of the project is very high, which need to be reduced by utilizing treated effluent for cooling tower make up and other process related usage. The Committee suggested them to reduce fresh water requirement by 2000 m<sup>3</sup>/day within 2 years by using treated effluent. Effluent shall be treated through advance treatment technology. Therefore, fresh water requirement should be restricted upto 7700 m<sup>3</sup>/day.

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

- i. The gaseous emissions (SO<sub>2</sub>, NO<sub>x</sub>, CS<sub>2</sub>, H<sub>2</sub>S, CO, HC) and particulate matter from process and CPP units shall conform to the norms prescribed by the CPCB/MPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Continuous emission monitoring system (CEMS) should be installed to measure SO<sub>2</sub>, NO<sub>x</sub> and Particulate from the CPP stack and SO<sub>2</sub>, CS<sub>2</sub> and H<sub>2</sub>S from process plant stacks.
- ii. Exhaust containing CS<sub>2</sub> and H<sub>2</sub>S gas from rayon plant shall be passed through scrubber.
- iii. An online system for monitoring of H<sub>2</sub>S and CS<sub>2</sub> to be installed at the stack exhaust.
- iv. Feed to the existing and proposed boiler should be switched from coal to husk / natural gas.
- v. Total fresh water requirement from from Right main canal of Chambal River should not exceed 7700 m<sup>3</sup>/day and prior permission shall be obtained from the concerned Authority. No ground water should be used. Efforts should be made to reduce the fresh water requirement by adopting 3 R's (Reduce, Reuse and Recycle) concept.
- vi. Total industrial wastewater generation shall not exceed 6300 m<sup>3</sup>/day. As proposed, effluent should be treated in the advance effluent treatment plant. Treated effluent (4300 m<sup>3</sup>/day) shall be discharged into drain after conforming to the standards prescribed for discharge norms and obtaining permission from the RSPCB. Treated effluent should be passed through guard pond. No process effluent shall be discharged in and around the project site. Sewage should be treated in STP. The water quality monitoring report for

treated effluent should be submitted to the CPCB and Ministry's regional Office at Lucknow.

- vii. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Zinc and Sulphide contents in the effluent should also be monitored
- viii. All the fly ash shall be utilized as per Fly ash Notification, 1999 subsequently amended in 2003 and 2008.
- ix. Density of the greenbelt to further increased upto 33% by using all open patches. A plantation plan for the same to be prepared and submitted to the Regional Office of MOEF&CC and implemented.
- x. Project proponent should draw a plan and implement the rainwater/storm water harvesting

**29<sup>th</sup> April, 2016 (Day 2)**

**7.5 Terms of Reference (TOR)**

**7.5.1 Expansion of Petrochemical and synthetic organic chemicals manufacturing facility at Plot No. T-2, MIDC Taloja, Tehsil Panvel, District Raigad, Maharashtra by M/s I G Petrochemicals Ltd. (IGPL).- 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 proposed project activities listed at 5 (e) and 5 (f) in the Schedule of EIA Notification, 2006 under 'A' category and appraised at Central Expert Appraisal Committee.

M/s. IG Petrochemicals limited Ltd. has proposed to expand existing petrochemical based product and synthetic organic manufacturing facility at Plot No. T-2, MIDC Taloja, Tehsil Panvel, Dist. Raigad. PP has obtained Environment Clearance of existing unit vide letter no. J-11012/78/96-IA.II dt. 20.06.1997 and J-11011/994/2007-IA.II (I) dt. 03.12.2009. As per Form-1, there are no National Parks, Wildlife sanctuaries, Bio sphere, Reserved/Protected forest lies within 10 km radius of project site. An ecologically sensitive area named Matheran zone situated within 5 Km distance. Total plot area is 118,026 m<sup>2</sup> . There is no mention of green belt development. It was advised to develop it 33% of project area. Cost of the proposed expansion project is Rs. 400 Crores. The proposed expansion has an employment potential of 105 personnel.

**A. Existing capacity**

S.No.	Products	Quantity
1.	Phthalic anhydride	169110 MTPA
2.	Benzoic acid	1000 MTPA

## B. Proposed products

S. N.	Name of Product	Quantity (MTPA)
1	PA Manufacturing Division	
a	Phthalic Anhydride (PA)	53,000
b	By product Benzoic Acid (recovery from effluent & residue)	500
2	<b>Plasticizers Manufacturing Division</b>	
a	Di- Octyl Phthalate (DOP)	62.500
b	Di-Iso Octyl Phthalate (DIOP)	
c	Di-Iso Nonyl Phthalate (DINP)	
d	Di- Decyl Phthalate (DIDP)	
e	Di- Butyl Phthalate (DBP)	
f	Di- Iso Butyl Phthalate (DIBP)	
g	Di Methyl phthalate (DMP)	
h	Di Ethyl phthalate (DEP)	
	<b>By products</b>	
i	Sodium sulphate	900
j	Phthalic Acid	800

The existing plant has 1 (Nos) furnace oil fired boiler (20TPH) and proposed 1 Nos. Coal fired boiler (15 TPH) with adequate stack heights & pollution control devices. The Committee suggested installing Bag filter as APCD. The Existing DG set of 2000 KVA is adequate for the expansion and hence there is no additional DG sets are requiring for the proposed expansion project.

Additional Fresh water requirement after proposed expansion will be 2040 m<sup>3</sup>/day, which will be sourced from MIDC. PP did not indicate the existing water requirement. The Committee noted that existing ETP is also receiving effluent from M/s Mysore Petrochemical Ltd. and this ETP is acting as common ETP for both plant. PP proposes to send the effluent to CETP for final treatment. The Committee was of the view that PP should not discharge effluent to CETP and plant should be based on ZLD. Also effluent of M/s Mysore Petrochemicals should have independent ETP within its own campus. PP proposes to treat effluent suitably in upgraded existing ETP on which Committee agreed to.

Spent Carbon and used oil/spent oil will be sold to the authorized reprocessor. Ash from coal fired boiler will be sent to brick manufacturer. Discarded container/barrels will be reused. PP did not mention details of other hazardous waste including ETP sludge. .

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) Work zone monitoring arrangements for hazardous chemicals.
- 4) Ambient air quality data should include VOC, other process-specific pollutants\* like NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, CS<sub>2</sub> etc., (\* - as applicable)
- 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) Details of Incinerator alongwith pollution control device to be provided.
- 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 solid/hazardous waste in TSDF, if any.
- 10) Action plan for utilization of MEE/dryers salts.
- 11) Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 12) Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 13) Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
- 14) Details on requirement of raw material, its source of supply and storage at the plant.
- 15) Complete process flow diagram for all products with material balance.
- 16) Details on requirement of auxiliary chemicals, solvents, catalysts, reactors and utilities to support the unit processes.
- 17) Brief description of equipments for various process.
- 18) Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
- 19) Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, etc.
- 20) Details on proposed LDAR protocol.
- 21) Ambient air quality should include hydrocarbon (methane and non methane), VOC and VCM (if applicable).
- 22) Risk Assessment & Disaster Management Plan
  - Identification of hazards
  - Consequence Analysis
  - Measures for mitigation of risk.

## **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. Detailed plan for water conservation including reuse and recycling including Plan for Zero Liquid discharge
- iii. Commitment to use bag filter
- iv. ETP should be Independent without mixing effluent from other campus.
- v. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report

It was recommended that ‘**TORs**’ **without 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

**7.5.2 Setting up of Bulk Drug Pharmaceutical unit at Khasra No 104, Village Fetri, Tehsil Nagpur, District Nagpur, Maharashtra by M/s Adroit Pharmaceuticals 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 Industry (Bulk drug and intermediate) 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 Adroit Pharmaceuticals Pvt. Ltd. has proposed for setting up of Bulk Drug & Pharmaceuticals at Khasra No 104, Village Fetri, Tehsil Nagpur, District Nagpur, Maharashtra. It is reported that no national parks, wildlife sanctuaries, Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance Following Environment sensitivity is involved:

- Gorewada National Park- 5km (NE)
- Satpuda Botanical Garden - (SE)
- Gorewada Lake- 3.5 km (NE),
- Phutala lake -7 km (SE),
- Ambazari Lake - 8.5 km (SE),
- Sonegaon Lake - 12.5 km (SE)
- Pili River - 5.75 km (SE)
- Surabardi Dam & Reserve - 7 km (SW)
- Wena Dam & Reserve - 7 km (SW)

Cost of proposed project is Rs. 2.30 Crore. Plot area is 8000 m<sup>2</sup>, of which 3000 m<sup>2</sup> of land will be developed as greenbelt. About 11 personnel will be deployed under the proposed project. Following products will be manufactured:

S.no	Product	Type	Capacity MTPM
1	Paracetamol	Bulk Drug	1000
2	Ferrous Ascorbate	Bulk Drug	100
3	Metformin HCL	Bulk Drug	500
4	Paracetamol-	Pharmaceuticals	200
5	D.C.Granules	Pharmaceuticals	50
6	Paracetamol- Tablets	Inorganic chemicals	800
7	Acetic Acid – 33 % (by product) Sodium Sulphate (by product)	Inorganic chemicals	34
	<b>Total</b>		<b>2684</b>



Total Power requirement for the unit is 300 KVA and drawn from MSEDCL. D. G. set of 100 KVA capacities will be installed as standby. Coal or Bio mass fired boiler with a capacity of 3 TPH will be provided and connected to stack of adequate height with suitable Cyclone Separator for dust control. Committee suggested to provide bagfilter in place of Cyclone.

