

**FINAL MINUTES FOR 11th RECONSTITUTED EXPERT APPRAISAL COMMITTEE
(INDUSTRY) HELD DURING 26th AUGUST, 2013 to 27th AUGUST, 2013**

VENUE: Scope Complex, Core 6, 5th Floor, IOCL Conference Room, Ministry of Petroleum and Natural Gas, Lodhi Road, New Delhi 110 003.

TIME 10.00 A.M.

11.0 Opening Remarks of the Chairman

11.1 Confirmation of the Minutes of the 10th Reconstituted Expert Appraisal Committee (Industry) held during 29th July 2013 – 31st July 2013

The minutes of the 10th Reconstituted Expert Appraisal Committee (Industry) held during 29-31st July, 2013 were confirmed.

26th August, 2013

11.2.0 Consideration of the Projects:

11.2.1 Expansion of Bulk Drug Manufacturing Unit (25 kg/month to 260 kg/month) at Plot No. 5001 IV phase, GIDC Vapi, Tehsil Pardi, District Valsad, Gujarat by M/s Padmavati Chemical Pvt. Ltd. regarding TORs.- **regarding EC.**

The project authorities and their consultant (Precitech Laboratories) 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 28th Meeting of the Expert Appraisal Committee (Industry) held during 20th – 21st October, 2011 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, applicability of general condition due to project location within interstate boundary, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Padmavati Chemicals Pvt. Ltd. have proposed for expansion of bulk drug manufacturing unit (from 25 kg/month to 260 kg/month) at Plot No. 5001 IV phase, GIDC Vapi, Tehsil Pardi, District Valsad, Gujarat. Total plot area is 1840 m². Interstate boundary (D & NH state) is located within 10 km. Cost of expansion project is Rs. 21.50 Lakhs. Following products will be manufactured:

S.N.	Products	Existing Quantity (Kg/Month)	Quantity after Expansion (Kg/Month)
1.	Trihexyphenidyl Hydrochloride	25	260
2.	Procyclidine Hydrochloride	Nil	
3.	Pridinol Hydrochloride		
4.	Pridinol Mesylate		
5.	Mometasone Furoate		
6.	Triamcionolone		
7.	Triamcionolone Acetonide		
8.	Tolperisone Hydrochloride		
9.	Desonide		

10.	Budesonide		
11.	Oxiconazole Nitrate		

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 6 locations during March to May, 2012 and submitted baseline data indicate ranges of concentrations of PM₁₀ (49 µg/m³ to 90 µg/m³), PM_{2.5} (13 µg/m³ to 41.00 µg/m³), SO₂ (18 µg/m³ to 30 µg/m³) and NO_x (17 µg/m³ to 31 µg/m³) respectively. Levels of AAQMS are within the NAAQS.

No fuel consuming utilities are installed in the existing plant and no utilities are proposed for the expansion. Electrical heating system will be installed. Water requirement from GIDC water supply will be increased from 4.5 m³/day to 8.3 m³/day after expansion. Industrial effluent generation will be increased from 1.6 m³/day to 5.1 m³/day after expansion. Industrial effluent will be treated in ETP and treated effluent will be discharged into CETP through GIDC underground drainage. ETP sludge and Filter Aid will be sent to the CSWD site of M/s Vapi Waste & Effluent Management Co. Ltd. Tarry waste will be sent to Bharuch Enviro Infrastructure Ltd. (BEIL) for incineration. Discarded container will be sold to authorized scrap dealer.

Green belt will be developed in 720 m² (40% area). Total power requirement from Dakshin Gujarat Vij co. will be increased from 30 KVA to 80 KVA. Project proponent informed that the unit was established in year 1991, where environmental clearance was not applicable to the unit. Committee deliberated upon the compliance of conditions stipulated in consent to operate for the existing unit. Copy of the consent order no. WH-50368 dated 30th October, 2012 alongwith compliance report is submitted. It was informed that flow meter is installed at the discharge point of ETP and records are maintained. Industrial effluent is treated in ETP. The treated effluent quality is checked in-house testing facility & after confirmation according to the norms it is discharged for CETP inlet. There are no fuel consuming utilities. The Committee was satisfied with the response of Project proponent.

Public hearing / consultation was exempted as per stage Section 7 (i), III Stage (3), Para (i)(b) of EIA Notification 2006 due to project being located in notified GIDC.

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 no fuel consuming utilities shall be installed.
- ii) The levels of PM₁₀, SO₂, NO_x, CO and VOC shall be monitored in ambient air.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Prior permission for total fresh water requirement from GIDC water supply shall be obtained. The water consumption should not exceed 8.3 m³/day. No ground water shall be used.
- v) Total industrial effluent generation shall not exceed 5.1 m³/day. Effluent shall be treated in ETP. Treated effluent shall be discharged to CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site. Water quality of treated effluent from ETP shall be monitored regularly. Domestic wastewater shall be disposed through septic tank and soak pit.

- vi) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.
- vii) 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 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- viii) Tarry waste shall be sent to Cement manufacturing unit.
- ix) Green belt should be developed in 720 m² out of total plant area.
- x) All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xi) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

11.2.2 Sugar Factory (5000 TCD), Cogeneration Power Plant (34 MW) & Molasses based Distillery Plant (90 KLPD) at Almel Village, Sindagi Taluk, Bijapur District, Karnataka by M/s K.P.R.Sugar Mills Private Ltd. - **regarding EC**

The project authorities and their consultant (M/s B.S. Envi-Tech (P) 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 35th Meeting of the Expert Appraisal Committee (Industry) held during 11th– 12th May, 2012 for preparation of EIA/EMP report. All molasses based distilleries are listed at S.N. 5(g) (i) under category 'A' and appraised at Central level.

M/s KPR Sugar Mills Pvt. Ltd. has proposed for setting up of Sugar Factory (5000 TCD), Cogeneration Power Plant (34 MW) & Molasses based Distillery Plant (90 KLPD) at Almel Village, Sindagi Taluk, Bijapur District, Karnataka. The unit has obtained consent to establish from Karanataka Pollution Control Board for cane crushing capacity of 3500 TCD with cogeneration plant (15 MW). The proposal is to upgrade the capacity of sugur plant upto 5000 TCD & CPP of 34 MW alogwith molasses based distillery of 90 KLD capacity to manufacture rectified spirit/ethanol/extra neutral Alcohol. Total plot area is 171.00 acre of which greenbelt will be developed in 23.00 acres. No forest land is involved. No litigation/court case is pending against the project. The cost of expansion project is Rs. 190 Crore. Out of which, Rs. 31.00 crore is earmarked for implementation of environmental management plan. River Bhima is flowing at a distance of 4.40 km. No ecological sensitive areas such as national park/ wildlife sanctuary/biosphere reserves are located within a distance of 10 Km. Production details of the plant are given below:

Plant	Unit	Capacity		Operating Days
		Existing	After Expansion	
Sugar	TCD	3500	5000	210
Molasses based Distillery	KLD	--	90	300

Cogeneration Plant (Based on Sugar Plant)	MW	15	34	270
Cogeneration Plant (Based on Distillery Plant)	MW	---	3	300

Ambient air quality monitoring was carried out at 6 locations march to September –November, 2012 and submitted data indicates as PM10 (52.4–56.4 ug/m3), PM2.5 (22.3–25.1 ug/m3), SO2 (10.4 – 11.6 ug/m3) and NOx (12-13.1 ug/m3). Predicted value of ground level concentration due to proposed expansion is PM10 (2.80 ug/m3), SO2 (14.15 ug/m3) and NOx (8.68 ug/m3). The resultant concentrations are within the NAAQS. ESP alongwith adequate stack height will be provided to coal & bagasse fired boiler (135 TPH). Wet scrubber alongwith stack of adequate height will be provided to coal and spent wash fired incineration boiler (33 TPH). As per EIA/EMP report, total water requirement will be for Sugar, Cogeneration & Distillery Plant will be 4884 m3/day. Water requirement will be met from recoveries (4062 m3/day) and fresh water requirement (822 m3/day) will be met from River Bhima and Krishna River. The Committee felt that fresh water requirement data is on lower side. It was suggested to prepare separate water balance chart for the Sugar, Cogeneration & Distillery Plants.

Wastewater generation from sugar plant will be 500 m³/day, which will be treated in the effluent treatment plant (ETP). Spent wash generation will be 720 m³/day. Spent wash will be evaporated followed by incinerated in a dedicated boiler. Spent lees (216 m3/day) will be treated through RO and reused back in the unit for dilution of molasses. Bagasse (16000 TPD) will be used as fuel. Press mud (200 TPD) will be disposed to farmers for soil conditioning. Boiler ash from bagasse will be disposed to the farmer for soil conditioning and the same will be continued after expansion. Boiler ash from coal will be sent to brick manufacturing unit.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Karnataka State Pollution Control Board on 18th May, 2013. The issues raised during public hearing were regarding latest technology plant & machinery and pollution control measures, greenbelt, widening and asphaltting of road, rainwater harvesting, CSR activities etc. The Committee desired that unit shall prepare need based Enterprise Social Responsibility Plan for 5 % of project cost. Regarding other issues, Project Authorities have satisfactorily responded.

After deliberations, the Committee desired following additional information:

- 1 Revised Water balance chart. Prepare separate water balance chart for the Sugar, Cogeneration & Distillery Plants indicating water input, loss and effluent generation.
- 2 Plan to make water reservoir for water supply for 1 year.
- 3 Commitment to stop ferti-irrigation for the effluent generated from existing unit.
- 4 Odour management plan.
- 5 Detailed need based Enterprise Social Responsibility Plan for 5 % of project cost.
- 6 Compliance report of Environmental Clearance issued by the State Government.
- 7 Spent wash storage for 5 days and it should be closed type.
- 8 MoU with coal supplier indicating coal characteristics.
- 9 Ash management plan.
- 10 Area earmarked for greenbelt alongwith five year plantation plan.

The proposal is deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Reply will be discussed internally without calling project proponent.

11.2.3 Agrochemicals and Organic intermediates (1913 MTPA) at Plot No. 5303, GIDC Notified Chemical Zone, 4th Phase, Village Vapi, Tehsil Pardi, District Valsad, Gujarat **by M/s Crognosys India Pvt. Ltd. regarding EC.**

The project authorities and their consultant (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 Draft Terms of References (TORs) awarded during the 1st Meeting of the Reconstituted Expert Appraisal Committee (Industry) held during 24th - 25th September, 2012 for preparation of EIA/EMP report. All the Pesticides plants are listed at S.N. 5(b) under Category 'A' and appraised at the Central level.

M/s Crognosys India Pvt. Ltd have proposed for setting up of agro chemicals & Intermediates (1913 MTPA) at Plot No. 5303, GIDC Notification Chemical zone, 4th phase, Vapi, Tehsil Pardi, District Valsad, Gujarat. Total plot area is 1941 m² of which greenbelt will be developed in 500 m². The cost of project is Rs. 9.70 Crore. River Damanganga is flowing at a distance of 3.5 Km. Arabian sea is at a distance of 13 Km. Following products will be manufactured:-

S.N.	Product	Capacity (MTPA)
Agrochemicals-technical		
1	Fluazinam	255 MTPA
2	Mesotrion	92 MTPA
3	Flufenacet	141 MTPA
4	Metamittrion	525 MTPA
5	Chlorpyriphos	900 MTPA
Organic Intermediates		
6	Benzotrifluoride	500 MTPA
7	3-Aminobenzotrifluoride	186 MTPA
8	2-Amino-5-chlorobenzo-trifluoride	93 MTPA
9	2-Aminobenzotrifluoride	83 MTPA
10	4-fluoro-3-phenoxy-benzaldehyde	165 MTPA

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 6 locations during October to December 2012 and submitted baseline data indicate ranges of concentrations of PM10 (35 µg/m³ to 76 µg/m³), PM2.5 (21.8 µg/m³ to 56.2 µg/m³), SO₂ (10.3 µg/m³ to 35.5 µg/m³) and NO_x (13.1 µg/m³ to 33.4 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05341 µg/m³ with respect to PM10, 0.09331 µg/m³ with respect to SO₂ and 0.03348 µg/m³ with respect to NO_x. The resultant concentrations are within the NAAQS.

Stack height of 30 m will be provided to the gas fired boiler (1x3 TPH). Primary and secondary water scrubber followed by caustic scrubber will be provided to reactor (Chlorpyrisphos and Benzotrifluoride) to control process emissions viz. HCl. Total water requirement will be 84 m³/day, out of which 49 m³/day water demand will be met from fresh water (GIDC water supply) and remaining 35 m³/day water demand will be met from recycled water. Industrial effluent generation will be 42.3 m³/day and treated in ETP followed by MEE. Quantity of Condensate from MEE will be 35 m³/day and same will be recycled/reused in process. No effluent will be discharged outside the factory premises. ETP

sludge and MEE salt will be sent to TSDF site for disposal. Used/spent oil will be sold to authorized recyclers. Power requirement from GEB will be 500 KVA. CNG and Diesel will be consumed as fuel. DG set (250 KVA) will be installed.

Public hearing / consultation was exempted as per stage Section 7 (i), III Stage (3), Para (i)(b) of EIA Notification 2006 due to project being located in notified GIDC.

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) Adequate stack height shall be provided to gas fired boiler.
- ii) The levels of PM10, PM2.5, SO2, NOX, CO, HCl and VOC shall be monitored in ambient air.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by GPCB.
- iv) Prior permission for total fresh water requirement from GIDC water supply should be obtained. The water consumption should not exceed 49 m³/day. No ground water should be used.
- v) Total industrial effluent generation shall not exceed 42.3 m³/day. Effluent shall be treated in ETP followed by MEE. MEE condensate shall be recycled/reused in process. No effluent shall be discharged outside the plant and Zero discharge concept will be followed.
- vi) Residue toxicity of the pesticide alongwith their classification should be prepared and submitted to the MoEF Regional Office.
- vii) 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 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- viii) Green belt should be developed in 500 m² out of total plant area.
- ix) All the recommendations made in the risk assessment report should be satisfactorily implemented.
- x) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

11.2.4 Setting Up of POL Terminal at Korba, Chhattisgarh by M/s Indian Oil Corporation Ltd. (IOCL) - regarding EC

The project authorities and their consultant (Mantec Consultants Pvt. Ltd, New Delhi) 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 22nd Meeting of the Expert Appraisal Committee (Industry) held during 29th – 30th April, 2011 for preparation of EIA/EMP report. All the storage of petroleum products are listed at S.N. 6 (b) under category 'B'. However, applicability of general condition due to project location within 10 Km distance from critically polluted area, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I). The Committee noted that the proposal was sent to SEIAA, Chattisgarh for appraisal after issuing the TOR as during that stage information regarding location of project w.r.t CPA was not provided by the Project/ Consultant. The project was referred back by SEIAA stating that the project attracts 'general condition' of EIA Notification, 2006. The Committee members suggested them to provide factual information in the EIA report.

M/s Indian Oil Corporation Ltd. (IOCL).have proposed for the setting up of POL Terminal at Korba, Chhattisgarh. Proposed terminal is located inside the closed IBP Div. Explosive plant of IOCL at Village Gopalpur, Tehsil Katghora. Total land area under possession of IOCL is 244.36 acre. Area covered for POL marketing terminal (TOP; Tap off point) is 80 acres and area earmarked for tankage + loading facilities is 49 acres and greenbelt area is 31 acres. It is reported that there are no sensitive areas such as national parks and wildlife sanctuaries located within 15 km distance. Details of product wise tankage proposed at POL terminal are as follows:

S. N.	Tank No.	Product	SIZE OF TANKS	Nominal Capacity (KL)	Tank Type	Class
1.	HSD-1	HSD	34M DIA X13M HT.	11628	Cone Roof	B
2.	HSD-2	HSD	34M DIA X13M HT.	11628	Cone Roof	B
3.	HSD-3	HSD	26M DIA X14.5M HT.	7672	Cone Roof	B
4.	MS-1	MS	26M DIA X16M HT.	7389	Internal Floating Roof	A
5.	MS-2	MS	26M DIA X16M HT.	7389	Internal Floating Roof	A
6.	MS-3	MS	16M DIA X15M HT.	2614	Internal Floating Roof	A
7.	SKO-1	SKO	14M DIA X15M HT.	2301	Cone Roof	B
8.	SKO-2	SKO	14M DIA X15M HT.	2301	Cone Roof	B
9.	SKO-3	SKO	14M DIA X15M HT.	2301	Cone Roof	B
10.	ETHAN OL-1	ETHAN OL	4.12M DIA X15M HT.	200	U/G	A
11.	ETHAN OL-2	ETHAN OL	4.12M DIA X15M HT.	200	U/G	A
12		Transmi x Tank	10 M DIA X 9 M HT			
SUB-TOTAL				55623KL		
FUTURE PROVISION :						

13	MS-4	MS	26M DIA X16M HT.	7389	Floating Roof	A
14	HSD-4	HSD	34M DIA X13M HT.	11628	Cone Roof	B
SUB-TOTAL				19017		
GRAND TOTAL				74640		

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 5 locations during Summer Season, 2011 and submitted baseline data indicate ranges of concentrations of PM10 (53.6 $\mu\text{g}/\text{m}^3$ to 70.00 $\mu\text{g}/\text{m}^3$), SO2 (9.4 $\mu\text{g}/\text{m}^3$ to 22.3 $\mu\text{g}/\text{m}^3$) and NOx (14.9 $\mu\text{g}/\text{m}^3$ to 24.3 $\mu\text{g}/\text{m}^3$) respectively. The baseline concentrations are within the NAAQS. 12 nos. of bottom loading bays with vapour recovery system will be installed at truck tanker loading facility. Water requirement from ground water will be 10 m^3/day . Oil water effluent will be treated in oily water separator. DG set (2x 500 KVA + 1x 250 KVA) will be installed as standby arrangement. No effluent will be discharged outside the premises and 'Zero' discharge will be adopted. Tank bottom oil sludge will be disposed as per the guidelines prescribed by MoEF and SPCBs. Waste / used / spent oil and used batteries will be sold to authorized recyclers / re-processors.

Fire fighting facilities will be implemented as per OISD-117/118 norms. Auto pressurized fire hydrant network having fire hydrant points with fire hoses, water monitors, high volume long range foam-cum water monitors with isolation /sectionalizing valves to cover the facilities in the terminal. Fixed type water spray system for all class A product tanks (Ms tanks) and for class B product tanks having diameter greater than 18 m as per OISD-117. PLC based alarm and control system will be installed. Hydrocarbon detectors at vulnerable points in tank farm.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Chhattisgarh Pollution Control Board on 22nd December, 2011. The issues raised during public hearing were regarding local employment, impact on environment, measures to be taken to avoid any accident/fire/explosion, impact on traffic, plantation, tree cutting permissions etc and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

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

- i. Adequate buffer zone around the Petroleum Oil Terminal shall be provided, as may be required as per OISD or other statutory requirements.
- ii. Regular monitoring of VOC and HC in the work zone area in the plant premises shall be carried and data be submitted to Ministry's Regional Office at Bhopal, CPCB and State Pollution Control Board.
- iii. Vapor recovery system shall be installed to prevent leakage of vapor from tank/ vessels/processing and filling areas to ensure no hydrocarbon vapors are released unchecked.
- iv. Total fresh water requirement from ground water source shall not exceed 10 m^3/day and prior permission should be obtained from the CGWA/SGWA.
- v. The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated

streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted and ensured that monitoring parameters shall not exceed the prescribed standards.

- vi. Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. should be followed. Company should ensure no oil spillage occur during loading / unloading of petroleum products.
- vii. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste shall be properly treated and disposed of in accordance with the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules 2008 and its subsequent amendments.
- viii. Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.
- ix. The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- x. All storage tanks shall be provided with design features based on applicable OISD standards.
- xi. No change in the storage capacity and other facilities shall be made without getting proper approval from the Ministry.
- xii. Fully automated tank farm management system (TFMS) will be provided for accounting of products & reconciliation.
- xiii. Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Offsite disaster management plan shall be prepared with the help of District Authority and Mock drill shall be conducted once in a month.
- xiv. Bottom oil sludge shall be handled, stored and disposed as per CPCB/ MoEF guidelines. An action plan in this regard including bioremediation shall be submitted to the Ministry and its Regional Office at Bhopal within 3 months of issue of the letter.
- xv. Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act.
- xvi. Green belt shall be developed in 33% of the plot area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured.
- xvii. The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.
- xviii. All the recommendations mentioned in the EMP/DMP shall be implemented.
- xix. Dedicated parking facility for loading and unloading of material should be provided in the POL Depot. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

- xx. All the commitment made regarding issues raised during the public hearing/consultation meeting held on 22nd December, 2011 shall be satisfactorily implemented. Adequate budgetary provision to be kept for implementation.

11.2.5 Expansion of Synthetic Organic Chemicals (from 75 MTPM to 650 MTPM) at Plot No.1143, Village Rajpur, Taluk Kadi, District Mehsana, Gujarat by M/s Phamson Chemicals - **regarding EC**

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 as per Draft Terms of References (TORs) awarded during the 15th Meeting of the Expert Appraisal Committee (Industry) held during 22nd-23rd October, 2010 for preparation of EIA/EMP report. All the Synthetic Organic Plants located outside notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Phamson Chemicals have proposed for expansion of Synthetic Organic Chemicals (from 75 MTPM to 650 MTPM) at Plot No.1143, Village Rajpur, Taluk Kadi, District Mehsana, Gujarat. Total plot area is 4201 m² of which greenbelt will be developed in 1390 m². Cost of proposed project is Rs. 90 Lakhs. No wildlife sanctuary is located within 10 Km distance. Following products will be manufactured:

S. N.	Products	Existing Capacity (MTPM)	Additional Capacity (MTPM)	Ultimate Capacity (MTPM)
1.	Mono Chloro Acetic Acid (MCA)	75	125	200
2.	Sodium Mono Chloro Acetate (SMCA)	--	200	200
3	Chloro Acetyl Chloride	--	200	200
4	Tri Chloro Acetic Acid	--	5	5
5	Tri Chloro Acetyl Chloride	--	40	40
6	Sulphur Mono Chloride	--	110	110
	By-products			
1.	ML of MCA	15	25	40
2.	Hydrochloric Acid (30%)	150	800	950
3.	Sodium Bi-Sulphite (20-30%)	--	200	200

Ambient air quality monitoring was carried out at 6 locations during January to March, 2011 and submitted data indicate ranges of concentration as PM10 (48.4–89.1ug/m3), SO2 (13.3 – 22.7 ug/m3) and NOx (13.8-21.1 ug/m3). Predicted value of ground level concentration due to proposed expansion is: SPM (2.9 ug/m3), SO2 (0.115 ug/m3) and NOx (0.351 ug/m3). The Committee desired that methane and non-methane hydro carbon data needs to be cross checked again. Graphite scrubber followed by 3 stage glass water scrubbing system and alkali scrubber alongwith ventury scrubber will be provided to reactor to control process emissions. Biofuel fired boiler (2 Nos.) and thermic fluid heater (1 No.) will be installed. Water requirement from ground water source will be increased from 10.6 m³/day to 66.0 m³/day after expansion. Industrial effluent generation will be increased from 3.0 m3/day to 6.5 m3/day after expansion, which is mainly in the form of by products such as recovered HCl, Sodium bi-sulphite from scrubber. Project proponent confirm that therefore no treatment of effluent is required. Used oil will be sold to the authorized recyclers/re-processers. Distillation residue will be sent to common incineration facility.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 17th July, 2012. The issues raised were regarding measures for leakages of gas, CSR, long term effect of air pollution, etc. All the issues have been satisfactorily responded by the project proponent and incorporated in the final EIA/EMP report.

After deliberations, the Committee desired following additional information:

- 1 Recheck one month data for hydrocarbon and VOCs
- 2 Details of safe chlorine storage and handling system to be submitted.
- 3 Note on Cl₂ leakage and preparedness.
- 4 Compliance report of existing CTE/CTO from GPCB.

The proposal is deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website. The Reply will be discussed internally without calling project proponent.

