MINUTES OF 17th MEETING OF THE RECONSTITUTED EXPERT APPRAISAL COMMITTEEE (EAC) (INDUSTRY) (I) HELD ON 18th-19th MARCH 2014

17.0 Opening Remarks of the Chairman

At the outset, Chairman welcomed the members of the Expert Appraisal Committee (Industry). Thereafter, agenda items were taken up for discussion. The deliberations held and decisions taken are as under.

17.1 Confirmation of the Minutes of the 16th Reconstituted Expert Appraisal Committee (Industry) held during **20th-21st February, 2014**.

The minutes of 16th Reconstituted Expert Appraisal Committee (Industry) held during **20th-21st February, 2014** was confirmed subject to the following corrections:

1) 16.4.11 Page 46, 7th line: The word 'Sulphite' is replaced with 'Sulphate'

2) 16.6.19 Page 82: 4th para, 6th line: replace 2013 with 2012, 9th line: after the words "flyash is" include the words "planned to be", 11th line: Replace "Mumbai" with "northern region", Page 83: Replace Annexure-6 with Annexure-7.

3) 16.6.20: Para 3, page 84: Kg/day to be replaced by TPM in Table

4) 16.7.2 page 96: 2nd para: 2nd line: replace the word 'distance of' with 'distance from' . 3rd Line: delete the word 'by road' and after the words 5.5km add "(aerial distance)". 6th line: delete the word "farthest" and after the word 'distance', add the words 'of the entrance gate of Karnala Sanctuary'. 7th Line: Following the words "boundary of", replace the words "the wildlife sanctuary" with "project site". In 5th line in (i.), after the word 2km add the words 'for one month', iii. After the word 'basis' add the words 'for one month'.

The agenda Items for the 17th Meeting were taken up.

TUESDAY, 18th MARCH 2014

17.2 Environmental Clearance

17.2.1 Proposed Productivity Improvement through Technological Up-gradation of the Steel Melting Shop with Electric Arc Furnace from 1,25,00 TPA to 2,00,000 TPA of **M/s Vardhman Special Steels Ltd.** at C- 58, Industrial Focal Point, Phase –III, Ludhiana, Punjab **(EC)**

The project is a Category B project located in Industrial Focal Point, Phase –III, Ludhiana, within Ludhiana CPA and hence being treated as Category A. The PP informed that the proposal is for modernization of

existing plant by technological Upgradation of their Steel Melting Shop (SMS) with Electric Arc Furnace from 1,25,000 TPA to 200,000 TPA within exiting area of 19.74 acres at an estimated cost of Rs 24.5 crores. The envisaged changes for higher productivity would be by: (i) Installation of Oxy Fuel Burner (Virtual Lance Burner) to reduce batch time by reducing the time of melting, (ii) Oxygen and Carbon laced manipulator, (iii) Automation of Electrode regulation for optimum power utilisation, (iv) upgradtion of transformers by replacing 20mVA with 25mVA transformers and (v) Purchase of power through open access to run the plant 24 hrs intead of 21 hrs as at present.

The Committee noted that the proposed project site is located in the Industrial Focal Point, Phase –III, Ludhiana, Punjab for which moratorium was re-imposed by MOEF vide O.M. No.J-11013/5/2010-IA.II(I) dated 17.9.2013 for consideration of projects. As per the said O.M., following project could be considered in the Critically Pollutes Areas (CPAs) which are under moratorium:-

"Modernization of existing project or activity; change of technology, fuel or product mix, not resulting in increase in pollution load of that project /activity. This would be subject to the concerned State Pollution Control Board certifying that there will not be any increase in pollution load and the concerned EAC getting satisfied about the claim".

Further, in this context, the Committee also noted that as per the compliance report dated 27.12.2013 of Punjab Pollution Control Board, the unit has not installed any pollution control equipment to control the secondary emission generated from Arc furnace.

After detailed deliberations, the Committee deferred the consideration of the proposal till the PP obtains a certification from M/s. Punjab Pollution Control Board as mentioned in the Ministry's O.M. referred above.

17.3 Reconsideration Cases

17.3.1 Expansion of Alumina Refinery (from 1 MTPA to 6 MTPA) and Captive Power Plant (from 75 MW to 285 MW) located at village Lanjigarh, District Kalahandi in Odisha of **M/s. Sesa Sterlite Limited (Formerly M/s Vedanta Aluminum Limited) (TOR)**

The proposal cited above was considered in the 16th Reconstituted Expert Appraisal Committee (Industry) meeting held during 20-21st February 2014 wherein EAC recommended that the TOR accorded on 2.2.2012 may be revalidated for a period of twenty two months with effect from January 2014 along with a stipulation of condition that the proponent shall conduct Public Hearing through the Odisha Pollution Control Board.

The matter was examined in the Ministry and it was decided to place the proposal before the EAC to examine the Terms of Reference granted on 02.02.2012 vis-à-vis the earlier TOR granted on 12.03.2008 on issues involving significant environmental impact. Accordingly, the proposal was placed before the EAC for consideration. The project proponent made a brief presentation before the Committee with

comparison of the two TORs accorded on 02.02.2012 and 12.03.2008. PH was specified in both TORs. It was further informed that the AAQ data by continuous monitoring is being collected twice weekly at 8 locations specified by EAC/EC. It was clarified that as on 9th July 2010, 50% of the construction work has been completed and an investment of Rs 4000 crores without requsite environmental clearance and no new construction has been undertaken. Coal is not required as the project is a Co-gen unit.

The Committee noted that as per the Ministry's O.M. No. J-11011/41/2006-IA.II(I) dated 22.03.2010, the validity of the TOR dated 12.03.2008 had already expired on 12.03.2012 and there is no legal existence of the said TOR. It was recalled that the matter was referred to the EAC, who, after detailed deliberations, had accorded fresh TORs in 2012. Therefore the TOR was granted *de novo* in 2012 along with conduct of Public Hearing and cannot be compared with that in 2008 as the TOR of 2008 is null and void. The EAC reiterated that the PP should conduct a Public Hearing as per the TOR.

17.3.2 Expansion of paper production capacity from 70 to 180 TPD and expansion of agro residue pulp production capacity from 15 to 120 TPD of **M/s Silvertoan Papers Limited** at village Makhiyali, Dist. Muzaffarnagar, U.P. **(TOR)**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 7th meeting as item no.7.2.27 held during 4-5th April 2013 for the grant of Terms of Reference (TOR). 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. SPL/DEC/MOEF/003 and dated 14.12.2013 had submitted aforesaid additional information.

The project authorities gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with 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 EIA Notification, 2006 and appraised at the Central Level.

M/s. Silvertoan Papers Limited have proposed to expand the paper production capacity from 70 to 180 TPD and expansion of agro residue pulp production capacity from 15 to 120 TPD at village Makhiyali, Tehsil and District Muzaffarnagar, Uttar Pradesh. The existing plant got the Consent To Establish from U.P. Pollution Control Board on 22.1.1993. The existing plant area is 4.46 ha and proposed expansion will be carried out in the existing plant area itself. No additional land is required for expansion. Muzaffarnagar is located at a distance of 8km 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 for the production of agro pulp area are wheat straw (49500 TPA), Baggase (26,400 TPA), Sarkanda (7920 TPA), Caustic lye/caustic flakes (9900 TPA) and sodium sulphate (2970 TPA). The raw materials required for the production of kraft paper are agro pulp (39600 TPA), waste paper (19800 TPA), waste paper imported (5823 TPA), Alum (3564 TPA) and Rosin (356 TPA). Total cost of the project is Rs. 4100 lakhs.

The fresh water consumption after the proposed expansion will be increased from 1876 KLD to 3913 KLD. This will be sourced from the existing bore wells at the site. The power requirement for the proposed expansion is 1000 KW which will be sourced from UPPCL grid. Additional requirement of fuel, mainly Paddy Husk and bagasse, for the project is estimated as 115 MT/Day.

For air pollution control, the new HP boiler (27 TPH capacity) will be provided with a high efficiency ESP (Electro Static Precipitator) having a guaranteed PM emission below 50 mg/NM^3. The main polluting effluent is the non-easily bio-degradable Black Liquor resulting from the pulping of the agro residues. This will be incinerated in the reactor of the Chemical Recovery Plant, in which Soda Ash will be produced as by-product. The remaining effluent resulting from the paper machine section after reuse and recycling, shall be treated in the existing ETP of the mill, which will be thoroughly revamped for efficient treatment of the effluent. The main solid wastes generated in the manufacturing process are fly ash from the boiler and Sludge from the Effluent Treatment Plant. The fly ash shall be used as Land fill material. The ETP sludge will be sold to the paper board manufacturers as per the present practice.

The Committee noted that baseline data collected during Summer Season 2014 will be used for the preparation of EIA-EMP report. The Committee agreed to it. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at **Annexure I**:

(i) Details of any notice received under the Section 5 of Environment (Protection) Act, 1986 or directions under relevant Sections of Air and Water Acts? If so, compliance to the notice(s) by the U.P. SPCB.

(ii) P.H shall be conducted by the Uttar Pradesh Pollution Control Board as per point no. 70 of the generic ToR.

(iii) Copy of permission of CGWA/GRBA for use of groundwater

(iv) Details of treatment of high TDS in effluents.

17.4 Terms of Reference (TOR) Cases

17.4.1 Proposed 0.6 MTPA Iron Ore Pelletization plant of **M/s Sino Steel India Rolls Pvt. Limited** at Tentulberia, Haldia in East Medinipur in West Bengal **(TOR)**

The Committee noted that the proponent vide their email communication dated 14.03.2014 expressed their inability to attend the meeting due to some unavoidable circumstances and requested to consider the proposal after three months. The Committee decided that the proposal may be placed before the EAC as and when requested by the proponent.

17.4.2 Proposed Sponge iron plant of 3x100 TPD (90,000 TPA), Induction furnace 200 TPD (60,000 TPA), rolling mill 200 TPD (60,000 TPA) and Captive Power plant (6MW) of **M/s Sri Sai Sapthagiri Sponge Pvt. Ltd.** at Sy. No. 83A & 76 Belagal Village Bellary Taluk & District Karnataka State (**TOR)**

The proposed project activity 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. 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.

M/s. Sri Sai Saptagiri Sponge Private Limited have proposed to set up Sponge Iron Plant - 3x100 TPD, Rolling Mill - 60,000 TPA, Induction furnace - 60,000 TPA & Captive power plant (6 MW) at survey no. 83A and 76, Belagal Village, Bellary district, Karnataka State. The total land requirement is 12 acres consisting of barren land. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius of the project site. The latitude and longitude of the project site is 15° 06' 34" N and 76° 48' 34"E respectively. Belagal village is located at a distance of 2.5 km (SE) from the project site. Three Reserve Forests are exists within the study area of the project site. The water requirement is 578 KLD which will be met from bore wells. The water bodies exist in the study area are Kolagallu kere -7km (NE), Allipur Kere – 3.5 km (NE) and Avinamodugu Kere – 9km (SE). The power requirement is 4500 KVA which will be met from GESCOM. Total cost of the project is Rs.3751 lakhs. No court cases/litigation is pending against the project.

The details of the equipment and production capacities are as below:

S.No.	Particulars	Unit Configuration	Production Capacity
1.	Sponge iron plant	300TPD	90000 TPA
2.	Rolling mill	200TPD	60,000 TPA
3.	Induction furnace	200TPD	60,000 TPA
4.	Captive Power Plant	6 MW (5 WHRB and 1 AFBC)	-------

Raw materials required are iron ore (72000 TPA), coal (27300 TPA) and limestone (1360 TPA). DRI kilns and the FBC boiler will be equipped with Electro Static Precipitator. Dust extraction system comprising of suction hood, duct, bag filters, fan, stack etc will be provided. Stack of adequate height will be provided. Used oil will be sold to registered recyclers.