Fresh water requirement of 68 m<sup>3</sup>/day will be met from ground water. Against this wastewater of 42.9 m<sup>3</sup>/day will be generated and treated in ETP based on neutralization, forced evaporation and solar evaporation. Domestic wastewater after collection in soak pit will be used for Gardening. The Committee suggested to have adequate treatment for process and DM water. The plant should be based on ZLD by segregation of process wastewater into high and low concentration of waste.

Hazardous waste so generated will be managed as per Hazardous Waste (Management & Handling) Rule, 1989. Process Influent (Metformin) will be Recycled in Process after Distillation and Disposal to CHWTSDF.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I 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 NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, CS<sub>2</sub> etc., (\* - as applicable)
- 4 Work zone monitoring arrangements for hazardous chemicals.
- 5 Detailed effluent treatment scheme including segregation 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 Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 10 Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 11 Details of incinerator if to be installed.
- 12 Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 13 Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
- 14 Details on solvents to be used, measures for solvent recovery and for emissions control.
- 15 Details of process emissions from the proposed unit and its arrangement to control.
- 16 Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 17 Action plan for utilization of MEE/dryers salts.

18 Material Safety Data Sheet for all the Chemicals are being used/will be used.

**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 application submitted to wildlife clearance to be submitted.
- iii ZLD to be followed.
- iv Commitment to install bagfilter.

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.

**7.5.3 Setting up of pharmaceutical and dyes and intermediates ( production capacity of 62 MTPM) at Survey No. 610, Sayla-Muli by-pass road, Bh. Sarvoday Jin Mill, Sayla, Tahsil Sayla, District Surendranagar, Gujarat by M/s Awake Chemicals Pvt. Ltd. – reg ToR.**

The project authorities and their Consultant 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 pharmaceutical and dyes and 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. Awake Chemicals Pvt. Ltd. has proposed for Setting up of pharmaceutical and dyes and intermediates ( production capacity of 62 MTPM) at Survey No. 610, Sayla-Muli by-pass road, Bh. Sarvoday Jin Mill, Sayla, Tahsil Sayla, District Surendranagar, Gujarat. It is reported that no national parks and wildlife sanctuaries, lies within 10 km distance. The Bhogava River is flowing at 5.3 Km distance, Nibhani River (Seasonal River) is flowing 7.0 Km distance. Total plot area is 11129.0 m<sup>2</sup> out of which greenbelt will be developed on 3680.0 m<sup>2</sup> of land. Total Cost for the expansion is Rs. 3 Crores. Following are the details of the products:

<b>Product</b>	<b>Capacity (MTPM)</b>
Diethyl Safranine	5
Safranine-O	5
Janus Green B	5
Methylene Blue Zn free	5
Titan Yellow	5
Succinimide	5
N-Bromo Succinimide	2

N-Chloro Succinimide	2
Bromohexine HCl (BP)	2
Bronopol	2
Niclosamide	4
Oxo-O-Tolyl Acetonitrile	5
4 Nitro 3,5 Dimethyl Pyridine	7
Dichloro Pyrimidine	5
2-Amino 5-Methyl Thiozole	2
Oil Mustard (Allyl Isothiocyanate)	1
<b>Total</b>	<b>62 MT/Month</b>

<b>By-Products</b>	
Zn Carbonate	1.6
Sodium Bromide	0.2
Sodium Bromide Solution	2.1
Sodium Acetate	1.2
Ammonium Chloride	0.6

Total Power requirement for the project will be 300 KVA, which will be drawn from MSEDCL. Additionally D.G. set of 150 KVA capacity to be installed to meet the emergency power. The electricity of 150 KVA will be supplied from PGVCL. Coal/Briquettes fired boiler with a capacity of 1 TPH with 30 m of Stack height will be provided with Dust collector followed by Bag Filter to control particulate emission.

Fresh water requirement will be 30 m<sup>3</sup>/day and to be sourced from groundwater. Wastewater 17 m<sup>3</sup>/day will be generated, which will be treated in ETP followed by evaporator and condenser system with RO system. No effluent will be discharged outside the premises.

ETP Sludge & Evaporation Residue will be disposed at approved TSDF Site. Used / Spent Oil will be sold to registered recycler after Collection, storage and used within premises as a lubricant. Discarded bags/ drums/ containers will be sold to authorized vendor. Distillation residue and Process waste will be disposal at approved CHWIF Site after Collection and storage.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (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. ZLD system to be adopted
- iii. Permission from groundwater department to be obtained.
- iv. Make a Plan for Rain Water Harvesting.
- v. Analysis of Soil samples

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.

### **7.5.4 Expansion of Petrochemical manufacturing facility by adding Maleic anhydride (MAN) (1,160 MTPA) at Plot No. T-1, MIDC Taloja, Tehsil Panvel, District Raigad, Maharashtra by Mysore Petrochemicals 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 proposed project activity is listed at 5 (e) of the Schedule in EIA Notification, 2006 under 'A' category and appraised at Central Expert Appraisal Committee.

M/s. Mysore Petrochemicals Ltd. (MPCL) has proposed for expansion of existing petrochemical based product at Plot No. T-1, MIDC Taloja, Tehsil Panvel, Dist. Raigad. PP has obtained Environment Clearance vide letter no. J-11012/986/2008-IA.II (I) dated 02.04.2008 for production capacity of 6500 TPA for Maleic Anhydride. As per form-1, there are no National Parks, Wildlife sanctuaries, Biosphere, within the impact area of 10 km. Total plot area is 12,406 m<sup>2</sup> and there is no mention of Green belt development. Cost of the proposed expansion project is Rs. 20.00 Crore. Followings products will be manufactured:

S. No.	Name of product	Existing capacity ( MTPA)	Proposed capacity ( MTPA)	Total
1.	Maleic Anhydride	6500	1160	7660

The Committee noted that PP presented higher production capacity from the existing EC.

The steam requirement for process for the proposed expansion shall be met from IGPL. After expansion the electricity will be require 50 Kwh sourced from MSEDCL.

PP did not mention existing water requirement. However, additional water requirement will be about 70 m<sup>3</sup>/day, which will be sourced through MIDC supply from Barvi Dam. Against this, 28 m<sup>3</sup>/day wastewater will be generated, which is proposed to be treated in other plant namely M/s IGPL. Effluent generated from M/s MPCL is sent to M/s I G Petrochemicals Ltd. (IGPL) for treatment. The Committee suggested that wastewater of this unit should be treated within the plant and based on ZLD.

Hazardous waste as distillation back end residue to be used as fuel in fired heater at IGPL Taloja and Organic residue (from cleaning of wash water/residue storage tank) will be sent to CHWTSDF Taloja.

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

#### A. Specific TOR

2. Details on requirement of raw material, its source of supply and storage at the plant.
3. Complete process flow diagram for all products with material balance.
4. Details on requirement of auxiliary chemicals, solvents, catalysts, reactors and utilities to support the unit processes.
5. Brief description of equipments for various process.

6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards.
7. Details on VOC emission control system from vents, stacks, fugitive emissions and flare management, etc.
8. Details on proposed LDAR protocol.
9. Ambient air quality should include hydrocarbon (methane and non methane), VOC and VCM (if applicable).
10. Risk Assessment & Disaster Management Plan
  - a. Identification of hazards
  - b. Consequence Analysis
  - c. Measures for mitigation of risk.

## **B. Additional TOR**

1. 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.
2. Detailed plan for water conservation including reuse and recycling including Plan for Zero Liquid discharge
3. ETP should be Independent without mix from other campus.
4. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report

It was recommended that '**TORs' without 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

### **7.5.5 Setting up of distillery Unit: 120 KLD (Molasses /Grain Based) and 3.0 MW co gen Power plant at Village Dhandheda, Tehsil & District Muzaffarnagar, Uttar Pradesh M/s Swarup Beverages Pvt. Ltd. – 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.

### **7.5.6 Proposed Integrated 5000 TCD Sugar & 35 MW Cogen Power Plant & 80 KLPD Molasses based Distillery at Village Selu, PO Jategaon, Taluka Gevarai, District Beed, Maharashtra by M/s Pingale Sugar And Agro Products 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 Pingale Sugar & Agro Products Private Ltd. (PSAPPL) has proposed Integrated 5000 TCD Sugar & 35 MW Cogen Power Plant & 80 KLPD Molasses based Distillery at Village Selu, PO Jategaon, Taluka Gevarai, District Beed, Maharashtra. The proposal was considered in 4<sup>th</sup> EAC meeting held during 11-12<sup>th</sup> February, 2016. During discussion Committee noted that the proposed distillery unit will be set up within the existing sugar unit which is also under expansion upto 5000 TCD with 35 MW Cogeneration plant. The Committee observed that PP has applied a separate Environmental Clearance for expansion of sugar unit in the State while application of EC has been filed in Centre seeking EC separately. Therefore, Committee was of the view that piece-meal approach for getting EC from Centre and State at the same time is not acceptable. It was suggested to apply EC with consolidated proposal for sugar and distillery together so that cumulative impact of both project together is assessed. The Committee therefore did not agree with the proposal which is submitted stand alone for distillery only. Now the PP has proposed as integrated project along with sugar unit.

As per Form-1, it is reported that no national parks, wildlife sanctuaries, Reserve Forest (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Godavari is flowing at a distance of 6.5 km.

Project will be executed within 31 Acres of land, of which 20 acre will be developed as greenbelt. Total project cost will be Rs. 327 Crore of which Rs. 29.30 crore will be earmarked for pollution control measures. About 370 persons will be employed. Following products will be manufactured:

Sr. No.	Name of the Products	Quantity	No. of Working days
1	Sugar Plant	5000 TCD	160
2	Cogen Power Plant	35 MW	175
3	Distillery (ENA/RS/AA)	80 KLPD	270

Bagasse fired boiler having 150 TPH capacity will be installed and the process steam & power required for the proposed ethanol plant will be met through 32 TPH slop fired boiler connected with ESP. Cogen boiler will be connected to Stack of 80 m height and provided with ESP as pollution control device. with 74 m stack height will be provided to slop fired boiler as pollution control device.