11.2.6 Synthetic Resins (Resins 15,000 MTPM) and its formulation (20,000 MTPM) at Plot No. D-01 to D-06, A & S.No. 382, Village Chancharwadi, Taluka Sanand, District Ahmedabad, Gujarat **by M/s Macro Polymers (P) Ltd. - regarding EC.**

The project authorities and their consultant (EQMS India Pvt. Ltd) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 32nd Meeting of the Expert Appraisal Committee (Industry) held during 16th -17th February, 2012 for preparation of EIA/EMP report. All the Synthetic Organic Chemical Units located outside industrial area/estate are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Macro Polymers (P) Ltd have proposed for setting up of Synthetic Resins (Resins 15,000 MTPM) and its formulation (20,000 MTPM) at Plot No.D-01 to D-06 A & S.No.382, Village Chancharwadi, Taluka Sanand, District Ahmedabad, Gujarat. Total plot area is 26,166 sq.m of which greenbelt will be developed in 5635 m². Total cost of the project is Rs. 28.00 Crores. No national park/wildlife sanctuary/reserve forest is located within 10 Km distance. Following products will be manufactured:

S.N.	Products	Production Capacity (MTPM)
Resins		15000
1	Alkyd Resins	5000
2	Polyamide Resins	2500
3	Polyester Resin	2500
4	Amino Resin	2000
5	Ketonic Resin	500
6	Acrylic Resins	2000
7	Rosin esters and derivatives	500
Formulation Plant		20000
1	Resin Solution	10000
2	Resin Modification	10000
By Products		
1	Caustic Lye – 45%	3650

Additionally, PAs informed to the Committee that ambient air quality monitoring was carried out at 6 locations during March, 2012 – May 2012 and submitted baseline data indicate range of concentrations of PM₁₀ (58.6 µg/m³ to 84.9 µg/m³), SO₂ (13.5 µg/m³ to 25.3 µg/m³) and NO_x (16.4 µg/m³ to 29.7 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.761 µg/m³, 0.644 µg/m³ and 0.448 µg/m³ with respect to SPM, SO₂ and NO_x respectively. Cyclone followed by centrifugal scrubber will be provided to coal/lignite /agro residue/bio coal fired thermic fluid heater/boiler to control particulate emissions. Water requirement from ground water source will be 45 m³/day. Some fluid will be generated from process. Total effluent generation will be 63 m³/day. The effluent will be treated in two stage biological process (anaerobic and aerobic) followed by nano filtration plant. Treated water will be recycled/reused for boiler feed water and cooling tower make up water. Used oil will be sent to authorized recyclers/re-processors. Waste resin will be reused in house after reconditioning.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 4th January, 2013. The issues raised were regarding social welfare, plantation, solid waste disposal, source of water, local employment etc and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

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

- i) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- ii) Bag filter alongwith stack of adequate height should be installed to coal/lignite /agro residue/bio coal fired thermic fluid heater/boiler to control particulate emission.
- iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.
- iv) Total ground water requirement should not exceed 45 m³/day and prior permission should be obtained from the Central Ground Water Authority/State Ground Water Board.
- v) As proposed, Industrial effluent shall be treated in two stage biological process (anaerobic and aerobic) followed by nano filtration plant. Treated water shall be recycled/reused for boiler feed water and cooling tower make up water. Treated effluent shall be recused for horticulture purpose. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- vi) No effluent shall be discharged outside the plant premises and 'Zero' effluent discharge shall be maintained.
- vii) 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 and amended as on date for management of Hazardous wastes and prior permission from GPCB should

be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire fighting facilities in case of emergency.

- viii) Green belt should be developed in 33% of total plant area.
- ix) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x) All the commitment made regarding issues raised during the public hearing/ consultation meeting held on 4th January, 2013 shall be satisfactorily implemented.
- xi) At least 5 % of the total cost of the project should be earmarked towards the Enterprise social responsibility based on public hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

11.2.7 Proposed Active Pharmaceutical Ingredients and Formulations manufacturing unit at Village Zuzuvadi, District Krishnagiri, Tamil Nadu by M/s Quest Healthcare Pvt. Ltd - regarding EC.

The project authorities and their consultant (ABC Techno Labs) 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 6th Meeting of the Expert Appraisal Committee (Industry) held during 5th – 7th March, 2013 for preparation of EIA/EMP report. Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, project site is located within 10 Km of interstate boundary (Tamil Nadu & Karnataka) and treated as category 'A' project due to applicability of general condition of the EIA notification, 2006 and appraised at Central level.

M/s Quest Healthcare Pvt. Ltd have proposed for setting up of Active Pharmaceutical Ingredients and Formulations manufacturing unit at Plot 81 A, SIPCOT-I Industrial Area, Village Zuzuvadi, District Krishnagiri, Tamil Nadu. Total plot area is 16023.32 m² of which greenbelt will be developed in 5626.06 m². The cost of project is Rs. 48.40 Crore. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. The water bodies located in the study area are – SIPCOT Pond (0.75km), Santhapuram lake (1.4km), Chinnar river (1.7km) and Ponnaiyar river (7.4km). Following products will be manufactured:

S. No	Products (APIs)	Production capacity (TPA)
1	Doripenem	1.0
2	Ertapenem	3.0
3	Faropenem	1.0
4	Imipenem	4.5
5	Cilastatin	4.5
6	Meropenem	24.0
7	Panipenem	1.0
8	Sulopenem	1.0
TOTAL		40

Ambient air quality monitoring was carried out at 6 locations March to May 2013 and submitted data indicates as PM₁₀ (42– 60 ug/m³), PM_{2.5} (17–30 ug/m³), SO₂ (5.0 – 7.5 ug/m³) and NO_x (10.2-16.3 ug/m³). Ambient air quality modeling for the proposed plant was not carried out. Packed column scrubber will be provided to control process emissions. Stack of adequate height will be provided to oil fired boiler and DG sets (1x 1500 KVA and 3x 500 KVA). Fresh water requirement from SIPCOT water supply will be 125 m³/day. Industrial effluent generation will be 63.7 m³/day and segregated into high COD/TDS and low COD/TDS effluent streams. High COD/TDS effluent stream will be treated in MEE followed by ATFD. Low effluent stream will be treated in ETP followed by UF & RO. Sewage will be treated in STP. Treated effluent will be recycled/reused for cooling tower make up water. No effluent will be discharged outside the factory premises and 'zero' effluent discharge concept will be followed. Evaporated salt, ETP sludge and residue from solvent recovery will be sent to TSDF. Waste oil/ used oil will be sent to authorized recyclers/re-processors.

After deliberations, the Committee desired following additional information:

- (i) Cross check the ambient air quality data w.r.t. VOC and CO by conducting monitoring for one month.
- (ii) Air quality modeling for the proposed plant.
- (iii) Submit solvent recovery plan for solvent recovery more than 95 %.
- (iv) Action plan for utilization of organic waste by cement plant.
- (v) Drinking water facility as an ESR for nearby villages to be provided.
- (vi) Revised layout plan for greenbelt.

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

Terms of Reference

11.2.8 Expansion of Gujarat Refinery (from 13.7 MMTPA to 18 MMTPA) at Villages Koyali, Bajwa, Karachiya, District Vadodara, Gujarat by M/s IOCL- **regarding TORs.**

The project authorities 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 the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

M/s IOCL have proposed for expansion of Gujarat Refinery (from 13.7 MMTPA to 18 MMTPA) at Villages Koyali, Bajwa, Karachiya, District Vadodara. Facilities will be located in vacant area inside refinery. Additional land adjoining the existing refinery complex will be procured. 80 acres of additional land being procured by M/s IOCL. Cost of the project is Rs. 7392 Crore of which Rs. 504 Crore is earmarked towards capital cost for implementation of environment management plan. Following new processing units will be installed:

- (i) Vacuum Distillation Unit of 4.0 MMTPA.
- (ii) Hydrocaracker unit of 3.5 MMTPA.
- (iii) Hydrogen generation unit of 72 TMTA.
- (iv) Sulphur recovery unit of 300 MTPD.
- (v) Sour water stripper I & II of 100 and 75 MTPD.
- (vi) Amin generation unit of 440 MTPD capacity.
- (vii) Revamp of existing AU-5 Unit from 3.0 to 7.3 MMTPA.
- (viii) Super critical deasphalting Unit.

SOx emission post expansion will remain at the same level i.e. 942 Kg/hr. Additional water requirement from River Mahi will be 600 m³/hr. Additional power requirement will be 33 MW, which will be met from one additional GT (33 MW) with HRSG of 110 MTPH capacity. Fuel consumption will be 43 MT. Spent catalyst will be disposed through authorized recycler/re-processors.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/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.
2. Executive summary of the project.
3. Project Description and Project Benefits.
4. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
5. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land use/land-cover mapping of the area.
6. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
7. Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
8. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
9. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
10. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
11. Project site layout plan to scale using AutoCAD showing raw materials and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
12. A list of industries within 10 km radius of the project.
13. Details of facilities along with utilities to be provided for the proposed project.
14. Manufacturing process details along with the chemical reactions and process flow diagram.
15. List of products along with the production capacities.
16. Detailed list of raw material required and source, mode of storage and transportation. Details of the storage and technical specifications with safety aspects & standards.
17. Mass balance for the raw material and products should be included.
18. Proposal for safety buffer zone around the proposed site with map.
19. Baseline data collection for air, water and soil for the period of 3 months (except monsoon season) for :
 - i. Ambient air quality monitoring for PM_{2.5}, PM₁₀, SO₂, NO_x, CO.

- ii. Background levels of hydrocarbons (methane & non-methane HC) and VOCs.
 - iii. Soil sample analysis.
 - iv. Base line underground and surface water quality in the vicinity of project.
 - v. Climatology & meteorology including wind speed, wind direction, temperature, rainfall etc.
 - vi. Measurement of noise levels.
20. Flue gas emission rate alongwith stack height.
 21. Source of fugitive emission from the unit alongwith its quantification and proposed measures to control it.
 22. Action plan to achieve smokeless flare should be included. Action plan for installation of flare gas recovery unit as CDM component.
 23. Details of Sulphur balance for the existing and proposed expansion of the refinery unit.
 24. Unit-wise air pollution control devices to be installed.
 25. Details of water consumption and source of water supply, waste water generation, treatment and utilization of treated water generated from the facilities and effluent disposal. Detailed water balance chart (including reuse-recycle, if any) along with quantitative and qualitative analysis of each waste stream to be submitted.
 26. Details of proposed effluent treatment plant alongwith water quality of inlet and outlet of ETP.
 27. A note on the impact of drawl of water on the nearby River/Canal during lean season. Proved details of peak and lean season flow of the river /canal.
 28. A plan to reduce water consumption in the refinery.
 29. Hydrogeological study of the area to be carried out and report submitted.
 30. Ground water modeling showing the pathways of the pollutants should be included.
 31. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
 32. Note on compliance to the recommendations mentioned in the CREP for oil refineries and petrochemical industries.
 33. A note on implementation of new refinery standards for refineries.
 34. Quantification of oil sludge generation from the proposed refinery including management plan for the oily sludge handling. Details of temporary storage for the oil sludge.
 35. Details of catalyst waste generated from the refinery along with temporary storage facility at site. Action plan for disposal of the catalyst solid waste.
 36. Land use & cropping pattern, vegetation, ecology, flora & fauna
 37. Demography & socio-economics of the area.
 38. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
 39. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
 40. Details of proposed preventive measures for leakages and accident.
 41. Details of Vapour Recovery System.
 42. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
 43. Traffic management with adequate width of approach road to avoid congestion and to have safe exit in emergencies.
 44. Type of seismic zone.
 45. Full Quantitative Risk Assessment & Disaster Management Plan should include:
 - a. Identification of hazards
 - b. Consequence Analysis
 - c. Determination of Individual Risk and Societal Risk
 - d. Proposed measures for risk reduction.
 - e. Petroleum vapour intrusion impact study.
 46. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.

- ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
47. Action plan for development of green belt in 33% alongwith layout plan.
48. Total capital cost and recurring cost/annum for environmental pollution control measures. Break up details should also be included.
49. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
50. Environmental monitoring programme including online stack monitoring system as well as continuous ambient air quality monitoring system. Method/System to be adopted to ensure correct calibration of automatic monitoring system.
51. Details of Corporate Social Responsibility (CSR) including sufficient budgetary provision for health improvement, education, water and electricity supply etc. in and around the project.
- 52. Corporate Environmental Responsibility**
- (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
53. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
54. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
55. A tabular chart indicating point-wise compliance of the TOR.
The following general points should be noted:
- i. All documents should be properly indexed, page numbered.
 - ii. Period/date of data collection should be clearly indicated.
 - iii. Authenticated English translation of all material provided in Regional languages.
 - iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
 - v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
 - vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.

- vii. Certificate of Accreditation issued by the QCI to the environmental consultant should be included.

It was decided that TORs 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 should be submitted to the Gujarat Pollution Control Board for conducting public hearing/consultation. The issues emerged and response to the issues raised during public hearing should be incorporated in the EIA/EMP report and submitted to the Ministry for obtaining environmental clearance.

11.2.9 Expansion of Molasses based Distillery Plant (from 40 KLPD to 100 KLPD) in Village Sankili, Mandal Regidi Amadalavalasa, District Srikakulam, Andhra Pradesh by M/s E I D Parry (India) Ltd. (Formerly Known as Parrys Sugar Industries Ltd.)- regarding TORs.

The project authorities 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 and cane juice/non-molasses based distillery (>30 KLD) are listed at S.N. 5(g) (i) (ii) under category 'A' and appraised at Central level.

M/s E I D Parry (India) Ltd. (Formerly Known as Parrys Sugar Industries Ltd.) have proposed for Expansion of Molasses based Distillery Plant (from 40 KLPD to 100 KLPD) in Village Sankili, Mandal Regidi Amadalavalasa, District Srikakulam, Andhra Pradesh. Total plot area is 206.60 acres. No additional land is required. Total cost of project is Rs. 87.58 Crore. No forest land is involved. Nagavali River is flowing at a distance of 1.5 Km. Palakonda R F is located at a distance of 6.5 Km. MoEF has issued environmental clearance for distillery plant (40 KLPD) alongwith Co-generation Power Plant (16 MW) on 8th March, 2004. MoEF has issued environmental clearance for distillery plant (40 KLPD) alongwith Co-generation Power Plant (16 MW) on 8th March, 2004. Following is the configuration of distillery plant:

S.N.	Product	Existing	Additional	After Expansion
1	Sugar	5000 TCD (Crushing Capacity)	Nil	5000 TCD
2	Co-gen Power Plant	16 MW	Nil	16 MW
3	Distillery Plant	40 KLPD	60 KLPD	100 KLPD

Distillery will be operated for 270 days. Bagfilter will be provided to incineration boiler. Water requirement from Nagavali River will be 1335 m³/day. Spent wash generation will be 10 KL per KL of alcohol generation. Committee asked them to restrict spent wash generation upto 8 KL per KL of alcohol produced. Spent wash will be concentration in MEE followed by incineration. Plant will be based on zero effluent discharge.

After deliberations, the Committee prescribed the following fresh TORs for the preparation of draft EIA/EMP report:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/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.
2. Executive summary of the project.

3. Detailed breakup of the land area alongwith latest photograph of the area.
4. Present land use based on satellite imagery and details of land availability for the project alongwith supporting document.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. A copy of lease deed or allotment letter, if land is already acquired.
7. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the APPCB.
8. 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, compliance to the notice(s)
9. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
10. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
11. List of existing distillery units in the study area alongwith their capacity and sourcing of raw material.
12. Details of proposed products along with manufacturing capacity.
13. Number of working days of the distillery unit.
14. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures. Capital cost shall be reviewed as seems to be very high.
15. Details of raw materials, its source with availability of all raw materials.
16. Sources and quantity of fuel (rice husk/coal etc.) for the boiler. Measures to take care of SO₂ emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
17. Storage facility for raw materials, prepared alcohol, fuel and fly ash.
18. Action plan to control ambient air quality as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x as per GSR 826(E) dated 16th November, 2009.
19. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
20. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
21. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
22. Details of the use of steam from the boiler.
23. Ground water quality around proposed spent wash storage lagoon and the project area.
24. Details of water requirement, water balance chart for existing unit as well as proposed expansion. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
25. Source of water supply and permission of withdrawal of water from Competent Authority.
26. Proposed effluent treatment system for molasses based distillery (spent wash and spent lees) as well as domestic sewage and scheme for achieving zero discharge.
27. Spent wash generation should not exceed 8 KL/KL of alcohol production. Details of the spent wash treatment for molasses based distillery based distillery.
28. Capacity for spent wash holding tank and action plan to control ground water pollution.
29. Layout for storage of bagasse/biomass/coal.
30. Details of solid waste management including management of boiler ash.

31. Green belt development as per the CPCB guidelines.
32. List of flora and fauna in the study area.
33. Noise levels monitoring at five locations within the study area.
34. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
35. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
36. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
37. Alcohol storage and handling area fire fighting facility as per norms. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
38. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
39. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Thresh Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
40. Details of socio-economic welfare activities.
41. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
42. Action plan for post-project environmental monitoring.
- 43. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
44. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
45. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
46. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- i) All documents should be properly indexed, page numbered.
- ii) Period/date of data collection should be clearly indicated.
- iii) Authenticated English translation of all material provided in Regional languages.
- iv) The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- v) The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi) The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii) Certificate of Accreditation issued by the QCI to the environmental consultant should be included.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns rose along with the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.10 Resin Manufacturing Unit at S.N. 6/ A, Village Changodar, District Ahmedabad, Gujarat by M/s Creative Laminates - **regarding TORs.**

The project authorities 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 the Resin Units located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Creative Laminates have proposed for setting up of Resin Manufacturing Unit at S.N. 6/ A, Village Changodar, District Ahmedabad, Gujarat. Total plot area is 3299 m² of which greenbelt will be developed in 216 m². Cost of resin plant is Rs. 80.00 Lakhs. Following products will be manufactured:

S.N.	Product	Quantity
1	Phenol Formaldehyde Resin	400 MTPM
2	Melamine Formaldehyde Resin	120 MTPM
3	Urea Formaldehyde Resin	120 MTPM

Multicyclone followed dust collector will be provided to coal fired steam boiler. Scrubber will be provided to Melamine and phenol formaldehyde dryer. Water requirement from ground water source will be 12.729 m³/day. Industrial effluent will be treated in ETP. ETP sludge will be sent to TSDF. Used oil will be sent to registered recyclers. Power requirement from Gujarat Electricity Board will be 135 HP. DG set (175 KVA) will be installed as a standby arrangement.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project
2. Justification of the project.
3. Photographs of proposed plant site.
4. Promoters and their back ground.
5. Regulatory framework.

6. A map indicating location of the project and distance from severely polluted area
7. Project location and plant layout.
8. Infrastructure facilities including power sources.
9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
11. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
12. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
13. Details of the total land and break-up of the land use for green belt and other uses.
14. List of products alongwith the production capacities.
15. Detailed list of raw materials required and source, mode of storage and transportation.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
18. Ambient air quality monitoring at 6 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
19. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, PM_{2.5}, SO₂, NO_x including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
20. Air pollution control measures viz. Multi-cyclone and bag filter etc. shall be proposed for the effective control of gaseous emissions within permissible limits.
21. Control methanol emission from drying section.
22. Details of VOC monitoring system in the working zone environment, if any.
23. Name of all the solvents to be used in the process and details of solvent recovery system.
24. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
25. Details of water and air pollution and its mitigation plan.
26. An action plan to control and monitor secondary fugitive emissions from all the sources.
27. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
28. Permission for the drawl of 12.8 m³/day ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
29. Action plan for 'Zero' discharge of effluent shall be included.
30. Treatment of phenol in the effluent, if any.
31. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.

33. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
34. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
35. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
36. A write up on "Safe Practice" followed for methanol handling, storage, transportation and unloading to be submitted.
37. A write up on "Treatment of workers affected by accidental spillage of methanol/ phenol".
38. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
39. An action plan to develop green belt in 33 % area
40. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
41. Details of occupational health programme.
 - i. To which chemicals, workers are exposed directly or indirectly.
 - ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii. What measures company have taken to keep these chemicals within PEL/TLV.
 - iv. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v. What are onsite and offsite emergency plan during chemical disaster.
 - vi. Liver function tests (LFT) during pre-placement and periodical examination.
42. Details of occupational health surveillance programme.
43. Socio-economic development activities shall be in place.
44. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
45. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
46. Corporate Environmental Responsibility
 - (a) Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
47. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
48. 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.
49. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the Gujarat Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP report submitted to the Ministry for obtaining environmental clearance.

11.2.11 Development Drilling of 66 Wells in 7ML/NELP Block Onshore in District Cuddalore, Nagapattinam, Tiruvarur and Tanjavar, Tamil Nadu by M/s ONGC Ltd. regarding TORs.

The project authorities 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. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC Ltd. have proposed for development drilling of 66 Wells in 7ML/NELP Block Onshore in District Cuddalore, Nagapattinam, Tiruvarur and Tanjavar, Tamil Nadu. It is reported that project proposal does not attract CRZ clearance. No forest land is involved. Cost of the project is Rs. 264 Crore. Following are the Mining Block and lease area:

S.N.	M L Block Name	Block area (Sq. Km)	Proposed Wells
1	Bhuvanagiri	14.00	20
2	Madanam	16.40	10
3	Pallivaramangalam	2.00	10
4	Vijayapuram	49.00	5
5	Periyakudi	12.75	10
6	Tulsipattinam	3.70	3
7	Pundi	1.00	8

The production installations like GGS, GCS, EPS and ETP are in close proximity to most of the proposed drilling locations i.e. within radius of 5 Km range. The water requirement in a drilling rig for preparation of drilling mud and domestic will be 25 m³/day. Water based mud will be used. Effluent generated will be treated at ETP NRM (1300 m³) and ETP KMP (500 m³). The quantity present effluent generation is only 720 m³/day.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP:

1. Executive summary of a project

2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area.
4. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
5. Permission from the State Forest Department regarding the impact of the proposed project on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland should be submitted.
6. Distance from nearby critically/severely polluted area as per Notification dated 13th January, 2010, if applicable.
7. Copy of CRZ map prepared by one of the agencies authorized by the MoEF for carrying out the CRZ demarcation, w.r.t. the project boundary and facilities.
8. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
9. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing/existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
10. 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, compliance to the notice(s)
11. Comprehensive proposal covering surface facilities, pipeline/gas collection system, utilities etc.
12. Design details of all the facilities including CGS, GGS, pipe network, utilities and technology to be used for development project.
13. Details of project cost.
14. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
15. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
 - (i) Topography of the project site.
 - (ii) Ambient Air Quality monitoring at 8 locations for PM10, SO₂, NO_x, VOCs, Methane and non-methane HC.
 - (iii) Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.

- (iv) Ground and surface water quality in the vicinity of the proposed wells site.
- (v) Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
- (vi) Measurement of Noise levels within 1 km radius of the proposed wells.
- (vii) Vegetation and land use; Animal resources

16. Incremental GLC as a result of DG set operation.
17. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
18. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
19. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
20. Treatment and disposal of waste water.
21. Treatment and disposal of solid waste generation.
22. Disposal of spent oil and lubes.
23. Storage of chemicals and diesel at site.
24. Commitment for the use of WBM only
25. Mud make up and mud and cutting disposal – all options considered should be listed with selective option.
26. Hazardous material usage, storage accounting and disposal.
27. Disposal of packaging waste from site.
28. Oil spill emergency plans in respect of recovery/ reclamation.
29. H₂S emissions control.
30. Produced oil handling and storage.
31. Details of scheme for oil collection system alongwith process flow diagram and its capacity.
32. Details of control of air, water and noise pollution in oil collection system.
33. Disposal of produced/formation water.
34. Whether any burn pits being utilized for well test operations.
35. Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.
36. Measures to protect ground water and shallow aquifers from contamination.

37. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
38. Environmental management plan.
39. Documentary proof of membership of common disposal facilities, if any.
40. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This should also include monitoring programme for the environmental.
41. Total capital and recurring cost for environmental control measures.
42. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
43. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
44. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.
- (iv) The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- (v) A copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues have been incorporated.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation in all four districts. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP report submitted to the Ministry for obtaining environmental clearance.

11.2.12 Expansion of Sugar Unit, Distillery and Cogeneration Power Plant at Hirebevanur Village, Taluku Indi, Bijapur District, Karnataka by **M/s Dnyanayogi Shri Shivakumar Swamiji Sugar Ltd.-regarding TORs.**

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 Dnyanayogi Shri Shivakumar Swamiji Sugar Ltd. have proposed for expansion of Sugar Unit, Distillery and Cogeneration Power Plant at Hirebevanur Village, Taluku Indi, Bijapur District, Karnataka. Present capacity of the Sugar unit is 1750 TCD cane crushing and Cogeneration Power Plant (6 MW). Total plot area is 57.87 ha. Expansion will be carried out within existing area 6.34 ha. Total cost of the project is Rs. 309.16 Crore of which Rs. 31 Crore is earmarked towards capital cost for environmental management plan. Bima River, Indi Halla and Katral Nala are flowing at a distance of 3.6 Km, 1.5 Km and 5.5 Km respectively. Following is the configuration of plants :

S.N.	Plant	Existing capacity	After expansion
1	Sugar	1750 TCD	5000 TCD
2	Cogeneration Power Plant	6 MW	25 MW
3	Molasses based Distillery	--	60 KLPD
4	Spent wash Incineration Boiler	--	2 MW

ESP will be provided to bagasses/coal fired boiler (125 TPH). Cyclone dust collector & wet scrubber will be provided to incineration boiler (22 TPH). Water requirement from Bhima River will be 1000 m³/day. Effluent from sugar unit will be treated in ETP. Effluent from cogeneration unit will be neutralized followed by dilution in polishing pond. Spent wash from distillery unit will be concentrated in MEE followed by incineration. Spentlees (144 m³/day) will be treated in RO and reused back for dilution of molasses. RO reject will be treated in existing sugar ETP. Press mud will be mixed with boiler ash and given as manure to member farmers. Wet bottom ash will be mixed with press mud and given to member farmer. ETP sludge will be used as manure. Bottom ash from incineration boiler will be sold to brick manufacturers /cement plant.

After deliberations, the Committee prescribed the following TORs for the preparation of draft EIA/EMP:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/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.
2. Executive summary of the project.
3. Compliance of environmental conditions prescribed by the SPCB for the existing sugar & Distillery unit
4. Detailed breakup of the land area along with latest photograph of the area.
5. Present land use based on satellite imagery.
6. Details of site and information related to environmental setting within 10 km radius of the project site.
7. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
8. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forest.
9. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the KSPCB.
10. List of existing distillery units in the study area alongwith their capacity.
11. Number of working days of the sugar, distillery unit and CPP.
12. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.