After detailed deliberations, the Committee prescribed the following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at **Annexure I**:

1. Iron ore and coal linkage documents to be furnished.
2. A note on the treatment, storage and disposal of all type of slag should be included. Details of secured land fill as per CPCB guidelines should also be included.
3. P.H. shall be conducted by the Karnataka Pollution Control Board as per the generic ToR.

17.4.3 Proposed expansion of existing Sponge Iron Plant to sponge iron based Integrated Steel Plant of existing capacity 1x90 TPD Sponge Iron Plant, Proposed Capacity 1x90 TPD, 2x12 MT Induction Furnace and CCM, Expansion Capacity 1x90 TPD of **M/s Sundaram Steel Pvt. Ltd.** at B-7, Bokaro Industrial Area, village Balidih District Bokaro, State Jharkhand (**TOR)**

The Committee noted that above proposal is listed at S.N. 3(a) under category 'B' and has to be appraised by the SEIAA/SEAC concerned. Member Secretary – Industry Sector apprised the Committee that SEIAA/SEAC for Jharkhand was constituted by MOEF on 27.12.2012 in accordance with the EIA Notification, 2006. In view of this, the Committee recommended that aforesaid proposal along with the project file concerned be transferred to the SEIAA/SEAC - Jharkhand for taking appropriate action.

17.4.4 Proposed Technology Demonstration Plant (TDP) [For processing 1900 TPA of Zircon and 3500 TPA of Ilmenite] within the existing premises of Orissa Sands Complex of **M/s Indian Rare Earths Limited** at Orissa Sands Complex, village Matikhalo, Tehsil Chatrapur, District Ganjam, State Orissa **(TOR)**

The proposed project activity is listed at S.No. 3(a) under primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF. 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.

M/s Indian Rare Earths Limited have proposed to set up an Technology Demonstration Plant (TDP) for chemical processing of minerals to process 1900 TPA of 'OR' Zircon (5.76tpd) and 3500 TPA (10.61 tpd) of 'OR' Ilmenite so as to produce 3416 TPA of zirconium oxy-chloride along with 1672 TPA of TiO_2 (anatase or rutile grade) and 1038 TPA of iron oxide (RED color) from 'OR' Zircon and 'OR' Ilmenite respectively in an integrated manner by operating 330 days in a year at Orissa Sands Complex, village Matikhalo, Tehsil Chatrapur, District Ganjam, State Orissa. The existing plant obtained Environmental Clearance from MOEF vide letter nos. 21/18/84-EN/IA.II dated 14.5.1991, J-14011/5/91/IA-I dated

24.9.1993 (For Thorium plant) and J-11015/348/2009-IA.II(M) (For monazite processing plant). The objective setting up of TDP is for establishing commercial abilities and to demonstrate mass production facility with consistent quality products from Zircon or Ilmenite. Nuclear grade Zirconium Oxide from Zirconium Oxy Chloride. The project is versatile in nature and capable of producing other valuable products like gypsum (10513 TPA), ammonium chloride (3197 TPA), high pure silica (566 TPA) and sodium chloride solution (29996 TPA) without any additional investment. The total land requirement is 7500 m^2. Proposed TDP will be set up within the Orissa Sands Complex itself and no additional land is required for the said project. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius of the project site. The water requirement is 238 KLD which will be met from bore wells/ water received from Orissa Public Health Department. The power requirement is 1.4 MW which will be met from SOUTHCO. Total cost of the project is Rs. 54.16 crores. Rs.4.5 crores and Rs. 9 lakhs/annum is earmarked for the capital cost and recurring cost towards the environmental pollution control measures. No court cases/litigation is pending against the project.

It was informed that a CRZ map has been got prepared through NIO, Panaji. Fumes/vapours generated due to the storage of chemicals and process reactions will be discharged to atmosphere through stack of adequate height after passing through caustic scrubber. Effluents generated will be treated in the ETP of a capacity of 300 KLD. The solid wastes generated are insoluble mass from Ilmenite processing plant (233 kg), un-reacted mass from zircon processing unit (86 kg) and ETP cake of 481 kg. The insoluble mass from Ilmenite plant will be stored for the recovery of vanadium and niobium. By products that will be produced to be sold as per market scenario. Sodium Chloride solution (35%) would be given to M/s Jaishree Chemicals.

After detailed deliberations, the Committee prescribed the following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at **Annexure I**:

1. The project would re-examine the techno-economic feasibility and economic viability of the project – including processes, components, by-products and commercial viability.
2. Separate chapter covering conceptual site model of the TDP from processing of the mineral, production facility until the waste disposal.
3. Radiation hazards associated with the project.
4. A note on the treatment, storage and disposal of all type of solid wastes should be included.
5. Detailed Risk Assessment and Plan for Haz. Waste Treatment, Storage, Disposal/Use.
6. Air quality modelling for proposed plant as well as the existing plant for specific pollutants needs to be done.
7. P.H. shall be conducted by the Odisha Pollution Control Board as per the generic ToR.

17.4.5 Proposed project of 28000 MT/year Decarbonisation of Ferro-Alloys of **M/s Hira Power and Steels Limited** at Khasra No. 513/1,513/2,513/3,513/4, Urla Industrial Area, District Raipur, Chhattisgarh **(TOR)**

The Committee noted that M/s. Hira Power and Steels Limited have two projects at Urla Industrial Area and adjoining it, of which only one is listed in the agenda. In regard to the project as listed above in the agenda, the project proponent has sought an amendment in the Environment Clearance No.F.No.J-11011/836/2008-IA II(I) dated 11.2.2009 for "Refining of High Carbon Ferro Alloys to low carbon ferro alloys with installation of 750 M^3 oxygen plant with no change in annual production capacity 18000 MTPA. In regard to the second project (not listed in the agenda), the proponent has sought an "Amalgamation of EC and consents without increase in existing production capacities of Ferro Alloy Plant (48000 TPA) and 20 MW CPP and land area at Urla Industrial area, Raipur" for which separate form I and pre-feasibility project report has been submitted by the proponent.

The Committee noted that both the projects are located adjacent, it is however not clear whether they share a boundary and whether they are both located within the Urla Industrial Area. The Committee sought details of exact location along with survey numbers, site outlay on a map. The Committee also sought that a letter from the Urla Ind. Estate Management be furnished whether both projects are located within the Industrial Area. The Committee stated that there is no provision in the EIA Notification 2006 for 'amalgamation of EC' with Consent to Operate.

The Committee after deliberations deferred the consideration of the project listed in the agenda. The Committee also sought the status of both projects in terms of their operation and clearances under the EIA Notification 2006 to determine the feasibility of considering both the projects as a single project.

17.4.6 Proposed expansion for the enhancement of Production Capacity, Addition of one new product and installation of new 20 MW Captive Power Plant of **M/s Ruby Macons Limited** at Survey No: 56/1, village Morai district, Valsad, Gujarat **(TOR)**

The project proponent did not attend the meeting. The Committee noted that proposal cited above falls under schedule 1(d) of the EIA notification 2006 which needs to be appraised by the EAC – Thermal sector. The Committee asked the Member Secretary – Industry sector to refer the proposal to Member Secretary – Thermal for taking action as appropriate.

17.4.7 Proposed expansion for increase in Clinker Production from 1.8 MTPA to 2.2 MTPA of **M/s Sree Jayajothi Cements Limited** at Yanakandla Village, Banaganapalle Mandal, Kurnool District, Andhra Pradesh **(TOR)**

The project authorities along with their consultant (M/s. B.S. Envi-Tech Private Limited - Hyderabad) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with draft Terms of Reference for preparation of EIA-EMP Report. The proposed activity is 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. Sree Jayajothi Cements Limited has proposed to enhance the clinker production capacity from 1.8 MTPA to 2.2 MTPA by modification of process units at Yanakandla Village, Banaganapalle Mandal, Kurnool District, Andhra Pradesh. The existing plant [Cement: 3.2 MTPA; Clinker: 1.8 MTPA] obtained environmental clearance from MOEF vide letter no.J-11011/450/2007-IA.II(I) dated 24.3.2008. P.H. was held on 04.12.2007. Now expn. To 2.2 MTPA being sought by modification of EC. The said plant have been taken over by the M/s. My Home Industries Limited. No additional land is to be acquired for the proposed enhancement. The proposed enhancement will be carried out in the existing land of 400.37 acres. The longitude and latitude of the project site is $78^0$13' 8.11" E and 15^0 21' 50.48" N respectively. There is no National Park, Bird sanctuaries and biosphere reserve exists within 10 km radius of the project site. No Forest land is involved. River Jurreru flows at a distance of 4.1km from the project site. Yanakadla village is located at a distance of 0.4km from the project site. A number of Reserve Forests - Yennkondla forest (0.6km) Rangapuram RF (2.2km) and Ramavaram RF (5.2 km) are found within the 10 km radius of the project site. No court cases/litigation is pending against the project. Total cost of the project is Rs.22 crores. The PP has provided details of modernization and rationale for exemption of P.H. stating that the project involves no change in water consumption, closed belt conveyor for transportation of limestone.

The details of the products along with their Production capacity are given below:

S.No.	Particular	Capacity as per EC letter dated 24.3.2008	Additional Capacity	Total Capacity after Expansion
1.	Cement	3.2 MTPA	No Change	3.2 MTPA
2.	Clinker	1.8 MTPA	0.4 MTPA	2.2 MTPA

The raw materials required are Limestone 2.87 MTPA, coal 0.374 MTPA and bauxite/laterite – 0.1595 MTPA. The limestone will be procured from Yanakandla & Palkue mines and then transported to the plant site by closed conveyor. No additional water is required for the proposed enhancement. The existing requirement is 1180 KLD. Power requirement is 32 MW which will be sourced from APCPDCL.

The major sources of pollution in a cement plant are emissions from the stacks attached to the process units. All major sources of air pollution will be provided with bag house, bag filters & ESP to maintain particulate matter emissions within permissible limit. No industrial waste water will be generated from the Cement manufacturing process. No solid waste will be generated in cement manufacturing process. Dust collected from various pollution control equipments will be recycled back to the process. Green belt will be developed in 33% of the cement plant area.

The Committee noted that Public Hearing for the ISP project was conducted on 4.12.2007 as per EIA Notification, 2006. Due to the proposed expansion, there will be no additional water consumption, no additional land requirement, no solid waste generation and marginal increase in air emissions for which adequate control measures will be provided. Therefore, the Committee exempted the project from

fresh conduct of Public Hearing under 7 (ii) of the EIA Notification 2006. The Committee noted and agreed to collection of baseline data for the summer Season 2014 (March–June 2014) for the preparation of EIA-EMP report.

After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at Annexure I (with the exception of P.H.):

1. Limestone and coal linkage documents.
2. Action plan for development of green belt over 33 % of the total project area within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc.
3. Air quality modelling for the proposed plant as well as the existing 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/Nm^3.
4. P.H. is exempted under the provisions of the 7(ii) of the EIA Notification 2006

17.4.8 Proposed Project of 6x16.5 Submerged Arc Furnaces, 6x0.4 LTPA Slag Granulation System & 3x0.27 LTPA Sinter Plant of **M/s Prakash Industries Limited** at Village Hathneora, District-Janjgir-Champa, Chhattisgarh (**TOR)**

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

17.4.9 Proposed project of 1x6 MVA Ferro Alloy Plant, 2x10 TPD EAF Refining, Thermit Plant for 2500 TPA & Manganese Ore Sinter Plant for 90000 TPA of **M/s Shivam Iron & Steel Co. Ltd.** in village Jambad, Tehsil Udnabad, Routgadi, District Giridih, Jharkhand (**TOR)**

The Committee deferred the consideration of the aforesaid proposal seeking the salient features of the proposed project. After detailed deliberations, the Committee sought the following additional information from the proponent for fresh consideration of the proposal:-

i. Details of the existing plant facilities and its requisite statutory approvals

ii. Transfer of ownership

Further, the Committee requested the proponent to depute a senior officer concerned with the proposal cited above who could explain the salient features of the project and also respond to the queries/suggestions which Committee may ask during the discussion.