Fresh Water will be drawn from Godavari river. The proposed project will require 1366 m<sup>3</sup>/day fresh water, against which 292 m<sup>3</sup>/day waste water will be generated from sugar plant and 640 m<sup>3</sup>/day spent wash will be generated from distillery. Effluent from Sigar and Cogen will be treated in ETP. Treated wastewater is proposed to be used for irrigation along with STP effluent. Wastewater generated from the proposed distillery unit in the form of spent wash will be concentrating in multiple effect evaporator and then sent for bio-composting. Condensate from MEE will be recycled back to the process, while spent less and other waste water will be treated in ETP units and treated water will be used for the bio-composting.

ETP sludge will be used as fertilizer for gardening and Ash so generated will be sold to

brick manufacturer, Press mud will be distributed 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 (as referred on Ministry's web site) 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. Details of bio-composting yard.
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
15. Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith 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 in respect of Sugar.
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 press mud.
23. Flyash management plan for coal based and bagasse and action plan
24. Details on surface/ground 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, PM2.5, SO2\*, NOx\*, 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. No ground water to be drawn for the proposed project.
- iii. Proper plan for management of Boiler ash and ETP sludge 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.

### 7.5.7 Setting up of synthetic organic resins (Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin) and Laminated Sheets at Survey No.: 326p1, NH-27, village Ravapar Nadi, Taluka and District Morbi, Gujarat by M/s Highborne Laminates 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 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. Highborne Laminates Pvt. Ltd. has proposed Setting up of synthetic organic resins (Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin) and Laminated Sheets at Survey No.: 326p1, NH-27, village Ravapar Nadi, Taluka and District Morbi, Gujarat. It is reported that no national parks, Reserve/ protected forest and Wildlife Sanctuaries lies within 10 km distance. Machchhu River and Godadhari river are flowing at a distance of 2.95 km and 4.30 km (E) respectively from proposed site.

Total plot area is 13962.0 m<sup>2</sup> of which 4610.0m<sup>2</sup> area will be developed as green belt. Total project cost including existing facilities is Rs. 1 crore. About 70 persons will be employed. Following products will be manufactured:

No.	Name of Product	Quantity (MTPM)
1	Phenol Formaldehyde Resin (P. F. Resin)	450
2	Melamine Formaldehyde Resin (M. F. Resin)	225
3	Urea Formaldehyde Resin (U. F. Resin)	225
4	Laminated Sheets	1,50,000 Nos./Month

Proposed project will draw 300 KW electricity from Paschim Gujarat Vij Company Ltd. (PGVCL). Additionally D. G. Set of 300 KVA using HSD/LDO at the rate of 20 Ltr./Hr be provided. Coal / Briquettes fired boilers (4TPH) and a Thermic Fluid Heater (12 lac kcal/hr) with 30 m stack height and connected with Cyclone separator followed by Bag Filter as pollution control device. Condenser will be used for Laminated Sheets Dryer with 11 m stack height.

Total 60 m<sup>3</sup>/day of fresh water will be used and sourced from own borewell. Against which 23.93 m<sup>3</sup>/day wastewater will be generated. Domestic wastewater after treatment in sewage treatment plant will be used for gardening. Chemically treated water, Boiler blow down, RO rejected, cooling tower blow down water will be collected in treated water collection tank and then evaporated in Steam based evaporation system followed by condenser. The plant will be based on Zero Effluent Discharge system.

ETP Sludge so generated will be sent to TSDF site. Used Oil after Collection, storage will be sent to the authorized recycler. Discarded Containers/Barrels/plastic will be sent to the authorized vendors and Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on 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. Briquettes to be used only in place of coal.

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.

### **7.5.8 Setting up of synthetic organic resins (Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Melamine Formaldehyde Resin- 850 MTPM) Survey no. 69/2, Village Gala, Taluka & District Morbi, Gujarat by M/s Sunstar Laminate- 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.

### **7.5.9 Proposed expansion of Synthetic Organic Chemicals and Coal based power plant at Survey No. 13/A1, 16, 17, 23, 67, 68, 69, 70/A, A2, Village Gondiparla, Mandal and District Kurnool, Andhra Pradesh by M/s Sree Rayalaseema Hi-Strength Hypo Limited. Reg TOR.**

The project authorities and their Consultant gave a detailed presentation on the salient features of the proposed expansion 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 Industry outside the notified industrial area/estate listed at 5 (f) and Chlor alkali plant less than 300 TPD are B category project, due to interstate boundary (Telangana – Andhra Pradesh (1.1 Km NE direction) i.e. less than 5 km, listed at S.N. 4 (d) treated as A category and appraised at central Level.

M/s. Sree Rayalaseema Hi-Strength Hypo Limited has proposed expansion of Synthetic Organic Chemicals and Coal based power plant at Survey No. 13/A1, 16, 17, 23, 67, 68, 69, 70/A, A2, Village Gondiparla, Mandal and District Kurnool, Andhra Pradesh. 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 Gadidemadugu Reserve Forest is situated at 6.1 Km (SE) and Tungabhadra river is flowing at distance of 1.5 km in SW direction. As per Form-1, total plot area is 35.45 ha and cost of project is Rs. 150 crores. Total number of worker is 60. Following products will be manufactured:

S. No	Product Name	Units	Capacity		
			Existing	Proposed	Total
1.	Mono Chloro Acetic Acid	TPD	16.7	66.8	83.5
2.	Sodium Methoxide	TPD	-	20	20

S. No	Product Name	Units	Capacity		
			Existing	Proposed	Total
3.	Coal based – power	MW	3	10	13
4.	Bio Mass Based – power	MW	6	-	6
<b>By-Products</b>					
1	Hydrochloric acid (30%)	TPD	19.4	77.4	96.8

Power load will increase from 7 MW to 10 MW and shall be sourced from CPP/AP Transco. The existing plant have 1 x 3 TPH Husk fired boiler, 1 x 50 TPH Coal/biomass fired boiler and 50 TPH Coal fired boiler is proposed under the project. Standby DG set of 1 x 750 KVA in addition to existing DG sets of 1 x 725, 1 x 750, 1 x 1010 KVA capacity will be provided. Electro static precipitator (ESP)/Bag filters will be installed as air pollution control equipment for coal fired boiler.

As per submission in Form 1 Fresh water requirement will increase 1349.5 m<sup>3</sup>/day to 2300.7 m<sup>3</sup>/day. Fresh water will be drawn from Tungabhadra river. Quantity of wastewater will be increase from 281.6 m<sup>3</sup>/day to 655.5 m<sup>3</sup>/day. The process and utilities wastewater will be treated in effluent treatment plant. The treated effluents are used for cooling towers makeup and greenbelt development.

The organic residue from process will be sent to cement plants for co-incineration. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Ash generated from coal fired boilers will be sent to brick manufacturers/Cement Plants. The other solid wastes expected from the unit, are containers, empty drums which are returned to the product seller or sold to authorized buyers after detoxification.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (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. Work zone monitoring arrangements for hazardous chemicals.
4. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
5. Action plan for odour control to be submitted.
6. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
7. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
8. Action plan for utilization of MEE/dryers salts.
9. Material Safety Data Sheet for all the Chemicals are being used/will be used.

10. Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
13. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
14. Details on demand of the product- chlorine and its associated products.
15. Details on raw materials used in the production of chlorine (sodium chloride, potassium chloride, etc.), its storage and handling.
16. Details of proposed source - specific pollution control schemes (salt washing, filtration, cell ventilation as, chlorine handling and safety, etc.) and equipments to meet the national standards.
17. Details on products to be made and handling-chlorine, caustic soda, etc.
18. Details on tail gas treatment.
19. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
20. In case of modernization of existing mercury based chlor-alkali plants with membrane cell Process (MBCP) industries or new units in the existing industry premises, remediation measures adopted to restore then environmental quality of the ground water, soil, crop, air, etc., are affected due to salinity and a detailed compliance to the prior environmental clearance/ consent conditions.
21. Details on ground water quality and surface water quality of nearby water sources and other surfaced rains. The parameters of water quality may include Residual chlorine\*, TDS\*, alkalinity\*, pH\* & Mercury\* (in water & sediment), etc. (\*- As applicable)
22. Details on existing ambient air quality and expected, emissions for PM10, PM2.5, SO2\*, NOx\*, CO2\*, CO\*, Chlorine\*, acid mist\* 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)
23. Specific programme to monitor safety and health protection of workers.
24. Risk assessment should also include leakages and location near to caustic soda plant & proposed measures for risk reduction
25. Details of the emergency preparedness plan for chlorine/ Hydrogen storage, handling and transportation and on- site and off- site disaster management 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.
- ii. Plan for fresh water reduction.
- iii. Detailed plan for Ash management.

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.