13. Manufacturing process details of sugar plant, distillery and CPP alongwith process flow chart.
14. Details of raw materials and source of raw materials i.e. molasses, bagasse etc.
15. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO₂ emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted, in case coal is used.
16. Action plan prepared by the SPCB to control ambient air quality as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x as per GSR 826(E) dated 16th November, 2009.
17. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
18. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
19. An action plan to control and monitor secondary fugitive emissions from all the sources.
20. Details of boiler and its capacity. Details of the use of steam from the boiler.
21. Ground water quality around existing spent wash storage lagoon and the project area.
22. Details of water requirement, water balance chart for sugar, distillery and co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
23. Prior 'permission' from Competent Authority for the drawl of total fresh water. Details of source of water supply.
24. Hydro-geological study of the area for availability of ground water.
25. Proposed effluent treatment system for sugar unit and distillery as well as CPP and scheme for achieving 'zero' discharge.
26. Lagoon capacity for sugar unit and spent wash as well measures to be taken to control ground water contamination.
27. Details of solid waste management including management of boiler ash. Submit Ash management plan. MoU with cement plant for the use of fly ash.
28. Green belt development as per the CPCB guidelines.
29. List of flora and fauna in the study area.
30. Noise levels monitoring at five locations within the study area.
31. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
32. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
33. Details of bagasse storage. Details of press mud requirement.
34. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
35. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.

- v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
 - viii) Details of socio-economic welfare activities to be provided.
36. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
 37. Action plan for post-project environmental monitoring.
 - 38. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
 39. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
 40. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
 41. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter and that raised in Public Hearing/consultation along with duly filled in Industry Sector questionnaire. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues and the issues raised in the Public hearing have been incorporated.
- vii. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.13 Synthetic Resin Manufacturing Unit at Plot No.- C1-2807, Chemical Zone, GIDC Notified Area, Sarigam, Taluka Umargam, District Valsad, Gujarat by M/s Cytech Coatings Pvt. Ltd.- **regarding TORs.**

The project authorities 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 Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within interstate boundary, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Cytech Coatings Pvt. Ltd. have proposed for setting up of Synthetic Resin Manufacturing Unit at Plot No.- C1-2807, Chemical Zone, GIDC Notified Area, Sarigam, Taluka Umargam, District Valsad, Gujarat. Total plot area is 1180 m². Total cost of the project is Rs. 4.40 Crore. Damanganga River is flowing at a distance of 6 Km. D & NH wildlife sanctuary is located at a distance of 17 Km. Forest patches are located at a distance of 2 Km. Following products will be manufactured:

S. N.	Products	Production Capacity (MTPM)
1	Synthetic Organic Resins & adhesives a. Polyketone / Ketonic Resin b. Poly vinyl Butyral Resin c. Polyurethane Resin d. Polyamide Resin e. Phenolic Resin	300.00

Adequate stack height will be provided to LDO fired steam boiler and Thermopack will be installed. DG set (2 x 125 KVA) will be installed for standby arrangement. Power requirement (125 HP and 125 HP) will be met from Dakshin Gujarat Vij Co. Ltd. Water requirement from GIDC water supply will be 30.50 m³/day. Industrial effluent generation will be 19 m³/day and treated in ETP. Treated effluent will be discharged into GIDC underground drainage to tidal zone of Arabian sea. ETP sludge will be sent to TSDF. Used oil will be sent to authorized recycler.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. A map indicating location of the project and distance from severely polluted area.
6. Project location and plant layout.
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
11. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
12. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
13. Details of the total land and break-up of the land use for green belt and other uses.

14. List of products alongwith the production capacities.
15. Detailed list of raw material required and source, mode of storage.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Action plan for the transportation of raw material and products.
18. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
19. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
20. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x, CO, NH₃ including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
21. Details of water and air pollution and its mitigation plan
22. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
23. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
24. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
25. Name of all the solvents to be used in the process and details of solvent recovery system.
26. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.
28. Permission from Competent Authority for the drawl of 30.5 m³/day water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
29. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
30. Zero discharge effluent concepts to be adopted.
31. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
33. Material Safety Data Sheet for all the Chemicals are being used/will be used.
34. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
35. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
36. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
37. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
38. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.

- ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
39. Socio-economic development activities shall be in place.
40. Note on compliance to the recommendations mentioned in the CREP guidelines.
41. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
42. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
43. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 44. Corporate Environmental Responsibility**
- (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
46. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
47. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.14 Synthetic Organic Chemicals at Plot No. 67-68, Village Motinaroli, Taluka Mangrol, District Surat, Gujarat by M/s Patel Kenwood Pvt. Ltd.-regarding TORs.

The project authorities 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 the Resin Plants located outside notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Patel Kenwood Pvt. Ltd. have proposed for setting up of Synthetic Organic Chemicals at Plot No. 67-68, Village Motinaroli, Taluka Mangrol, District Surat, Gujarat. Total plot area is 43151.53 m² of which greenbelt will be developed in 11838.00 m². River Kim is flowing at a distance of 1.35 Km. Cost of the proposed expansion is Rs. 1210 Lakh. Following products will be manufactured:

S.N.	Name of Products	Production Capacity			
		Unit	Existing	Proposed	Total
1	Plain and Pre-Laminated Particle Boards	MTPM	1125.00	2345.00	3470.00
2	Synthetic Organic Resin (Bonding Glue)	MTPM	170.00	2330.00	2500.00
	a. Urea Formaldehyde Resin				
	b. Melamine Formaldehyde Resin				
	c. Paraffin Wax Emulsion				

Bagfilter alongwith adequate stack height will be provided to bagasse/wood fired thermic fluid heater (2 Nos.). Additional DG set (125 KVA) will be installed for standby arrangement. Fresh water requirement from ground water source will be 50 m³/day. Resin residue will be reused in next batch. Used oil will be sold to Authorized recyclers/re-processors.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/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.
2. Executive summary of the project
3. Justification of the project.
4. Photographs of proposed plant site.
5. Promoters and their back ground.
6. Regulatory framework.

7. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the GPCB.
8. Copy of NOC/Consent to Establish for the existing unit.
9. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
10. 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, compliance to the notice(s).
11. A map indicating location of the project and distance from severely polluted area
12. Project location and plant layout.
13. Infrastructure facilities including power sources.
14. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
15. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
16. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
17. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw materials required and source, mode of storage and transportation.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
23. Ambient air quality monitoring at 6 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
24. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM10, PM2.5, SO₂, NO_x including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
25. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
26. Control methanol emission from drying section.
27. Details of VOC monitoring system in the working zone environment, if any.
28. Name of all the solvents to be used in the process and details of solvent recovery system.
29. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
30. Details of water and air pollution and its mitigation plan.
31. An action plan to control and monitor secondary fugitive emissions from all the sources.
32. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
33. Permission for the drawl of 50 m³/day ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
34. Action plan for 'Zero' discharge of effluent shall be included.
35. Treatment of phenol in the effluent, if any.

36. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
37. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
38. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
40. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
41. A write up on "Safe Practice" followed for methanol handling, storage, transportation and unloading to be submitted.
42. A write up on "Treatment of workers affected by accidental spillage of methanol/ phenol".
43. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
44. An action plan to develop green belt in 33 % area
45. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
46. Details of occupational health programme.
 - i. To which chemicals, workers are exposed directly or indirectly.
 - ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii. What measures company have taken to keep these chemicals within PEL/TLV.
 - iv. How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v. What are onsite and offsite emergency plan during chemical disaster.
 - vi. Liver function tests (LFT) during pre-placement and periodical examination.
47. Details of occupational health surveillance programme.
48. Socio-economic development activities shall be in place.
49. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
50. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
51. Corporate Environmental Responsibility
 - (a) Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

52. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
53. 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.
54. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the Gujarat Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP report submitted to the Ministry for obtaining environmental clearance.

11.2.15 Synthetic Organic Chemical Manufacturing Unit at Sy. No. 297 (Part), Village Jagdevpur, Mandal Jagdevpur, District Medak, Andhra Pradesh by M/s Elite Pharmaceutical Pvt. Ltd. -regarding TORs

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 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 Elite Pharmaceutical Pvt. Ltd. have proposed for setting up of Synthetic Organic Chemical Manufacturing Unit at Sy. No. 297 (Part), Village Jagdevpur, Mandal Jagdevpur, District Medak, Andhra Pradesh. Total plot area is 6.5 acres of which greenbelt will be developed in 2.15 acres of land. Cost of project is Rs. 7.0 Crore. No forest land is involved. Daulapuram RF (1.2 Km), Kondapuram RF (4.5 Km), Singaram RF (5.7 Km) are located within 10 Km distance. No national park/sanctuary is located within 10 Km distance. Following products will be manufactured:

S.N.	Product	Capacity (kg/day)
1	Balaglitazone	50
2	Duloxetine	15
3	Eprosartana Mesylate	250

4	Lansoprazole	30
5	Olanzapine	100
6	Ritanovir	100
7	Simvastatin	100
8	Terbinafine HCl	400
9	Valgancyclovir	100
10	Sertraline Hydrochloride	200
11	Pragabalin	400
12	Voriconazole	100
13	Sumatriptan	50
	Total (Only 4 products will be in production at any given time)	1250

List of By Products

S.N.	By Product	Capacity (kg/day)
1	30% Potassium Chloride Solution	758

Scrubber will be provided to control process emissions. Coal fired boiler (1x2 TPH and 1x 3 TPH) will be installed. DG set (1x500 KVA) will be installed. Total water requirement will be 93.7 m³/day of which fresh water requirement will be 55.7 m³/day and remaining from recycled water. Industrial effluent generation will be 47 m³/day. Effluent 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/COD effluent stream will be treated in effluent treatment plant (ETP) followed by RO. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Inorganic & evaporation salt and ETP sludge will be sent to Treatment Storage Disposal Facility (TSDF) for hazardous waste. Fly ash will be sold to brick manufacturers. Waste oil and used batteries will be sold to authorized recyclers/re-processors.

After detailed deliberations, the Expert Appraisal Committee prescribed the following ToRs for preparation of EIA/EMP:

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework
6. A map indicating location of the project and distance from severely polluted area
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.
14. Detailed list of raw material required and source, mode of storage and transportation.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.

16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
24. An action plan to control and monitor secondary fugitive emissions from all the sources.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and permission for the drawl of 100 m³/day water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged. Efforts shall be made to reduce ground water drawl.
27. Action plan for 'Zero' discharge of effluent should be included.
28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
33. A copy of 'Memorandum of Understanding' (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
35. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
38. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
39. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
40. Details of occupational health programme.

- i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
41. Socio-economic development activities should be in place.
 42. Note on compliance to the recommendations mentioned in the CREP guidelines.
 43. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
 44. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
 45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
 46. 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.
 47. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee prescribed the above ToRs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.16 Molasses based Distillery (80 KLPD) and Cogeneration Power Plant (2.5 MW) at Village Chandanpur, Post Chapna, Tehsil Hasanpur in District Amroha, U.P. by M/s Triveni Engineering & industries Ltd.- **regarding TORs**

The proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the project proponent.

11.2.17 Expansion of the Sugar Unit (from 3500 TCD to 5000 TCD) and Cogeneration Power Plant (24 MW) at Village & Tehsil Walwe, District Sangli, Maharashtra by M/s Padmabhushan Krantiveer Dr. Naghath Anna Nayakawadi HKASSK Ltd.- regarding TORs.

The project authorities and their consultant (Bhagavathi Ana Labs Ltd.) 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 thermal power plants (biomass or non-hazardous municipal solid waste as fuel) are listed at S.N. 1(d) under category 'A' and appraised at Central level. Sugar unit \geq 5000 TCD cane crushing is listed at 5 (J) under category 'B' and appraised at state level. Since project is integrated and capacity of the CPP is >15 MW (78 MW), the proposal will be appraised at Central level.

M/s Padmabhushan Krantiveer Dr. Naghath Anna Nayakawadi HKASSK Ltd. have proposed for expansion of the Sugar Unit (from 3500 TCD to 5000 TCD) and Cogeneration Power Plant (24 MW) at Village & Tehsil Walwe, District Sangli, Maharashtra. Ministry vide letter no. J-11011/661/2007-IA II (I) dated 17th September, 2007 has issued environmental clearance for establishing distillery (30 KLPD) and expansion of sugar unit (from 2500 TCD to 3500 TCD) alongwith Cogeneration power plant (18 MW). Whereas, distillery (30 KLPD) and Cogeneration (18 MW) are not established. Total plot area is 43.55 ha of which greenbelt will be developed in 10 ha. Cost of proposed expansion is Rs. 267.63 Crore. ESP will be provided to bagasse fired boiler. Water requirement from Krishna River after proposed expansion will be 3670 m³/day. Industrial effluent generation will be 1150 m³/day. Industrial effluent will be treated in ETP.

After deliberations, the Committee prescribed the following TORs for the preparation of draft EIA/EMP:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/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.
2. Executive summary of the project.
3. Detailed breakup of the land area along with latest photograph of the area.
4. Present land use based on satellite imagery.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
7. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forest.
8. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the KSPCB.
9. List of industrial units in the study area alongwith their capacity.
10. Number of working days of the sugar unit and CPP.
11. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
12. Manufacturing process details of sugar plant and CPP alongwith process flow chart.
13. Details of raw materials and source of raw material.

14. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO₂ emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted, in case coal is used.
15. Action plan prepared by the SPCB to control ambient air quality as per NAAQES Standards for PM₁₀, PM_{2.5}, SO₂ and NO_x as per GSR 826(E) dated 16th November, 2009.
16. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
17. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
18. An action plan to control and monitor secondary fugitive emissions from all the sources.
19. Details of boiler and its capacity. Details of the use of steam from the boiler.
20. Ground water quality around existing spent wash storage lagoon and the project area.
21. Details of water requirement, water balance chart for Sugar, distillery and Co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
22. Prior 'permission' from Competent Authority for the drawl of total fresh water. Details of source of water supply.
23. Hydro-geological study of the area for availability of ground water.
24. Proposed effluent treatment system for sugar unit as well as CPP and scheme for achieving 'zero' discharge.
25. Lagoon capacity for sugar unit as well measures to be taken to control ground water contamination.
26. Details of solid waste management including management of boiler ash. Submit Ash management plan. MoU with cement plant for the use of fly ash.
27. Green belt development as per the CPCB guidelines.
28. List of flora and fauna in the study area.
29. Noise levels monitoring at five locations within the study area.
30. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
31. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
32. Details of bagasse storage. Details of press mud requirement.
33. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
34. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.

- vii) Details of occupational health surveillance programme.
 - viii) Details of socio-economic welfare activities to be provided.
35. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
 36. Action plan for post-project environmental monitoring.
 - 37. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
 38. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
 39. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
 40. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter and that raised in Public Hearing/consultation along with duly filled in Industry Sector questionnaire. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues and the issues raised in the Public hearing have been incorporated.
- vii. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.18 Greenfield Ammonia Urea Fertilizer Plant (1.35 Million Metric Tons of Urea) at Village Khawasa, Tehsil Thandla, District Jhabua, Madhya Pradesh by M/s Zuari Fertilizers and Chemicals Ltd.- **regarding TORs.**

The project authorities and their consultant (Bhagwati Ana Labs Ltd) 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. All the Fertilizer Plants are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

M/s Zuari Fertilizers and Chemicals Ltd. have proposed for setting up of Greenfield Ammonia Urea Fertilizer Plant (1.35 Million Metric Tons of Urea) at Village Khawasa, Tehsil Thandla, District Jhabua, Madhya Pradesh. Project proponent informed that alternate site in Rajgarh District was examined but same was rejected due to lack of sustained water supply of industrial water and the site being adjacent to Narsinghgarh wild life sanctuary. Plot area is 200 ha. Cost of project is Rs. 5200 Crore. Following is the configuration of fertilizer plant:

S.N.	Plant & Facilities	Provisions
1.	a) Land	Requirement shall be around 200 Hectare
	b) Land Development	As per requirement
2.	Ammonia Plant	2000 MTPD
3.	Urea Plant	3850 MTPD
4.	Natural Gas Transportation	By Pipeline.
5.	Product Storage & Handling	
	a) Silo b) Empty Bag Storage c) Bagged Storage d) Bagging Plant e) Ammonia Storage	5000 MT 2.0 Million 1000 MT (on platform) (5+2)Slats of 60 TPH each 2x5000 MT
6.	Product Transport System	
	a) Urea Truck Loading System b) Ammonia Truck Loading System	Considered Considered
7.	Cooling Towers (Circulating CW)	
	a) Ammonia Plant b) Urea Plant c) Captive Power Generation	28800 m ³ / hr 19800 m ³ / hr 1000 m ³ / hr
8.	Power Generation & Supply	
	a) Power Generation b) Substation for receiving Power from State Grid c) Emergency D.G.Set d) Power distribution	(1+)x25 MW 2.5 MW power required from State Grid 2500 kVA As per requirement for plants and facilities
9.	Steam Generation Facilities	
	HRSG Service Boiler	1x130 MTPH HP Steam 1x120 MTPH HP Steam
10.	Water Suply & Treatment	
	a) Pump House at river bed b) Pipeline c) Raw Water Treatment d) D.M Water Plant e) Condensate Polishing Unit	Facilities Considered Length 60 km approx. Size to be detailed later 8.25 MGD (1+1)x100m ³ /hr (2+1)x200m ³ /hr
11.	Yard Piping	Considered as per requirement

12.	Transport Facilities	
	a) Road Transport	Considered
13.	Instrument Air Facilities	
	a) Compressor b) Drying Unit c) Receiver	(1+1)x3000 Nm ³ /hr (1+1)x3000 Nm ³ /hr Considered
14.	Inert Gas Generation	600 Nm ³ /hr of N ₂ .N ₂ Liquid Storage: 2x30 m ³ with vaporizer

Gas requirement of 2.5 MMSCMD will be tapped from the HBJ pipeline passing through Jhabua at a 50 Km distance. Industrial water requirement will be met from main Mahi Dam. Contaminated effluent and surface water including oily water will be treated in effluent treatment plant. Effluent from ammonia plant will be treated in the steam stripper and recycled to the process. Effluent from Urea plant will be passed through deep hydrolyser and the recovered water will be reused as boiler fed water. Urea dust will be recovered through dust dissolving system.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP:

- 1 Executive summary of the project
- 2 Justification of the project.
- 3 Promoters and their back ground.
- 4 Regulatory framework.
- 5 A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
- 6 Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
- 7 Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
- 8 Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
- 9 Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
- 10 Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
- 11 Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
- 12 Project site layout plan to scale using AutoCAD showing raw materials and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included
- 13 Infrastructure facilities including power sources for the proposed project.
- 14 Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.

- 15 Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests, National Highway etc.
- 16 Present land use based on satellite imagery for the study area of 10 km radius.
- 17 Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
- 18 Details of the total land and break-up of the land use for green belt and other uses.
- 19 List of products alongwith the production capacities.
- 20 Manufacturing process details alongwith the chemical reactions and process flow chart.
- 21 Detailed list of raw material required and source, mode of storage and transportation.
18. A note on the long term strategy for the gas availability. Alternative, if the gas is not available.
- 22 Action plan for the transportation of raw materials and products.
18. Ambient air quality monitoring and stack emission data for the relevant parameters including PM₁₀, PM_{2.5}, SO₂, NO_x, CO, NH₃, HC (Methane and Non-methane) and VOCs for all the stacks for the existing fertilizer plant.
19. Data for surface and ground water, treated effluent quality data, noise pollution and solid waste management for the existing plant should also be included.
20. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
21. Plant-wise air pollution control measures proposed for the control of emissions from all the sources particularly uncontrolled NO_x emission and method to control NO_x.
22. Name of all the solvents to be used in the process and details of solvent recovery system.
23. Details of water and air pollution and its mitigation plan.
24. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
25. An action plan to control and monitor secondary fugitive emissions from all the sources.
26. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
27. Details of water requirement for proposed project. Water balance chart for proposed project including water intake, effluent generated, recycled and reused and discharged is to be provided.
28. Action plan to reduce fresh water requirement. Methods adopted/to be adopted for the water conservation should be included.
29. Layout plan indicating surface water collection. Internal water supply arrangement to be submitted.
30. 'Permission' for the drawl of proposed water requirement from the Competent authority.
31. Design details of the ETP and STP as well as air pollution control equipments (Bag filters/ wet scrubber etc.). Installation of Continuous TOC analyzer to holding tank before discharge of effluent.
32. Action plan for 'Zero' discharge of effluent should be included.
33. Ground water monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
34. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
35. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
36. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.

37. Plan for the implementation of the recommendations made for the fertilizer plants in the CREP guidelines must be prepared and included.
38. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
39. An action plan to develop green belt in 33 % area. Layout map for proposed greenbelt.
40. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
41. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
42. Socio-economic development activities should be in place.
43. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
44. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
- 45. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
46. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
47. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
48. A tabular chart with index for point wise compliance of above TORs.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.

- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter and that raised in Public Hearing/consultation alongwith duly filled in Industry Sector questionnaire. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues and the issues raised in the Public hearing have been incorporated.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.19 Development Plan of CBM Block (BK-CBM-2001/1) in at District Bokaro, Jharkhand By M/s (ONGCL) - regarding Extension of Validity of TORs.

Terms of Reference (ToRs) to the above proposal was accorded by MoEF vide letter no. J-11011/430/2011-IA II (I) dated 14.11.2011. The Project Proponent (PP) vide letter No. ONGC/CHSE/Env/TOR/Bokaro/2012-13 dated 01.7.2013 requested MoEF for extension of validity of ToR. Project proponent informed that tender for EIA study was floated by ONGC, Bokaro, which could not be finalized due to non availability of QCI/NABET accredited consultants. The tender was refloated and letter was placed to M/s NEERI on 05.06.2013. It is expected that EIA studies will be completed by the end of December, 2013.

After detailed deliberations, the committee recommended for the extension of validity of TOR for a period of one year with effect from 14.11.2014.

11.2.20 Exploratory drilling of 48 wells in 23 Blocks of Western Onshore Basin, Baroda, Gujarat by M/s Oil and Natural Gas Corporation Ltd.- regarding amendment in TORs.

Ministry vide letter no. J-11011/431/2011-Ia II (I) dated 14th November, 2011 has issued TOR for preparation of EIA/EMP report for exploratory drilling of 48 wells in 23 blocks of Western Onshore Basin. Now, project proponent vide letter dated 11th July, 2013 has informed that number of drilling of exploratory wells is revised from 48 to 67 after geological studies and data interpretation. Wells are located in 23 blocks located in Surat, Bharuch and Baroda Districts. They have requested to amend the TOR for the increased exploratory wells.

After detailed deliberations, the committee recommended the proposal for amendment in TOR for the increased exploratory wells. Existing TOR points will remain the same. Public hearing shall be carried out district wise.

11.2.21 Exploratory Drilling of 22 Wells (Onshore) in Ramanathapuram PML, Tamil Nadu by ONGC. - regarding TORs

The project authorities 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. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.

M/s ONGC have proposed for exploratory drilling of 22 Wells (Onshore) in Ramanathapuram PML, Tamil Nadu. MoPNG has approved Mining license for Ramanathapuram PML (493.21 sq. Km.) for a period of seven years with effect from date of grant by Government of Tamil Nadu. Gas is being produced commercially from Upper Cretaceous reservoirs by ONGC in Ramanathapuram district from Kanjirangudi, Periyapattinam, Ramanvalasi, Perungulam & Palk bay shallow fields. Existing 57 wells have been drilled in five established fields. Project proponent confirmed that all the wells were drilled before 2006. It was informed that project proposal does not attract CRZ clearance. The Committee suggested that the copy of CRZ map indicating project boundary and facilities needs to be submitted. Target depth of wells will be varied from 3000-5000 m. Total cost of project is Rs. 440 Crore. Water based mud will be used. Water requirement will be 20 m³/day. Drill cutting generation will be 250 Kg/ M.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP:

1. Executive summary of a project
2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects.
4. Copy of CRZ map prepared by one of the agencies authorized by the MoEF for carrying out the CRZ demarcation, on which the project boundary and facilities are superimposed.
5. CRZ clearance/ recommendation from State Coastal Zone Management Authority, if applicable.
6. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
7. Permission from the State Forest Department regarding the impact of the proposed project on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland should be submitted.
8. Distance from nearby critically/severely polluted area as per Notification dated 13th January, 2010, if applicable.
9. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
10. Details of project cost.

11. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
12. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
 - (i) Topography of the project site.
 - (ii) Ambient Air Quality monitoring at 8 locations for PM10, SO₂, NO_x, VOCs, Methane and non-methane HC.
 - (iii) Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
 - (iv) Ground and surface water quality in the vicinity of the proposed wells site.
 - (v) Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
 - (vi) Measurement of Noise levels within 1 km radius of the proposed wells.
 - (vii) Vegetation and land use; Animal resources
13. Incremental GLC as a result of DG set operation.
14. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
15. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
16. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
17. Treatment and disposal of waste water.
18. Treatment and disposal of solid waste generation.
19. Disposal of spent oil and lube.
20. Storage of chemicals and diesel at site.
21. Commitment for the use of WBM only
22. Mud make up and mud and cutting disposal – all options considered should be listed with selective option.
23. Hazardous material usage, storage accounting and disposal.
24. Disposal of packaging waste from site.
25. Oil spill emergency plans in respect of recovery/ reclamation.
26. H₂S emissions control.
27. Produced oil handling and storage.

28. Details of scheme for oil collection system alongwith process flow diagram and its capacity.
29. Details of control of air, water and noise pollution in oil collection system.
30. Disposal of produced/formation water.
31. Whether any burn pits being utilized for well test operations.
32. Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.
33. Measures to protect ground water and shallow aquifers from contamination.
34. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
35. Environmental management plan.
36. Documentary proof of membership of common disposal facilities, if any.
37. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This should also include monitoring programme for the environmental.
38. Total capital and recurring cost for environmental control measures.
39. A copy of Corporate Environment Policy of the company as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 available on the Ministry's website.
40. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
41. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material provided in Regional languages.
- (iv) The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- (v) A copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues have been incorporated.