17.4.10 Proposed project of 50 m^3 MBF Plant for Pig Iron, 0.3 MTPA Pellet Plant, 2x50000 TPA Iron Ore Sinter Plant, 4500 TPA Thermit Process Plant, 100000 TPA Integrated Steel complex (With Steel Melting shop, Induction furnace along with billet caster, Re-Rolling mill, LD process, LRF & Oxygen) & 25 tones capacity AOD of **M/s Shivam Iron & Steel Co. Ltd.** in Biswadih village in the district of Giridih in the State of Jharkhand **(TOR)**

The Committee deferred the consideration of the aforesaid proposal seeking the salient features of the proposed project. After detailed deliberations, the Committee sought the following additional information from the proponent for fresh consideration of the proposal:-

iii. Details of the existing plant facilities and its requisite statutory approvals

iv. Transfer of ownership

Further, the Committee asked the proponent to depute senior officer concerned with the proposal cited above who can explain about the salient features of the project and also respond to the queries/suggestions which Committee may ask during the discussion.

17.4.11 Proposed 1.5 MTPA Clinker Grinding Unit of **M/s Modern Building Material Pvt. Ltd.** at Melamaruthur Village, Ottapidarm Taluk, Tuticorin District, Tamil Nadu **(TOR)**

The proposal cited above was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 10th meeting held during 29-31st July, 2013 wherein the Committee categorized the project into Category B-2 and recommended that the project shall be exempted from preparation of EIA report as well as exemption from conducting Public Hearing as per Para 7(ii) of EIA Notification 2006 in view of the fact that there was no additional requirements of land and water, use of energy efficient technology, no clinker manufacturing at the proposed site, 'zero' effluent discharge, utilization of all the solid waste granules in the process itself including utilization of fly ash etc. Further, the Committee asked the proponent to submit an Environmental Management Plan for the proposed 1.5 MTPA Cement Clinker Grinding unit.

While examining the aforesaid recommendations of the EAC (Industry), it was noted that all stand alone cement grinding units are covered under Category 'B' as per para 3(b) of the Schedule of the EIA notification 2006 and needs to be appraised by the SEIAA/SEAC concerned. As per the general condition of the EIA Notification 2006, any project or activity specified in Category 'B' will be treated as Category A, if they are located in whole or in part within 10 km from the boundary of Protected Areas notified under the Wild Life (Protection) Act, 1972 and notified Eco-sensitive areas as notified under section 3 of the Environment (Protection) Act, 1986.

The present proposal under consideration is covered under Category 'B' as per para 3(b) of the Schedule of the EIA notification 2006. However, as per the Form I application submitted by the proponent, the project site is located within 10 Km radius of Gulf of Mannar Bio Sphere Reserve and therefore has to be treated as category 'A' project due to applicability of general condition of the EIA notification, 2006 and appraised at Central level. In view of this, Ministry was of the view that the proposal cited above cannot be categorized into 'B2' category. The proposal was placed before the EAC for consideration.

After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at **Annexure I**:

(i) 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 duly authenticated by the Chief Wildlife Warden along with his recommendations or comments

(ii) Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife as the project is located within 10 Km distance of Gulf of Mannar Bio-sphere Reserve**.**

(iii) Air quality modelling for proposed plant as well as the existing power plant for specific pollutants needs to be done.

(iv) P.H. shall be conducted by the Tamil Nadu Pollution Control Board as per the generic ToR.

17.4.12 Proposed Capacity expansion from 3,45,000 TPA Pig Iron Production to 5,00,000 TPA hot metal production and 10 MW waste heat recovery power plant of **M/s Tata Metaliks Limited** at Gokulpur village, PO Samraipur, Tehsil Kharagpur, District Pashchim Medinipur, West Bengal (**TOR)**

The proposed project activity is listed at S.No. 3(a) under primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF. The project authorities along with their consultant – M/s. Vimta Labs – 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.

M/s. Tata Metaliks Limited have proposed to expand their 3,45,000 TPA Pig Iron Production to 5,00,000 TPA hot metal production and install a 10 MW waste heat recovery power plant at Gokulpur village, PO Samraipur, Tehsil Kharagpur, District Pashchim Medinipur, West Bengal. The existing plant obtained environmental clearance from MOEF vide F.No.J-11011/601/2008-IA.II(I) dated 24.6.2009. The proposed expansion will be carried out within the existing plant area of 162 acres and no additional land is required for the proposed expansion. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius of the project site. Kalaikunda air force station is located at a distance of 6.4km from the project site. Protected Forests within 10 km are - PF near Khejurdanga Village (3.4 km, N), PF near Koradana Village (8.4 km, N), PF near Prem nagar (8.5 km, S) and PF near Srikrishna colony (9.4 km, S). Kasai River is at 1.7 km in the North direction from the project site. Gokulpur, Medinipur, Kharagpur railway stations are 1.5 km SE, 4.2 km NE, & 5.2 km, SSE away from the plant site respectively. Total cost of the project is Rs. 125.686 crores. No court cases/litigation is pending against the project.

The details of the existing and proposed production capacities are as below:

S. N.	Particulars	Existing (Phase-I)	Expansion (Phase-II)

1	Production of Hot Metal /Pig Iron	MBF-1 – 215 m^3 (Working Volume) MBF-2 – 215 m^3 (Working Volume) Auxiliaries CPP1- 2.76 MW CPP2- 4.0 MW Sinter Plant- 40.5 m^2 capacity	MBF-1 from 215 m^3 to 259 m^3 (Working volume) MBF-2 from 215 m^3 to 259 m^3 (Working Volume) 10 MW WHR power plant
2	Production	3,45,000 TPA (Pig Iron)	5,00,000 TPA (Hot Metal)

Raw materials required after the proposed expansion are sinter (0.528 MTPA), coke (0.3553 MTPA), Iron ore (0.4167 MTPA), flux (0.1934 MTPA), coke breeze (0.0332 MTPA) and iron ore (0.4500 MTPA). The water requirement for the proposed expansion is 149.83 m^3/hr, which will be sourced from bore wells. The power requirement of 10 MW for the expansion project will be met from the proposed WHRB. To control air emissions, stack of adequate height will be provided. No industrial wastewater will be generated. Iron ore fines, coke fines and dust from air pollution control devices will be reused in the sinter plant.

The Committee agreed to collection of baseline data collected during Summer Season 2014 (March – May 2014) for the preparation of EIA-EMP report. The Committee decided that a P.H. is required for the expansion project. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at **Annexure I**:

(i) Plan for good housekeeping.
(ii) Risk Assessment + Disaster Preparedness and Management Plan
(iii) Action plan for water harvesting shall be provided
(iv) P.H. shall be conducted by the West Bengal Pollution Control Board as per the generic ToR.

17.4.13 Proposed Project of 2x100 TPD Sponge Iron Plant (Expansion Project) of **M/s Concast Bengal Industries Ltd.** at Mouza Mosliya, Village Gourandi, District Bankura, West Bengal **(TOR) (Internal Discussion)**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 7th meeting held during 4-5th April, 2013 as item no. 7.5.10 wherein the Committee deferred the consideration of the proposal and asked the proponent to review the DRI plant configuration to 1x350 TPD (or) 1x200 TPD instead of 2x100 TPD.

In this regard, the proponent vide letter No.CBIL/MEF/APP/13-14/01 dated 8.4.2013 requested the Ministry to consider the proposal for grant of ToR for 2x100 TPD kiln along with the draft Terms of Reference (ToR). Thereafter a representation was received from Convener – M/s.West Iron and Steel

Manufacturers Association vide letter dated 14.8.2013 requesting to allow 100 TPD DRI kiln in West Bengal. It was also requested to consider the proposal of M/s Concast Bengal Industries Limited for grant of ToR for setting up of 2x100 TPD DRI kiln. The said request of the proponent and representation of M/s. West Iron and Steel Manufacturers Association was placed before the EAC in its 12th meeting held during 30th September 2013-1st October 2013 wherein Member Secretary – Industry Sector apprised the EAC that the Ministry has requested the Central Pollution Control Board for their comments/views on the proposals involving setting up of 100TPD DRI units and the same is awaited. In view of this, the Committee deferred consideration of the proposal.

CPCB vide letter no. B-31011/63/2003-PCI-II/2879 dated 31.12.2013 informed MOEF that there are various environmental issues related to production of sponge iron such as bypassing of waste gases from Air Pollution Control Devices, fugitive emissions from operation area, emergency cap release etc. However, one of the major problems is generation of large quantity of char and its proper disposal. Guidelines & code of practice for pollution prevention for Sponge Iron Plants has been brought out by the CPCB. As per these guidelines, power generation using char is a techno-economic viable option for sponge iron plants having capacity 200 TPD and above. However, smaller capacity individual Sponge Iron Plants may operate in cluster and can collectively install common unit for power generation. Also, sponge iron plants with capacity of more than 100 TPD kilns may use Waste Heat Recovery Boiler (WHRB) for generation of power. Further, it was recommended by the CPCB that installation of stand-alone single kiln of lower capacity such as 100 TPD may not be desirable unless suitable environment management plan is implemented for proper disposal of char.

After taking into consideration the views of the CPCB, the Committee had earlier recommended that the proposals of sponge iron plants with 100 TPD configuration may be allowed subject to the condition that the PP will install Waste Heat Recovery Boiler (WHRB) for generation of power as recommended by the CPCB above. In the present proposal under consideration, proponent has proposed to set up 4 MW WHRB. Hence, the proposal was considered by the EAC for grant of ToR.

The proposed project activity 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.

The proposed expansion will be carried out in the existing plant premises of 70 acres. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius of the project site. Bankura town is located at a distance of 5km from the project site. River Gandheshwari and River Dwarkeswar flow at a distance of 3 km and 5.5km respectively from the project site. Total cost of the project is Rs.43.03 crores. Rs. 3.90 crores and Rs. 30 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures. No court cases/litigation is pending against the project.

The details of the existing and proposed production capacities are as below:

Plant	Existing	Proposed Expansion	Existing unit approvals
Sponge Iron Plant (TPD)	2 X 100	2 X 100	Consent to Establish obtained from West Bengal Pollution Control on 19.5.2004.
Induction Furnace (T) and billet manufacturing facilities	2 X 8.5	--	
Captive Power Plant (MW)	AFBC : 12.5 WHRB : 8		Environmental Clearance received from SEIAA, West Bengal on 5.2.2010.
Induction Furnace (T)	2 X 12		
Continuous Casting Machine	2 Strands		
Rolling Mill (TPD)	440		
Cupola Furnace (TPD)	60		
Coal Gasifier (Nm^3/hr)	2 X 5500 – 6500		Consent to Establish obtained from West Bengal Pollution Control Board.