**7.5.10 Setting up of Bulk Drugs and Intermediates Manufacturing Unit (135.3 TPM) at Sy. No. 45/1 to 45/54 and 46/1 to 46/22 Kovvada Agraharam Village, Pusapatirega Mandal Vizianagaram District, Andhra Pradesh by M/s SVL Life Science 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 (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. SVL Life Science Pvt. Ltd. has proposed for Setting up of Bulk Drugs and Intermediates Manufacturing Unit (135.3 TPM) at Sy. No. 45/1 to 45/54 and 46/1 to 46/22 Kovvada Agraharam Village, Pusapatirega Mandal Vizianagaram District, Andhra Pradesh by M/s SVL Life Science Pvt. Ltd. There are three reserve forests in the study area; Konada RF at a distance of 7.8 km in south direction, Kumili RF at a distance of 1.6 km in northwest direction, Amarsingi RF at a distance of 7.6 km in northwest direction. Kandivalasa River is flowing at distance of 4.3 km in east direction and Champavati River is flowing at a distance of 6.9 km in southwest direction. As per Form-1, it is reported that there are no ecologically sensitive areas like national parks, sanctuaries within 10 km radius of the site

Total plot area is 17.67 Acres of which an area earmarked for greenbelt is 5.9 Acres. Total capital cost of the project is Rs. 25 Crores. Following products will be manufactured;

S.No	Name of the Product	CAS No.	Capacity	
			Kg/day	TPM
<b>I. Bulk Drugs</b>				
1	Losartan Potassium	124750-99-8	200	6.0
2	Pregablin	148553-50-8	250	7.5
3	Flucanazole	86386-73-4	100	3.0
4	Ketorolac	74103-06-3	200	6.0
5	Ondansetron	99614-02-5	50	1.5
6	Atrovastatin Calcium	134523-03-8	100	3.0
7	Olanzapine	132539-06-1	70	2.1
8	Linezolid	165800-03-3	60	1.8
9	Sumatriptan	103628-46-2	100	3.0
10	Quetiamine Fumerate	111974-72-2	100	3.0
11	Dronedarone HCl	141625-93-6	30	0.9
<b>Total - I (Worst case 6 Products on campaign basis)</b>			<b>950</b>	<b>28.5</b>

<b>II. Drug Intermediates</b>				
12	Cis Hydroxy Lactum	42399-49-5	200	6.0
13	Pramipexole HCl	104632-25-9	60	1.8
<b>Total - II</b>			<b>260</b>	<b>7.8</b>
<b>III. Fine Chemicals</b>				
14	Sodium Methoxide	124-41-4	3000	90
<b>Total - III</b>			<b>3000</b>	<b>90</b>
<b>IV. Nano Carbons</b>				
16	Kantera	13815-90-2	150	5
17	Graphene Oxide	7782-42-5	150	5
<b>Total - IV</b>			<b>300</b>	<b>9</b>
<b>Grand Total (I+II+III+IV)</b>			<b>4510</b>	<b>135.3</b>

Two coal fired boils 10 TPH & 6 TPH capacities will be installed and connected with bag filter. Additionally, DG sets of 2 x 1000 KVA and 1 x 500 KVA capacity are also be provided. Gaseous emissions from process such as Hydrogen Bromide, Hydrogen Chloride, Sulfur dioxide, Carbon dioxide, Oxygen and Hydrogen will be scrubbed in two stage water scrubbers in as primary scrubbers and caustic in secondary scrubbers and scrubbed effluents are sent to ETP.

Total fresh water requirement from underground for the proposed plant will be 168.6 m<sup>3</sup>/day, against which 138.9 m<sup>3</sup>/day waste water will be generated. The high COD/TDS effluents are sent to Stripper followed by MEE, AFTD. The condensate from MEE and AFTD is treated along with utility blow downs and domestic wastewater in biological treatment plant followed by Reverse Osmosis for reuse in cooling towers make-up.

It is reported that stripper distillate, process residue and solvent residue will be sent to cement plants for co-incineration. The evaporation salts, ETP sludge and activated carbon will be sent to TSDF. Waste oil and used batteries from the DG sets will sent to authorize recyclers. Ash generated from coal fired boilers will be sent to brick manufacturers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on 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 NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, 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 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.

### **7.5.11 Proposed expansion of Synthetic Organic Chemicals and Coal based power plant at Survey No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Village Gondiparla, Mandal and District Kurnool, Andhra Pradesh by M/s Sree Rayalaseema Alkalies And Allied Chemicals 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 Industry outside the notified industrial area/estate listed at 5 (f) and Chlor alkali plant more than 300 TPD listed at S.N. 4 (d) are treated as A category and appraised at central Level.

M/s. Sree Rayalaseema Alkalies and Allied Chemicals Ltd. has proposed expansion of Synthetic Organic Chemicals and Coal based power plant at Survey No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Village Gondiparla, Mandal and District Kurnool, Andhra Pradesh. PP has obtained Environment Clearance Vide letter no. F. No. J-11011/619/2009-IA.II (I), dt. 14.02.2012. There are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km. Gadidamadugu Reserve forest situated at a distance of 5.5 Km in East direction and Pullaiah Reserve forest situated at a distance of 8.7 Km in southwest direction.



Total plot area is 152.4 ha of which greenbelt will be developed in the area of 89.03 ha (33%). Cost of the proposed expansion project is Rs. Rs. 360 crores. The proposed expansion has an employment potential of 250. Followings products will be manufactured;

S. No	Product Name	Unit	Production Capacity		
			Existing	Proposed	Total
<b>I. Chloro-Alkali Plant</b>					
1	Caustic Soda Lye (Or) Flakes	TPD	520	500	1020
	Potassium Hydroxide Lye (Or) Flakes (100 % basis)				
2	Hydrochloric Acid (100%)	TPD	173	140	313
3	Liquid Chlorine	TPD	300	300	600
4	Sodium Hypochlorite (100% Cl <sub>2</sub> basis)	TPD	8	7	15
5	Barium Sulphate	TPD	5	5	10
6	Potassium carbonate	TPD	50	-	50
7	Sodium Sulphate	TPD	-	10	10
<b>II. Chloromethanes</b>					
1	Methyl Chloride	TPD	0.45	10	10.45
2	Methylene Chloride	TPD	61	61	122
3	Chloroform	TPD	56	46.45	102.45
4	Carbon tetrachloride	TPD	7.6	7.6	15.2
5	Hydrochloric Acid (100 %)	TPD	23.5	23.5	47
<b>III. Chlorodifluoromethane</b>					
1	Chlorodifluoromethane (R22)	TPD	-	10	10
<b>IV. Captive Power Plant</b>					
1	Captive Power Plant (Coal based)	MW	76	-	76
2	Power generation Furnace Oil (31 MW - Standby)	MW			

Existing plant has 3 no of Coal fired boilers with capacities of 45 TPH, 100 TPH and 110 TPH. No other boiler is being proposed. Additionally, DG set of 1 x 500 KVA capacity is proposed in addition to existing DG sets of 1 x 160, 1 x 285, 1 x 400, 1x 500 KVA. Coal fired boilers are provided with Electro Static Precipitator (ESP)/Bag filters. Proper details of bag filter and ESP are not given.

As informed by PP, freshwater requirement will be increased from 12137 m<sup>3</sup>/day to 16049 m<sup>3</sup>/day and water drawn from Tungabhadra River. Against this, quantity of wastewater will increase from 1099 m<sup>3</sup>/day to 1310 m<sup>3</sup>/day. Wastewater will be treated in ETP and the treated waste water will be reuse for cooling purposes.

Sludge from Pretreatment of brine and effluent treatment plant sent to secured landfill within plant site. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Ash generated from coal fired boilers is sent to brick manufacturers. Containers, empty drums are returned to the product seller or sold to authorized buyers after detoxification.

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 Work zone monitoring arrangements for hazardous chemicals.
- 4 Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
- 5 Action plan for odour control to be submitted.
- 6 A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
- 7 Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
- 8 Action plan for utilization of MEE/dryers salts.
- 9 Material Safety Data Sheet for all the Chemicals are being used/will be used.
- 10 Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
- 11 Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
- 12 Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
- 13 Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
- 14 Details on demand of the product- chlorine and its associated products.
- 15 Details on raw materials used in the production of chlorine (sodium chloride, potassium chloride, etc.), its storage and handling.
- 16 Details of proposed source - specific pollution control schemes (salt washing, filtration, cell ventilation as, chlorine handling and safety, etc.) and equipments to meet the national standards.
- 17 Details on products to be made and handling-chlorine, caustic soda, etc.
- 18 Details on tail gas treatment.
- 19 Details on requirement of energy and water alongwith its source and authorization from the concerned department.
- 20 In case of modernization of existing mercury based chlor-alkali plants with membrane cell Process (MBCP) industries or new units in the existing industry premises, remediation measures adopted to restore then environmental quality of the ground water, soil, crop, air, etc., are affected due to salinity and a detailed compliance to the prior environmental clearance/ consent conditions.
- 21 Details on ground water quality and surface water quality of nearby water sources and other surfaced rains. The parameters of water quality may include Residual chlorine\*, TDS\*, alkalinity\*, pH\* & Mercury\* (in water & sediment), etc. (\*- As applicable)
- 22 Details on existing ambient air quality and expected, emissions for PM10, PM2.5, SO2\*, NOx\*, CO2\*, CO\*, Chlorine\*, acid mist\* 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)
- 23 Specific programme to monitor safety and health protection of workers.
  - 24 Risk assessment should also include leakages and location near to caustic soda plant & proposed measures for risk reduction
  - 25 Details of the emergency preparedness plan for chlorine/ Hydrogen storage, handling and transportation and on- site and off- site disaster management plan.

## **B. Additional TOR**

1. 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.
2. Detailed Plan for fresh water reduction by recycles and reuse within the plant.
3. Detailed plan for Coal handling and Ash management.

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.

### **7.5.12 Proposed expansion of synthetic organic chemicals at Plot No: 4 & 5, Beside Sub-Station-II, I.D.A, Bollaram, Mandal Jinnaram, District Medak, Telangana by M/s Balaji Amines 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 Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level Expert Appraisal Committee (I). However, due to its location inside the CPA ( Bollaram area), the project is treated as category A and appraised at central level.