The Committee prescribed the above TORs for preparation of EIA/EMP reports. The proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP

Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns raised alongwith the replies during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP report submitted to the Ministry for obtaining environmental clearance.

11.2.22 “Grain/Starch/Molasses Based Distillery Unit” (150 KLPD) alongwith Cogeneration Power Plant (6.5 MW) at Plot No.-01, Sector-1, Phase-2, Integrated Industrial Estate, SIDCUL, Sitarganj, Uttarakhand by M/s Delight Spirits Pvt. Ltd.- regarding TORs.

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 Delight Spirits Pvt. Ltd. has proposed for setting up of “Grain/Starch/Molasses Based Distillery Unit” (150 KLPD) alongwith Cogeneration Power Plant (6.5 MW) at Plot No.-01, Sector-1,Phase-2, Integrated Industrial Estate, SIDCUL, Sitarganj, Uttarakhand. Total plot area is 101200 m² of which greenbelt will be developed in 35000 m². No forest land is involved. Cost of the project is Rs. 103 Crore. Distillery will be operated for 330 days. Fresh water requirement from Municipal Supply will be 1348 M³/day. Spent wash generation will be 900 m³/day. Spent wash will be decanted followed by evaporated to form DWGS. Spent wash from molasses will be evaporated and further mixed with rice husk /agro waste and used as fuel in the boiler. ETP sludge will be used as manure. Boiler ash will be given for silica recovery /brick manufacturing unit. Used oil will be sent to authorized recyclers. Total power requirement will be 3 MW. DG sets (2 x 500 KVA) will be installed. ESP alongwith stack of adequate height will be provided to rice husk/coal fired boiler (40 TPH) and rice husk/slop fired boiler (15 TPH). It was noted that submitted letter dated 3rd June, 2006 is regarding transfer of land to Industrial Development Department, Government of Uttaranchal.

After deliberations, the Committee prescribed the following TORs for the preparation of draft EIA/EMP:

1. Executive summary of the project.
2. Detailed break up of the land area alongwith latest photograph of the area.
3. Present land use based on satellite imagery.
4. Details of site and information related to environmental setting within 10 km radius of the project site. A copy of toposheet of the area indicating reserve forests, wildlife sanctuary, water bodies, barren land etc.
5. Information regarding eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 km radius of project area.
6. Recommendations from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forest.
7. List of existing distillery units in the study area alongwith their capacity.
8. Number of working days of the distillery unit.
9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Manufacturing process details of distillery plant and CPP alongwith process flow chart.
11. Details of raw materials and source of raw material including sugar cane/ molasses.

12. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO₂ emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
13. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, PM_{2.5}, SO₂, CO, NO_x and HC (methane & non methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
14. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
15. Details of boiler and its capacity. Details of the use of steam from the boiler.
16. Ground water quality around proposed spent wash storage lagoon and the project area.
17. Details of water requirement, water balance chart for Grain/starch/Molasses based Distillery and Co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
18. Water requirement should not exceed 10 Kl/Kl of alcohol for distillery unit. Source of water supply and prior 'permission' for the drawl of total fresh water from the Competent Authority should be obtained.
19. Hydro-geological study of the area for availability of ground water.
20. Spentwash generation should not exceed 8Kl/ Kl of alcohol production.
21. Proposed effluent treatment system for molasses based distillery (spent wash and spent lees) as well as CPP and scheme for achieving 'zero' discharge.
22. Lagoon capacity for sugar unit and spent wash.
23. Details of solid waste management including management of boiler ash. MoU with cement plant for the use of fly ash.
24. Composting plan shall be submitted as per CPCB guidelines.
25. Green belt development as per the CPCB guidelines.
26. List of flora and fauna in the study area.
27. Noise levels monitoring at five locations within the study area.
28. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
29. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
30. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
31. Alcohol storage and handling area fire fighting facility as per OISD norms.
32. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
33. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
34. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.

- vii) Details of occupational health surveillance programme.
- 35. Details of socio-economic welfare activities.
- 36. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- 37. Action plan for post-project environmental monitoring.
- 38. Corporate Environmental Responsibility
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
- 39. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
- 40. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- 41. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter and that raised in Public Hearing/consultation alongwith duly filled in Industry Sector questionnaire. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues and the issues raised in the Public hearing have been incorporated.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing / Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.23 Expansion of Synthetic Organic Manufacturing Unit at Survey No. 101/P/1, Kardej Taluka & District Bhavnagar, Gujarat by M/s Vaishnavi Enterprise. - regarding TORs.

The project authorities 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 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 Vaishnavi Enterprise have proposed for expansion of Synthetic Organic Manufacturing Unit at Survey No. 101/P/1, Kardej Taluka & District Bhavnagar, Gujarat. Total existing plot area is 31500 m². No additional land will be required for the proposed expansion. Total cost of the project is Rs. 238 Lakhs. Nari lake is located at a distance of 6.35 Km. Following product will be manufactured:

S.N.	Products	Existing (TPM)	Proposed (TPM)	Total (TPM)
1	Benzoic Acid (only from purification crystallization)*	100	400	500
2	Benzyl Beenzotate	0	100	100
3	Benzyl Acetate	0	100	100
4	Sodium Benzoate	0	400	400

Project proponent informed that existing unit was established before 2006 and no EC was required for such type of unit. Consent to establish was obtained from GPCB. One no. coal fired boiler and furnace are installed in the existing unit. Besides, one more coal fired boiler (4 TPH) will be installed. Bag filter will be provided to control particulate emissions. DG set (200 KVA) will be installed. Water requirement from tanker supply will be increased from 12.0 m³/day to 32.5 m³/day after expansion. Industrial effluent generation will be increased from 9.5 m³/day to 49.4 m³/day after expansion. After proposed expansion, 40.5 m³/day effluent will be generated from the process will be recycled back to process. Industrial effluent will be treated in ETP.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/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.
2. Executive summary of the project
3. Justification of the project.
4. Promoters and their back ground.
5. Regulatory framework.
6. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the GPCB.
7. Copy of NOC/Consent to Establish for the existing unit.
8. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
9. 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, compliance to the notice(s).
10. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
11. Project location and plant layout.
12. Infrastructure facilities including power sources.
13. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
14. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.

15. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
16. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
17. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
18. Details of the total land and break-up of the land use for green belt and other uses.
19. List of products alongwith the production capacities.
20. Detailed list of raw material required and source, mode of storage.
21. Manufacturing process details alongwith the chemical reactions and process flow chart.
22. Action plan for the transportation of raw material and products.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
24. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x, CO including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
26. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
27. Name of all the solvents to be used in the process and details of solvent recovery system.
28. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
29. Details of water and air pollution and its mitigation plan.
30. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.
31. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
32. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
33. Source and Permission from competent Authority for the drawl of water. Water balance chart for existing and expansion project including quantity of effluent generated recycled and reused and effluent discharge.
34. Attempt to be made for reduction for usage of water.
35. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
36. Zero discharge effluent concepts to be adopted.
37. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
38. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
39. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
40. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
41. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.

42. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
43. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
44. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
45. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
46. Socio-economic development activities shall be in place.
47. Note on compliance to the recommendations mentioned in the CREP guidelines.
48. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
49. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
50. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 51. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
52. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
53. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
54. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs 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 should be submitted to the Gujarat Pollution Control Board for public hearing. The issues emerged and response to the issues raised during should be incorporated in the EIA report. The final EIA/EMP alongwith Certificate of Accreditation issued by the QCI should be submitted to the Ministry for obtaining environmental clearance.

11.2.24 Resin Manufacturing Plant (125000 TPA) at Sy. No. 98 & 99, Village Routhu Suramala, District Chittoor, Andhra Pradesh by M/s Greenply Industries Ltd.- regarding TORs.

The proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the project proponent.

11.2.25 Proposed “Dimerization Unit” at Mathura Refinery, Mathura, U.P. by M/s Indian Oil Corporation Ltd. - regarding TORs.

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. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category ‘A’ and appraised at the Central level.

M/s Indian Oil Corporation Ltd. have proposed for setting up of “Dimerization Unit” at Mathura Refinery, Mathura, U.P. Mathura refinery of Indian Oil Corporation Ltd. presently produces EURO –III and Euro – IV Gasoline. Euro-IV gasoline is supplied in the National Capital and NCR region. The demand of EURO IV is gradually increasing. In the recent times, environmental regulations on fuel specifications forced refiners to search for sustainable and greener technologies. From the trend of MS specification it is expected that the future specification will focus on higher octane MS with aromatics and Reid vapour pressure (RVP). Meeting such kind of stringent specification will only be possible by blending substantial quantity of high octane branched alkanes like alkylates in the MS pool. Either refiners has to opt for alkylate import or it has to go for a capital intensive grass root alkylation unit along with higher environmental concerns. Hence, it is essential for refineries to look for some alternate process for production of high-octane MS blending components.

R&D Center of India Oil Corporation Limited has developed a Dimerization process for conversion of isobutene present in the C4 stream of FCCU LPG to Iso-octene which can be used as a high octane blending component in the MS pool. The availability of C4 feed

enriched with iso-butene is signification at Mathura Refinery in the post FCCU revamp case and hence 43 TMTA Dimer Plant is being envisaged Mathura Refinery with R&D technology.

Dimer process uses Heavy LPG from debutanizer column of Propylene recovery unit as feed. Feed after heating to 60 Deg C enters the reactors containing non-proprietary catalyst in fixed bed reactors where two molecules of iso-octene combined together to form one molecule of Dimer having very high Octane number and Nil aromatic content. The process operates at the temperature & pressure in the range of 40-100^o C & 8-10 bar respectively. The utilities like steam, power, instrument air, cooling water DM water requirement are very minimum and would be met from the existing facilities. Existing redundant equipment area in the FCC unit will be utilized for installation of the Dimer facilities. The area requirement for Dimer plant is around 600M². There will be no liquid effluent generation from Dimer plant. The solid waste (spent resin catalyst) will be disposed based on existing procedure. Additional 4 nos. of operators will be employed for this project. Total capital requirement for Dimer project is Rs 25 Crore with Internal rate of return (IRR) @ 32%. Project shall be mechanically completed within 18 months from the date of investment approval.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project.
2. Project Description and Project Benefits.
3. Copy of environmental clearance accorded for all the existing projects alongwith point-wise compliance report.
4. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
5. Details of the total land and break-up of the land use for green belt and other uses.
6. List of products alongwith the production capacities.
7. Manufacturing process details alongwith the chemical reactions and process flow diagram for the proposed project.
8. Is there additional storage required for the proposed products mix, if yes details thereof.
9. Baseline data collection for air, water and soil for last one year.
10. Ambient air quality monitoring for PM_{2.5}, PM₁₀, SO₂, NO_x, (methane & non-methane HC) and VOCs. Data collected recently may be used in this report.
11. Existing status of stack emission, raw water requirement, treated effluent quantity & quality data, noise pollution and solid waste management in the existing units.
12. Status of stack emission, raw water requirement, treated effluent quantity & quality data, noise pollution and solid waste management after proposed project.
13. Details of Sulphur balance in the existing refinery unit.
14. Additional SO₂ emissions due to the proposed product mix.
15. A note on how SO₂ and NO_x will be controlled at the existing level leading to no increase in pollution load.
16. Unit-wise air pollution control devices to be installed. For the proposed units.
17. Source and permission of water supply.
18. Water balance chart for proposed project. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
19. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
20. Details of membership of TSDF for hazardous waste disposal.
21. Details of proposed preventive measures for leakages and accident.

22. Environmental Management Plan
23. Risk Assessment & Disaster Management Plan
 - a. Identification of hazards
 - b. Consequence Analysis
 - c. Risk assessment should also include leakages and location near to refinery & proposed measures for risk reduction.
24. Total capital cost and recurring cost/annum for environmental pollution control measures.
25. Environmental Monitoring programme.
26. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- (i). All documents should be properly indexed, page numbered.
- (ii). Period/date of data collection should be clearly indicated.
- (iii). Authenticated English translation of all material provided in Regional languages.
- (iv). The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- (v). A copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi). The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues have been incorporated.
- (vii). 'Certificate of Accreditation' issued by the QCI to the environmental consultant should be included.

These 'TORs' should be considered for the preparation of EIA / EMP report for Dimerization Unit in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The Committee exempted the public hearing under 7 (ii) of the EIA Notification, 2006 as there is no significant increase in pollution load.

11.2.26 Bulk Drugs & Intermediate (50.00 MTPM) Manufacturing Unit at Survey Nos. 291,293 &296, Village Akuthotapally, Mandal Amangal, District Mahabubnagar, Andhra Pradesh **by M/s V.S.R. Life Science** Private Ltd.- regarding TORs.

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 Terms of References for the 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.

V.S.R. Life Science Private Ltd have proposed for setting up of Bulk Drugs & Intermediate (50.00 MTPM) Manufacturing Unit at Survey Nos. 291,293 &296, Village Akuthotapally, Mandal Amangal, District Mahabubnagar, Andhra Pradesh. Cost of the project is Rs. 15.28 Crore. Total area of the site is 42086 sq.m.(10.40 Acres) of which greenbelt will be developed in 16469.00 sq.m. Following products will be manufactured:

S.N	Name of the Product	Quantity (in MTPM)	Quantity (in MTPD)
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1	Ciproflaxacin Hydrochloride	10.00	0.33
2	Enrofloxacin	5.00	0.16
3	Lamivudine	4.00	0.13
4	Metformin Hydrochloride	16.00	0.53
5	Sertraline Hydrochloride	2.00	0.06
6	Itraconazole	2.00	0.06
7	Rabeprazole sodium	3.00	0.10
8	Lansoprazole	3.00	0.10
9	Lopinavir	3.00	0.10
10	Montelukast Sodium	2.00	0.06
	Total	50.00	1.66

Scrubber will be provided to control process emissions. Fresh water requirement will be 100.84 m³/day. Industrial wastewater will be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Inorganic & evaporation salt and ETP sludge will be sent to Treatment Storage Disposal Facility (TSDF) for hazardous waste. Fly ash will be sold to brick manufacturers. Waste oil and used batteries will be sold to authorized recyclers/re-processors.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. A map indicating location of the project and distance from severely polluted area.
6. Project location and plant layout.
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
11. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
12. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
13. Details of the total land and break-up of the land use for green belt and other uses.
14. List of products alongwith the production capacities.
15. Detailed list of raw material required and source, mode of storage.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Action plan for the transportation of raw material and products.
18. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
19. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
20. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except

monsoon) for PM₁₀, SO₂, NO_x, CO, NH₃ including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.

21. Details of water and air pollution and its mitigation plan
22. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
23. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
24. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
25. Name of all the solvents to be used in the process and details of solvent recovery system.
26. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.
28. Permission from Competent Authority for the drawl of 100 m³/day water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
29. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
30. Zero discharge effluent concepts to be adopted.
31. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
33. Material Safety Data Sheet for all the Chemicals are being used/will be used.
34. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
35. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
36. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
37. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
38. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
39. Socio-economic development activities shall be in place.
40. Note on compliance to the recommendations mentioned in the CREP guidelines.
41. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency,

responsibility and time bound implementation plan for mitigation measure shall be provided.

42. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.

43. Total capital cost and recurring cost/annum for environmental pollution control measures.

44. Corporate Environmental Responsibility

(a) 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.

(b) Does the Environmental 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 report.

(c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.

(d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

46. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

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

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.27 Resin Manufacturing Unit at Survey No. 860/2, Village Matar, District Kheda, Gujarat by M/s Mahi Industries Pvt. Ltd. - regarding TORs.

The project authorities 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 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 Mahi Industries Pvt. Ltd have proposed for setting up of Resin Manufacturing Unit at Survey No. 860/2, Village Matar, District Kheda, Gujarat. It was noted that land use of proposed plot is agriculture. The Committee desired that TOR shall be issued after conversion of land use for industrial purpose.

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

11.2.28 Manufacturing of Synthetic Organic Chemical Unit (55 MTPM) at Survey No. 163/9 & 11, Shapar - Veraval Industrial Area S.I.D.C.Road, Village Veraval (Shapar), Taluk Kotada Sangani, District Rajkot, Gujarat by M/s Ascent Pharma- regarding TORs.

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 Terms of References for the 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 Ascent Pharma have proposed for setting up of Manufacturing of Synthetic Organic Chemical Unit (55 MTPM) at Survey No. 163/9 & 11, Shapar - Veraval Industrial Area S.I.D.C.Road, Village Veraval (Shapar), Taluk Kotada Sangani, District Rajkot, Gujarat. Existing unit is engaged in manufacturing of various inorganic chemicals. Total plot area is 2292 m². Cost of expansion project is Rs. 36.50 Lakhs. No eco-sensitive area is located within 10 Km. Following products will be manufactured:

S.N.	Product	Capacity (MTPM)
1	Oxyclozanide	25
2	Glibenclamide	20
3-A	1,2,4 Triazole	10
3-B	4-Amino-1,2,4 Triazole	
Total		55
By-Product		
1	Hydrochloric Acid	15.50
2	Sodium bi sulphite	25.73
3	Phosphorous Acid-Aq	3.237

Cyclone separator will be provided to boiler (0.3 TPH). Two stage water scrubber followed by alkali scrubber for control process emissions viz. HCl & SO₂. Fresh water requirement from tanker water supply will be increased from 2.70 m³/day to 11.51 m³/day. Industrial wastewater will be treated in effluent treatment plant (ETP). Treated effluent will be reused for gardening purpose. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Inorganic & evaporation salt and ETP sludge will be sent to Treatment Storage Disposal Facility (TSDF) for hazardous waste.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/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.

2. Executive summary of the project
3. Justification of the project.
4. Promoters and their back ground.
5. Regulatory framework.
6. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the GPCB.
7. Copy of NOC/Consent to Establish for the existing unit.
8. Compliance to the conditions stipulated in the NOC granted by the SPCB.
9. 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, compliance to the notice(s).
10. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
11. A map indicating location of the project and distance from severely polluted area.
12. Project location and plant layout.
13. Infrastructure facilities including power sources.
14. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
15. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
16. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
17. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
18. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
19. Details of the total land and break-up of the land use for green belt and other uses.
20. List of products alongwith the production capacities.
21. Detailed list of raw material required and source, mode of storage.
22. Manufacturing process details alongwith the chemical reactions and process flow chart.
23. Action plan for the transportation of raw material and products.
24. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
25. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
26. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x, CO, NH₃ including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
27. Details of water and air pollution and its mitigation plan
28. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
29. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
30. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
31. Name of all the solvents to be used in the process and details of solvent recovery system.

32. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
33. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.
34. Permission from Competent Authority for the drawl of 12 m³/day water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
35. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
36. Zero discharge effluent concepts to be adopted.
37. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
38. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
39. Material Safety Data Sheet for all the Chemicals are being used/will be used.
40. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
41. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
42. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
43. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
44. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
45. Socio-economic development activities shall be in place.
46. Note on compliance to the recommendations mentioned in the CREP guidelines.
47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.

(c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.

(d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
52. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
53. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.29 Specialty Chemical Manufacturing Plant at Village Mandali, Tehsil & District Mehsana, Gujarat by M/s Keshav Fertilizers Pvt. Ltd.- regarding TORs.

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

M/s Keshav Fertilizers Pvt. Ltd. have proposed for setting up of Specialty Chemical Manufacturing Plant at Village Mandali, Tehsil & District Mehsana, Gujarat. Total plot area is 32130 m². Cost of the project is Rs. 17 Crore. No national park/wildlife sanctuary/biosphere reserve/ reserve forest is located within 10 Km distance. Following products will be manufactured:

S. N.	Products	Proposed Quantity (MTPM)
Group A		

1	Formaldehyde	2500
2	Dispersing Agent	3000
Group B		
3	Mono Chloro acetic acid	500
4	Sodium Mono chloro acetate	250
5	Tri Chloro Acetic Acid	100
Group C		
6	Chlorinated Paraffin Wax	500
7	Acetyl Chloride	250
8	Tri Chloro Acetyl Chloride (TCAC)	100
9	Chloro acetyl Chloride (CAC)	100
Group D		
10	ONCB, PNCB & MNCB (Nitration of Chlorobenzene)	250
Group E		
11	N-Amino Azabicyclo octane Hcl	5
12	(1S, 6S)-cis-8-((S)-1-phenylethyl)-2,8-diazabicyclo[4.3.0]nonane	5
Group F		
13	Phthalic Anhydride	200
Group G		
14	Phenol Formaldehyde Resin	1500
15	Urea Formaldehyde Resin	
16	Melamine Formaldehyde Resin	
Total		9260
By-products		
1	HCl (30 %)	1050 MTPM
2	Acetic Acid	50 MTPM
3	Dil H ₂ SO ₄	77 MTPM

Cyclone separator followed by bagfilter will be provided to briquettes fired boiler. Scrubber will be provided to control process emissions. Fresh water requirement from ground water supply /tanker supply will be 193 m³/day. Industrial effluent generation will be 63 m³/day. Industrial effluent will be treated in ETP followed by RO and MEE. No effluent will be discharged outside the plant premises. ETP sludge and MEE salt will be sent to TSDF.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. A map indicating location of the project and distance from severely polluted area.
6. Project location and plant layout.
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.

10. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
11. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
12. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
13. Details of the total land and break-up of the land use for green belt and other uses.
14. List of products alongwith the production capacities.
15. Detailed list of raw material required and source, mode of storage.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Action plan for the transportation of raw material and products.
18. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
19. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
20. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x, CO, NH₃ including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
21. Details of water and air pollution and its mitigation plan
22. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
23. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
24. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
25. Name of all the solvents to be used in the process and details of solvent recovery system.
26. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.
28. Permission from Competent Authority for the drawl of 193 m³/day water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
29. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard. A note on treatment of Phenol in the effluent to be provided.
30. Zero discharge effluent concepts to be adopted.
31. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
33. A note on chlorine handling, storage and transfer may be provided.
34. Material Safety Data Sheet for all the Chemicals are being used/will be used.
35. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
36. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.

37. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
38. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
39. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
40. Socio-economic development activities shall be in place.
41. Note on compliance to the recommendations mentioned in the CREP guidelines.
42. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
43. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
44. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 45. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
46. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
47. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
48. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.2.30 Active Pharmaceutical Ingredients & Intermediate Manufacturing Unit at Plot No.211 & 213, GIDC, Sarigam, Tehsil Umargam, District Valsad, Gujarat by M/s Aarti Drugs Ltd. - regarding TORs.

The project authorities 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 Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B'. However, applicability of general condition due to project location within interstate boundary, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Aarti Drugs Ltd. have proposed for setting up of Active Pharmaceutical Ingredients & Intermediate Manufacturing Unit at Plot No.211 & 213, GIDC, Sarigam, Tehsil Umargam, District Valsad, Gujarat. Damanganga River is flowing at a distance of 7.5 Km. Total plot area is 8662 m² of which greenbelt will be developed in 2657 m². Cost of project is Rs. 56.126 Crore. Following product will be manufactured:

Sl. No.	Product	Quantity (MTPM)
1	Metformin HCl	1200

Water requirement from GIDC water supply will be 400 m³/day. Industrial effluent generation will be 126 m³/day and treated in ETP. Treated effluent will be recycled/reused within plant premises. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Natural gas/briquettes will be used as fuel. Power requirement from GEB will be 2000 KVA. DG set (1x500 KVA) will be installed.

After detailed deliberations, the Expert Appraisal Committee prescribed the following ToRs for preparation of EIA/EMP:

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework
6. A map indicating location of the project and distance from severely polluted area
7. A copy of Gazette Notification issued by the Govt. of Gujarat indicating location of the project in notified GIDC should be included necessarily.
8. Infrastructure facilities including power sources.

9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
11. Present land use based on satellite imagery for the study area of 10 km radius.
12. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
13. Details of the total land and break-up of the land use for green belt and other uses.
14. List of products alongwith the production capacities.
15. Detailed list of raw material required and source, mode of storage and transportation.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
18. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
19. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, SO₂, NO_x including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
20. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
21. Name of all the solvents to be used in the process and details of solvent recovery system.
22. Design details of ETP, incinerator, if any along with control of Dioxin & Furan, boiler, scrubbers/bag filters etc.
23. Details of water and air pollution and its mitigation plan
24. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16th September, 2009.
25. An action plan to control and monitor secondary fugitive emissions from all the sources.
26. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
27. Permission for the drawl of 84 m³/day water from the concerned agency. Water balance chart including quantity of effluent generated recycled and reused and discharged.
28. Action plan for 'Zero' discharge of effluent should be included.
29. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
30. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilized all the organic solid waste generated.
33. A copy of 'Memorandum of Understanding' (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.

35. Risk assessment for storage for chemicals/solvents.
36. Material safety data sheet of chemicals to be submitted.
37. An action plan to develop green belt in 33 % area.
38. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
39. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
40. Socio-economic development activities should be in place.
41. Note on compliance to the recommendations mentioned in the CREP guidelines.
42. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
43. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
44. Corporate Environmental Responsibility
 - (a) 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.
 - (b) Does the Environmental 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 report.
45. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
46. Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
47. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
48. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.

- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of detailed 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. After detailed deliberations, the Committee exempted the public hearing as per Section 7 (i), III Stage (3), Para (i) (b) of EIA Notification 2006, subject to submission of authentic document from the State Govt. indicating that the project is located in the notified industrial area. The final EIA/EMP report shall be submitted to the Ministry for obtaining environmental clearance.