Products	Existing	Expansion	Remarks
Sponge Iron (TPA)	62,000	62,000	Additional 4 MW WHRB will be installed with 2 X 100 TPD Sponge Iron Plant
Captive Power (MW)	16.5		
M. S. Billets (TPA)	67,680		-
TMT Bars, M. S. Rounds, Rods, TDR Steel & Round-in-Coil (TPA)	1,32,000		-

Raw materials required are iron ore (99200 TPA), coal (93000TPA) and dolomite (1860 TPA). The water requirement after the proposed expansion would be 585 KLD which will be met from bore well/ rainwater harvesting and River Gandheswari. Power requirement will be 32 MW which will be met from CPP and W.B.S.E.D.C.L. DRI kilns will be equipped with Electro Static Precipitator. Dust extraction system comprising of suction hood, duct, bag filters, fan, stack etc will be provided. Stack of adequate height will be provided. Used oil will be sold to registered recyclers.

After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at Annexure-I:

(i) Iron ore and coal linkage documents
(ii) Coal and Char would be utilised in an AFBC Plant of their own or a Plan for utlisation of char through an MOU with potential buyers/nearby unit(s) shall be furnished.
(iii) P.H. shall be conducted by the West Bengal Pollution Control Board as per the generic TOR.

17.5 Any Other Items

17.5.1 Proposed Integrated Steel Plant (0.75 MTPA) with 150MW Captive Power Plant of **M/s Kalinga Steeltech Private Limited** at Village Kudabaga,P.S. Bhasma, District Sundergarh in Orissa **(Extension of validity of TOR)**

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

17.5.2 Cement plant Increase of Production by Installation of Unit III [Clinker - 3.5 MTPA to 6.0 MTPA, Cement- 1.0 to 4.0 MTPA] of **M/s Lafarge India Private Limited** at village Sonadi, District Balodabazar-Bhatapara, Chhattisgarh (A**mendment in TOR)**

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

17.5.3 Proposed Zinc Smelter Complex Zinc Smelter (0.25 MTPA), Captive Power Plant (90 MW) of **M/s Hindustan Zinc Ltd** at Village Zanwar, Tessil Girwa and Sarda, District Udaipur in Rajasthan **(Amendment in TOR)**

The Committee noted that the proponent vide their letter dated 15.3.2014 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 to consider the proposal in the next EAC meeting.

17.5.4 Expansion project consisting of enhancement of production capacity of existing writing, printing paper (140 TPD to 200 TPD), setting up of 200 TPD Duplex Board Plant with 1x8 MW Captive co-generation power plant of **M/s Kohinoor Paper & Newsprint (P) Limited** in the existing mill premises at Falta Industries Growth Centre, Phase-II, Sector-V, Village Falta, District South 24 Parganas, West Bengal **(Amendment in TOR)**

Environmental Clearance was accorded to the aforesaid proposal by MOEF vide letter F.No.J-11011/373/2010-IA.II(I) dated 6.2.2013. PP vide letter dated 8.10.2013 had requested MOEF for amendment in the EC by dropping 8 MW captive power plant and instead of the said CPP, the PP has proposed to install 24 TPH low pressure boiler to meet the steam requirement of duplex board plant.

PP made a presentation before the Committee. The amendment requested by the proponent is as below:-

S.No.	Facilities	As per the EC dated 6.2.2013	Amendment sought
1.	Writing, Printing and News Print Paper unit	60 TPD	No Change
2.	Duplex Board unit	200 TPD	No Change
3.	Captive Power Plant	8 MW	Dropped
4.	Coal fired AFBC Boiler for the CPP	50 TPH	Capacity reduction from 50 TPH to 24 TPH to meet the steam requirement of duplex board plant

Due to the aforesaid amendment, there will be no change in the land requirement. The water requirement will be reduced from 300 m^3/hr to 278 m^3/hr. Effluent generation will be reduced from 230.5 m^3/hr to 222.5 m^3/hr. Project cost will be reduced from Rs.211.19 crores to Rs.196.19 crores. The comparative statement on the pollution load presented by the PP is as below:-

Description		8 MW CPP with 50 TPH AFBC Boiler (As per EC)	24 TPH AFBC Boiler (As requested for amendment in EC)	Remarks
Power Generation Capacity		8 MW	-	No Power Generation in post amendment scenario
Boiler Capacity		50 TPH	24 TPH	Boiler capacity reduced by more than half
Coal Requirement		76000 TPA	34000 TPA	Coal consumption reduced
Air Emissions	SO2	16 gm/sec	7.16 gm/sec	Air emissions reduced
	NOx	6.13 gm/sec	2.74 gm/sec	
	PM	0.88 gm/sec	0.43 gm/sec	
Water Requirement		40 cum/hr	18 cum/hr	Water requirement reduced
Wastewater Generation		16 cum/hr	8 cum/hr	Wastewater generation reduced
Ash Generation		37240 TPA	14280 TPA	Ash generation reduced
Air Pollution Control		ESP & Bag Filter	Bag Filter	ESP was proposed for 50 TPH AFBC Boiler attached to 8 MW CPP. Now, it is proposed to install Bag Filter with 24 TPH AFBC Boiler

After detailed deliberations, the Committee recommended for the amendment in the EC dated 26.2.2013 as mentioned above subject to the environmental safe guards.

17.5.5 Proposed expansion of co-generation power plant from 10 MW to 47 MW at Industrial Growth Center, Matia, District Goalpara, Assam **by M/s Kohinoor Pulp & Paper Pvt. Limited (Amendment in TOR)**

Terms of Reference to the proposal cited above was accorded by MOEF vide F.No.J-11011/464/2010-IA.II(I) dated 25.9.2013. The project proponent, vide letter dated 5.12.2013, has sought for the amendment in the TOR for including 350 TPD wood based pulp plant and 450 TPD paper plant.

The Committee deferred the consideration of the proposal cited above and asked the proponent to submit the Form I and pre-feasibility project report for fresh consideration of the proposal.

17.5.6 Expansion of Sponge Iron Plant from 30,000 TPA to 1,95,000 TPA along with installation of Induction Furnace (95,000 TPA), Rolling Mill (90,000 TPA) and Captive Power plant of 20 MW (8 MW-WHRB, 12 MW-FBC) of **M/s Balajiswamy Premium Steels Pvt. Ltd.** at Sy. No. 249 & 277A, H. Siddapura Road, Halkundi Village, Bellary Taluk and District, Karnataka **(EC)**

The aforesaid proposal was considered in the 27th Meeting of the Expert Appraisal Committee (Industry) held during 26-27th August, 2011, wherein the EAC has recommended the project for the grant of environmental clearance**.** As per the information submitted by the proponent, the source of iron ore for the proposal cited above is from Bellary, Sandur, Hospet and Chitradurga districts of Karnataka.

As per the Ministry's O.M. dated 5.10.2011, the projects received for environmental clearance in MOEF / SEIAAs relating to integrated steel plants and sponge iron plants, which are largely dependent on iron ore as raw material to be sourced from the mines located in Districts of Bellary, Tumkur and Chitradurga in Karnataka and are at different stages of consideration/processing shall be delisted. In view of this, the project was kept on hold by MOEF for the grant of EC.

The Hon'ble Supreme Court vide its order dated 18.4.2013 in W.P(C) No. 562 of 2009 has allowed the resumption of mining operations in the aforesaid three districts in all Category 'A' mines and 63 Category 'B' mines subject to certain conditions including overall cap on production. MOEF vide O.M. dated 1.7.2013 lifted the moratorium for consideration of proposals for EC for integrated steel plants/sponge iron plants, as imposed earlier vide O.M. of 5.10.2011 subject inter-alia to the condition that while considering such proposals, the Expert Appraisal Committee will look into and satisfy themselves about availability of requisite iron ore, transportation requirements and other parameters of Environment law and rules for such projects.

Meanwhile, the proponent vide letter no. RSPL/MOEF/2014 dated 6.1.2014 requested MOEF to grant Environmental Clearance for the project cited above, which was considered, vide MOEF's O.M. dated

1.7.2013, the aforesaid proposal was placed before the Expert Appraisal Committee (Industry) for consideration. The PP along with their consultant (M/s KRS Enterprises - Bangalore) also made a presentation before the Committee. It was informed that the iron ore requirement for the project is 3,51,000 TPA which will be sourced through E–auction through a Government agency MSTC Limited. Apart from the E-auction iron ore will also be purchased from the nearby pellets plants - M/s.BMM Ispat Limited, Bellary; M/s. Janki Corp Limited, Bellary and M/s.MSPL Ltd, Koppal. The iron ore will be transported to the plant site by road. It was informed that coal is to be supplied by M/s SCCL through FSA.

After detailed deliberations, the Committee recommended the project for environmental clearance subject to the specific conditions stipulated in its 27th meeting held on 26-27th August, 2011.

17.5.7 Proposed 55,000 TPA High Carbon Ferro-Chrome Plant, 4,00,000 TPA Rebar Mill & Desalination Plant of **M/s Tata Steel Limited** at Gopalpur Villages Chamkhandi, Sindhigaon Jagannathpur, Tehsil Chatrapur, District Ganjam, Odisha **(Amendment in EC)**

The aforesaid project was granted an environmental Clearance vide MOEF letter no.J-11011/55/2011-IA.II(I) dated 14.8.2012 for setting up of following production facilities:

Sr. No	Facilities	Products	Production
1	Rebar Mill	Re-bars	4,00,000 TPA
2	Ferro Chrome Plant	High Carbon Ferro Chrome	55,000 TPA
3	Sea Water Desalination (SWD) Plant	Make up water	1.2 MGD

The project Proponent vide letter dated 3.5.2013 and 27.9.2013 had sought permission from MOEF for the relocation of the Rebar mill as approved in the above EC. Project Proponent made a presentation before the Committee.

The reasons submitted by the PP for the relocation of Rebar Mill are as below:-

(i) As per the EC accorded, the plant layout was based on the entire facilities (Fe-Cr Plant & Rebar Mill) is to be set up in the *North-East side of the existing Khari Nallah*

(ii) While doing detailed engineering of the Rebar Mill Complex, it was observed that there may be space constraints for putting up the Rebar Mill Auxiliary facilities for the present project and in case of future expansion. In view of this, PP has therefore proposed to relocate *only the Rebar Mill & its auxiliaries to the South-West side, retaining the Fe-Cr Plant and its auxiliaries on North-East side of the existing Khari Nallah.*

(iii) Production facilities (Fe-Cr Plant & Rebar Mill) & its capacities will remain the same.

Due to the aforesaid relocation, the total land area would be increased to 400 acres instead of 346.67 acres as mentioned in the EC cited above. Further, there will be no increase in air emissions & ground

level concentrations, no additional wastewater generation and solid waste generation due to the proposed relocation of Rebar mill.

After detailed deliberations, the Committee recommended for the relocation of Rebar mill as mentioned above and also recommended for the amendment in the EC dated 04.08.2012 in respect of change in the project area i.e 400 acres instead of 346.67 acres subject to the environmental safeguards.

17.5.8 Expansion of integrated steel plant [sponge iron (200 TPD), pig-iron (180 TPD) and captive power plant (20 MW)] of **M/s. ASR Multi –Metals Private Limited** at sy.no. 392/2, 398, 399 &400, Chhadwada, Bhachau, Kutch, Gujarat (**Amendment in EC)**

The aforesaid project was granted environmental clearance vide MOEF letter F.No.J-11011/251/2007-IA.II(I) dated 31.3.2008 for setting up of sponge iron – 6000 MT/month, CPP – 20 MW and Pig iron – 5400 MT/Month. PP vide letter sought for amendment in the EC dated 31.3.2008 for setting up of sponge iron unit of 175 TPD (5250 MT/month) in place of the pig iron unit (5400 MT/month).

The Committee deferred the consideration of the proposal cited above and asked the PP to submit Form I and pre-feasibility project report for consideration of the proposal for TOR.