M/s. Balaji Amines Ltd. Proposed expansion of synthetic organic chemicals at Plot No: 4 & 5, Beside Sub-Station-II, I.D.A, Bollaram, Mandal Jinnaram, District Medak, Telangana. The unit has been operating prior to EIA, Notification 2006 vide consent order no. APPCB/PTN/BLM/73/RO/W/2003/483-535 dated 24.02.2005. There are no National Parks, Wildlife sanctuaries and ecologically sensitive areas within the impact area of 10 km. Besides several local tanks, the Aminpur Lake is at 3.0 Km (SSW) distance and Kazipa reserved forest is at 5.6 km NNW.

Total plot area is 16993 m<sup>2</sup>, of which green belt will be developed on 5646 m<sup>2</sup>. Cost of the proposed expansion project is Rs. 3 crores. The proposed expansion has an employment potential of 95. Followings existing and proposed products are as follows:

### Existing Products

S. No	Product	Quantity kg/Month
1	Dimethyl Amine HCL,TMA HCL,DEA HCL,TEA HCL, MMA HCL	120000

### List of Proposed Products

S. No	Product Name	CAS No's	Quantity Kg/Month
1.	16-Alpha hydroxyPrednisolone	13951-70-7	200.00
2.	Beclomethasone Dipropionate	4419-39-0	200.00
3.	Betamethasone 17-valerate	2152-44-5	500.00
4.	Betamethasone Acetate	987-24-6	250.00
5.	Betamethasone dipropionate	5593-20-4	500.00
6.	Betamethasone Sodium Phosphate	151-73-5	250.00
7.	Budesonide	51333-22-3	700.00
8.	Ciclesonide	141845-82-1	1500.00
9.	Dimethylamine Hydrochloride	506-59-2	12,00000.00
10.	Emtricitabine	143491-57-0	600.00
11.	Flumetasone Pivalate	2002-29-1	525.00
12.	Fluticasone Furoate	397864-44-7	500.00
13.	Lamivudine	134678-17-4	400.00
14.	Mometasone Furoate	105102-22-5	500.00
15.	Nadolol	42200-33-9	400.00
16.	Povidone Iodine	25655-41-8	200000.00
17.	PVP-A Copolymer Series	25655-41-8	50000.00
18.	VP/DMAEMA Quaternized(PQ-11)	53633-54-8	50000.00
	<b>Total</b>		<b>1,507,025.00</b>

Existing Coal fired boiler of 3 TPH capacity will be use for the proposed expansion. Similarly existing Thermic fluid heater of 2 Lac & 10 Lac Kcal/hr capacity will be continue under proposed expansion. Power requirement of proposed project will be made available through TSPCPDCL. In addition to existing 375 KVA, 360 KVA DG will be installed. Process emission SO<sub>2</sub>, NO<sub>2</sub> & NH<sub>3</sub> will be scrubbed by using chilled water and caustic solution

Total Fresh water requirement shall be 135 m<sup>3</sup>/day from TSIC supply. Against this, a quantity of 57.50 m<sup>3</sup>/day of wastewater will be generated. Wastewater will be evaporated in MEE with stripper and ATFD after neutralization. The condensate from MEE and ATFD will be collected and treated in effluents treatment plant along with effluents from utilities followed by RO. RO rejects will be send back to MEE and RO Permeate will be reused back.

Organic Residue will be sent to Cement Industries. Inorganic solid waste, ETP sludge and MEE salts will be sent to TSDF. Spent carbon will be sent to Cement Industries. Coal ash from Boiler will be sent to Brick manufacturers and Used Oils & Grease will be sent to SPCB Authorized Agencies for Reprocessing/Recycling.

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. Details of Incinerator alongwith pollution control device to be provided.
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. Action plan for utilization of MEE/dryers salts.
11. Material Safety Data Sheet for all the Chemicals are being used/will be used.
12. Authorization/Membership for the disposal of solid/hazardous waste in TSDF are being used/will be used.
13. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
14. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
15. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

**B. Additional TOR**

1. 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.
2. Recommendation of SPCB.

It was recommended that '**TORs**' **without 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.

**7.5.13 Manufacturing of synthetic organic chemicals at Opp. Hokabaj Textile, Chhipa Kui Road, Danilimda, Ahmedabad, Gujarat by M/s S I Dye Chem- 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.

**7.5.14 Setting up of 200 KLPD Molasses Based Distillery along with 6.0 MW Co-generation Power Plant at village Hariawan, Tehsil & District Hardoi, Uttar Pradesh by M/s DCM Shriram 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 DCM Shriram Limited is Setting up of 200 KLPD Molasses Based Distillery along with 6.0 MW Co-generation Power Plant at village Hariawan, Tehsil & District Hardoi, Uttar Pradesh. As per Form I, No National Parks, Reserved Forests/ Protected Forests, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Behainsta river is flowing at a distance of 1 km SE direction and Lucknow branch canal is at a distance of 6 km E direction. Barunan Lake is situated at a distance 2 km W direction.

Total plot area is 16.75 ha, of which 5.53 ha (33%) of the area will be earmarked for greenbelt. The plant is located adjacent to existing sugar mill. Cost of project is Rs. 188 Crores and out of this Rs. 40 Crore and Rs. 4.0 Crores has been earmarked towards capital cost and recurring cost per annum for Environmental Protection Measure respectively. The proposed project has an employment potential of 145. Followings products will be manufactured:

S. No.	Unit	Capacity
1	Distillery (ENA/RS/Ethanol/IMFL/Impure Alcohol)	200 KLPD
2	Co-Generation Power Plant	6.0 MW

60 TPH spent wash and Coal/Rice Husk/Bagasse fired boiler will be installed and connected to ESP as air pollution control equipment. Committee suggested for not using coal. Two DG set of 1500 KVA will be provided as additional power source.

Fresh water requirement will be 1792 m<sup>3</sup>/day and sourced from ground water. Spent wash generated would be concentrated in Multi-effect evaporator and then used as fuel in the boiler. Process condensate from MEE will be treated and recycled back in the process. Complete spent wash will be concentrated and incinerated. Plant is based on ZLD. PP proposed for using fresh water requirement from underground. Committee was of opinion to explore the use of surface water as surface water bodies are available vicinity and advised to have storage tank within the plant to reduce the burden on ground water.

Fly ash from the Boiler will be utilized in nearby brick manufacturers/ 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 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. Five year plan of CSR activities to be discussed in the Public hearing and drawn accordingly for inclusion in EIA-EMP report.
- iii. At least 50 % water requirement should be met from river/ canal/ lake/rain water harvesting out of total water requirement and permission from Central Ground water Authority.

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.

### **7.5.15 Expansion of existing grain based unit from 104 KLPD to 241 KLPD by adding 137 KLPD distillery unit alongwith 6 MW Co- generation plant in the at Village Khodi, Tehsil Barwaha, District Khargone, Madhya Pradesh by M/s Associated Alcohols & Breweries Limited. -**

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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Associated Alcohols & Breweries Limited has proposed **expansion of existing grain based** unit from 104 KLPD to 241 KLPD by adding 137 KLPD distillery unit alongwith 6 MW Co- generation plant in the at Village Khodi, Tehsil Barwaha, District Khargone, Madhya Pradesh. The committee observed that it is project of expansion rather stand alone distillery. As per record the first consent to operate was obtained for existing unit on 18.08.1987 and company got license of existing distillery from State Government vide letter No. 3828/ dated 07.01.1992.

As per Form I, No National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. However during presentation it was informed that Jagatpura Reserve Forest located at 1.50 km (NE), Main Vindhya Reserve Forest located at 3.75km (SE) and Chichilay Reserve Forest located at 3.00 km (N) while Choral River 6.40km (NE) and Narmada River 9.0 km (S) are flowing at their respective distance. The Committee under rated the presentation of consultant.

Total project area is 30 Acres, out of which 9.32 acres area has already been developed as green belt while pp proposed additional 2.11 Acre area will be developed as green belt. About 300-350 people will be employed under this project. Total cost of the project is Rs. 124.75 Crores. Out of this, cost earmarked for Environment Management Plan will be Rs. 21.25 Crore. The following product will be manufactured under proposed project:

S. No.	Unit	Capacity
1	Total Spirit	137 KLPD
2	Co-Generation Power Plant	6.0 MW

The required power will be met from cogeneration power plant. One DG set of 1250 KVA connected with 12 m stack height will be installed as standby arrangement. Coal fired Boiler having 45 TPH capacity will be provided and connected with Bag filter as pollution control device connected with 50 m stack height.

PP did not mention the details for water requirement of existing unit however fresh water requirement will be 1125 m<sup>3</sup>/day for proposed expansion which is proposed to be drawn from underground. In the background of deep water availability at the site the committee recommended for not using ground water and it should be sourced from nearby water body/ river/ canal. Spent wash having quantity of 797 m<sup>3</sup>/day will be treated through Decantation, MEE, RO and CPU units and plant is based on Zero liquid discharge system.

Boiler ash will be sent to brick making or land filling, Used Oil will be given to re-cycler authorized by MPPCB/MoEF and Spent Resin from DM Plant will be given to re-cycler authorized by MPPCB/MoEF.

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)

## 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 As it is a expansion case , therefore all details of fresh water requirement from existing plant and the proposed expansion and treatment thereafter to be worked out in EIA/ EMP report.
- iii No ground water to be used for proposed expansion.
- iv Alternate fuel to be used in place of Coal.
- v Cumulative impact including existing unit to be assessed
- vi Availability of grain from the market to be firmed up.

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.