11.2.31 Synthetic Organic Chemicals Manufacturing Unit at Plot No. D-II/CH/223, Dahej-II Industrial Estate, Tehsil Vagra, District Bharuch, Gujarat by M/s Rossari Biotech Ltd. - regarding TORs.

The project authorities 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 the Synthetic Organic Chemicals Manufacturing Unit located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Rossari Biotech Ltd. have proposed for setting up of Synthetic Organic Chemicals Manufacturing Unit at Plot No. D-II/CH/223, Dahej-II Industrial Estate, Tehsil Vagra, District Bharuch, Gujarat. Total plot area is 51275.54 m². Cost of proposed phase -1 project is Rs. 13.50 Crore. Cost of proposed phase-II project is Rs. 46.95 Crore. Narmada River is flowing at a distance of 5.7 Km. Gulf of Khambhat is located at a distance of 12.71 Km. The total production capacity of Phase-I will be 214150 MTPA, which will include only formulation and does not require EC. Phase-II will have production capacity of 66073 MTPA which includes synthesis and requires prior EC. Following products will be manufactured:

S. No	Name of Products	Proposed Quantity of Production				End Use of Products/ By-products.
		Quantity in MT / Annum				
		Phase I		Phase II		
		Formulation	Synthesis	Formulation	Synthesis	
1	Fermentation Products (Enzymes)					
a)	Pectinase	-	-	-	37	Degradation of plant material such as speeding up extraction fruit juice from fruit, wine production.
b)	Cellulase	-	-	-	195	Used in textile, laundry industry, fermentation of biomass into biofuel, etc
c)	Serratiopeptidase	-	-	-	50	Anti-inflammatory, cancer & tumor preventative, Efficient therapy of post surgery.
d)	Hemicellulase Products	-	-	-	30	Baking products, Food preparation technologies.
e)	Lactase	-	-	-	35	To make milk suitable for people with lactose intolerance, manufacture of

S. No	Name of Products	Proposed Quantity of Production				End Use of Products/ By-products.
		Quantity in MT / Annum				
		Phase I		Phase II		
		Formulation	Synthesis	Formulation	Synthesis	
						ice-cream, sweetener in many products
f)	Amylases(Bacterial/Fungal)	-	-	-	32	Manufacturing of maltose, high fructose containing syrup, direct fermentation of starch ethanol, detergents-alkaline amylase.
g)	Yeast Lipase	-	-	-	10	Dietary Supplements and Food & Beverages.
h)	Catalase	-	-	-	30	In food industry for cheese production, in textile industry for removal of hydrogen peroxide.
i)	Chitinase	-	-	-	20	In biocontrol of plant pathogenic fungi and insects , mosquito control.
j)	Phytase	-	-	-	300	In food processing, production of pharmaceuticals, used as animal feed additives.
k)	Glucoamylase	-	-	-	45	Manufacture of high fructose corn syrup used in baking & soft drink industry.
l)	Fungal Diastase	-	-	-	50	In bakeries to improve bread quality.
2	Fermentation Products (Probiotics)					
a)	Saccharomyces Boulardi	-	-	-	25	Treatment and prevention of diarrhea Cure for general digestion problems, irritable bowel syndrome, Lyme disease, urinary tract infections.
b)	Probiotics / Prebiotics	-	-	-	500	Treatment of adult & childhood infectious diarrhea, prevention of AAD, Immune response.
c)	Lactic Acid Bacillus	-	-	-	50	Treatment of, Antibiotic induced diarrhea.
3	Methyl Cobalamin	-	-	-	6	Supplement that decreases the risk of cancer, depression, dementia, heart diseases etc.
4	Ox Bile Extract	-	-	-	25	Effective digestion of food in patients with digestive complaints.
5	Protease from Animal Origin					

S. No	Name of Products	Proposed Quantity of Production				End Use of Products/ By-products.
		Quantity in MT / Annum				
		Phase I		Phase II		
		Formulation	Synthesis	Formulation	Synthesis	
a)	Pancreatin	-	-	-	30	Helpful in people suffering from food allergies. Celiac diseases, autoimmune diseases, cancer and weight loss.
b)	Pepsin	-	-	-	12	Modify proteins for food, In leather industry for treatment of hides.
c)	Proteases (Trypsin/ Chymotrypsin/ Acid/Alkaline/ Bacterial)	-	-	-	10	In laundry & dish detergents, making cheese from milk, tanning in leather industry.
6	Protease from Plant Origin					
a)	Papain	-	-	-	70	Digestive enzyme, chilling process of beer making.
b)	Bromelain	-	-	-	11	Used as both digestive aid and anti-inflammatory drug.
7	Pharmaceutical Products & Food Supplement	500	-	-		APIs used in Pharma industry.
8	Food & Breweries	350	-	-		In baking, fruit and vegetable processing, brewing, wine-making, processing of vegetable oils, cheese manufacturing, and meat- and fish-processing.
9	Animal Health & Nutrition Products					
a)	Acidifier Formulation	15000	-	-	-	Improve the quality of livestock.
b)	Cocktail Enzyme Products					
c)	Electrolyte Formulation					
d)	Antibiotic Powder Injection Formulation					
e)	Antibiotic Liquid Injection Formulation					
f)	Vitamin mix Formulation					

S. No	Name of Products	Proposed Quantity of Production				End Use of Products/ By-products.
		Quantity in MT / Annum				
		Phase I		Phase II		
		Formulation	Synthesis	Formulation	Synthesis	
10	Cosmetic Products					
a)	After Shave Lotion	100	-	-	-	Enhance the appearance or odor of the human body
b)	Shampoo with Protein	300	-	-	-	
c)	Cream Hair Conditioner	100	-	-	-	
11	Sanitizers & Disinfectants	10000	-	-	-	Used to destroy or deactivate microbes that can cause infections, effectively reducing the risk of disease, hand sanitizers.
12	Cleaning Chemicals	35000	-	-	-	Soaps & detergents.
13	Textile Chemicals & Laundry Chemicals					
a)	Pre-Treatment Auxiliaries – (i) Pre-Treatment Auxillary-1/ (ii) Pre-Treatment Auxillary-2/ (iii) Pre-Treatment Auxiliary-3/ (iv) Pre-Treatment Auxiliary-4/ (v) Pre-Treatment Auxiliary-5/ (vi) Pre-Treatment Auxiliary-6/ (vii)Pre-Treatment Auxiliary-7	5000	-	-	-	Textile manufacturing industry & Laundry Industry.
b)	Dyeing Auxiliaries	25000	-	-	-	
c)	Printing Auxiliaries	5000	-	-	-	
d)	Finishing Auxiliaries	5000	-	-	-	
e)	Speciality Chemicals	7500	-	-	-	
f)	Softeners	-	-	-	7000	

S. No	Name of Products	Proposed Quantity of Production				End Use of Products/ By-products.
		Quantity in MT / Annum				
		Phase I		Phase II		
		Formulation	Synthesis	Formulation	Synthesis	
	(i) Softener-1/ (ii) Softener-2					
g)	Optical Brighteners	700	-	-	-	
h)	Scouring Agent	1800	-	-	-	
i)	Wetting Agent	1500	-	-	-	
j)	Bleaching Agent	1500	-	-	-	
k)	Polysols	2000	-	-	-	
l)	Surfactants	3000	-	-	-	
m)	Silicon Oil	2000	-	-	-	
n)	Emulsifiers	1500	-	-	-	
o)	Detergents	1500	-	-	-	
14	Enzyme Formulation					
a)	Enzymes for De-Sizing	500	-	-	-	Textile Industry, Leather Industry.
b)	Enzymes for Fading	2000	-	-	-	
c)	Enzymes for Bio-Polishing	1800	-	-	-	
d)	Enzymes for De-Gumming Agents	200	-	-	-	
e)	Neutral Enzymes	500	-	-	-	
15	Construction Chemicals					
a)	Plasticizers & Additives	10000	-	-	-	Various applications during construction of infrastructure projects and renovation work.
b)	Surface Treatment Chemicals	1000	-	-	-	
c)	Adhesives & Sealants	1000	-	-	-	
d)	Flooring Chemicals	2400	-	-	-	
e)	Tiling Chemicals	2300	-	-	-	
f)	Protective Coating & Wall Care Chemicals	1000	-	-	-	
g)	Waterproofing Chemicals	2300	-	-	-	
h)	Grout &	10000	-	-	-	

S. No	Name of Products	Proposed Quantity of Production				End Use of Products/ By-products.
		Quantity in MT / Annum				
		Phase I		Phase II		
		Formulation	Synthesis	Formulation	Synthesis	
	Repair Mortars					
16	Paper & Leather Chemicals					Paper & Leather manufacturing industry.
a)	Sizing Chemicals	0	-	-	5000	
b)	De-Inking Chemicals	500	-	-	-	
c)	Refining Chemicals	500	-	-	-	
d)	Bleaching Agent	1000	-	-	-	
e)	Soaking Chemicals	500	-	-	-	
f)	Degreasing Chemicals	500	-	-	-	
g)	Surface Treatment Chemicals	500	-	-	-	
h)	Speciality Chemicals for Paper & Leather	2500	-	-	-	
i)	Neutrasizing Chemicals	-	-	-	1000	
17	Ethylene Oxide / Propylene Oxide Condensate	-	-	-	10000	Used as an intermediates for the production of chemicals , Industrial Surfactants, paper, textile etc.
18	Binders & Other Polymers	-	-	-	15000	Textile industry
19	Antistatic Oil / Mineral Oil / Lubricant Oil / Grease / Coning Oil					
a)	Antistatic Oils	10000	-	-	-	Yarn manufacturing industry.
b)	De-dusting Oils	2400	-	-	-	
c)	Sewing Thread Lubricants	2400	-	-	-	
d)	Speciality Mineral Oils	20000	-	-	-	
e)	Speciality Lubricant Oils/Coning Oil	14000	-	-	-	
f)	Grease	-	-	-	1200	

S. No	Name of Products	Proposed Quantity of Production				End Use of Products/ By-products.
		Quantity in MT / Annum				
		Phase I		Phase II		
		Formulation	Synthesis	Formulation	Synthesis	
20	Polymers for Paint & Other Industries	-	-	-	15000	Paint industry
21	Nutrient Liquid (By-Product)	-	-	-	9200	Agriculture
22	Nutrient Powder (By-Product)	-	-	-	1100	Agriculture
SUB-TOTAL		214150	0	0	66073	
TOTAL		214150		66073		

Bag Filters will be provided to Spray Dryers will be installed in Phase-II. In Phase-I, Stack of adequate height will be provided to gas/LDO fired Thermopac (1 x 5 Lakh K.Cal/Hr) & Boiler (1 x 2 TPH). DG set (165 kVA) will be installed. In Phase-II, gas/LDO fired boiler (1x2 TPH + 1 x 6TPH) will be installed. Additional DG Set of 500 kVA will be installed. Total fresh water requirement from GIDC water supply will be 355.3 KLD for Phase-I and 615.9 KLD after Phase-II. Industrial effluent will be treated in ETP and treated effluent will be discharged to CETP. ETP Sludge and Process Residue will be stored, transported and disposed to the TSDF site. Used Oil will be sold to registered recycler. The total power requirement for the proposed project will be 648.87 kVA (Connected Load) for Phase-I and 3396.06 kVA (Connected Load) after Phase-II which will be sourced from Gujarat Electric Board.

It was noted that gazette Notification for the industrial area was not submitted. Status of environmental clearance for Dahej-II Industrial Estate, Tehsil Vagra is not known. Therefore, the Committee desired that the supporting documents are required to be submitted.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP report:

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework.
5. A map indicating location of the project and distance from Critically/Severely polluted area.
6. Project location and plant layout.
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.

10. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
11. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
12. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
13. Details of the total land and break-up of the land use for green belt and other uses.
14. List of products alongwith the production capacities.
15. Detailed list of raw material required and source, mode of storage.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Action plan for the transportation of raw material and products.
18. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
19. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
20. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM₁₀, PM_{2.5}, SO₂, NO_x, CO including VOCs and HC shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
21. Details of water and air pollution and its mitigation plan.
22. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
23. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
24. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
25. Name of all the solvents to be used in the process and details of solvent recovery system.
26. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.
28. Permission from Competent Authority for the drawl of 355.3 KLD water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
29. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
30. Zero discharge effluent concepts to be adopted.
31. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
33. Material Safety Data Sheet for all the Chemicals are being used/will be used.
34. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
35. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
36. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.

37. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
38. Details of occupational health programme.
 - i) To which chemicals, workers are exposed directly or indirectly.
 - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
 - iii) What measures company have taken to keep these chemicals within PEL/TLV.
 - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
 - v) What are onsite and offsite emergency plan during chemical disaster.
 - vi) Liver function tests (LFT) during pre-placement and periodical examination.
 - vii) Details of occupational health surveillance programme.
39. Socio-economic development activities shall be in place.
40. Note on compliance to the recommendations mentioned in the CREP guidelines.
41. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
42. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
43. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 44. Corporate Environmental Responsibility**
 - (a) 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.
 - (b) Does the Environmental 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 report.
 - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
 - (d) Does the company have a system of reporting of non-compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
46. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
47. A tabular chart with index for point wise compliance of above TORs.

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 provided in Regional languages.
- iv. The letter/application for EC 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 final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

The Committee decided that the proponent should prepare EIA/EMP Report based on the above TORs and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The EIA/EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The concerns emerged during the Public Hearing/ Consultation should be incorporated in the EIA/EMP Report and the final EIA/EMP submitted to the Ministry for obtaining environmental clearance.

11.3.0 Reconsideration

11.3.1 Increase in production of Thermoplastic Polyurethane (210 MTPM to 500 MTPM) and formulation of Polyether and Polyester of Polyol Blends (1500 MTPM) at Sy.No. 135/1A, SIPCOT Industrial Area, Phase-II, Village Semmakuppam, Cuddalore, Tamil Nadu **by M/s Bayer Material Science Pvt. Ltd.- regarding EC**

Project proposal was considered in the 8th Expert Appraisal Committee (Industry) meeting held during 11th-12th May, 2012 and the Committee desired following information:

- i. Revised water balance chart for the existing unit and proposed expansion to be submitted.
- ii. Quantity of industrial effluent generation. Characteristics of untreated effluent and treated effluent. Details of effluent treatment plant.
- iii. Layout plan of greenbelt.
- iv. Specification of VOC monitoring equipment including detection limit and calibration. Time series data for 1 year.
- v. CAS No. of Di phenyl methane Di Isocyanate (MDI).
- vi. Disaster Management Plan including offsite management plan.
- vii. Details of Occupational hazard specific pre-placement and periodical monitoring.

Project proponent vide letter dated 4th July, 2013 has submitted additional information. It is reported that fresh water requirement from the ground water source will be 40 m³/day after expansion. Industrial effluent generation after expansion will be 4.2 m³/day and treated in ETP comprising primary, secondary and tertiary treatment facilities. Greenbelt will be developed in 22031 m². Onsite disaster management plan will consist of communication facilities, rescue & evacuation techniques, emergency team, emergency equipment, assembly points, training to employees and testing the efficiency of system through mock drills.

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

- i) Adequate stack height should be provided to gas fired boiler.
- ii) The levels of PM₁₀, SO₂, NO_x, CO and VOC should be monitored in ambient air.
- iii) Scrubber shall be provided to control process emissions.

- iv) Continuous monitoring system for VOCs shall be installed at all important places/areas. Effective measures shall be taken immediately, when monitoring results indicate above the permissible limits.
- v) Total fresh water requirement from ground water source should not exceed 40 m³/day and prior permission for drawl of water should be obtained from the CGWA/SGWA.
- vi) Total industrial effluent generation shall not exceed 4.2 m³/day. Effluent shall be treated in the ETP comprising primary, secondary and tertiary treatment followed by RO. RO permeate shall be recycled/reused in the process. RO rejects shall be evaporated in MEE. No effluent shall be discharged outside the plant premises and Zero effluent discharge condition shall be maintained.
- vii) 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 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- viii) Green belt should be developed in 22031 m² out of total plant area.
- ix) All the recommendations made in the risk assessment report should be satisfactorily implemented.
- x) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

11.3.2 Expansion of Sugar Unit (3500 to 5000 TCD) and installation of Co-generation Facilities (22 MW) at Sy. No. 168, 172,173 and 176 Village Sundarnagar, Tehsil Majalgaon, District Beed, Maharashtra by **M/s Majalagaon Sahakari Sakhar Karkhana Ltd. – regarding EC.**

Project proposal was considered in the 6th Expert Appraisal Committee (Industry) meeting held during 5th -7th March, 2013 and the Committee deferred the proposal for want of clarification. Further, Ministry vide letter dated 21st May, 2013 has directed the project proponent to conduct fresh public hearing.

Project proponent has conducted fresh public hearing on 10.07.2013 under Chairmanship of Addl. District Magistrate. The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 10th July, 2013. The issues raised during public hearing were regarding power generation from the proposed project, air emissions, drinking water, disposal of fly ash, development plan for nearby rural area, rain water harvesting, welfare of factory workers etc.

The Committee deliberated on the issues raised during public hearing. As regard to air emissions from chimney, Project proponent responded that ESP along with 76m high stack will be provided to control particulate and disperse waste gases. Regarding ash management, project proponent has informed that they will hand over to brick manufacturers and follow the fly ash notification. Regarding CSR, it was informed that health check up programme and other social program will be undertaken in the surrounding villages. Manure will be distributed to the nearby farmers. Regarding water pollution, it was informed that

there will be no direct discharge of effluent. Treated effluent will be recycled in the cooling tower make water and boiler feed water. Water harvesting will be carried out. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee found additional information satisfactory 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 fired boiler to control particulate emission within 100 mg/Nm^3 . 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. Efficiency of pollution control device shall be monitored regularly. Stack monitoring report shall be submitted to the Ministry's Regional Office at Bhopal.
- ii) In plant, control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records shall be maintained.
- iii) Total fresh water requirement from Kundlika Dam shall not exceed $3421 \text{ m}^3/\text{day}$ and prior permission for drawl of water shall be obtained from the concerned authorities. No ground water shall be used.
- iv) Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed. Effluent from sugar unit shall be treated in the effluent treatment plant.
- v) As proposed, no effluent from sugar and co-generation power plant shall be discharged outside the plant premises and Zero effluent discharge concept shall be followed.
- vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- vii) Baggase storage shall be done in such a way that it does not get air borne or fly around due to wind.
- viii) 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 alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided.
- ix) 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.

- x) 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.
- xi) Green belt shall be developed in 33 % of plot area to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with the local DFO. Thick greenbelt with suitable plant species shall be developed around the sugar and Cogeneration power plant.
- xii) All the commitments made during the Public Hearing / Public Consultation meeting held on 10th July, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xiii) At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on public hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.

11.3.3 Pesticides & Intermediates Manufacturing Unit (12000 MTPA) at Plot No. 46, Dahej Industrial Area, Bharuch-Dahej Road, Dahej, District Bharuch, Gujarat by **M/s Spectrum Ethers Ltd.– regarding EC**

Project proposal was considered in the 26th Expert Appraisal Committee (Industry) meeting held during 17th–18th August, 2011 and the Committee desired following information:

1. Source of CS₂ procurement.
2. Data of major miss for last 3 years for Nasik Unit.
3. A note on toxic effluents of all the pesticides.
4. MSDS sheets of the all the products.
5. Method for storage of raw materials.
6. Update risk assessment
7. Membership of TSDF for disposal of hazardous waste.

Project proponent vide letter dated 11th July, 2013 has submitted additional information. Project proponent has submitted name of manufacturers/suppliers of CS₂. Details of major miss for last 3 years in Nasik plant are submitted. Toxic effluent (45 KLPD) will be treated through alkali peroxide treatment system for destruction of cyanide and thereafter treated effluent will be sent to common incinerator site. Method for storage of raw materials is submitted. Updated risk assessment report is submitted. Provisional certificate from GEPIL has been submitted.

After detailed deliberations, the Committee found the additional information adequate and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i. National Emission Standards for Pesticide Manufacturing and Formulation Industry issued by the Ministry vide G.S.R. 46(E) dated 3rd February, 2006 and amended time to time shall be followed by the unit.
- ii. Multicyclone followed by bagfilter alongwith adequate stack height shall be provided to coal fired boiler and thermic fluid heater to control particulate emissions.
- iii. Two stage water scrubber followed by alkali scrubber shall be provided to process vent to control SO₂, HCl, HBr, H₂S and Cl₂ emissions. Two stage water scrubber shall be provided to process vent to control NH₃ emissions. 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. In order to control odour, outlet of process vents should be connected to the incinerator.
- v. Incinerator should be designed as per CPCB guidelines. SO₂, NO_x, HCl and CO emissions shall be monitored in the stack regularly.
- vi. 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%.
- vii. All necessary steps should be taken for monitoring of chlorine, HCl and HBr as well as VOCs in the proposed plant.
- viii. A proper Leak Detection and Repair (LDAR) Program for pesticide industry shall be prepared and implemented as per the CPCB guidelines.
- ix. Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- x. Total water requirement from GIDC water supply should not exceed 1345 m³/day and prior permission should be obtained from the Competent Authority.
- xi. Industrial effluent generation should not exceed 450 m³/day. Effluent should be segregated into High COD, High TDS and low COD/TDS effluent streams. High COD effluent /mother liquor should be incinerated. High TDS effluent should be treated through stripper followed by MEE. Low COD/TDS effluent should be treated in ETP. Industrial effluent shall be treated in ETP and treated effluent shall be discharged to the CETP after conforming the norms prescribed by GPCB. Water quality of treated effluent should meet the norms prescribed by CPCB/SPCB.
- xii. Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.

- xiii. 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 UPPCB 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.
- xiv. As proposed, ETP sludge and incineration ash should be sent to TSDF site. High calorific value waste such as spent organic should be incinerated.
- xv. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xvi. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
- xvii. Green belt should be developed at least in 33 % of the plant area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.

11.3.4 Sugarcane Juice/Molasses based Distillery Unit (100 KLPD; RS/ENA/Ethanol) at Village Kolundampattu, Tehsil Thandarampattu, District Tiruvannamalai, Tamil Nadu by **M/s Bannari Amman Sugars Ltd. – regarding EC.**

Project proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the proponent.

11.3.5 Expansion of Trichloroethylene (7200 MTPA to 15480 MTPA), Poly Vinyl Chloride (90,000 MTPA to 150,000 MTPA), Captive Power Plant (58.27 MW to 108.27 MW) and addition of Chlorinated Poly Vinyl Chloride (14,400 MTPA) Unit at Village Kayalpattinam North, Tehsil Tiruchendur, District Toothukudi, Tamil Nadu by **M/s DCW Ltd. – regarding EC.**

Project proposal was considered in the 1st Expert Appraisal Committee (Industry) meeting held during 24th–25th September, 2012 and the Committee recommended the project proposal. In mean time, some complaints were received. Thereafter MoEF desired view of SPCB. SPCB had informed that they had conducted site visit and made 11 observations. Accordingly TNPCB has issued direction for closure under Water Act. Further, MoEF directed the project proponent to comply with 11 observations made by SPCB and Compliance report may be obtained from TNPCB/MoEF Regional Office. Accordingly, Member Secretary, TNPCB vide letter no. T12/TNPCB/F.35984/RL/DCW/2013 dated 26.06.2013 has informed that the unit had complied with the directions issued by the Board. Consent of the unit has been renewed for period upto 30.09.2013 under the Water and Air Acts. Committee also deliberated on the compliance report received from MoEF' Regional Office Bangalore vide letter no. F. No. EP/12.1/935/Tamil Nadu/3794 dated 9th July, 2013. It is reported that the project authorities have augmented their treatment system to increase the recovery by adding clarifiers, additional nano and RO membranes, sludge thickening mechanism and additional neutralization tank exclusively for the Illmenite effluent with total investment of about Rs. 500 Lakhs. Because of the addition of the above facilities there is no sludge discharge into adjoining odai now. Solar evaporation ponds have been lined using imported HDPE Geo-membrane of 750 microns with an investment of about Rs. 150 Lakhs. The Project Authorities have cleared the sludge in the Channel and lined it with

HDPE liner and spent about Rs. 50 Lakhs. The construction of the synthetic iron plant is 80 % completed and construction activities are going on full swing. The Project Authorities have cleared the fly ash & bed ash stored adjacent to the creek and used it for their own salt works track formation requirements.

After detailed deliberations, the Committee found the compliance report satisfactory and recommended the project proposal for grant of environmental clearance.

11.4.0 Any Other Item

11.4.1 Manufacturing of Urea Formaldehyde (625 MTPM) and Melamine Formaldehyde Resin (75 MTPM) at S.N. 173, Palik1, Village Padana. Padana- Bhimasar Road, Tehsil Gandhidham, Distt. Kutch, Gujarat by M/s Maple Panels Private Ltd. **regarding extension of validity of TOR.**

MoEF vide letter no. J-11011/512/2010-IA –II dated 14th February, 2011 has issued TOR for the above mention project.

Now, project proponent vide letter dated 19th May, 2013 has requested for extension of validity of TOR for one more year.

The Committee recommended the project proposal to extend the validity of TOR for another 1 year.

11.4.2 Expansion of Pesticide Intermediate and Technical Products Manufacturing Unit from 12 MTPM to 180 MTPM at Unit-I, Plot No. 1505/1506 Phase III, GIDC Vapi, Valsad, Gujarat by **M/s Heramba Industries Ltd. - regarding extension of validity of Environment Clearance**

MoEF vide letter no. J-11011/176/2008-IA –II dated 20th August, 2008 has issued EC for the above mention project.