17.5.9 Proposed capacity enhancement of High Carbon Ferro-Chrome production from 0.055 MTPA to 0.3 MTPA by adding 2x54 MVA Closed SAF and Expansion of Sea Water Desalination Plant from 1.2 to 3.3 MGD of **M/s Tata Steel Limited** at Gopalpur Villages Chamkhandi, Sindhigaon Jagannathpur, Tehsil Chatrapur, District Ganjam, Odisha **(ToR)**

The project authorities gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with draft Terms of Reference for preparation of EIA-EMP Report. The proposed activity is listed at S.No. 3(a) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

M/s. Tata Steel Limited have proposed to enhance the capacity of High Carbon Ferro-Chrome production from 0.055 MTPA to 0.3 MTPA by adding 2x54 MVA Closed SAF and expansion of Sea Water Desalination Plant from 1.2 to 3.3 MGD at Gopalpur Villages Chamkhandi, Sindhigaon Jagannathpur, Tehsil Chatrapur, District Ganjam, Odisha. The existing project obtained environmental clearance from MOEF vide letter no.J-11011/55/2011-IA.II(I) dated 14.8.2012. CRZ clearance have been accorded by MOEF vide letter no.11-63/2012-IA.III dated 18.3.2013. Proposed expansion will be carried out in the existing plant area of 400 acres. No additional land is to be acquired for the proposed enhancement. The longitude and latitude of the project site is $84^0$53' 33" E to $84^0$55' 13" E and $19^0$19' 05" N to $19^0$19' 54" N respectively. There is no National Park, Bird sanctuaries and biosphere reserve exists within 10 km radius of the project site. No Forest land is involved. Khari nallah passes through the project site. Bay of Bengal is about 2.5km from the SWD plant. Jagannathpur railway station is located at a distance of 5km from the project site. No court cases/litigation is pending against the project. Total cost of the project is Rs.798 crores.

The details of the proposed expansion along with their Production capacity are given below:

Proposed Production Facilities	Phase I (Under Implementation)	Phase II (Proposed Expansion)
- Rebar mill	400,000 TPA	-
- Ferro chrome plant	55,000 TPA	2,45,000 TPA
- Sintered Pellet Plant (Intermediate Product)	-	500,000 TPA
- SWD Plant	1.2 MGD	2.1 MGD

The raw materials required are sintered pellet, chrome ore fines, lumpy chrome ore, hard coke, coal, quartzite and electrode paste & casting. The water requirement is 5.5 MLD which will be met from sea and harvested rain water. Power requirement is 112 MVA.

The EAC noted that the area is prone to cyclones and re-evaluation of all Plant structures for stability is required. In addition, CRZ clearance would be required for the Desalination Plant. The relocation of the Rebar Mill-cum Ferro Chrome Unit will be done taking into consideration the peak flow of the nallah based on IMD data for highest rainfall over the past 100 years and leaving a minimum safe distance of 20m on either side of the HFL of the nallah and RL of the adjoining area. The Committee also desired that Public Hearing will be required for the project.

After detailed deliberations, the Committee prescribed the following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR at Annexure I:

(i) Separate chapter on hydrology and hydrogeology status of the study area shall be included.

(ii) The relocation of the Rebar Mill-cum Ferro Chrome Unit will be done taking into consideration the peak flow of the nallah based on IMD data for highest rainfall over the past 100 years and leaving a minimum safe distance of 20m on either side of the HFL of the nallah and RL of the area on either side.

(iii) Iron ore linkage documents

(iv) Air quality modelling for the proposed plant as well as the existing 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/Nm^3.

(v) P.H. shall be conducted by the Odisha Pollution Control Board as per the generic ToR.

(vi) CRZ clearance would be required for the Desalination Plant.

(vii) Re-evaluation of all Plant structures for stability is required in view of the fact that the area is cyclone-prone.

17.5.10 Setting up an Integrated Titanium Oxide Pigment and Titanium Sponge Plant of **M/s Saraf Agencies Pvt. Ltd.** at SEZ Chhatrapur, Ganjam District in Orissa (**Extension of validity of EC)**

The aforesaid project was granted an environmental Clearance vide MOEF letter no.J-11011/658/2007-IA.II(I) dated 16.10.2008. The Project Proponent (PP) vide letter dated 23.8.2013 along with the updated Form I has requested MOEF for extension of validity of EC. The PP also made a presentation before the Committee.

The proponent submitted that the aforesaid project could not be established within validity period of the granted Environmental Clearance mainly because of the following reasons:

(i) Project was supposed to be implemented jointly with Russian Partners JSC Technochim holding and the Federal Agency for State Property Management, Federation of Russia by forming a Joint Venture Company.
(ii) Joint Venture Company could not implement the Project due to various disputes in the JV company.
(iii) It was only in December 2013 that the company was given the go ahead by the Odisha High Court to start the project and thereafter the Govt. of Odisha referred the matter to the Collector for starting the project.

It was further informed that they had acquired Russian technology by making payments to the Russian Technology consultants before formation of the Joint Venture Company. Therefore, they had the right to use the know-how acquired from Russian sources. However, the company is now proposing to use Chinese technology for the production of various Titanium products. The PP informed that the project requires to be started urgently as the sanctioned letters of banks require to be implemented by 2016. Total cost of the project was Rs 1150 crores at the time of obtaining EC.

The Committee noted that the EC was accorded to the proponent on 16.10.2008 was specifically based on the Russian Technology to be implemented in technical collaboration with the State Research Development& Design Institute for Rare Metal Industry and Russian Research Institute, FGUP GIREDMET, Moscow. However, the proponent now proposes to use Chinese Technology, which was not appraised earlier. After detailed deliberations, the Committee sought the following point-wise additional information for further consideration of the proposal:

i. Detailed Note on the proposed Chinese technology to be used for the production of various Titanium products;
ii. Difference between the Russian technology and Chinese technology; vis-à-vis raw materials (type and quantity), power and water consumption, pollution load, hazard potential of raw materials, products and waste products, risks involved, etc along with specific pollution mitigation measures.
iii. MoUs executed for the supply of requisite raw materials.

Wednesday, 19th March 2014

17.6 Consideration of EC cases

17.6.1 Expansion of NPK Fertilizer Manufacturing Unit of **M/s Deepak Fertilizers and Petrochemicals Corporation Ltd.** at DFPCL Complex, K-1 to K-5, MIDC Industrial Area, District Raigad, Maharashtra **(EC)**

The project authorities and their consultant (Asian Consulting Engineers 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 5th Meeting of the Expert Appraisal Committee (Industry) held during 31st January, 2013–1st February, 2013 for preparation of EIA-EMP report. All fertilizer plant except single super phosphate plant is listed at S.N. 5(a) under category 'A' and appraised at Central level. Public Hearing of the project 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 industrial area.

The unit of M/s Deepak Fertilizers and Petrochemicals Corporation Ltd. was established in 1979 at MIDC, Taloja. PP obtained EC vide MOEF letter no. J-11011/218/2004-IA II (I) dated 24th February, 2006 for manufacture of Iso Propyl Alcohol. The present proposal is for the expansion of complex fertilizer unit from 3,24,000 MTPA of single grades of ANP to 6,00,000 MTPA of multiple grades NPK fertilizer at its Taloja facilities. M/s Deepak Fertilizers and Petrochemicals Corporation Ltd. is presently manufacturing single grade ANP fertilizer using prilling process. The proposed project is based on granulation technology. They have proposed to install two identical streams of 1000 TPD NPK granulation plant. Proposed plant is to be designed to manufacture different grades of AN and DAP based NPK fertilizer with an option of producing fortified grades from the same units. Total plot area is 3,85,584 m2 of which greenbelt will be developed in 63,219 m^2. No additional land will be acquired for the proposed expansion. It is reported that there is no Eco-sensitive zone like biosphere reserve, National Park, Wildlife Sanctuary is present within 10 Km of the study area. River Kasardi flows near the site, which is non perennial in nature. It is also reported that Maharashtra Pollution Control Board vide consent Order no. Format 1.0/BO/AS (T)/E/EIC NO, NM-4347-18/CAC-9240 dated 31st October, 2013 has issued consent to establish for the proposed expansion. Matter was exempted from referring to River Regulatory Zone (RRZ) Authority as the project meets criteria laid by RRZ policy. MPCB had sought certification from IIT Bombay for confirmation of meeting RRZ norms. IIT Bombay has certified the same. Cost of the expansion project is Rs. 360 crores.

Ambient air quality monitoring was carried out at 6 locations during January – April, 2013 and submitted data indicates as PM_{10} (36.6–50.75 ug/m^3), $PM_{2.5}$ (4.11–12.31 ug/m^3), SO_2 (2.16 – 6.05 ug/m3) and NOx (13.41-29.19 ug/m3). Predicted value of ground level concentration due to proposed project is PM10 (4.746 ug/m^3), SO_2 (2.386ug/m^3) and NOx (14.317 ug/m^3). The resultant concentrations are within the NAAQS. A series of gas scrubber connected to the different equipments for a double purpose will be used to retain as much as possible all recoverable products and to minimize emissions (especially ammonia, fertilizer dust and fluorine) to the atmosphere. Ventury type fume pre-scrubber is installed for the granulator. All exhaust gases from the scrubber shall be sent to the final washing step the Tail gas scrubber, which shall include a multi spraying system in the horizontal feeding arm and a packed section in the vertical tower. Gas after washing will be finally released to the atmosphere through a common stack. The last section of TGS is equipped with a demister to avoid droplet entrainment. Fresh water requirement for the proposed project will be 550 m3/day, which will be sourced from recycled/treated effluent. Sewage will be treated in STP. Existing effluent generation is 3800 m^3/day,

which is treated in the ETP capacity of 5000 m^3/day. Existing treated effluent is discharged to the CETP for further treatment. The CETP effluents are discharged through a marine outfall into the sea at a distance of 10km from the MIDC. In this project, PP will install RO of 600 m3/day, from which expected to create 500 m^3/day good quality water and 100 m3/day of rejects. RO treated water will be reused/recycled in the process. Rejects will be sent to MEE. Thus there is reduction in effluent discharge. Spent oil will be sent to authorised recycler/re-processors. PP informed that the existing ammonia storage ammonia tanks of 18,000T and 3000T will be used and no new additional ammonia storage tank will be used.

The Committee noted that the project is located close to a thickly populated area and the issue of storage and transportation of ammonia is a potential hazard. The Committee desired that storage of ammonia at any given time should be limited to 13,000T and, it would be desirable to install another storage tank of 10,000T capacity, which would serve as a standby and also reduce the potential risk. The Committee recommended that an Emergency Preparedness Plan should be in place for the project and a Disaster Management Plan in MIDC as a whole. The Committee further noted the PP has installed a Shore Tank of 15,000T capcity for ammonia at JNPT at a distance of 27km, and the same is being transported by tankers of 15MT each (30-40 tankers/day). The Committee desired that a Risk Assessment and Disaster Management Plan should also be prepared for transportation of ammonia.

The Committee also discussed the compliance status report dated 23rd September, 2013 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's regional office, Bhopal. It is reported that emissions are within prescribed standards. Stacks are numbered & heights are as per CPCB guidelines & monitored regularly with the help of third party. Three online ambient air monitoring stations have been installed & in operation as per NAAQMS norms and connected to MPCB control room. The Committee noted that the AAQ data generated on-line appeared to be erroneous and desired that the On-line Continuous Monitoring System be recalibrated. Generation of effluent is within the limits. ETP sludge is disposed off at TSDF. The Committee desired that details of occupational health measures and health data of workers be furnished. The Committee recommended that a time bound action plan/ compliance report to fully comply with the stipulated EC conditions.

After deliberations, the Committee sought the following additional information:

(i) To examine the possibility of installation of another additional ammonia storage tank of 10000 T capacity.
(ii) To prepare a Risk Assessment and Disaster Management Plan for transportation of ammonia.
(iii) Re-calibration of continuous ambient air quality monitoring stations and to cross check the results.
(iv) Submit a time bound action plan/ compliance report for the fully complying with the conditions stipulated in the existing EC.