**Lunch Break: 1:30 PM – 2.00 PM**

**2<sup>nd</sup> Session: Time: 2.00 PM**

**7.5.16 Setting up of Agrochemical manufacturing unit (3425 MTPA) at Plot No. D2/CH-14, Dahej - II, GIDC Industrial Estate, Taluka Vagra, District Bharuch, Gujarat by M/s Crystal Crop Protection 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 units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s. Crystal Crop Protection Pvt. Ltd. has proposed to Setting up of Agrochemical manufacturing unit (3425 MTPA) at Plot No. D2/CH-14, Dahej - II, GIDC Industrial Estate, Taluka Vagra, District Bharuch, Gujarat. As per Form I, No National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. River Narmada is flowing at a distance of 7 km from the proposed project.

Cost of proposed project is Rs. 12 Crore of which the cost earmarked for environmental protection measures will be Rs. 1.2 Crore. Plot area is 30,000 m<sup>2</sup>, of which 9,900 m<sup>2</sup> (33 %) of land will be developed as greenbelt. Following products will be manufactured:

<b>Sr. No.</b>	<b>Products</b>	<b>Class</b>	<b>Quantity (MT/Year)</b>
<b>A</b>	<b>Agro chemicals</b>		
1	Boscalid	Fungicide	30
2	Cyproconazole	Fungicide	20
3	Difenaconazole	Fungicide	20
4	Flutriafol	Fungicide	30
5	Epoxiconazole	Fungicide	40
6	Hexaconazole	Fungicide	200
7	Kresoxim methyl	Fungicide	30
8	Mancozeb	Fungicide	400
9	Metalaxyl	Fungicide	100
10	Pencycuron	Fungicide	30
11	Propiconazole	Fungicide	100
12	Propineb	Fungicide	30
13	Prothioconazole	Fungicide	25
14	Thiophanate methyl	Fungicide	100
15	Tricyclazole	Fungicide	100
16	Bispyribac Sodium	Herbicide	100
17	Clodinfob-propargyl	Herbicide	100
18	Dicamba	Herbicide	20
19	Diuron	Herbicide	20
20	Imezathapyr	Herbicide	100
21	Metribuzine	Herbicide	100
22	Oxyfluorfen	Herbicide	100
23	Pendimethalin	Herbicide	400
24	Penoxsulam	Herbicide	40

25	Propanil	Herbicide	40
26	Propaquizafop	Herbicide	100
27	Quizalofop ethyl	Herbicide	100
28	Terbutylazine	Herbicide	50
29	Alphamethrin	Insecticide	50
30	Diafenthiuron technical	Insecticide	100
31	Fenpyroximate	Insecticide	100
32	Flubendiamide	Insecticide	250
33	Profenofos	Insecticide	100
34	Thiamethoxam	Insecticide	200
35	Triazophos	Insecticide	200
<b>Total</b>			<b>3425</b>

#### BY-PRODUCTS

Sr. No.	By-Products	Quantity (MT/Year)
1	20% Aluminium Chloride	141
2	Potassium Chloride	35
3	Potassium Bromide	56
4	Sodium Nitrite	33
5	Hydrogen Bromide	40

Power requirement of 1000KVA will be sourced from **GEB**. Additional DG sets of 1x1000 KVA will be installed as power backup. FO/LDO (80 liter/hour) or Agro Waste/Briquettes (250 kg/hour) fired boiler will be used and connected with Dust Collector/Cyclone and stack height will be 30 m. Process emission such as HCl, SO<sub>2</sub>, HBr, will be scrubbed in two stages by attaching vent with in process. Scrubbed water will be sent to ETP for treatment.

Total water requirement will be 162 m<sup>3</sup>/day which will be met through GIDC water supply. The wastewater generation will be 80 m<sup>3</sup>/day. Process wastewater will be segregated in high TDS/ COD and Low TDS/ COD. The Low TDS/COD effluent will be sent to proposed ETP consists of primary & secondary treatment facility & High COD/TDS stream will be treated to MEE for further treatment and MEE Condensate will be sent back to Aeration tank of ETP. The final treated wastewater will be sent to GIDC drain for final disposal.

ETP sludge, MEE salt, process sludge and inorganic salt will be collected, stored transport and disposed to TSDF site. Used oil will be sold to GPCB authorized recycler recycler, HCl and Spent Sulphuric Acid will be sold to end user.

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. 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 NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, HF\*, CS<sub>2</sub> 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. ZLD system to be adopted.
- iii. Multi Cyclone with scrubber to be provided in place of dust collector.

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.

**7.5.17 Setting up of Active Pharmaceutical Intermediates manufacturing unit with R&D facility (453.6 TPA) at survey no. 208/17 & 208/18, Village Ramalingampally, Mandal Bommaramaram, District Nalgonda, Telangana by M/s Orygamus Laboratories Private Limited -reg TOR**

The project authorities and their Consultant 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 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. Orygamus Laboratories Pvt. Ltd. has proposed to Setting up of Active Pharmaceutical Intermediates manufacturing unit with R&D facility (453.6 TPA) at survey no. 208/17 & 208/18, Village Ramalingampally, Mandal Bommaramaram, District Nalgonda, Telangana. As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. It is reported that

Parvatapuram Forest Block (0.8 km SW), Kisaragutta R.F. ( 2.4km SW), Keshavpur R.F. (2.5 km NW), RF near Yadagiripalli (4.5km WSW) and Ponnal R.F. (7 km NW) falls within 10 km from the project site.

Total plot area is 54459.2 m<sup>2</sup>, out of which greenbelt will be developed on 19060.72 m<sup>2</sup> of land. Total Cost of project is Rs. 45 Crores of which Rs. 9.2 Crores will be invested on Environmental Protection Measures. About 300 people will be employed under this project Following products will be manufactured:

Sl. No.	Products	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
<b>APIs – Campaign Products</b>				
1	Betahistine	166.67	60	Antivertigo Drug
2	Rivastigmine	250	90	Anti-Alzheimer's drug
3	L-Thyroxine	83.33	30	Antithyroid Agent
4	Fenoterol Hydrobromide	166.67	60	Antiasthmatic
5	Xylazine Hydrochloride	250	90	Analgesic
6	Duloxetine Hydrochloride	125	45	Antidepressant
7	Dorzolamide Hydrochloride	83.33	30	Antiglaucoma
8	Biperiden Hydrochloride	250	90	Antidyskinetic
9	Modafinil	250	90	Analeptic
10	Ledipasvir	66.67	24	Antiviral
11	Pirfenidone	83.33	30	Anti-inflammatory, Antifibrotic
12	Darunavir Ethanolate	166.67	60	Antiviral
13	Sofosbuvir	250	90	Antiviral
14	Imatinib Mesylate	41.67	15	Antineoplastic
15	Gefitinib	33.33	12	Antineoplastic
16.	Erlotinib	50	18	Antineoplastic
17	Dasatinib	16.67	6	Antineoplastic
18	Atazanavir Sulfate	166.67	60	Antiviral
19	Pomalidomide	8.33	3	Antineoplastic
20	Lenalidomide	16.67	6	Antiangiogenic
21	Latanoprost	20.83	7.5	Antiglaucoma
22	Solifenacin Succinate	41.67	15	Anticholinergic
23	Cabazitaxel	8.33	3	Antineoplastic
24	Entecavir	41.67	15	Antiviral
25	Perampanel	8.33	3	Antiepileptic
26	1-((2R,3R,4R,5R)-3-fluoro-4-hydroxy-5-(hydroxymethyl)-3-methyl tetrahydrofuran-2-yl)pyrimidine-2,4(1H,3H)-dione	23.33	8.4	Sofosbuvir Intermediate
27	(S)-Isopropyl-2-(((R)-(perfluoro phenoxy)(phenoxy) phosphoryl) amino) propanoate	41.67	15	Sofosbuvir Intermediate
28	Daclatasvir Dihydrochloride	41.67	15	Antiviral
29	Rifaximin	125	45	Antibiotic

Sl. No.	Products	Quantity (kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate to the product
30	Linezolid	250	90	Antibiotic
31	Rosuvastatin Calcium	116.67	42	Antihyperlipidemic
32	Pregabalin	83.33	30	Anticonvulsant
33	Flurbiprofen	108.33	39	Analgesic
34	Vilazodone Hydrochloride	37.5	13.5	Antidepressant
35	Montelukast Sodium	166.67	60	Antiasthmatic
36	Teriflunomide	41.67	15	Anti-multiple sclerosis agent
37	Abiraterone Acetate	125	45	Antineoplastic
38	Dabigatran Etxilate Mesylate	166.67	60	Anticoagulant
<b>Total Production Capacity (Maximum 5 products at a time).</b>		<b>1250</b>	<b>450</b>	
R&D activity		10	3.6	
<b>Total Production Capacity (Maximum 5 products at a time and R&amp;D activity)</b>		<b>1260</b>	<b>453.6</b>	

#### List of By-Products

Sl. No.	By-product	Quantity (kg/day)	Quantity (TPA)	Generated from the product
1	Selenium	159	57 TPA	Fenoterol Hydrobromide
2	Aluminium Hydroxide sol. (8%)	681	245 TPA	
3	Dil. HCl 20%	2029	730 TPA	Scrubbing liquid from process emissions

Two 12 & 4 TPH coal fired boilers will be installed and connected with Multi-cyclone separator followed by Bag filter to control the particulate matter and attached 40m & 30m stack height. Proposed 1000 KVA power will be drawn from TSCPDCL and 500 KVA DG Sets will be used as standby.

Total fresh water requirement will be 328 m<sup>3</sup>/day and met from ground water through bore well/ from private tankers. Against 152 m<sup>3</sup>/day of wastewater will be generated from the plant. Trade effluent should be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD should be passed through steam stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream should be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. Clear mother liquor of stripper containing dissolved residual solids and high boiling organic solvents will be sent to incinerator. 'Zero' effluent discharge should be adopted and no effluent will be discharged outside the premises.