Now, project proponent vide letter dated 15th July, 2013 has requested for extension of validity of TOR for five more years.

After detailed deliberations, the Committee recommended the project proposal to extend the validity of EC for another 5 years.

11.4.3 Expansion of Viscose Staple Fibre (VSF) Capacity from 51,100 to 87600 TPA and CPP from 10 MW to 20 MW at Grasilene Division, Kumarapatnam, Karnataka by **M/s Grasim Industries Ltd. - regarding amendment of specific condition in the Environment Clearance.**

MoEF vide letter no. J-11011/371/2006-IA –II dated 8th November, 2007 has issued EC for the above mention project, without using zinc in the process.

Now, project proponent vide letter dated 12th February, 2013 has requested to use Zinc or Alum or both in the process. It is reported that VSF process either uses Zinc or Alum in its spin batch as a retardant for regeneration of fiber. The unit operations and unit processes are of exactly the same in both i.e. use of zinc or alum in the same spin bath solution. Now, the market preferences have completely changed in favour of fibres having pronounced golden hue and shining lustre, which is possible only with Zinc. Due to change in retardant i.e. Zinc will impact to the extent that effluent from the process shall now contain some amount of Zinc. They have already ETP facility for removing ZnSO₄ from wastewater.

However, sludge generation will increase. TCLP test was conducted for the sludge. The values are 1.03 mg/Kg against the threshold of 20000 mg/Kg as per schedule II of HWM. Zinc bearing sludge will be sent to the cement plant. A copy of letter of intent from Ultratech Cement Ltd. for supply of chemical gypsum is submitted.

After detailed deliberations, the Committee recommended the project proposal for amendment in environmental clearance for uses of Zinc or Alum in the process subject to compliance of following specific condition:

- i) Zinc bearing effluent shall be segregated from the Industrial effluent and treated in ETP. Treated effluent shall conform to the standards prescribed for the effluent discharge. Necessary permission may be obtained from the KSPCB.
- ii) Treated effluent shall be passed through guard pond. Online continuous monitoring system viz. pH meter, TOC analyzer and flow meter as well as monitoring facility for relevant pollutants (i.e. Zinc) shall be installed to monitor the treated water quality.
- iii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- iv) As proposed, Zinc bearing sludge shall be sent to the Cement plant.

11.4.4 Resin Manufacturing Unit at Village Vemardi, Taluka Karjan, District Vadodara, Gujarat by M/s Jason Dekor Pvt. Ltd. - regarding Amendment in TOR.

MoEF vide letter no. J-11011/150/2012-IA –II dated 11th January, 2013 has issued TOR for the above mention project.

Now, project proponent vide letter dated 21st February, 2013 has requested for incorporation of Sy. No. 501/P, 502, 503 in the TOR letter.

After detailed deliberations, the Committee recommended the project proposal for amendment in TOR.

11.4.5 Expansion of Sugar cane Crushing Capacity (12,000 TCD), co-generation Power Plant (from 44 MW to 75 MW) & Molasses based Distillery (from 76 KLPD to 200 KLPD) at Village Ugar Khurd, District Belgaum, Karnataka by M/s The Ugar Sugar Works Ltd. Amendment in TOR.

MoEF vide letter no. J-11011/315/2012-IA –II dated 22nd March, 2013 has issued TOR for the Expansion of Sugar cane Crushing Capacity (12,000 TCD), co-generation Power Plant (from 44 MW to 75 MW) & Molasses based Distillery (from 76 KLPD to 200 KLPD) at Village Ugar Khurd, District Belgaum, Karnataka.

However, project proponent has submitted proposal for expansion of Sugar Cane Crushing Capacity (from 10,000 TCD to 20,000 TCD), Co-generation Power Plant (from 44MW to 75 MW) & Molasses based Distillery (from 76 KLPD to 200 KLPD) at Village Ugar Khurd, District Belgaum, Karnataka.

After detailed deliberations, the Committee recommended the project proposal for amendment in TOR.

11.4.6 Castor Oil Derivatives Manufacturing Unit at Block No. 364, Aakarni Prakar 0-79-67 , Village Luna, Tehsil Padra, District Vadodara, Gujarat by M/s Shipra Agrichem Pvt.Ltd. regarding E.C. – **Amendment in Environment Clearance.**

MoEF vide letter no. J-11011/307/2010-IA –II dated 24th December, 2012 has issued EC for the above mention project.

Now, Project proponent vide letter dated 4th June, 2013 has requested to use coal instead of oil.

Most of the members have informed that they have not received the proposal documents. Therefore, proposal is deferred.

11.4.7 Expansion of Synthetic Organic Chemicals (Pharmaceutical Bulk Drugs & Intermediates) Manufacturing Unit at Village Karakhadi, Tehsil Padra, District Vadodara, Gujarat by M/s Ami Lifescience Pvt.Ltd. – **regarding Validation of TOR**

MoEF vide letter no. J-11011/10/2013-IA –II dated 25th April, 2013 has issued TOR for the above mention project.

Now, project proponent has submitted revised form-1. Project proponent informed that it was proposed to discharge treated effluent of 150m³/day into common conveyance system. But due to some constraint, now VECL is not giving permission for the direct discharge from industrial unit. Therefore they have planned to send their effluent to CETP. They have already membership of M/s EICL for effluent discharge of 70 KLPD. Following changes have been made in the proposal:

Particular	Unit	As per earlier Proposal (TOR Granted)	As per Revised Proposal (Seeking TOR)
No. of Product Group	Nos.	6 groups(from group A to B)	No Group (Individual Capacity)
No. of total Products	Nos.	49	37
Gross Production Capacity	MT/Month	115.00	131.60
Effluent Discharge	KL/Day	150	70
Mode of Disposal	---	Direct discharge into common effluent conveyance system of VECL which ultimately leads to estuary of river Mahi	Sending to CETP of EICL for further treatment. The treated effluent from the CETP of EICL will finally be disposed in to common effluent conveyance system of VECL, which ultimately leads to estuary of river Mahi

After detailed deliberations, the Committee recommended for amendment with following additional TOR:

- i. Recommendation from the GPCB for proposed expansion in respect of project being located in Padra, Vadodara, Gujarat.

27th August, 2013

11.5.0 Consideration of the Projects:

Environmental Clearance

11.5.1 Expansion of Pig iron plant (39,000 TPA) by installation of Ferro Alloys (10,500 TPA), MS Ingot / Billets (36,000 TPA) & Sinter (27,000 TPA) at Village Manjhaladih, Tehsil & District Giridih in Jharkhand by **M/s Balmukund Sponge & Iron Limited- Regarding Environment Clearance.**

Terms of Reference (ToRs) to the aforesaid proposal was accorded by Ministry vide F.No. J-11011/576/2010-IA.II(I) dated 31.12.2010. M/s. Balmukund Sponge and Iron Limited submitted the final EIA/EMP report to the Ministry vide letter no. MoEF/EC/2012 dated 30.4.2012. The certified compliance report for the existing unit was received from Regional Office of this Ministry at Bhubaneshwar vide letter no.103-225/09/EPE dated 26.12.2012.

The aforesaid proposal was deferred by the Ministry vide letter No.J-11011/576/2010-IA.II(I) dated 10.1.2013 with a request to re-validate the EIA/EMP report by the QCI/NABET accredited consultant as the consultant (M/s.Shiva Test House, Patna) engaged by the proponent was not accredited by the QCI. The proponent vide letter no. Nil dated 3.5.2013 submitted the EIA/EMP report through the QCI/NABET accredited consultant – M/s. Environ India, Kolkata. The said EIA/EMP report was placed before the EAC for consideration.

The Committee deferred the consideration of the proposal as the data contained in the EIA/EMP report was not revalidated by the M/s. Environ India, Kolkata. The Committee asked the consultant (M/s. Environ India, Kolkata) to conduct one month fresh baseline monitoring to verify the data provided by the M/s. Shiva Test House, Patna. Further, the Committee noted as per the certified compliance report received from Regional Office of MoEF at Bhubaneshwar, following are the conditions that need attention:-

Conditions that need special attention:

- i. Monitoring of Ambient Air Quality as per the NAAQS is not being done
- ii. Monitoring of secondary fugitive dust is not being done in the work environment. It is suggested to inventorize all the vulnerable areas anticipating high dust control measures in those areas. Besides, concreting of haul roads, the work environment of the shop floor, etc. should also be done to minimize dust generation
- iii. Permission to draw 10 m³/hr of groundwater has not yet been taken from the Central Ground Water Board/Authority. Immediate action is required to obtain the permission.
- iv. The project has not taken up any rainwater harvesting measures on any of the roof of the buildings. The project authority is required to submit a water balance of the plant and should prepare a water audit of the plant.
- v. Implementation on the point-wise status of CREP recommendations for mega plant is not being provided. However, as per the last six monthly report, it has been mentioned that the recommendation of CREP is being implemented
- vi. The project should identify different areas to be taken up as a part of CSR activities after due consultation with the local people and the same may be implemented with fixed time bound action plant
- vii. Vide Ministry's OM No. J-11013/5/2011-IA-I dated 05.08.2011, uploading of the six monthly compliance status of the conditions stipulated in the environmental clearance letter and also monitored data in own website is not being done to ensure implementation of transparency. 2) Display Board should be provided at some prominent place near the main gate of the company and updated in real time.

- viii. The Project Authorities are not monitoring the load based gaseous emission from the different process units. Monitoring of stack emission of all the units irrespective of environmental clearance accorded should be done regularly. It requires immediate attention.
- ix. It is suggested to carry out health examination regular including audiometric test of all the workers to ascertain any possible contraction due to exposure in the different working environment. It is to be implemented immediately.

Other Observations:

- i. WHRB should be installed and waste heat from the DRI Plants should be utilized.
- ii. The char generated from the DRI Plant should be utilized in AFBC Boiler for generation of Power.
- iii. The existing open type of furnaces should be upgraded to semi closed type within a reasonable time. The project should use 100% coke until up-gradation of open type to semi closed furnace.
- iv. Increase in the yield of alloy metal by improving knowledge of slag chemistry specially on basicity, viscosity, etc. so that distribution and dispersal of alloy metal results in optimum yield.
- v. The new Ferro Alloys Plant should propose invariably for closed type furnace.
- vi. R&D work should be initiated for optimization of space between two furnaces and also optimization of height between furnace floor and roof for quick dispersal of smoke from the furnace area.

After detailed deliberations, the Committee sought following documents from the proponent for consideration of the proposal:-

- i. Revised re-validated EIA/EMP report prepared by the QCI/NABET accredited consultant – M/s. Environ India, Kolkata*
- ii. Point wise compliance report to the aforementioned findings of the Regional Office, Bhubaneswar along with the requisite supporting documents including detailed note on “other observations” as noted above.*
- iii. A consolidated compliance report on environmental performance of other units owned by the company in the country*

11.5.2 Proposed Cement Plant with Clinker- 3.6 MTPA & Cement - 5.5 MTPA (Phase-I: 2 MTPA and Phase-II: 3.5 MTPA) along with 75 MW CPP at Villages Ukir & Bhoa, Taluka Abadasa, District Kachchh, Gujarat by **M/s Reliance Cement Company Private Limited - regarding Environment Clearance.**

Terms of Reference (ToRs) to the aforesaid proposal was accorded by Ministry vide F.No. J-11011/593/2011-IA.II(I) dated 14.2.2012. M/s. Reliance Cement Company Private Limited submitted the final EIA/EMP report to the Ministry vide letter no. RCC/MOEF/GUJ/EC dated 5.7.2013.

The Committee noted that the total land requirement for the project is 197.13 ha (Government waste land – 193.48 ha and Private land – 3.65 ha) which is yet to be acquired by the M/s. Reliance Cement Company Private Limited. The Committee also noted that as per condition no. 10 of the ToR cited above, *proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.*

The Committee deferred the consideration of the proposal till the total land of 197.13 ha is acquired by M/s. Reliance Cement Company Private Limited.

After detailed deliberations, the Committee recommended that the proposal may be placed before the EAC, once the necessary documents indicating acquisition of total land of 197.13 ha is submitted by the M/s. Reliance Cement Company Private Limited.

11.5.3 Proposed Integrated Cement Project (Clinker: 3.5 MTPA; Cement: 5.0 MTPA; Coal Washery: 1.0 MTPA) and Captive Power Plant (50 MW) at near Villages Sarkipar, Piprahi and Simradih, Tehsil Baloda Bazar, District Raipur in Chhattisgarh by **M/s Ultra Tech Cement Limited- regarding Environment Clearance.**

Terms of Reference (ToRs) to the aforesaid proposal was accorded by Ministry vide F.No. J-11011/625/2010-IA.II(I) dated 10.3.2011. M/s. Ultra Tech Cement Limited submitted the final EIA/EMP report to the Ministry vide letter no. UTCL/ENV/DEL/92 dated 8.3.2013.

The Committee noted that the total land requirement for the project is 222 ha (Government barren land – 18.54 ha and Private land – 203.46 ha) which is yet to be fully acquired by the M/s. Ultra Tech Cement Limited. The Committee also noted that as per condition no. 11 of the ToR cited above, *proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.*

The Committee deferred the consideration of the proposal till the total land of 222 ha is acquired by M/s. Ultra Tech Cement Limited.

After detailed deliberations, the Committee recommended that the proposal may be placed before the EAC, once the necessary documents indicating acquisition of total land of 222 ha is submitted by the M/s. Ultra Tech Cement Limited.

11.5.4 Proposed Integrated Steel Plant (3.0 MTPA) along with 900 MW Captive Power Plant at Village Potka, District East Singhbhum in Jharkhand by **M/s Bhushan Power & Steel Limited- regarding - Regarding Environment Clearance.**

The Committee noted that the proponent vide letter no. Nil dated 20.8.2013 expressed their inability to attend the meeting due to some unavoidable circumstances and requested to consider the proposal in the next EAC meeting. The Committee decided that the proposal may be placed before the EAC in the next EAC meeting.

11.5.5 Expansion of Ferro Alloy Plant & Installation of Sinter Plant at Kalyaneshwari, Mouza Debipur, District Burdwan, West Bengal by **M/s Impex Ferro Tech Ltd- Regarding Environment Clearance.**

The Committee noted that the proponent vide letter no. Nil dated 26.8.2013 expressed their inability to attend the meeting due to some unavoidable circumstances. The Committee recommended that the proposal may be placed before the EAC as and when requested by the project proponent.

- 11.5.6 Proposed Integrated Cement Plant (Clinker:2.0MTPA, Cement – 2.5MTPA) along with 40MW coal based Captive Power Plant and WHRB 10 MW at villages Tonki, Temberni, Sonudal & Gopalpura Tehsil Manawar, District Dhar in Madhya Pradesh **by M/s UltraTech Cement Limited - regarding Environment Clearance.**

Terms of Reference (ToRs) to the aforesaid proposal was accorded by Ministry vide F.No. J-11011/86/2012-IA.II(I) dated 21.5.2012. M/s. Ultra Tech Cement Limited submitted the final EIA/EMP report to the Ministry vide letter no. UTCL/ENV/DEL/2012/82 dated 9.11.2012.

The proposal was originally considered in the 5th meeting of the Reconstituted Expert Appraisal Committee held during 31st January 2013 to 1st February, 2013. The Committee deferred the consideration of the proposal as the Public Hearing for the project was presided over by the officer of the rank of Sectional Officer (Revenue), Manawar, District Dhar, which is not in accordance with the procedure prescribed in the Environmental Impact Assessment (EIA) Notification, 2006. The Committee asked the Project Authorities to approach the Madhya Pradesh Pollution Control Board to conduct the Public Hearing in accordance with the procedure prescribed in the Environmental Impact Assessment (EIA) Notification, 2006. Accordingly, Public Hearing was re-conducted on 30.5.2013 under the chairmanship of Additional District Magistrate, Dhar and the revised final EIA/EMP report was submitted to the Ministry vide letter no. UTCL/ENV/DEL/2013/64 dated 23.7.2013.

The Committee noted that the total land requirement for the project is 211.96 ha (Government waste land – 121.20 ha and Private land – 90.76 ha) and the area covered under conveyor corridor of 19.320 ha which are yet to be fully acquired by the M/s. Ultra Tech Cement Limited. The Committee also noted that as per condition no. 11 of the ToR cited above, *proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.*

The Committee deferred the consideration of the proposal till the total land of 231.28 ha is acquired by M/s. Ultra Tech Cement Limited.

After detailed deliberations, the Committee recommended that the proposal may be placed before the EAC, once the necessary documents indicating acquisition of total land of 231.28 ha is submitted by the M/s. Ultra Tech Cement Limited.

Terms of Reference

- 11.5.7 Expansion of Steel Manufacturing Unit at Village Budhewal, Tehsil Kum Kalan, District Ludhiana, Punjab **by M/s Prime Steel Processors - regarding ToRs**

The project authorities along with their consultant [M/s CPTL Envirotech, Chandigarh] gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed expansion project is listed at S.No. 3(a) under category 'B' of Schedule of EIA Notification, 2006 and should have been appraised by SEIAA/SEAC. Due to location of the project falling within 10 km of radius of the Critically Polluted Area – Ludhiana, as per the general condition of EIA Notification,

2006, the proposal has been appraised by the Expert Appraisal Committee (Industry) in the Ministry.

M/s. Prime Steel Processors have proposed to expand their Steel Manufacturing Unit at village Budhewal, Tehsil Kum Kalan, District Ludhiana, Punjab. The existing plant capacity is 21,000 MTA of Steel Ingot/ Billets & 45,000 MTA Steel Wire Rods. The existing plant obtained Consent To Establish from Punjab Pollution Control Board vide letter No.EE-L/2009/403/1296 dated 21.4.2009 for manufacturing of Ingots and Billets @ 54MT/Day. The Consent To Operate for the said unit was obtained vide letter No.EE-L/2010/403/208 dated 15.1.2010. M/s. Prime Steel Processors have proposed to enhance the capacity of product by adding two no. of Induction Furnaces. The capacity of the unit after expansion will be 1,12,000 MTA of Steel Billets/ Ingots. The longitude and latitude of the project site is 75°59'41.90" E and 30° 52'56.67" N respectively. The proposed expansion will be carried out in an area of 11 acres. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement after the proposed expansion is 13 MW (Existing: 5 MW; Proposed: 8 MW) which will be met from M/s PSPCL. D.G set of 325 KVA is proposed as a standby power. The water requirement after the proposed expansion is 25 KLD which will be sourced from the tube well. The raw materials required are MS/CI scrap, sponge/pig iron and ferro alloys. Project cost is Rs. 45 crores (Existing: Rs.25 crores; Expansion: Rs.20 crores). Rs.48 lakhs and Rs.9.5 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures.

Following are the details of the existing and proposed product details.

S.No.	Product details	Existing (MTPA)	Proposed Expansion (MTPA)	Total (MTPA)
1.	MS Ingots/Billets	21,000	91,000	1,12,000
2.	Wire rod	45,000	Nil	45,000

The Induction Furnace will be equipped with bag filters and cyclone separator. Stack of adequate height will be provided. Greenbelt will be developed all along the plant boundary. The domestic effluent generation is 9.5 KLD which will be treated in the septic tank/soak pit treatment system. Used oil will be sent to registered recyclers.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project
2. Photographs of the existing and proposed plant area.
3. Copies of iron ore linkage documents
4. Copy of NOC (consents to establish) for existing unit
5. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
6. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB concerned.
7. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
8. 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, compliance to the notice(s)

9. A line diagram/flow sheet for the process and EMP
10. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
11. A site location map on Indian map of 1:10,00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
12. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
13. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
14. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
15. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
16. Details and classification of total land (identified and acquired) should be included.
17. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
18. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
19. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
20. A list of industries containing name and type in 10 km radius shall be incorporated.
21. Residential colony should be located in upwind direction.
22. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
23. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
24. Manufacturing process details for all the process units should be included.
25. Possibility of installation of WHRB will be explored and details included
26. Mass balance for the raw material and products should be included.
27. Energy balance data for all the components should be incorporated.
28. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
29. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
30. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
31. Vehicular pollution control and its management plan should be submitted.

32. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
33. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
34. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
35. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
36. Air quality modeling for all the plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm³ should be included.
37. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
38. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i. Emissions (g/second) with and without the air pollution control measures
 - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
 - iii. Model input options for terrain, plume rise, deposition etc.
 - iv. Print-out of model input and output on hourly and daily average basis
 - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix. Graphs of monthly average daily concentration with down-wind distance
 - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
39. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
40. One season data for gaseous emissions other than monsoon season is necessary.
41. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
42. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
43. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
44. Ground water modelling showing the pathways of the pollutants should be included

45. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
46. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
47. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
48. A note on the impact of drawl of water on the nearby River during lean season.
49. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
50. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
51. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
52. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
53. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
54. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
55. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
56. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
57. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
58. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
59. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
60. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
61. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.

- c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
62. 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 should be detailed in the EIA report.
63. 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 should be prepared and incorporated.
64. Total capital cost and recurring cost/annum for environmental pollution control measures.
65. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
66. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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 Punjab Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

11.5.8 Proposed Mill Development Plan II (MDP II) to increase production of paper, ECF Bleached wood and Bagasse pulp and Captive co-generation power at Odapalli village, Tiruchengudu, Namakkal, Tamil Nadu by M/s Seshasayee Paper and Boards Limited - regarding ToRs.

The project authorities along with their consultant (M/s Cholamandalam MS Risk Services Limited) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. All the Pulp & Paper Units are listed at S.N. 5(i) under category 'A' of the Schedule of the EIA notification 2006 and appraised at the Central level.

M/s Seshasayee Paper and Boards Limited have proposed to expand the production of paper, ECF Bleached wood and Bagasse pulp and Captive co-generation power at Odapalli village, Tiruchengudu, Namakkal, Tamil Nadu. The proposed expansion will be achieved by modernizing existing mill facilities to achieve higher outputs with more environment friendly operation. The land requirement for the proposed expansion is 4 acres which is available within the existing mill premises of 82 acres. The longitude and latitude of the project site is 77°45'38" E and 11° 20'45" N respectively. The Odapally village is located at a distance of 0.5km from the project site. River Cauvery is at a distance of 0.5km from the project site. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The raw materials required are bagasse, wood, sodium hydroxide, sulphuric acid, lime stone, furnace oil, coal and hydrogen peroxide etc. The power requirement after the proposed expansion is 41 MW. The water requirement after the proposed expansion is 34000 KLD which will be met from Cauvery river. Total cost of the project is Rs. 300 crores. Rs. 35 crores is earmarked for the environmental protection/management.

The existing plant obtained environmental clearance from MoEF vide F.No. J-11011/56/1995-IA.II(I) dated 21.5.1996. The summary of existing and post project capacities and proposal are as below:-

Description	Unit	Existing	Post project	Increase	Proposal
Paper Machines					
Paper production	TPA	120,000	165,000	45,000	Modernisation / Upgradation
Pulp Mill					

Description	Unit	Existing	Post project	Increase	Proposal
Wood Pulp (bleached)	BD TPA	115,500	145,000	29,500	Modernisation / Upgradation
Bagasse pulp (bleached)	BD TPA	35,000	35,000	--	No change in capacity
O ₂ generation	Nm ³ /h	--	400	400	New
PCC plant	TPD	--	100	100	New
Chemical Recovery Plant					
- Evaporation plant	TPH of water evaporation	200	250	50	Upgradation/ Augmentation
- Recovery Boiler	TPD of black liquor solids	630	950	320	Augmentation and Addition of 2nd ESP
- Recausticising plant	TPD of AA	200	200	--	Upgradation
- Lime kiln	TPD of lime	200	200	--	No change
Power plant					
- Power Boilers	TPH of steam	117	217	100	Addition of one more 100 tph boiler with ESP
- Turbo Generators	MW of power	40	55	15	Addition of one 15 MW TG
Water Treatment Plant	m ³ /day	50,000	50,000	--	Adequate to handle the load. RO/DM plants required for new boiler will be added
Wastewater Treatment	m ³ /day	53,000	53,000	--	Upgradation

The power boiler will have a high efficiency ESP and the chimney height will be designed suitably to keep the resultant SO₂ concentration within permissible limits. The upgradation of the existing chemical recovery boiler will include a new ESP to control the emission within permissible limits. The waste water generation from the process/utility sections to ETP will be 29,800 m³/day. The total treated effluent discharged from ETP, meeting inland surface water standards, will be 29,300 m³/day and which will continue to be used for irrigation. The discharge on land for irrigation is well within TNPCB's permitted level of 30,000 m³/day. The ETP sludge will be used by the board making units. The boiler ash will be used by the cement industry and brick industry. The lime sludge will be used in the lime kiln.

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project
2. Photographs of the existing and proposed plant area.
3. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
4. Compliance report to CREP conditions
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. 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, compliance to the notice(s)
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
10. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
11. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
12. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
13. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
15. Details and classification of total land (identified and acquired) should be included.
16. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
17. Petrography, grain size analysis and major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO₂, Al₂O₃, MgO, MnO, K₂O, CaO, FeO, Fe₂O₃, P₂O₅, H₂O, CO₂.
18. MOU / contracts / assurances that regular/continuous supply of raw materials will be ensured for next 5-10 years (from non-forest sources).
19. A note on pulp washing system capable of handling wood pulp should be included.
20. Manufacturing process details for the existing and proposed plant should be included. Chapter on Pulping & Bleaching should include: no black liquor spillage

in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery should include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln

21. Studies should be conducted and a chapter should be included to show that Soda pulping process can be employed for Eucalyptus/Casurina to produce low kappa (bleachable) grade of pulp.
22. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be abolished within 2 years of issue of environment clearance.
23. A commitment that no extra bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills.
24. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
25. A list of industries containing name and type in 10 km radius shall be incorporated.
26. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
27. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
28. Possibility of installation of WHRB will be explored and details included
29. Mass balance for the raw material and products should be included.
30. Energy balance data for all the components including proposed power plant should be incorporated.
31. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
32. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
33. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
34. Vehicular pollution control and its management plan should be submitted.
35. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
36. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
37. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
38. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
39. Air quality modeling for all the plants proposed for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm³ should be included. Cumulative impacts of existing as well as proposed expansion and Captive Power Plant on the ambient air quality shall be assessed.
40. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.

41. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i) Emissions (g/second) with and without the air pollution control measures
 - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
 - iii) Model input options for terrain, plume rise, deposition etc.
 - iv) Print-out of model input and output on hourly and daily average basis
 - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix) Graphs of monthly average daily concentration with down-wind distance
 - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
42. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
43. One season data for gaseous emissions other than monsoon season is necessary.
44. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
45. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
46. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
47. Ground water modelling showing the pathways of the pollutants should be included
48. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
49. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
50. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
51. A note on the impact of drawl of water on the nearby River during lean season.

52. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
53. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
54. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
55. Odour control assessment and color removal plan from the water shall be submitted.
56. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
57. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
58. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
59. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
60. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
61. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
62. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
63. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
64. Disaster Management Plan including risk assessment & damage control needs to be addressed and included. Earthquake history and management plan should be submitted.
65. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.
 - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
66. 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 should be detailed in the EIA report.
67. 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 should be prepared and incorporated.
68. A note on identification and implementation of Carbon Credit project should be included.
69. Total capital cost and recurring cost/annum for environmental pollution control measures.
70. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
71. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material in Regional languages should be provided.
- (iv) The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- (v) The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- (vii) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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 Tamil Nadu Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

11.5.9 Proposed 2x8 T induction Furnace (Expansion Project) at Village: Debipur, P.O.: Kalyaneshwari, District: Burdwan, West Bengal by **M/s BMA Stainless Ltd. – regarding ToRs**

The project authorities along with their consultant [M/s Environ India, Kolkata] gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed expansion project is listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s BMA Stainless Limited have proposed to expand their existing Manufacturing Unit by installation of 2x8T Induction Furnace at Village: Debipur, P.O.: Kalyaneshwari, District: Burdwan, West Bengal. The existing plant obtained Consent To Establish from West Bengal Pollution Control Board vide letters dated 30.6.2005, 4.9.2006 and 22.11.2007. The longitude and latitude of the project site is 86°50'4.40" E and 23° 46'54.15" N respectively. The proposed expansion will be carried out in the existing area of 17.1 acres. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement after the proposed expansion is 20 MW (Existing: 12 MW; Expansion: 8 MW) which will be met from M/s. Damodar Valley Corporation. D.G set of 1x380 KVA is proposed as a standby power. The water requirement after the proposed expansion is 52 KLD [Existing: 40 KLD, Additional:12 KLD] which will be sourced from the bore well/Rainwater Harvesting Pond. The raw materials required are sponge iron, pig iron and ferro alloys etc. Project cost is Rs. 5.06 crores. Rs.50 lakhs and Rs.6 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures. Rs. 25.3 lakhs is earmarked towards the Enterprise Social Commitment based on Public Hearing issues.

Following are the details of the existing and proposed product details.

	Plant	Existing	Additional
Existing Plant Facilities	Induction Furnace	2 x 8 T	2x8 T
	Continuous Casting Machine	2 strand 4/7 m radius	--
	Rolling Mill	1,20,000 TPA	--
	Producer Gas	27,00,000 Nm ³ /month	--
Products	MS Billets	60,000 TPA	60,000 TPA
	Rolled Products	1,20,000 TPA	--

To control air emissions, adequate pollution control equipment will be provided to the Sinter Plant. Wastewater generated from the plant will be recycled in the process and reused in greenbelt development & dust suppression. Fines collected at Bag Filter from Induction

Furnace (500 TPA) will be recycled in the process. Induction Furnace Slag (4,800 TPA) will be utilized in road / area / land development.

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project
2. Photographs of the existing and proposed plant area.
3. Copies of iron ore linkage documents
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB concerned.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. 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, compliance to the notice(s)
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
10. A site location map on Indian map of 1:10,00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
11. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
12. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
13. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
15. Details and classification of total land (identified and acquired) should be included.
16. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
17. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
18. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
19. A list of industries containing name and type in 10 km radius shall be incorporated.

20. Residential colony should be located in upwind direction.
21. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
22. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
23. Manufacturing process details for all the process units should be included.
24. Possibility of installation of WHRB will be explored and details included
25. Mass balance for the raw material and products should be included.
26. Energy balance data for all the components should be incorporated.
27. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
28. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
29. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
30. Vehicular pollution control and its management plan should be submitted.
31. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
32. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
33. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
34. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
35. Air quality modeling for all the plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm³ should be included.
36. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
37. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i. Emissions (g/second) with and without the air pollution control measures
 - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
 - iii. Model input options for terrain, plume rise, deposition etc.
 - iv. Print-out of model input and output on hourly and daily average basis
 - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix. Graphs of monthly average daily concentration with down-wind distance

- x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
38. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
 39. One season data for gaseous emissions other than monsoon season is necessary.
 40. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
 41. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
 42. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
 43. Ground water modelling showing the pathways of the pollutants should be included
 44. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
 45. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
 46. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
 47. A note on the impact of drawl of water on the nearby River during lean season.
 48. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
 49. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
 50. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
 51. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
 52. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
 53. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
 54. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
 55. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste

- should be included. End use of solid waste and its composition should be covered.
56. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
 57. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
 58. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
 59. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
 60. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.
 - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
 61. 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 should be detailed in the EIA report.
 62. 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 should be prepared and incorporated.
 63. Total capital cost and recurring cost/annum for environmental pollution control measures.
 64. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
 65. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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 West Bengal Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

11.5.10 Proposed 1x200 TPD Sinter Plant (Expansion Project) at Mouza: Debipur & Maheshpur, Dendua Road, District: Burdwan, West Bengal by M/s Maithan Alloys Ltd. - regarding ToRs.

The project authorities along with their consultant [M/s Environ India, Kolkata] gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed expansion project is listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s. Maithan Alloys Limited have proposed to expand their Manufacturing Unit by installation of 1x200 TPD Sinter Plant at Mouza: Debipur & Maheshpur, Dendua Road, District: Burdwan, West Bengal. The existing plant obtained Consent To Establish from West Bengal Pollution Control Board vide letter No.198-2N-440/2004 dated 10.5.2005 for manufacturing of Silico-Manganese/Ferro Manganese – 3333 MT/month. The Consent To Operate for the said unit was obtained vide letter No.Co60945 dated 22.9.2011. The longitude and latitude of the project site is 86°50'32.11" E and 23° 46'43.44" N respectively. The proposed expansion will be carried out in the existing area of 23.87 acres. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the

project site. No court cases/litigation is pending against the project. The power requirement after the proposed expansion is 38.6 MW (Existing: 38 MW; Proposed: 0.6 MW) which will be met from M/s. Damodar Valley Corporation. D.G set of 2x125 KVA is proposed as a standby power in addition to the existing D.G set of 1x250 KVA. The water requirement after the proposed expansion is 205 KLD [Existing: 159 KLD, Additional:46 KLD] which will be sourced from the Panchet Reservoir (River Barakar)/Rainwater Harvesting Pond. The raw materials required are Manganese Ore fines, Coke/Coal fines. Project cost is Rs. 5.17 crores. Rs.40 lakhs and Rs.155 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures.

Following are the details of the existing and proposed product details.

	Plant	Existing	Additional
Main Plant	Ferro Alloys Plant	2 X 5 MVA, 1 X 6.5 MVA, 1 X 8.25 MVA & 2 X 12 MVA	-
	Sinter Plant	-	200 TPD
Product	Ferro Alloys	92,600 TPA	-
	Manganese Ore Sinter	-	70,000 TPA

To control air emissions, adequate pollution control equipment will be provided to the Sinter Plant. Wastewater generated from the plant will be recycled in the process and reused in greenbelt development & dust suppression. Fines collected at Cyclone from Sinter Plant will be recycled in the process. The undersize generated due to crushing of Sinter Cakes will also be reused in the process

After deliberations, the Committee prescribed the following TORs for the preparation of EIA/EMP report:

1. Executive summary of the project
2. Photographs of the existing and proposed plant area.
3. Copies of iron ore linkage documents
4. Thermal radiation control and suction hood arrangement in furnace areas and impact of such devices
5. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
6. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB concerned.
7. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
8. 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, compliance to the notice(s)
9. A line diagram/flow sheet for the process and EMP
10. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
11. A site location map on Indian map of 1:10,00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains

- i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
12. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
 13. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
 14. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
 15. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
 16. Details and classification of total land (identified and acquired) should be included.
 17. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
 18. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
 19. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
 20. A list of industries containing name and type in 10 km radius shall be incorporated.
 21. Residential colony should be located in upwind direction.
 22. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
 23. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
 24. Manufacturing process details for all the process units should be included.
 25. Possibility of installation of WHRB will be explored and details included
 26. Mass balance for the raw material and products should be included.
 27. Energy balance data for all the components should be incorporated.
 28. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
 29. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
 30. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
 31. Vehicular pollution control and its management plan should be submitted.
 32. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
 33. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.

34. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
35. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
36. Air quality modeling for all the plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm³ should be included.
37. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
38. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i. Emissions (g/second) with and without the air pollution control measures
 - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
 - iii. Model input options for terrain, plume rise, deposition etc.
 - iv. Print-out of model input and output on hourly and daily average basis
 - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix. Graphs of monthly average daily concentration with down-wind distance
 - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
39. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
40. One season data for gaseous emissions other than monsoon season is necessary.
41. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
42. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
43. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
44. Ground water modelling showing the pathways of the pollutants should be included
45. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
46. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.

47. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
48. A note on the impact of drawl of water on the nearby River during lean season.
49. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
50. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
51. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
52. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
53. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
54. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
55. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
56. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
57. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
58. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
59. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
60. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
61. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.

- c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
62. 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 should be detailed in the EIA report.
63. 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 should be prepared and incorporated.
64. Total capital cost and recurring cost/annum for environmental pollution control measures.
65. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
66. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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 West Bengal Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

- 11.5.11 Proposed expansion project of 0.25 MTPA Coke Oven Plant, 1x52 m² sinter plant, 1.8 MTPA Pellet Plant, 6x100 TPD + 2x350 TPD DRI Plant with pre Heater, 4x9 MVA Ferro Alloys, 3x20 MT Induction Furnace with Caster, 200 TPD Oxygen Plant, 200 TPD Lime Plant, 32 MW Captive Power Plant at Village :- Madandih, P.O:- Bortoria, Dist:- Purulia, West Bengal by **M/s Shakambhari Ispat & Power Limited - regarding ToRs.**

The Committee deferred the consideration of the proposal as the proposal was incomplete in several technical aspects. The Committee asked the proponent to explore the possibility of setting up of 4x350 TPD DRI unit instead of 6x100 TPD + 2x350 TPD DRI unit. The proponent agreed to set up the 4x350 TPD DRI unit instead of 6x100 TPD + 2x350 TPD DRI unit and also informed that the revised proposal in this regard (Form I application and Pre-feasibility Project Report) will be submitted to the Ministry for the grant of ToR.

Further, the Committee recommended that a site visit shall be undertaken by the Regional Office of the MoEF at Bhubaneswar to verify the existing plant details including its compliance status and the report shall be submitted to the EAC for further consideration of the proposal. The report should include status of WHRB in present units, dolochar inventory with year wise production and kind of disposal.

- 11.5.12 Proposed expansion of Ferro Alloys Plant at District Balasore, Odisha by **M/s Stork Ferro and Mineral Industries Pvt. Ltd. - regarding ToRs.**

The project proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the project proponent.

- 11.5.13 Proposed Tannery at Village Mussa Sher Nagar, Janshat Road Muzaffarnagar, Uttar Pradesh by M/s **Tasmiya Tannery Udyog - regarding ToRs.**

The project proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the project proponent.

- 11.5.14 Expansion of existing Cement Plant [Clinker – 2.78 MTPA & Cement – 3.90 MTPA] by addition of new Unit IV [Clinker: 1.75 MTPA and Cement: 1.75 MTPA] at Mellacheruvu Village & Mandal, Nalgonda District, Andhra Pradesh by **M/s. My Home Industries Limited - regarding ToRs.**

The project authorities and their consultant (M/s B.S. Envi-Tech Private Limited, Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. All the Cement Plants (≥ 1.0 MTPA) are listed at S.No. 3(b) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s. My Home Industries Limited have proposed to expand the existing cement plant [Clinker – 2.78 MTPA & Cement – 3.90 MTPA] by addition of new Unit IV [Clinker: 1.75 MTPA and Cement: 1.75 MTPA] at Mellacheruvu Village & Mandal, Nalgonda District, Andhra Pradesh. The existing project obtained environmental clearance from MoEF vide F.No.J-11011/1014/2007-IA.II(I) dated 11.6.2008. The land requirement for the proposed expansion is 32 ha which is already available within the existing plant premises. The longitude of the project site is 79° 54' 34.4"- 79° 54' 47.67" E and latitude is 16° 47' 55.58" to 16° 48' 4.91" N respectively. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The Krishna river and Vemuleru river is located at a distance of 11.5km and 14.1km respectively. The Mellacheruvu village and Venkataramapuram village is located at a distance of 0.8 km and 1.5 km respectively. Yepalmadhavaram RF is located at a distance of 1.8km from the project site. The raw materials required are limestone (2.72 MTPA), laterite (0.27 MTPA), GYPSUM (0.07 MTPA), fly ash (0.31 MTPA) and coal (0.30 MTPA). The limestone will be sourced from the captive mines (1 km from the project site) at Mellacheruvu village. The water requirement is 800 m³/day which will be sourced from existing mine pit and ground water. The power requirement is 30 MW which will be met from the existing captive power plant and APCPDCL. Total cost of the project is Rs.355 crores.

The existing and proposed production capacities are as follows:

S. No.	Unit	Existing capacity	Proposed Expansion by Unit IV	Total Capacity after Expansion
1.	Clinker Production	2.78 MTPA	1.75 MTPA	4.53 MTPA
2.	Cement Production	3.90 MTPA	1.75 MTPA	5.65 MTPA

The pollution control equipment like Bag House will be provided for the kiln/raw mill. Installation of low NOx burners and stacks of adequate height will be provided. No waste water will be generated from the proposed power plant.

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project
2. Photographs of the existing and proposed plant area
3. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
4. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. 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, compliance to the notice(s)
7. Copies of coal/limestone linkage documents
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.

10. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
11. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
12. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
13. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
15. Details and classification of total land (identified and acquired) should be included.
16. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
17. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
18. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
19. A list of industries containing name and type in 10 km radius shall be incorporated.
20. Residential colony should be located in upwind direction.
21. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
22. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per ISO-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.).
23. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO₂, Al₂O₃, MgO, MnO, K₂O, CaO, FeO, Fe₂O₃, P₂O₅, H₂O, CO₂.
24. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
25. Studies for fly ash, muck disposal, slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.

26. Manufacturing process details for all the plants should be included.
27. Possibility of installation of WHRB will be explored and details included
28. Mass balance for the raw material and products should be included.
29. Energy balance data for all the components including proposed power plant should be incorporated.
30. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
31. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
32. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
33. Vehicular pollution control and its management plan should be submitted.
34. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
35. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
36. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
37. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
38. Air quality modeling for all the proposed plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm³ should be included. Cumulative impacts of cement plant, Captive Power Plant and mines located at a distance of 1.0 km on the ambient air quality shall be assessed.
39. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
40. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i. Emissions (g/second) with and without the air pollution control measures
 - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
 - iii. Model input options for terrain, plume rise, deposition etc.
 - iv. Print-out of model input and output on hourly and daily average basis
 - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix. Graphs of monthly average daily concentration with down-wind distance
 - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.

41. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
42. One season data for gaseous emissions other than monsoon season is necessary.
43. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
44. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
45. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
46. Ground water modelling showing the pathways of the pollutants should be included
47. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
48. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
49. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
50. A note on the impact of drawl of water on the nearby River during lean season.
51. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
52. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
53. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
54. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
55. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
56. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
57. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
58. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste viz. fly ash etc. and its composition should be covered.
59. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.

60. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
61. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
62. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
63. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.
 - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
64. Plan for the implementation of the recommendations made for the cement plant in the CREP guidelines must be prepared.
65. 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 should be detailed in the EIA report.
66. 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 should be prepared and incorporated.
67. A note on identification and implementation of Carbon Credit project should be included.
68. Total capital cost and recurring cost/annum for environmental pollution control measures.
69. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
70. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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 Andhra Pradesh Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

11.5.15 Proposed expansion of Sponge Iron Plant in to Integrated Steel Plant (1.5 MTPA) along with a Captive Power Plant (160 MW- waste Gas Based & washery rejects) at Village Dagori, Amiri Akbari & Sati Ghat, Tehsil Belha, District Bilaspur, Chhattisgarh **by M/s. Nova Iron & Steel Limited - regarding ToRs**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 5th meeting as item no.5.4.21 held during 31st January, 2013 to 1st February, 2013 for the grant of Terms of Reference (ToRs). The committee noted that the information regarding quantity of raw materials to be required and its sources as well as transportation of raw materials and the coal linkage is not available which is required for the Steel Plant. The Committee noted that proposal is premature and is deferred for consideration after submission of the revised prefeasibility report with complete details.

The proponent vide letter no. Nil dated 17.6.2013 submitted their revised proposal along with Form I and Pre-feasibility project report. The said proposal was placed before the EAC for consideration.

The project authorities along with their consultant (M/s Mecon, Ranchi) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for

preparation of EIA/EMP report. The steel plants are listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s. Nova Iron and Steel Limited(NISL) have proposed to expand the Sponge Iron Plant (1,50,000 TPA) in to Integrated Steel Plant (1.5 MTPA) along with a Captive Power Plant (160 MW) at Village Dagori, Amiri Akbari & Sati Ghat, Tehsil Belha, District Bilaspur, Chhattisgarh. The existing plant has obtained Consent To Establish from Madhya Pradesh Pollution Control Board vide letter no.6461/TS/EX/BLA-57/MPPCB/92 dated 15.5.1992. The total land requirement for the project is 1200 acres. Out of the 1200 acres, 685 acres is in possession and the balance 515 acres is under acquisition. The latitude and longitude of the project site is 21°53'46" N and 82° 02'57" E respectively. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius. The water requirement is 1000 m³/hr which will be sourced from Sheonath River. The power requirement is 135 MW which will be met from Captive Power Plant. Total cost of the project is Rs.10000 crores. Rs.500 crores is earmarked towards the environmental pollution control measures.

Pellets (5,60,000 TPA), Iron ore fines (19,18,000 TPA), non coking coal (19,35,000 TPA), coke (5,13,000 TPA), coke breeze (1,45,000 TPA), dolomite (2,24,200 TPA), lime stone (3,24,000 TPA) and quartzite (45,500 TPA) are the raw materials that will be used. Additionally, the Project Authorities informed that the required iron ore pellets will be sourced from 3.85 MTPA Pallet Plant of BPSL at Sambalpur, Odisha and transported to the plant site by rail. In principal approval for rail linkage from Dagori Siding to Plant have also been obtained from South Eastern Central Railways. NISL has also filed application with the Directorate of Geology & Mining, Govt. of Chhattisgarh for grant of Iron Ore mining lease over 1147 hectares at village Madamnar, Dist. Narayanpur. The application is under active consideration and it is likely to obtain mining lease over 881 hectares at the said location very soon. The non coking coal requirement for the plant shall be procured through E-auction from SECL.

Stack of adequate height will be provided. Dust suppression systems will be provided to control the fugitive emissions. The pellet plant, sinter plant, blast furnace and power plant will be provided with ESP. The solid wastes generated are – iron making slag, steel making slag, sludge, lime/dolime dusts and fly ash.

Following are the proposed product details:

Sl. No.	Name of Units	Unit	Configuration
1.	Coal Washery	MTPA	1 x 1.0
2.	DR Plant	TPD	2 x 500
3.	Sinter Plant	m ²	1 x 248
4.	Blast Furnace	m ³	(1 x 1008)+(1x 550)
5.	Oxygen Plant	TPD	1 x 600
6.	Lime Plant	TPD	1 x 500
7.	Dolo Plant	TPD	1 x 500
8.	Steel Melting Shop (SMS-I)		
i.	Induction Furnace (IF)	T	3 x 15

Sl. No.	Name of Units	Unit	Configuration
ii.	Ladle Furnace (LF)	T	3 x 15
iii.	Billet Caster	Strand	1 x 2
9.	Steel Melting Shop (SMS-II)		
i.	Hot Metal Desulphurization (HMDS)	T	1 x 150
ii.	Basic Oxygen Furnace (BOF)	T	1 x 150
iii.	Ladle Furnace (LF)	T	1 x 150
iv.	RH-OB	T	1 x 150
v.	Bloom-cum-Billet Caster	Strand	2 x 4
10.	Captive Power Plant	MW	160
11.	Hot Rolling Mills for Bars/Rods/Section & Long Products	MTPA	1.5
12.	Raw Material Handling Plant	Of Matching Capacity	

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project
2. Iron ore/Coal/limestone linkage documents
3. Photographs of the existing and proposed plant area
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. 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, compliance to the notice(s)
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
10. A copy of the mutual agreement for land acquisition signed with land oustees.
11. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
12. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.

13. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
14. Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
15. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
16. Coordinates of the plant site as well as ash pond with topo sheet co-ordinates should also be included.
17. Details and classification of total land (identified and acquired) should be included.
18. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
19. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
20. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
21. A list of industries containing name and type in 25 km radius should be incorporated.
22. Residential colony should be located in upwind direction.
23. List of raw material required, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
24. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per I30-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.), if applicable, should also be included..
25. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO₂, Al₂O₃, MgO, MnO, K₂O, CaO, FeO, Fe₂O₃, P₂O₅, H₂O, CO₂.
26. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
27. Action plan for excavation and muck disposal during construction phase.
28. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
29. Manufacturing process details for all the plants should be included.
30. Mass balance for the raw material and products should be included.
31. Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
32. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
33. Data generated in the last three years i.e. air, water, raw material properties and analysis (major, trace and heavy metals), ground water table, seismic history, flood hazard history etc.

34. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
35. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
36. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
37. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
38. Air quality modelling for steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB should also be included to control emissions within 50 mg/Nm³.
39. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
40. Ambient air quality modelling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i. Emissions (g/second) with and without the air pollution control measures
 - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height) on hourly basis
 - iii. Model input options for terrain, plume rise, deposition etc.
 - iv. Print-out of model input and output on hourly and daily average basis
 - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix. Graphs of monthly average daily concentration with down-wind distance
 - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
41. A plan for the utilization of waste/fuel gases in the WHRB for generating power have to be set out.
42. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided. The alternate method of raw material and end product transportation should also be studied and details included.
43. One season data for gaseous emissions other than monsoon season is necessary.
44. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
45. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
46. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage

- and distance from project site should also be included. Information regarding surface hydrology and water regime should be included.
47. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
 48. Ground water modelling showing the pathways of the pollutants should be included
 49. Column leachate study for all types of stockpiles or waste disposal sites at 20°C-50°C should be conducted and included.
 50. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
 51. Permission for the drawl of water from the State Irrigation Department or concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
 52. A note on the impact of drawl of water on the nearby River during lean season.
 53. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
 54. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean River discharge as well as flood occurrence frequency.
 55. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
 56. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
 57. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
 58. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source should be included.
 59. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
 60. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
 61. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources, char and fly ash. Copies of MOU regarding utilization of ash should also be included.
 62. Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. need to be addressed.
 63. A note on the treatment, storage and disposal of all type of slag should be included. Identification and details of land to be used for SMS slag disposal should be included. Details of secured land fill as per CPCB guidelines should also be included.
 64. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
 65. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.

66. 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. should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
67. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
68. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
69. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.
 - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
70. 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 should be detailed in the EIA report.
71. 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.
72. Impact of the project on local infrastructure of the area such as road network and whether any additional infrastructure needs to be constructed and the agency responsible for the same with time frame.
73. Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures should be included.
74. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.
75. 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 should be included. Socio-economic development activities need to be elaborated upon.

76. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
77. A note on identification and implementation of Carbon Credit project should be included.
78. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof should also be included.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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. Where the documents provided are in a language other than English, an English translation should be provided. The draft EIA/EMP report shall be submitted to the Chhattisgarh Environment Conservation Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP reports along with Public Hearing Proceedings.

11.5.16 Production capacity enhancement of writing & printing grades of paper from 100 TPD to 140 TPD at 7th K.M.Stone, Moradabad Road, Kashirpur Tehsil, Udham Singh Nagar district, Uttarakhand by **M/s Naini Tissues Ltd. – regarding TORs.**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 7th meeting as item no.7.5.21 held during 4-5th April 2013 for the grant of Terms of Reference (ToRs). The Committee sought the following additional information for reconsideration for the aforesaid proposal:

- i. Water balance chart of the existing project as well as expansion indicating raw water input, loss and effluent generation.