The Committee decided that the proposal would be further considered upon receipt of the aforesaid information. The above information should be provided with the uploading of minutes on the website.

17.6.2 Oil and Gas Development in Existing Ravva Offshore Oil Field, PKGM-1 Block, of **M/s Cairn India Ltd** located off Surasniyanam (S.Yanam) in the Bay of Bengal, East Godavari District, Andhra Pradesh **(EC)**

The project authorities and their consultant (ERM India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 8th Meeting of the Expert Appraisal Committee (Industry) held during 16th-17th May, 2013 for preparation of EIA-EMP report. 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 Cairn India Ltd have proposed for Oil and Gas Development program in the existing Ravva Offshore Field, PKGM-1 Block, located off Surasniyanam (S.Yanam) in the Bay of Bengal, East Godavari District, Andhra Pradesh. Ravva field in PKGM-1 offshore block spread over in 331.26 km^2 of area is located in Krishna-Godavari basin, Bay of Bengal off the coast of Andhra Pradesh. The Ravva field has been operation since 1994. Ravva joint venture comprises of ONGC (40 %), Videocone (25%), Cairn India Ltd. (22.5 %) and Ravva Oil Singapore Pty. LTd. (12.5%). Within the offshore block, in Ravva field, there are 8 oil and gas platforms. No national park or wildlife sanctuary is located within 10 Km radius from Ravva Terminal and PKGM-1 block. Nearest Coringa wildlife sanctuary is located at more than 30 Km from the block. Estuary of Vrudha Gautami River is flowing at distance of 17 Km. Kandikuppa RF (mangrove forest) is located at a distance of 4.5 Km from the proposed New RI platform. Vodalrevvu RF (mainly consist of Casurina equisitem) is located at distance of 9.5 Km from Ravva Terminal. Cost of the proposed oil and gas development is Rs. 3240 Crore. MOEF vide letter no J-11011/6/91-IA dated 19th December 1991 issued environmental clearance for phase-I. So far 48 wells have been drilled. Out of which, 8 wells are self flowing producing, another 8 are gas lift wells and 7 are injectors spread over on 8 unmanned well head platforms. Oil and Gas from offshore wells are routed through subsea interconnecting pipelines to onshore Ravva Terminal provided with oil and gas processing and water injection facilities. Environmental clearances were obtained in July, 1990, December 1991, July 1996, 30 January 2001, September, 2001 and August, 2005. Over the years due to aging of the filed, production of oil and gas has declined. CIL presently producing 22,000 BOPD of crude and 1.44 MMSCMD of natural gas. In order to further reduce the decline of hydrocarbon production, following facilities will be created:

- Installation of 1 new platform (RI) to develop & produce contingent hydrocarbon resource in the field.
- Drilling of 20 development wells, 6 from new RI platform and 14 from existing platforms (4 nos. from RF, 3 nos. from RC, 3 nos. RG and 4 nos. from RE platforms).
- Laying of 3 new interconnecting pipelines (of total 14 Km length) in the offshore region from new RI platform to existing RB and RG platforms as per the following arrangement:
- 4 Km, 8" subsea oil pipeline from new RI platform to existing RB platform for oil production.

- 4 Km, 4" subsea gas lift pipeline existing RB plat form to new platform (RI).
- 6 Km, 8" subsea gas pipeline from RI platform will be brought to existing RB & RG platforms for excavation through existing pipelines from RB platform to Ravva Terminal.
- Drilling of 6 exploratory /appraisal wells to assess presence of hydrocarbons in pools.

It was stated that since 1971, a total of 7 platforms by M/s ONGC and 1 by M/s Carin India have been established in the region. The Levels of decks have not changed. The PP stated that with the setting up proposed new RI platform and drilling of development/production wells, the capacity of the Ravva field will remain within the already approved Crude production capacity of 50,000 BoPD and Gas production of 2.32 MMSCMD. It was clarified that there would be no new onshore facilities. New pipelines towards offshore area would be 4 km away, where a new platform along with pipelines and drilling facilities are to be constructed. No pipelines/facilities are to be laid within 4km towards shore. APCZMA clearance is awaited. The proposal was considered on 15.03.2014 by the APCZMA and thereafter to be considered in EAC in MOEF.

Ambient air quality monitoring was carried out at 8 locations during March–June, 2013 and submitted data indicates as PM10 (25.7-30.9 ug/m^3), PM2.5 (12.1–18.5 ug/m^3), SO_2 (10.6 – 19.5 ug/m^3) and NOx (12.8-28.6 ug/m^3). Predicted value of ground level concentration due to proposed project is PM_{10} (1.31 ug/m3), SO2 (2.808 ug/m3) and NOx (23.11 ug/m3). The resultant concentrations are within the NAAQS. Stack height of 30 m will be provided to DG sets. Air emission during well drilling (90 days per well) from diesel generators installed on board the rig (4 nos. x 2000 KVA). Air emission during test flaring for 2 to 3 days for the 6 number of exploratory/appraisal drilling. Water based mud will be used.

Water requirement will be 85 m3/day (45 m3/day fresh water + 40 m3/day seawater) for drilling a well and domestic use for proposed drilling. Water requirement at the Ravva Terminal is met through ground water resources. CIL is extracting ground water of 9,570 m3/day through old depp wells reportedly drilled prior to 1988. Of the 9,570 m3/day water requirement, 9170 m3/day is used for injection into reservoir to maintain the reservoir pressure by filling the void created due to fluid extraction and remaining 400 m3/day is fed to RO plant for domestic use and fire water make up needs. Depth of ground water level is varying from 1 to 12 m ground level. CIL sponsored a study on ground water abstraction at Ravva terminal by Ecology 7 Environment Group of National Geophysical Research Institute, Hyderabad in November, 2008. As per NGRI report, with the continual water drawl, no significant change in drawdown in the pumping wells has been observed indicating no over exploitation of ground water from the onshore terminal wells. The water is drawn from saline aquifer which is not used for irrigation, animal husbandry or domestic usage. It is reported that this abstraction is not affecting any fresh water aquifer. Sewage will be treated in STP. Wash wastewater from shaleshaker will be recirculated within mud preparation system. Produced water generated during hydrocarbon fluid handling and its stabilization is treated in produced water re-injection system (PWRI). Currently, within Ravva field, a total of 13 injection wells are operating with the daily water injection capacity of 100,000 barrels of water per day. It meets the MOEF standards of injection produced water into confined hydrocarbon reservoir structure at more than 1000 m with oil in water content of less than 10 ppm. An

ETP of 3000 m3/day capacity consist of primary, secondary and tertiary treatment has been operating at Ravva Terminal. Treated effluent is discharged into sea complies with the marine water discharge standards as stipulated by APPCB. Waste oil from API separator, ETP sludge, STP sludge, tank bottom sludge, paint drum, oil filter are collected and stored in leak prrof container for disposal. Waste oil is sent to authorised recycler, while oily waste is sent to CHWTSDF for incineration. Other hazardous waste is being sent to CHWTSDF for secured landfill. Power requirement will be 8000 KVA for offshore drilling and lighting the quarters at the rig through DG set (4 x 2000 kVA) typically installed onboard jack up rig. DG set (1500 KVA) will be used for emergency power supply. Provision of solar and wind power and an emergency power supply.

It was stated that the company has entered into a foreign collaboration (USA and Singapore) for handling emergencies of oils and natural disasters such as cyclones and earthquakes. Drills are held with Indian Coastguards for Evacuation Plan.

The Committee noted that Certified Compliance Reports of all the earlier 6 ECs have been furnished. The Committee also discussed the compliance status report on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's regional office, Bangalore. It is reported that the processing terminals have been reportedly designed to handle maximum fluid volume. No incidents of oil spill or accidental discharges were reported in the past 5 years. As a part of design of offshore facilities, automatic shut down systems through pressure control instrumentation is available to prevent the escape of oil or natural gas in case of leakages. Monitoring of water quality, sediment characteristics, plankton diversity and concentration of heavy metals in fish tissues was undertaken during offshore environmental monitoring carried out by NIO during March, 2012. Several measures to reduce flaring have been undertaken. Liquid discharge after treatment at effluent treatment plant (ETP) located at onshore terminal meeting APPCB specification are discharged 500 m seawards from shore through diffusers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 5th December, 2013 at Village S Yanam, Mandal Uppalaguptam, District East Godavari. The issues raised during Public Hearing were regarding developmental issue, air pollution, health problem, odour nuisance, drinking water shortage, land subsidence, CSR funds, etc. As regard to pollution related issues, PP informed that the baseline data is regularly monitored by the accredited laboratory approved by the MOEF/CPCB and results as submitted to APPCB. PP stated that CIL's exploratory and production operations are in open sea, away from the coast. Further, delta studies show no significant changes in riverine flow and no subsidence. Void compensation and pressure maintenance of reservoirs are being done through water re-injection so that no subsidence occurs. Groundwater level is 1m below surface. There are no adverse impacts onshore due to offshore activities. It was informed that CSR for an amount of Rs 3.5 crores is being implemented through a Tripartite Implementation Programme between PP, Dist. Administration and the local panchayts. CSR funding through district administration is disbursed through established guidelines of the administration for priority implementation of improvement of amenities, infrastructure and overall development of the region.

After deliberations, the Committee sought the following additional information:

1 Recommendation of SCZMA.

2 Report on worst case scenario for blow out, leakage and accident.

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

17.6.3 Agrochemical Manufacturing Unit (4000 MTPA) of **M/s Indofil Industries Limited** at Plot No. Z-12/1 (SEZ-Part-1), Survey No. : 402/p, 407/p, 486/p, 487/p, 488, 489, 490, 491, 492/p, Dahej SEZ Bharuch, Gujarat (**EC**)

The project authorities and their consultant (Eco Chem Sales & Service) 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 9th Meeting of the Expert Appraisal Committee (Industry) held during 10th-11th June, 2013 for preparation of EIA-EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Indofil Industries Limited have proposed for setting up of Agrochemical Manufacturing Unit (4000 MTPA) at Plot No. Z-12/1 (SEZ-Part-1), Survey No. : 402/p, 407/p, 486/p, 487/p, 488, 489, 490, 491, 492/p, Dahej SEZ Bharuch, Gujarat. Total plot area is 50,000m^2 of which greenbelt will be developed in 16500m^2.No forest land is involved. SEZ has obtained EC on 17.03.2010. P.H. for SEZ was held on 17.08.2007. Total cast of project is Rs.90 crores. No National Park/Reserved forest is located within 10 km of the project site.