Organic residue, Spent Carbon, Distillation Bottom Residue, Inorganic & Evaporation salt (Process), Evaporation salt, ETP Sludge will be sent to the Cement industries / TSDF. Boiler Ash will be sold to Cement Brick Manufacturers, Spent solvents will be sent to Inhouse Solvent Recovery System and Waste oils & Grease will be sent to TSPCB Authorized agencies for reprocessing / recycling.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure (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 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.

**7.5.18 Sugar expansion from 2500 TCD to 8000 TCD sugarcane and proposed 90KLPD molasses based distillery and 35 MW co-gen power plant at Village Shewalewadi, Taluka Karad, District Satara, Maharashtra by M/s Athani Sugars Limited (ASL) (Unit 3) –reg TOR**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the 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 Athani Sugars Limited (ASL) (Unit 3) has proposed for Sugar expansion from 2500 TCD to 8000 TCD sugarcane and proposed 90KLPD molasses based distillery and 35 MW co-gen power plant at Village Shewalewadi, Taluka Karad, District Satara, Maharashtra As per Form-1, no National Parks, Wildlife Sanctuaries, Tiger/ Elephant Reserves, Wildlife Corridors etc. falls within 10 km radius from the plant site. Ghogaon Lake (3.3 Km) falls within 10 km radius from the project site..it is reported that Yevati dam situated at 1 Km distance, Shewalewadi dam is at 2.3 Km and Yelgaon dam at 2.2Km. Committee noted for poor presentation by the consultant. As such no topo sheet and layout plan was submitted alongwith form-1. The same was advised to submit in the EIA-EMP report.

Total plot area is available for this proposed expansion project is 193 Acres. There is no mention of green belt in presentation. Total Cost for the expansion is Rs. 378 Crores. Following are the details of proposed products:

S. no.	Production Unit	Unit	Existing	Additional	Total	Working Days
1	Distillery	KLPD	0	90	90	330
2	Sugar	TCD	2500	5500	8000	180
3	Co-Gen Power	MW	0	35	35	210

Total fresh water of 1493 m<sup>3</sup>/day will be required for sugar, Co-gen and distillery as indicating in presentation. Fresh water for Sugar will be 555 m<sup>3</sup>/day, Co-gen 308 m<sup>3</sup>/day and distillery 630 m<sup>3</sup>/day. Water will be drawn from Yevati dam (1 Km away). effluent from distillery will be put for Evaporation (MEE) and concentration, as fuel & incineration in boiler and in case of moderately polluted wastewater, PP confirm that they will use ETP with UASB technology for this treatment. Treated water can be disposed on land for irrigation or recycled in process. Committee suggested no effluent should be use for Agricultural purposes as propose scheme was not properly defined.

Bagasse fired boiler will be provided and connected with ESP and tall stack. Fly ash shall be used as compost and sales to brick manufacturers. Power requirement of 2500 KW will be met from Govt. Electricity Board and own generation.

#### 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 Details of bio-composting yard.
- 13 Action plan to control odour pollution.
- 14 Arrangements for installation of continuous online monitoring system (24x7 monitoring device).
- 15 Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith 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 in respect of Sugar.
- 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 press mud.
- 23 Flyash management plan for coal based and bagasse and action plan
- 24 Details on surface/ground 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, PM2.5, SO<sub>2</sub>\*, NO<sub>x</sub>\*, 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. No ground water to be drawn for the proposed project as well as for existing sugar unit.

- III. ETP of Sugar unit to be design for meeting the standard of 30 mg/lit BOD and effluent should be used within the process by taking adequate measures.
- IV. Cumulative effect to be assessed with the existing sugar plant.
- V. Proper layout plan with proposed green belt development should be prepared and plantation should start at the TOR stage and submitted in EIA/EMP report.

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.

**7.5.19 Proposed Expansion of Inorganic Chemical Manufacturing unit to APIs, API intermediates & Inorganic chemical Manufacturing Unit (15845 TPA) with R&D facility at Sy. No. 54/1 Plant at Village Saggonda, Mandal Gopalapuram, District West Godavari, Andhra Pradesh by M/s Bhagyanagar Chlorides 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 (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 Bhagyanagar Chlorides Pvt. Ltd. proposes Expansion of Inorganic Chemical Manufacturing unit to APIs, API intermediates & Inorganic chemical Manufacturing Unit (15845 TPA) with R&D facility at Sy. No. 54/1 Plant at Village Saggonda, Mandal Gopalapuram, District West Godavari, Andhra Pradesh. In the existing plant the company is manufacturing Aluminum Chloride, which is not covered in EC and CFO has been obtained by consent letter no. 3335/APPCB/ZO-VSPT/Tech/2013 dated 24.10.2013 which is valid up to valid upto 31-05-2016. Now company is intended to produce API products which is covered under EIA, Notification 2006 under 5 ( f) category.

There are five reserve forests in the study area; Polavaram RF at a distance of 8 km in N direction, Gopavaram RF at 2.5 km in southwest direction, Vinjaram RF at 8.3 km in northwest direction, Gangolu RF at 3.5 km in northwest direction and Karakapadu RF at a distance of 9.2 km in west direction. Godavari River is flowing at a distance of 5 km in E direction. As per Form-1, it is reported that no ecologically sensitive areas like national parks, sanctuaries within 10 km radius of the site.

Total plot area after proposed expansion will be increased to 43017.75 m<sup>2</sup> of which an area earmarked for greenbelt is 14642.47 m<sup>2</sup>. Total capital cost of the project after expansion is Rs. 54 Crores. Manufacturing product with capacity is presented as follows:

**A. Existing Inorganic products and their Capacities as per CFE dated 17-08-2007**

Sl. No.	Product	Existing Products Quantity	
Regular Product		(kg/day)	(TPA)
1.	Aluminum Chloride anhydrous	30000	10800
<b>By products</b>			
1. Hydro Chloric Acid			
2. Sodium Hypo solution			

**B. Proposed Expansion Products, their Capacity and Therapeutic Category**

Sl. No.	Product name	Quantity (Kg/day)	Quantity (TPA)	Therapeutic Category / Intermediate / Chemical	Status
<b>Regular Products</b>					
1.	Aluminum Chloride anhydrous	60000	21600	Inorganic raw material	Expansion product
2.	Benzo Trichloride	6666.67	2400	Raw Material for Acetyl Chloride & Chloro acetyl chloride	Proposed Captive consumption for 2 products (optional)
<b>Campaign Products (any 3 products)</b>					
3.	Fluconazole	333.33	120	Antifungal	Proposed
4.	Pantoprazole Sodium	233.33	84	Antiulcerative	Proposed
5.	Ciprofloxacin Hydrochloride	666.67	240	Antibacterial	Proposed
6.	Salbutamol Sulfate	333.33	120	Bronchodilator	Proposed
7.	Ramipril	300	108	Antihypertensive	Proposed
8.	N,N-Diethyl cyanoacetamide	200	72	Entacapone intermediate	Proposed
9.	Acetyl chloride	3333.33	1200	Raw material for APIs	Proposed
10.	Chloro acetyl chloride	3333.33	1200	Raw material for APIs	Proposed
<b>Production (Maximum 5 Products at a time)</b>		<b>74000</b>	<b>26640</b>		
<b>R&amp;D</b>		<b>13.88</b>	<b>5</b>		Proposed
<b>Total Production with R&amp;D (Maximum 5 Products at a time)</b>		<b>74013.88</b>	<b>26645</b>		

**List of By-products**

Sl. No.	Name of the By-Product	Quantity (KL/day)	Quantity (KL/A)	Name of the Product
1.	Hydro Chloric Acid (25%)	9	3240 KL	Benzo trichloride, Chloro acetyl chloride, Salbutamol Sulfate Fluconazole Aluminum Chloride anhydrous
2.	Sodium Hypo Solution	2	720 KL	Aluminum Chloride anhydrous

Coal / Husk / Briquettes fired boilers 2 x 5 TPH will be provided with Multi-cyclone separator followed by Bag filter to control the particulate (PM) emissions and connected with stack of 30 m height. DG sets 2x 250 KVA will be installed in addition to existing DG sets of 62.5 KVA & 20 KVA. The total power requirement will be met from Andhra Pradesh State Power Distribution Corporation Limited (APSPDCL).

Total fresh water requirement is about 163 m<sup>3</sup>/day which will be met from Groundwater from existing bore wells. Against this wastewater of 99 m<sup>3</sup>/day will be generated. Process wastewater will be segregated in high TDS/ COD and Low TDS/ COD. The Low TDS/COD effluent will be sent to proposed ETP consists of primary & secondary treatment facility & High COD/TDS stream will be treated to MEE for further treatment and MEE Condensate will be sent back to Aeration tank of ETP.

Used oil/ Waste lubricant oil will be sent to authorized reprocessors /Recyclers. Organic residue, Spent Carbon, Distillation Bottom Residue, Inorganic & Evaporation salt, Evaporation salt and ETP Sludge will be sent to SPCB Authorized Cement industries / TSDF after proper handling. Boiler Ash will be sold to Cement Brick Manufacturers.

After detailed deliberations, the Committee prescribed the following Specific and Additional TOR in addition to Generic TOR provided at Annexure-I (as referred on 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 NH<sub>3</sub>\*, chlorine\*, HCl\*, HBr\*, H<sub>2</sub>S\*, 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.

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.