- ii. Water quality of raw intake water to be submitted. Wastewater characteristics of untreated and treated effluent.
- iii. Copy of Consent to establish and consent to operate along with point wise compliance report.
- iv. Details of show cause notices/directions issued by the SPCB/CPCB along with action taken report.
- v. Process scheme of the existing and proposed effluent treatment plant including techno-economic feasibility study of ETP.
- vi. Status of modification/upgradation in the existing ETP along with actual photographs
- vii. Status of chemical recovery unit.
- viii. Ash disposal action plan to be submitted.

The proponent vide letter no. Nil dated 28.5.2013 submitted aforesaid additional information. The said proposal was placed before the EAC for consideration.

The project authorities along with their consultant (M/s J.M. EnviroNet Private Limited, Gurgaon) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. All the Pulp & Paper Units are listed at S.N. 5(i) under category 'A' of the Schedule of the EIA notification 2006 and appraised at the Central level.

M/s Naini Tissues Limited have proposed to expand the production capacity of writing and printing grades of paper from 100 TPD to 140 TPD at 7th K.M.Stone, Moradabad Road, Kashipur Tehsil, Udham Singh Nagar district, Uttarakhand. The existing plant got the Consent To Establish from Uttarakhand Environment Protection and Pollution Control Board vide Letter no. UEPPCB/H.O/NOC-96/04/1702 and dated 29/07/04. The land requirement for the expansion is 51.7 acres. The Dehla river is located at a distance of 2.2 km from the project site. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The raw materials required are bagasse & wheat straw, imported wood pulp, hydrogen peroxide and lime, etc. Total cost of the project is Rs. 15.14 crores. Rs. 3.90 crores and Rs.13.96 lakhs is earmarked towards the capital cost and recurring cost per annum towards the environmental pollution control measures.

The fresh water consumption after the proposed expansion is 7595 m³/day sourced from bore well. The power requirement for the proposed expansion is 127400 KWH which will be sourced from Hydel (UEPCL). Four D.G. sets of 1500 KVA each is proposed as a standby power. The rice husk and bagasse pith requirement for the proposed expansion is 33 TPD and 22 TPD respectively.

To control the air emissions, cyclone and double stage wet scrubbing system will be provided to the proposed boilers. After the expansion, the industrial waste water generation is 9745.68 m³/day which will be treated in the ETP. The solid wastes generated from the process are ETP Sludge: 12.8 TPD, boiler ash: 17.5 TPD and Lime sludge: 10-15 kg/day. The black liquor solid waste generation is 220 TPD. Used oil will be sold to registered recyclers.

The Committee noted that baseline data collected during Summer Season 2013 will be used for the preparation of EIA/EMP report.

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project

2. Photographs of the existing and proposed plant area.
3. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
4. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. 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, compliance to the notice(s)
7. A line diagram/flow sheet for the process and EMP
8. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
9. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
10. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
11. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
12. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
13. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
14. Details and classification of total land (identified and acquired) should be included.
15. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
16. Petrography, grain size analysis and major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO_2 , Al_2O_3 , MgO , MnO , K_2O , CaO , FeO , Fe_2O_3 , P_2O_5 , H_2O , CO_2 .
17. MOU / contracts / assurances that regular/continuous supply of raw materials will be ensured for next 5-10 years (from non-forest sources).
18. A note on pulp washing system capable of handling wood pulp should be included.
19. Manufacturing process details for the existing and proposed plant should be included. Chapter on Pulping & Bleaching should include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery should include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended

- particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
20. Studies should be conducted and a chapter should be included to show that Soda pulping process can be employed for Eucalyptus/Casurina to produce low kappa (bleachable) grade of pulp.
 21. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be abolished within 2 years of issue of environment clearance.
 22. A commitment that no extra bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills.
 23. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
 24. A list of industries containing name and type in 10 km radius shall be incorporated.
 25. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
 26. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
 27. Possibility of installation of WHRB will be explored and details included
 28. Mass balance for the raw material and products should be included.
 29. Energy balance data for all the components should be incorporated.
 30. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
 31. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
 32. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
 33. Vehicular pollution control and its management plan should be submitted.
 34. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
 35. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
 36. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
 37. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
 38. Air quality modeling for all the plants proposed for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm³ should be included. Cumulative impacts of existing as well as proposed expansion and Captive Power Plant on the ambient air quality shall be assessed.
 39. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
 40. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i) Emissions (g/second) with and without the air pollution control measures
 - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis

- iii) Model input options for terrain, plume rise, deposition etc.
 - iv) Print-out of model input and output on hourly and daily average basis
 - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix) Graphs of monthly average daily concentration with down-wind distance
 - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
41. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
 42. One season data for gaseous emissions other than monsoon season is necessary.
 43. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
 44. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
 45. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
 46. Ground water modelling showing the pathways of the pollutants should be included
 47. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
 48. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
 49. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
 50. A note on the impact of drawl of water on the nearby River during lean season.
 51. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
 52. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
 53. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.

54. R&D study may be carried out with the M/s. Central Pulp and Paper Research Institute, Saharanpur on bleaching of pulp using in-situ ClO_2 and alkaline H_2O_2 . A pre-feasibility report in this regard shall be submitted to the Ministry along with the EIA/EMP report.
55. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
56. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
57. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
58. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
59. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
60. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
61. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
62. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
63. Disaster Management Plan including risk assessment & damage control needs to be addressed and included. Earthquake history and management plan should be submitted.
64. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.
 - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
65. 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 should be detailed in the EIA report.
66. 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 should be prepared and incorporated.
 67. A note on identification and implementation of Carbon Credit project should be included.
 68. Total capital cost and recurring cost/annum for environmental pollution control measures.
 69. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
 70. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

- (i) All documents should be properly indexed, page numbered.
- (ii) Period/date of data collection should be clearly indicated.
- (iii) Authenticated English translation of all material in Regional languages should be provided.
- (iv) The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- (v) The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- (vii) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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 Uttarakhand Environment Protection and Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP report including public hearing proceedings.

11.6.0 Any Other Item

- 11.6.1 Cement Plant (2.5 MTPA) & Captive Power Plant (40 MW) at Risda and Dhandhani Villages along with Limestone Mine (3.17 MTPA, 395.05 ha.) at Risda and Kukurdih villages of Tehsil Baloda Bazar, District Raipur in Chhattisgarh **by M/s. Emami Cement Limited - regarding amendment in Environment Clearance.**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/372/2007-IA II (I) dated 31.10.2011 for the proposed Cement Plant (2.50 MTPA), Captive Power Plant (40 MW) at Risda and Dhandhani villages along with Limestone Mine (3.17 MTPA, 395.05 ha.) at Risda, and Kukurdih villages of Tehsil Baloda Bazar, District Raipur in Chhattisgarh.

The Project Proponent (PP) vide letter No. MoEF/BB/2013/10 dated 26.4.2013 requested MoEF for the amendment in the para no. 2 of the EC dated 31.10.2011 in respect of total plant area and para no.3 of the EC dated 31.10.2011 in respect of the raw materials used. The PP along with their consultant (M/s J.M. EnviroNet Private Limited, Gurgaon) also made a presentation before the Committee.

The amendment requested by the proponent is as below:-

Para no. 2 (line no. 6 to 13) as per the EC dated 31.10.2011	Amendment sought
<p>“Total project area for the cement plant and colony is 195.64 ha, out of which 115.78 ha is private land and 79.86 ha is government land. The company vide letter no: ECL/MOEF/2010-11/07 dated 1st June,2011 submitted the revised layout plan excluding about 49.00 ha of open area in which the company has yet to acquire 1.00 ha of land. This area will be included after acquisition of 1.00 ha of area. The total plant area is now 146.64 ha of which 89 ha is for the cement plant, 57.6 ha for the colony and railway yard. Out of total area of 146.64 ha, about 50.10 ha of area has been earmarked for green belt.</p>	<p><i>The company has now purchased the remaining about 1.00 ha area which was earlier left out. Now we propose to include 49.00 ha open area and the total project area would become 195.64 ha {146.64 ha (project area as per EC letter) + 49.00 (Open area)}. Out of 195.64 ha area, 7.29 ha land has been handed over to state Govt. as per one of the condition for allotment of Govt. Land. Therefore the final area after amendment would be 188.35 ha.</i></p> <p><i>In view of above, the line no. 6 to 13 in the para 2 of the EC dated 31.10.2011 may be read as below:-</i></p> <p><u><i>Total revised project area for the cement plant and colony is 188.35 ha. Out of the total area of 188.5 ha, about 62.15 ha of area has been earmarked for green belt.</i></u></p>
Para no. 3 (line no 2 to 4) as per the EC dated 31.10.2011	Amendment sought
<p>Limestone, Iron Ore, Bauxite, Gypsum, Fly ash, slag and coal will be used as raw material for cement plant. Product mix will be OPC and PPC with maximum cement production of 2.5 MTPA”</p>	<p>In the said sentence ‘slag’ has been mentioned as one of raw materials but while mentioning the product mix, only OPC & PPC have been mentioned. We request you to add PSC cement along with OPC and PPC Cement.</p> <p><i>In view of above, the line no. 2 to 4 in the para 3 of the EC dated 31.10.2011 may be read as below:-</i></p>

<p><i>Limestone, Iron Ore, Bauxite, Gypsum, Fly ash, slag and coal will be used as raw material for cement plant. Product mix will be OPC, PPC & PBFS (Slag Cement) with maximum cement production of 2.5 MTPA</i></p>
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After detailed deliberations, the Committee recommended for the amendment in para no.2 & 3 of the EC dated 31.10.2011 as mentioned below subject to the environmental safe guards.

Para no. 2 (line no. 6 to 13) of the EC dated 31.10.2011 may be read as:-

Total revised project area for the cement plant and colony is 188.35 ha. Out of the total area of 188.5 ha, about 62.15 ha of area has been earmarked for green belt.

Para no. 3 (line no. 2 to 4) of the EC dated 31.10.2011 may be read as:-

Limestone, Iron Ore, Bauxite, Gypsum, Fly ash, slag and coal will be used as raw material for cement plant. Product mix will be OPC, PPC & PBFS (Slag Cement) with maximum cement production of 2.5 MTPA.

- 11.6.2 Integrated Cement Plant (Clinker 2.072 MTPA) along with Captive Power Plant (65 MW) and Limestone Mine (3.9 MTPA, ML Area 582.962 ha.) near Chilhati, Village Vidiyadh, Bhurkunda, Godadih & Bohardih, Tehsil Masturi, District Bilaspur, Chhattisgarh by **M/s ACC Limited - regarding extension of validity of TOR**

Terms of Reference (ToRs) to the above proposal was accorded by MoEF vide letter no. J-11011/27/2010-IA II (I) dated 22.6.2010. Thereafter, Ministry vide letter dated 30.7.2012 extended the validity of the ToR till 21.6.2013. The Project Proponent again vide letter No. JL/ENV/MOEF/13/46 dated 11.6.2013 requested to extend the validity of the ToR from 21.6.2013 to 21.10.2013.

The Committee noted that as per the Ministry's O.M. No. J-11011/41/2006-IA.II(I) dated 22.3.2010, the validity of the aforesaid ToR was expired on 21.6.2013. As the maximum validity of the ToR was already expired, the Committee asked the proponent to submit Form I application and pre-feasibility project report for consideration of fresh ToR in accordance with the procedure stipulated in the EIA, Notification 2006.

- 11.6.3 Proposed Steel Plant (Induction Furnace- 7,00,000TPA, Rolling Mill- 6,00,000TPA, Cold Rolling Mill- 10,00,000 TPA, Galvanizing line- 3,00,000 TPA, Color Coating line- 3,00,000 TPA, Oxygen Plant- 350 MT) at 72,73,74,75,76, 77, 78(P), Village Sirupuzhalpet, Taluk Gumidipoondi, District Tiruvollur in Tamil Nadu by **M/s Suryadev Alloys & Power Pvt. Limited [Unit # 2] - Amendment in TOR in respect of production capacities.**

Terms of Reference (ToRs) to the above proposal was accorded by MoEF vide letter no. J-11011/595/2011-IA II (I) dated 14.2.2012. The Project Proponent (PP) vide letter No. Nil dated 20.5.2011 requested MoEF for amendment in the ToR in respect of various production capacities. The PP submitted the revised form I application and pre-feasibility project report for the proposed amendment. The PP also made a presentation before the Committee. It was submitted by the proponent following are the proposed amendments in the production capacities:-

S.No.	Units	Earlier Production Capacity as per TOR letter issued on 14.2.2012	Present Proposed Production Capacity
1.	DRI Kilns	---	330000 TPA (2 x 500 TPD)
2.	Induction furnace with SMS(IF, LRF, VD / VOD)	700000 TPA	700000 TPA (4 x 40 MT)
3.	Rolling Mill	600000 TPA	650000 TPA
4.	Power Plant (WHRB)	---	2 x 12 MW
5.	Power Plant (Pulverized Coal fire boiler)	---	180 MW #
6.	Oxygen plant	350 MT	250 MT
7.	Cold Rolling Mill	1000000 TPA	Dropped
8.	Galvanizing line	300000 TPA	Dropped
9.	Color Coating line	300000 TPA	Dropped

Additionally, the Project Authorities informed that the aforesaid proposal is an expansion of existing plant (Unit 1) for which environmental clearance have been accorded by the Ministry vide F.No.J-11011/11/2010-IA.II(I) dated 20.5.2011.

The Committee noted that the Project Authorities have modified their proposal totally and considered the said proposal for fresh award of 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 Terms of Reference for preparation of EIA/EMP report. The steel plants are listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s Suryadev Alloys & Power Pvt. Limited have proposed to expand the existing steel plant (Unit – I) by addition of Unit –II at Survey nos 287/1A, 287/2, 287/3, 290/1, 291/1A, 291/1B, 291/4, 291/5 of New Gummidipoondi Village and 78/1, 78/2A1, 78/2A2, 78/2C, 78/2D, 78/2E, 81/1B, 81/2A, 81/2B, 81/2C of Sirupuzhalpettai Village, Taluk Gumidipoondi, District Tiruvollur, Tamil Nadu. The land requirement after the proposed expansion is 164.01 acres (Existing: 119.01 acres and Expansion: 45 acres). Proposed expansion will be taken up in partly in the existing plant (Unit # 1) and partly in the land adjacent (Unit # 2) to the existing plant. No National Park / Wild life sanctuary / Bird Sanctuary are located within 10 km radius of the project site. Arani River is situated at 3.4 Kms. from the proposed project site. Gumadipoondi Railway Station is at a distance of 3.0 Kms. from the project site. Palavakkam RF exists within 10 Km. radius of the project site. Gumadipoondi Industrial area is present within 10 Km. radius of the project site. Total cost of the expansion project is Rs. 1250 Crores.

The existing and proposed product details are as below:-

Existing products:-

Sl. No.	Products	Production quantities (TPA) as per the EC dated 20.5.2011
1.	Billets	12,50,000
2.	Rolled Products (Wire Rods & Bars)	12,00,000

3.	Sponge Iron	2,31,000
4.	Power Plant (WHRB)	18 MW
5.	Power Plant (CFBC)	2 x 80 MW
6.	Ferro Manganese	12,000
7.	Silico Manganese	24,000

Proposed Expansion

S.No.	Units	Present Proposed Production Capacity
1.	DRI Kilns	330000 TPA (2 x 500 TPD)
2.	Induction furnace with SMS(IF, LRF ,VD / VOD)	700000 TPA (4 x 40 MT)
3.	Rolling Mill	650000 TPA
4.	Power Plant (WHRB)	2 x 12 MW
5.	Power Plant (Pulverized Coal fire boiler)	180 MW #
6.	Oxygen plant	250 MT

Sponge iron, Scrap and Ferro alloys will be used as raw material in Induction furnace and continuous casting machine for manufacturing of Billets / Ingots. These Billets / Ingots will be used in Rolling mill to manufacture wire rods / bars / sections. The power requirement will be met from the Captive Power Plant.

Fume extraction system with ID fan will be provided to IF. Dust suppression will be provided to control emissions. The water required for the proposed project will be 1800 cum/day and the same will be sourced from Ground water. This includes Make-up water for Cooling & process and for domestic water. Domestic wastewater will be disposed off into the soak pit via septic tank. No effluent will be discharged outside the premises and Zero discharge will be adopted. Rain water harvesting structure will be constructed. Slag generated from SMS will be used for road making and land filling. Mill scales generated from the rolling will be reused in SMS.

After detailed deliberations, the Committee prescribed following TORs for undertaking detailed EIA/EMP study:

1. Executive summary of the project
2. Iron ore/Coal linkage documents
3. Photographs of the existing and proposed plant area
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. 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, compliance to the notice(s)
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.

10. A copy of the mutual agreement for land acquisition signed with land oustees.
11. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
12. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
13. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
14. Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
15. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
16. Coordinates of the plant site as well as ash pond with topo sheet co-ordinates of the plant site as well as ash pond with topo sheet should also be included.
17. Details and classification of total land (identified and acquired) should be included.
18. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
19. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
20. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
21. A list of industries containing name and type in 25 km radius should be incorporated.
22. Residential colony should be located in upwind direction.
23. List of raw material required, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
24. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per I30-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.), if applicable, should also be included..
25. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO₂, Al₂O₃, MgO, MnO, K₂O, CaO, FeO, Fe₂O₃, P₂O₅, H₂O, CO₂.
26. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.

27. Action plan for excavation and muck disposal during construction phase.
28. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
29. Manufacturing process details for all the plants should be included.
30. Mass balance for the raw material and products should be included.
31. Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
32. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
33. Data generated in the last three years i.e. air, water, raw material properties and analysis (major, trace and heavy metals), ground water table, seismic history, flood hazard history etc.
34. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
35. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
36. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
37. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
38. Air quality modelling for steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB should also be included to control emissions within 50 mg/Nm³.
39. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be included.
40. Ambient air quality modelling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
 - i. Emissions (g/second) with and without the air pollution control measures
 - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height) on hourly basis
 - iii. Model input options for terrain, plume rise, deposition etc.
 - iv. Print-out of model input and output on hourly and daily average basis
 - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
 - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
 - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
 - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
 - ix. Graphs of monthly average daily concentration with down-wind distance

- x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
 - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
41. A plan for the utilization of waste/fuel gases in the WHRB for generating power have to be set out.
 42. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided. The alternate method of raw material and end product transportation should also be studied and details included.
 43. One season data for gaseous emissions other than monsoon season is necessary.
 44. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
 45. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
 46. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included. Information regarding surface hydrology and water regime should be included.
 47. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
 48. Ground water modelling showing the pathways of the pollutants should be included
 49. Column leachate study for all types of stockpiles or waste disposal sites at 20°C-50°C should be conducted and included.
 50. Action plan for rainwater harvesting measures at plant site should 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
 51. Permission for the drawl of water from the State Irrigation Department or concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
 52. A note on the impact of drawl of water on the nearby River during lean season.
 53. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
 54. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean River discharge as well as flood occurrence frequency.
 55. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
 56. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
 57. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.

58. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source should be included.
59. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
60. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
61. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources, char and fly ash. Copies of MOU regarding utilization of ash should also be included.
62. Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. need to be addressed.
63. A note on the treatment, storage and disposal of all type of slag should be included. Identification and details of land to be used for SMS slag disposal should be included. Details of secured land fill as per CPCB guidelines should also be included.
64. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
65. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
66. 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. should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
67. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
68. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
69. Occupational health:
 - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned 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,
 - b. 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 abovementioned parameters as per age, sex, duration of exposure and department wise.
 - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
 - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
 - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
70. 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 should be detailed in the EIA report.
71. 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.
 72. Impact of the project on local infrastructure of the area such as road network and whether any additional infrastructure needs to be constructed and the agency responsible for the same with time frame.
 73. Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures should be included.
 74. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.
 75. 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 should be included. Socio-economic development activities need to be elaborated upon.
 76. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
 77. A note on identification and implementation of Carbon Credit project should be included.
 78. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof should also be included.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages should be provided.
- iv. The letter/application for environmental clearance should quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should 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.

It was decided that 'TORs' 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. Where the documents provided are in a language other than English, an English translation should be provided. The draft EIA/EMP report shall be submitted to the Tamil Nadu Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA/EMP reports along with Public Hearing Proceedings.

11.6.4 Expansion of existing ferro alloys plant by installing 4x9 MVA Ferro Alloys Plant for production of either or combination of High Carbon Ferro Chrome (66,000 MTPA), Ferro Manganese (80,000 MTPA), Silico Manganese (60,000 MTPA), at village-pankphal, district-jaipur, Orissa by **M/s Misrilal Mines Pvt. Ltd.- regarding extension of validity of TOR**

Terms of Reference (ToRs) to the above proposal was accorded by MoEF vide letter no. J-11011/307/2011-IA II (I) dated 12.8.2011. The Project Proponent (PP) vide letter No. MMPL/FAD/MOEF/2013-14/01 dated 25.4.2013 requested MoEF for extension of validity of ToR. The PP also made a presentation before the Committee.

It was submitted by the proponent following are the reasons for seeking extension of validity of ToR:

- i. Draft EIA/EMP Report was submitted at State Pollution Control Board, Odisha on 14.8.2012 for conduct of Public Hearing within 12 months (One Year) from the date of issue of ToR.
- ii. OSPCB issued letter to the Collector & District Magistrate of Jajpur District on 1.9.2012 for finalization of date for conduct of Public Hearing which is within 13 (thirteen) months from the date of issue of ToR.
- iii. Date and venue of Public Hearing was finally finalized by the District Magistrate & Collector, Jajpur district, Odisha and notified in News Papers in July 2013 after 11 months of submission of EIA/EMP Report at OSPCB.
- iv. Public Hearing was scheduled to be held on 23.8.2013 at 11.30 AM which is 12 days after the validity period of ToR issued.
- v. Again it is postponed on 20.08.2013 due to enforcement of model code of conduct of general election to Urban Local Bodies, 2013 and some other unavoidable circumstances.

After detailed deliberations, the committee recommended for the extension of validity of TOR for a period of one year with effect from 11.8.2013.

11.6.5 Expansion of Asbestos Cement Sheets and Accessories Manufacturing Unit (50,000 TPA to 67,000 TPA at Bonda Industrial Estate, Village Bonda, District Kamrup, Assam by **M/s North East Roofing (P) Ltd. - regarding Amendment in TOR in respect of production capacities**

Terms of Reference (ToRs) to the above proposal was accorded by MoEF vide letter no. J-11011/631/2009-IA II (I) dated 7.1.2010. The Committee noted that as per the Ministry's O.M. No. J-11011/41/2006-IA.II(I) dated 22.3.2010, the validity of the aforesaid ToR is till 6.1.2014.

The Project Proponent (PP) vide letter No. Nil dated 21.11.2012 requested MoEF for amendment in the ToR in respect of manufacturing of Asbestos Cement Sheet unit from 50,000 TPA to 70,000 TPA instead of 50,000 TPA to 67,000 TPA. The PP also made a presentation before the Committee.

After detailed deliberations, the committee recommended for the amendment in the ToR dated 7.1.2010 and the subject matter may be read as given below:-

“Expansion of Asbestos Cement Sheets and Accessories Manufacturing Unit (50,000 TPA to 70,000 TPA) at Bonda Industrial Estate, Village Bonda, District Kamrup, Assam by M/s North East Roofing (P) Limited”

11.6.6 Expansion of IISCO Steel Plant (ISP) (0.55 MTPA to 2.50 MTPA), Rebuilding of Coke Oven Battery No. 10 and setting up of a Captive Power Plant (87.5 MW) and other facilities at Burnpur, Asansol, Burdwan, West Bengal by **M/s Steel Authority of India Limited (SAIL) – regarding extension of validity of Environment Clearance**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/348/2005-IA II (I) dated 7.8.2007. Corrigendum to the EC was issued by the Ministry on 22.11.2007. Thereafter amendment to the EC was issued on 1.6.2011. The Project Proponent (PP) vide letter No. EMD/MOEF/80 dated 13.10.2012 along with the updated Form I requested MoEF for extension of validity of EC. The PP also made a presentation before the Committee.

The Committee noted that the proponent has submitted the request for the extension of validity of EC after its expiry period i.e. 6.8.2012. Further, as per the Ministry’s O.M. No.J-11013/5/2010-IA.II(I) dated 30.3.2012, the moratorium for consideration of projects located in Asansole, West Bengal [CEPI: 70.20 – Burnpur area surrounding IISCO] is yet to be lifted.

After detailed deliberations, the Committee recommended that the aforesaid proposal may be reviewed by the Ministry as the proponent has submitted the request for the extension of validity of EC after its expiry period and the moratorium for consideration of projects located in Asansole, West Bengal [CEPI: 70.20 – Burnpur area surrounding IISCO] is yet to be lifted.

LIST OF PARTICIPANTS

Expert Appraisal Committee (Industry) :			
1.	Shri M. Raman	Chairman	P
2.	Shri R.K. Garg	Vice-Chairman	P
3.	Prof. R.C. Gupta	Member	P
4.	Dr. Prem Shankar Dubey	Member	P
5.	Dr. R.M. Mathur	Member	P
6.	Dr. S. K. Dave	Member	P
7.	Dr. B.Sengupta	Member	P
8.	Shri Rajat Roy Choudhary	Member	A
9.	Dr. S.D. Attri	Member	P
10.	Dr. Antony Gnanamuthu	Member	P
11.	Prof. C. S. Dubey	Member	P

12.	Shri Niranjan Raghunath Raje	Member	P
MOEF Officials :			
13.	Dr. V.P.Upadhyay	Member Secretary	
14.	Shri A.N. Singh	Scientist 'C' – 26.8.2013	
15.	Shri Sundar Ramanathan	Scientist 'C' – 27.8.2013	