The following product will be manufacturing:

S.N.	Product	Quantity (MTPA)
A.	**All or some of these products shall be produced simultaneously.**	
1.	Tricyclazole and / or its intermediates: HMBT	1000
2.	Myclobutanil	135
3.	Metalaxyl	125
4.	Cymoxanil	300
5.	Dodine	150
6.	Hexaconazole	200
7.	Propiconazole	300
8.	Propargite	400
9.	Difenthuron	200
10.	Tebuconazole	300
11.	Difenconazole	200
12.	Thifluzamide	200
13.	Bispyribac	65
	Sub Total of These above 13 Products	**3,575**
B.	**Out of following 10 products, only 1 product shall be made at a**	**Quantity (MTPA)**

	time	
14.	Thiamethoxam	225
15.	Epoxyconazole	
16.	Prothioconazole	
17.	Fluazinam	
18.	Azoxystrobin	
19.	Pyraclostrobin	
20.	Boscalid	
21.	Cyazofamid	
22.	Penconazole	
23.	Cyproconazole	
	Sub Total (B) of these above 10 Product	**225**
C	**Sub Total (C) of these above 5 Products**	**200**
	Grand Total (A+B+C)	**4,000**

B) PRODUCTION CAPACITY OF FORMULATION PRODUCTS: 10,000 **MTPA**

a. Powder Formulation - 8000 TPA

b. Liquid Formulation - 2000 TPA

S.N.	By- Product	Quantity	Disposal
1	Spent Sulphuric Acid	2 MTPM	Collection, storage and sold to end users
2	Aq.Hydrochloric Acid	120 MTPM	
3	Aq. Sodium Bromide (conc.: 17%)	150 MTPM	
4	Aq.Potassium Bromide (cono.:16% to 29%)	175 MTPM	
5	Aq.Hydrobromic Acid (conc.:30%)	50 MTPM	
6	Formic Acid (conc.:50%)	100 MTPM	
7	Aq.NaSH(conc.:20% to 25%)	25 MTPM	
8	Aq Sodium Sulphite	50 MTPM	

Ambient air quality monitoring was carried out at 8 locations during October–December, 2013 and submitted data indicates as PM10 (48.7–61.3 ug/m^3), PM2.5 (31.3-61.3 ug/m^3), SO_2 (9.8 – 19.4 ug/m3) and NOx (16.2-30.0 ug/m3). Predicted value of ground level concentration due to proposed project is SPM (0.334 ug/m3), SO2 (0.439 ug/m3) and NOx (1.227 ug/m3). The resultant concentrations are within the NAAQS. Cyclone separator followed by bagfilter will be provided to coal fired boiler (2 x 8 TPH). Alkali scrubber will be provided to incinerator to control process emissions. However, the Committee suggested to provide dedicated incinerator for the waste gases coming out from the scrubber. Water scrubber followed by alkali venture scrubber will be provided to plant 1 A (for fungicide/insecticides) to control process emissions viz. HCl. HBr, Cl_2, SO_2 and NH_3. Water scrubber followed by alkali venture scrubber will be provided to plant 1 A (for fungicide/insecticides) to control process emissions viz. HCl. HBr, Cl_2, SO_2 and NH_3. Water scrubber followed by alkali venture scrubber will be provided to plant 2 (for Herbicide) to control process emissions viz. HCl. Total water requirement will be 928 m3/day. Out of which fresh water requirement from GIDC water supply will be 415 m3/day and remaining water

requirement will be met from recycled/treated water (513 m3/day). Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS/COD effluent stream will be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment followed by RO. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. ETP sludge, incinerator ash and MEE salt will be sent to TSDF. Process residue will be sent to cement plant or incinerated in own incineration. Used oil will be sent to authorised recycler/re-processors. The committee suggested to install standby Bromine tank. It was stated that the odour generating vapours are removed in the small secondary incinerator.

After deliberations, the Committee desired following additional information:

1 Certified compliance report of environmental condition stipulated in the ECs granted to group company.
2 Toxic management plan to be submitted.
3 Commitment to install standby Bromine storage tank and dedicated incinerator for vapour/waste gases coming out after treatment as well as solid waste/liquid waste.
4. Risk assessment & Disaster Preparedness & Management Plan should be prepared.

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

17.6.4 Proposed Chemicals Plant of **M/s Shiva Pharmachem Ltd.** at Village Karkhadi District Vadodara Gujarat (**EC)**

The project authorities and their consultant (Aqua-Air Environmental Engineers P. Ltd. Stay order) 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 2nd Meeting of the Expert Appraisal Committee (Industry) held during 29th – 31st October, 2012 for preparation of EIA-EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by the Expert Appraisal Committee in the MOEF.

M/s Shiva Pharmachem Ltd. has proposed for setting up of Chemical Manufacturing Plant at Block No. 450 to 460 & 502, village Karkhadi, Tehsil Padra, Dist Vadodara, Gujarat. The unit is 20km from CPA. Total plot area is 1,02,945 m^2. River Mahi flows at a distance of 7 Km. Cost of the project is Rs. 25 crores.

The following products will be manufactured:

S.N.	Products	Capacity (MTPA)
A	**STYRENE BUTYL ACRYLATE CO-POLYMER TONER**	**13,200**
B	**CO-POLYMERS SOLIDS (RESINS)**	**9,900**
1.	Styrene Butyl Acrylate	9900

2.	Styrene Methyl Acrylate	
3.	Styrene Ethyl Acrylate	
4.	Styrene Isobutyl Acrylate	
5.	Styrene Ethyl Hexyl Acrylate	
6.	Styrene Methyl Methacrylate	
7.	Styrene Ethyl Methacrylate	
8.	Styrene Butyl Methacrylate	
9.	Styrene Isobutyl Methacrylate	
10.	Styrene Lauryl Methacrylate	
11.	Styrene Stearyl Methacrylate	

Ambient air quality monitoring was carried out at 7 locations during January – March, 2013 and submitted data indicates as PM10 (63.85–87.07 ug/m^3), $PM_{2.5}$ (17.85–55.97 ug/m^3), SO_2 (17.45 – 32.43 ug/m3) and NOx (23.12-44.61 ug/m^3). Predicted value of ground level concentration due to proposed project is SPM (0.202 ug/m^3), SO_2 (0.149 ug/m^3) and NOx (0.053 ug/m^3). The resultant concentrations are within the NAAQS. Bagfilter will be provided to boiler (1.5 TPH) and fluid heater. Dust collector and bagfilter will be provided to the dryer and mills. Scrubber will be provided to process emissions. Fresh water requirement from ground water source will be 153.25 m3/day. Industrial effluent generation will be 56.5 m3/day and treated in ETP followed by RO. Treated effluent will be reused/recycled in process. RO rejects will be concentrated as MEE. No effluent will be discharged and 'Zero' discharge concept will be followed. ETP sludge will be sent to TSDF. DG set (300 KVA) will be installed.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 30th August, 2013. The issues raised during Public Hearing were local employment, treatment of industrial effluent, pollution in Padra Taluka, CSR, greenbelt, showcause notice, air pollution, drinking water supply in nearby area, etc.

GPCB vide letter no GPCB/NOC-VRD 3504/GPCB ID-36329/200884 dated 16th January, 2014 has informed that GPCB has recommended the above mentioned project with Zero Liquid Discharge condition by installation of Reverse Osmosis plant and Multiple Effect Evaporator. Further with reference to letter under reference no.2 dated 11/12/2013 regarding the clarification as to whether Public Hearing was supervised and presided by the District Magistrate/ District collector /Dy. Commissioner or his or her representative not below the rank of Additional District Magistrate it is duly submitted that as indicated on first page of Public Hearing proceeding in Para '5' the date of order of promotion of DR. N C Shah, Dy. Collector (Land Reforms) may be read as 20/12/2012 instead of 20.12.2013. In this regard, a declaration from Mr. Vinod Rao, Collector, Vadodara has been submitted. It was stated that Dr. N C Shah, Dy. Collector (Land Reforms), Vadodara was promoted as an Additional Collector through Government's General Administration Department Notification No. GAS/2012-13/G-1 dated 20/12/2012. He was appointed on the post of Chief Executive Officer (CEO) of Vadodara, Urban Development Authority (VUDA) which is equivalent to the Additional Collector category through General Administration instruction letter No. GAS-2013-249347-G-1 dated 16.05.2013.

After deliberations, the Committee sought the following additional information:

i. Commitment to install chilled brine solution to control evaporation of solvent.
ii. CGWB permission to be submitted for ground water extraction.
iii. Details of rain water harvesting plant to be submitted.
iv. Water conservation plan to be submitted.
v. Examine use of BATX Pathway for Tier-1 and Tier-2 and take necessary precautionary measures to prevent emissions of toluene.
vi. Risk Assessment for occupational hazards.
vii. CSR Plan for Rs 1.25 crores for the initial 5 years.

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

17.6.5 Proposed manufacturing of P.F. Resin M.F. Resin, U.F. Resin & Laminated sheets of **M/s Mother Lam Pvt. Ltd.** at Navavas, Tehsil Talod, District Sabarkantha, Gujarat (**EC)**

The project authorities and their consultant (M/s T R Associates, Stay order no. C/SCA/1782/2013 dated 9/12/2013) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 6th Meeting of the Expert Appraisal Committee (Industry) held during 5th-7th March, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other,synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Mother Lam Pvt. Ltd. has proposed for setting up of resin manufacturing unit at Sy. No. 5/P, 6/2, Navavas, Tehsil Talod, District Sabarkantha, Gujarat. Total plot area is 11939 m^2 of which greenbelt will be developed in 4479.4 m^2. Total cost of resin plant is Rs. 1.0 Crore. It is reported that no national parks/wildlife sanctuary is located within 10 Km distance. Following products will be manufactured:

S. N.	Product	Total Quantity (MTPM)
1	Phenol Formaldehyde Resin	750
2	Melamine Formaldehyde Resin	250
3	Urea Formaldehyde	100
4	Decorative Laminated Sheets	2,50,000 Nos./month

Ambient air quality monitoring was carried out at 7 locations during February –April, 2013 and submitted data indicates as PM10 (50.2–77.5 ug/m^3), PM2.5 (34.1-56.5 ug/m^3), SO_2 (8.1 – 13.7 ug/m3) and NOx (15.5-51.0 ug/m3). Predicted value of ground level concentration due to proposed project is SO2 (25.4 ug/m3) and NOx (9.1 ug/m3). The resultant concentrations are within the NAAQS. Multicyclone followed by dust collector will be provided to coal fired steam boiler and thermic fluid heat exchanger. However, the Committee suggested for installation of bagfilter to control particulate emissions from boiler/heater. Methanol vapour gas will be passed into water scrubber.

Fresh water requirement from ground water source will be 33.87 m^3/day. Industrial effluent generation will be 14.05 m^3/day. Industrial effluent will be treated in ETP with photo fenton oxidation process method followed by evaporator. Condensate from evaporator will be recycled/reused in process. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Resin waste will be sent to common incineration facility. Used oil/spent oil will be sent to registered recyclers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 21st August, 2013. The issues were raised regarding impact of local employment, wastewater disposal, measures to control noise levels etc.

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

(i) Formaldehyde Storage Leakage Prevention Plan.

(ii) Risk Assessment in view that workers' quarters are within premises.

(iii) Disposal of wastes will be as per HW Rules.

(iv) Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.

(v) Bag filter along with stack of adequate height should be installed to lignite/ biomass fired boiler to control particulate emission.

(vi) Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored.

(vii) Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.

(viii) Total ground water requirement should not exceed 33.87 m^3/day and prior permission should be obtained from the Central Ground Water Authority/State Ground Water Board.

(ix) Industrial effluent will be treated in ETP based on photo fenton process followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.

(x) 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.

(xi) As proposed, green belt over 33 % of the total project area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

(xii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

(xiii) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 21st August, 2013 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhopal.

(xiv) At least 5 % of the total cost of the project should be earmarked towards the corporate social responsibility 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.

17.6.6 Expansion of Distillery unit (30KLD to 100 KLPD) of **M/s Karan Sugars Pvt. Ltd.** at District Kolhapur, Maharashtra (**EC)**

The existing project had obtained an EC in 2003 in the name of another company. The existing unit was transferred to M/s Karan Sugars. The Committee noted that PP has submitted EIA-EMP report for expansion of distillery from 30 KLPD to 100 KLPD with change in process cane juice based to molasses, in the existing premises. PP also clarified that the existing 30 KLPD distillery will be scrapped and complete 100 KLPD distillery based on molasses will be installed. Thus there is change in the scope of project. It was also noted that existing EC was issued in the name of some other Company. The Committee after deliberations, recommended the PP to submit revised Form-1 along with pre-feasibility report along with documents/details of transfer. Based on submitted documents, further course of action will be decided in this regard.