### **7.5.20 Active Pharmaceuticals Ingredients (APIs) and Intermediates Manufacturing unit (216 TPA) at Sy. No. 332, 335, 336 & 341, Village Veleminedu, Chityal (M), Nalgonda district, Telangana State by M/s Nucleus Drugs 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 (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).

During the presentation PP informed that the unit has obtained the Environmental Clearance vide Letter No J-11011/511/2007-IA (I) dated 10<sup>th</sup> September, 2007 for Manufacturing of Bulk Drug. Public hearing of this project was conducted on 5<sup>th</sup> May 2007. However, due to expiry of validity of EC PP has applied for TOR. PP also confirmed that he has applied separately for extension of existing EC through online system and requested committee to consider the project for extension of EC rather TOR application.

The Committee was of the view if project to be consider for extension then application of TOR is to be rejected as same project cannot be applied differently. PP agreed for rejection of this application of TOR.

### **7.5.21 Expansion of Pesticides and Chemical intermediates industries ( from 219 MTPM to 1099.94 MTPM) at Plot no B-16, 17, 18 and B-21, MIDC Mahad, District Raigad, Maharashtra by M/s Astec Lifescience 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 units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

After detailed deliberations, the Committee observed that the PP has obtained the first CTO vide consent letter No. BO/KON-COA/1028/C-125 dated 25.01.1995. It is noted that company has obtained the Consent after EIA notification, 1994 wherein the activity of pesticide requires prior Environmental Clearance. Therefore the company has violated the provisions of

Environment (Protection), Act 1986 by not seeking EC under EIA notification, 1994. It is a case of Violation and action shall be taken as per existing procedure

**7.5.22 Expansion of sugar plant (4500 TCD to 12000 TCD) & expansion of cogeneration plant power generation (20 MW to 70 MW) & expansion of molasses based distillery (60 KLPD to 160 KLPD) at Village Shetphalgade, Tehsil Indapur, Dist. Pune, Maharashtra by Baramati Agro Ltd. – reg TOR.**

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

M/s Baramati Agro Ltd. has proposed for expansion of sugar plant (4500 TCD to 12000 TCD) & expansion of cogeneration plant power generation (20 MW to 70 MW) and expansion of molasses based distillery (60 KLPD to 160 KLPD) at Village Shetphalgade, Tehsil Indapur, Dist. Pune, Maharashtra. Environmental Clearance has been obtained for the existing plant bide this letter no. J-11011/475/2007-IA II (I) dated 15.04.2008. As per Form-1, it is reported there is no any Tropical Forest, Biosphere Reserve, National Park, Wild Life sanctuary and Coral Formation Reserve falls within 10 km radius from the project site.

Total plot area for proposed expansion under the project is 18 Acres. PP did not mention the details w.r.t. green belt. Total Cost for the expansion is Rs. 460 Crores. Committee underrated the consultant for not covering full details of environmental sensitivity and other important features of existing unit. Following are the details of proposed products:

S. No.	Production Unit	Unit	Existing	Additional	Total	Working Days
1	Distillery	KLPD	60	100	160	270
2	Sugar	TCD	4500	7500	12000	180
3	Co-Gen Power	MW	20	50	70	180

Power requirement of 2500 KW will be met from Electricity Board and own generation. Bagass fired boilers of 2 X 110 TPH & 2 X10 TPH will be installed and connected with ESP & wet scrubber with stack height of 65 m for sugar co-gen and 40m for distillery for dispersion and for proposed boiler as per SPCB consent. The Committee suggested to installed bag filter in boilers in place of wet scrubber.

Fresh water requirement of 805 m<sup>3</sup>/day will be required for sugar, 594m<sup>3</sup>/day for co-gen and 1088 m<sup>3</sup>/day for distillery totaling 2487 m<sup>3</sup>/day. Water will be sourced from right bank canal of Khadakwasala Dam . Spent wash will be treated by employing Evaporation (MEE) and concentration, as fuel & incineration in boiler and in case of moderately polluted wastewater, wastewater will be treated in ETP based on UASB technology for this treatment. Treated water can be disposed on land for irrigation or recycled in process. Committee did not agree with the treatment scheme with moderately polluted wastewater and advised for full treatment through one route only as per CPCB guideline.

ETP sludge will be sold, empty containers and lube oil will be reused or sent to authorised re-processor and boiler ash will be used as Brick kiln & composting.

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).
- 15 Complete process flow diagram describing each unit, its processes and operations in production of sugar, alongwith 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 in respect of Sugar.
- 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 equipment s to meet the national standards.
- 21 Collection, storage, handling and transportation of molasses,

- 22 Collection, storage and handling of bagasse and press mud.
- 23 Flyash management plan for coal based and bagasse and action plan
- 24 Details on surface/ground 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, PM2.5, SO<sub>2</sub>\*, NO<sub>x</sub>\*, 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. ETP of Sugar unit to be design for meeting the standard of 30 mg/lit BOD and effluent should be used within the process by taking adequate measures.
- iii. Cumulative effect to be assessed with the existing sugar and distillery plant.
- iv. Bag filter to be installed in existing as well as for proposed boilers.
- v. Proper layout plan with proposed green belt development should be prepared and plantation should start at the TOR stage and submitted in EIA/EMP report.
- vi. A separate chapter on status of compliance of Environmental Conditions granted by Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA-EMP report
- vii. Spent wash treatment should be as per the CPCB guidelines and no effluent from distillery shall be used for irrigation.

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.

### **7.5.23 Expansion of distillery (from 50KLPD to 130 KLPD) at Khasra no. 262/1, Village Sejwaya, Lebad Chowki, Ghatabillod, Tehsil & District Dhar, Madhya Pradesh by M/s Great Galleon 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 Grain based distillery (> 60 KLPD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

M/s Great Galleon Ltd. has proposed for expansion of 80 KLPD distillery at Khasra no. 262/1, Village Sejwaya, Lebad Chowki, Ghatabillod, Tehsil & District Dhar, Madhya Pradesh. The existing distillery as established in year 1985 before first EIA Notification issued in 1994. Industry has been in operation on the basis of consent to operate by SPCB since that period. Now company is proposing expansion of additional capacity with 80 KLPD.

The proposal was considered in the 3rd Expert Appraisal Committee (Industry-2) Meeting held during 18th- 19th January, 2016. The Committee deferred the proposal due to non availability of water sources as fresh water was proposed to be carried through tanker and did not agree with the exiting proposal and advised to explore adequate method for sourcing fresh water. Now PP has requested to the State authority to seek permission to draw Chambal Canal water for the proposed project and committed to use the pipeline water only for existing as well as proposed expansion. The Committee agreed for considering of TOR.

PP confirms that the total plot area is available for this proposed expansion project is 9.416 Acres, out of which greenbelt will be provided in 9500 m<sup>2</sup> area. Total Cost for the expansion is Rs. 53.94 Crores (excluding land cost). About 73 peoples will be employed under this expansion project.

The existing distillery has 20 TPH Bio mass/ coal fired boiler, under expansion a additional 42 TPH coal fired boiler will be install. ESP with adequate height will be use as an air pollution control device.

The total fresh water requirement is about 772 m<sup>3</sup>/day which will be met from Chambal river through HDPE pipeline against which 1036 m<sup>3</sup>/day waste water will be generated. Spent wash will be treated in MEE. PP confirms that plant will follow Zero Liquid Discharge condition.

DDGS (67 TPD) will be generated and will be sold as cattle feed. Sludge from the STP will be used for green belt. Fly ash will be sold to brick 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 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)

#### **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. As committed water should be used from canal through pipeline only & no tanker to be employed for existing as well as proposed project expansion.

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.

#### **7.5.24 Expansion of Sugar Mill (from 4800 TCD to 7500 TCD) and Co-Generation Power Plant (from 14.5 MW to 30 MW) and Setting Up of 60 KLPD Molasses based Distillery at Village Asurle-Porle, Tehsil Panhala, District Kolhapur, Maharashtra by M/s Shri DattaSakharKarkhana (M/s Dalmia Bharat Sugar & Industries Ltd- reg. amendment in EC.**

MoEF&CC vide letter no J-11011/277/2013- IA II (I) dated 4.02.2015 has issued EC to M/s Shri DattaSakharKarkhana (M/s Dalmia Bharat Sugar & Industries Ltd for Expansion of Sugar Mill (from 4800 TCD to 7500 TCD) and Co-Generation Power Plant (from 14.5 MW to 30 MW) and Setting Up of 60 KLPD Molasses based Distillery with operational period of 270 days per annum.

Now, PP informed that spent wash treatment technology as incineration has been adopted instead of bio-composting. Therefore, PP has requested to change the operation days from 270 days to 330 days.

After deliberation, based on the treatment technology adopted by PP using incineration, the Committee recommended the amended above the amendment to change the operation from 270 days to 330 days

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**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 30<sup>th</sup> 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 4<sup>th</sup> 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.

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 6<sup>th</sup> MEETING OF EAC (INDUSTRY-2)**  
**HELD ON 30<sup>th</sup> March to 2<sup>nd</sup> April , 2016**

<b>S.N.</b>	<b>Name</b>	<b>Designation</b>	<b>Attendance</b>
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	A
4	<u>Prof. J.R. Mudakavi</u>	Member	P
5	<u>Dr. Ajay Gairola</u>	Member	P
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	P
9	<u>Ms. Saloni Goel</u>	Member	P
10.	<u>Shri Suhas RamchandraPharande</u>	Member	A
11.	<u>Shri G. C. Pati</u>	Member	A
12	<u>Dr. S. K. Peshin</u>	Member	P
<b>MOEF Representatives</b>			
13.	Shri Lalit Bokolia	Additional Director & MS Industry-(2)	P
14.	Shri A.N.Singh	Joint Director	P