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

17.6.7 Adhesive Manufacturing Plant of **M/s Bostik India Private Limited** at Plot no. 770/2 & 770/3, village Jhagadia GIDC, Taluka Jhagadia, District Bharuch, Gujarat (**EC**)

The project authorities and their consultant (M/s Kadam Environmental 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 8th Meeting of the Expert Appraisal Committee (Industry) held during 16th-17th May, 2013 for preparation of EIA-EMP report. All the synthetic organic chemicals industry (basic organic, chemicals, other,synthetic organic chemicals and chemical Intermediates) located outside the notified industrial area are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Bostik India Private Limited has proposed for setting up ofAdhesive Manufacturing Plant at Plot no. 770/2 & 770/3, village Jhagadia GIDC, Taluka Jhagadia, District Bharuch, Gujarat. Total plot area is 34,418.4 m^2 of which greenbelt will be developed in 11652 m^2. Amravati River, Kaveri River and Narmada River are flowing within 10 Km distance. It is reported that no national park/ wildlife sanctuary is located within 10 Km distance. Total cost of project is Rs. 55 Crore. Following products will be manufactured:

S.N.	Product	Production Capacity (MTPA)
Flexible Laminate Adhesives		
1	Solvent Based Adhesives	7597
2	Solvent Free Adhesive	4603
3	Hardener – Lamination	1300
Footwear Adhesives		
4	Chips Poly Urethane	4615
5	Synthetic Rubber Adhesive	4209
6	Reacted Poly Urethane	2485
7	Primers, Cleaner & Hardeners	2145
Total Production		**26,954**

Ambient air quality monitoring was carried out at 6 locations during post monsoon season 2013 and submitted data indicates as PM10 (58–69 ug/m^3), PM2.5 (26-45 ug/m^3), SO_2 (8.0 – 10.4 ug/m3) and NOx (12.6-17.2 ug/m3). Predicted value of ground level concentration due to proposed project is PM10 (3.8 ug/m^3), SO2 (2.28 ug/m3) and NOx (0.935 ug/m3). The resultant concentrations are within the NAAQS. Bagfilter will be provided to control dust emissions. VOC from the process vents will be controlled by putting up activated carbon filter. Total fresh water requirement from GIDC water supply will be 50 m3/day. Industrial effluent generation will be 10.24 m3/day and incinerated in the incinerator. Incinerator ash will be sent to TSDF. Spent solvent will be sent to authorised recyclers. Waste oil will be sent to authorised recycler/re-processors.

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

(i) Stack of adequate height shall be provided to Natural gas/diesel fired thermic fluid heater as per CPCB/GPCB guidelines.

(ii) 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.

(iii) Total fresh water requirement from GIDC water supply shall not exceed 50 m^3/day and prior permission shall be obtained from the competent Authorities.

(iv) Industrial effluent generation shall not exceed 10.5 m^3/day. Industrial effluent shall be incinerated in the incinerator.

(v) No effluent shall be discharged outside the factory premises and 'Zero' discharge concept shall be adopted.

(vi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

(vii) Incinerator comprising primary and secondary chamber shall be designed as per CPCB guidelines. SO2, NOx, HCl and CO emissions shall be monitored in the stack regularly.

(viii) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.

(ix) 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.

(x) Solvent management should be as follows :

(xi) Reactor should be connected to chilled brine condenser system

(xii) Reactor and solvent handling pump should have mechanical seals to prevent leakages.

(xiii) The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery

(xiv) Solvents should be stored in a separate space specified with all safety measures.

(xv) Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.

(xvi) Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.

(xvii) 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.

17.7 Consideration of TORs

17.7.1 Expansion of Ammonia – Urea Fertilizer Plant of **M/s Kanpur Fertilizer & Cement Limited** at Udyog Nagar Industrial Area Panki Kanpur Uttar Pradesh (**TOR)**

The proponent did not attend the meeting and requested the Ministry for participation in the next EAC meeting vide letter NO. MOEF/KFCL/Expansion/2013 dated 19.03.2014.

17.7.2 Proposed Sulphur Bentonite Plant of **M/s Rashtriya Chemicals and Fertilizers Limited** at Village Mahul, Trombay Mumbai **(TOR)**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All fertilizer plant except single super phosphate plant is listed at S.N. 5(a) under category 'A' and appraised at Central level under category 'A' and appraised at Central level.

The Committee noted that proposed product –Bentonite Clay will be used as micro-nutrients in the manufacturing of fertilizer. Manufacturing process involves only blending and there are no chemical reactions take place. After detailed deliberation, the Committee desired details of the use of Bentonite clay and environmental issues, if any.

(i) Manufacturing process details alongwith the chemical reactions and process flow diagram for the proposed project.
(ii) Details of utilities to be installed.
(iii) Details of fuels to be used.
(iv) Fluoride content in bentonite to be analysis and report to be submitted.
(v) Status of CTO and details of CTO obtained for the unit.

The proposal was deferred till the aforesaid information was submitted and will be discussed by calling project proponent to decide applicability of EC for the project.

17.7.3 Proposed Specialty chemicals Plant of **M/s Anjaniya Industries** at Plot No. 37/A, AKVNL, Industrial Area Meghnagar District Jhabua, M.P. **(TOR)**

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 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 Anjaniya Industries has proposed for setting up of manufacturing unit of Chloro Acetyl Chloride and Mono Chloro Acetic Acid(250 MTPM) at Plot No. 37/A, AKVNL, Industrial Area Meghnagar District Jhabua, M.P.Total plot area is 1500 m^2 of which greenbelt will be developed in 295 m^2. Cost of project is Rs. 75 lakhs. There are no national parks, wildlife sanctuaries, biosphere reserves, heritage sites, tanks, rivers, reserve forests etc.

The following products will be manufactured :

S.N.	Products	Quantity (MTPM)
1	Chloro Acetyl Chloride	150
2	Mono chloro Acetic Acid	100
	Total	250
	By-product	
1	Hydrochloric Acid (30 %)	300

Cyclone separator followed by bagfilter will be provided to waste wood/briquette fired boiler (0.8 TPH). Two stage scrubber will be provided to control process emissions viz. HCl & Cl_2. Water requirement from AKVN water supply will be 15 m3/day. There will be no industrial effluent generation. Domestic effluent generation will be 0.5 m^3/day. Discarded begs & containers will be sent to MPPCB approved scrap vendor. Waste/spent oil will be sent to authorised recycler/re-processors.

After detailed deliberations, the Expert Appraisal Committee prescribed Generic TORs at Annexure-1 read with Additional TORs at Anenxure-2 for preparation of EIA-EMP report.

(i) Zero-discharge

(ii) Develop good plantation within the project site using tree species with broad canopy

17.7.4 Pesticides Fine Chemicals and Biotech based Organic Chemical Unit of **M/s Deccan Fine Chemicals Pvt. Ltd.** at Kesavaram Village Venkatanagaram Post Payakaraopeta Mandal Visakhapatnam A.P. **(TOR)**

The project authorities and their Consultant (Team Labs and Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP. All the Pesticides plants are listed at S.N. 5(b) under Category 'A' and appraised at the Central level.

M/s Deccan Fine Chemicals Pvt. Ltd. has proposed for expansion of Pesticides Fine Chemicals Manufacturing Unit (26.5 TPD to 100 TPD) alongwith addition of Co-generation Power Plant (40 MW) and Chlor Alkali Plant (100 TPD) at Sy. No. 52-54, 81-85, 87-93, 94/3, 108, Kesavaram Village and Sy. No. 146, 149 & 150 (Rajavaram), Venkatanagaram Post Payakaraopeta Mandal Visakhapatnam, Andhra Pradesh. Plot area is 121.84 acres of which greenbelt will be developed in 40.2 acres. No national park and sanctuary is located within 10 km distance. River Tandava River flows at a distance of 1.2 km. Bay of Bengal is at 2 km. Vempadu Reserve Forest is located at a distance of 4.5 Km. environmental clearance for the existing expansion and product mix change is obtained vide letter no J-11011/657/2007-Ia II (I) dated 10.07.2009. Cost of the project is Rs 900 crores.

The following products will be manufactured :

S.N.	Description	Unit	Existing	Proposed		Total after expansion
				Phase-1	Phase-II	
1	Agrochemicals and Fine Chemicals	TPD	26.25	23.75	50.00	100.00
2	Co-generation Power Plant	MW	--	20.00	20.00	40.00
3	Chlor-Alkali					
A	Caustic (100 %)	TPD	---	--	100	100
B	Chlorine	TPD	---	--	88.60	88.60
C	Hydrogen	TPD	--	--	2.57	2.57
D	HCl (33 %)	TPD	--	--	140	140

The following utilities will be installed :

S.N.	Description	Permitted	Proposed	
			Phase-I	Phase II
1	Coal fired Boiler	20 TPH	140 TPH	140 TPH
			25 TPH	50 TPH
2	Thermic Fluid Heater	15 Lac K. Cal/h	3 x 3 Million K.Cal/hr	3 x 3 Million K. Cal /Hr

3	Incinerator	300 Kg/hr	--	--
4	DG sets	4 x 1000 KVA	3 x2000 KVA	3 x 2000 KVA
5	Desalination Plant	--	16 MLD	26.3 MLD

Total water requirement from desalination plant will be increased from 0.972 MLD to 13.68 MLD after expansion. Effluent generation will be increased from 424.7 m3/day to 4082 m3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP. Treated effluent will be discharged into marine outfall. It was clarified that the area does not have a F problem. Fly ash will be sent to brick manufacturers. Organic residue will be sent to TSDF/cement plant for co-incineration. ETP sludge, Evaporation salts and Ash from incineration will be sent to TSDF. Waste oil and used batteries will be sent to authorized re-processors.

The Commitete noted that Desalination Plant is located between HTL and LTL and requires CRZ. The Committee sought a certified Monsitoring report on earlier EC. The Committee also deisred a good need based CSR Plan.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TORs at Annexure-1 read with Additional TORs at Anenxure-2 read with the following specific TOR for preparation of EIA-EMP report:

(i) CRZ Clearance for the Deaslination Plant.

17.7.5 Expansion of Bulk Drugs Intermediates manufacturing Unit of **M/s Yag-Mag Labs Pvt. Ltd.** at Sy. No. 10 Gaddapotharam Jinnaram Medak District A.P **(TOR)**

The project authorities and their Consultant (M/s KKB Envirocare Consultants Pvt. Ltd) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. It was informed that the unit is a Category B project. The project is located within 10km of CPA from Pattancheru and hence a Cat. A project. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) 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 10 km distance nearest critically polluted area ie. IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Yag-Mag Labs Pvt. Ltd. has proposed for expansion of Bulk Drugs Intermediates Manufacturing Unit at Sy. No. 10 Gaddapotharam Jinnaram Medak District A.P. Existing plot area is0.8 Ha (8,062Sq.m) of which greenbelt will be developed in 0.26Ha (2,660Sq. m) of land. Cost of expansion project is Rs. 6 crores.

The following products will be manufactured :

S.N.	PRODUCT NAME	QUANTITY (TPA)	THERAPEUTIC CATEGORY
1.	Adapalene	3	Anti Acne Agent
2.	Domperidone	24	Antiemetic
3.	Valsartan	20	Antihypertensive
4.	Mefenamic acid	180	Anti-inflammatory drug
5.	Cetirizine Dihydrochloride	24	Anti-Allergic
6.	Moxifloxacin Hydrochloride	10	Anti-Infective
7.	Telmisartan	15	Antihypertensive
8.	Montelukast Sodium	4	Antiasthma tic
9.	Dextromethorphan Hydrobromide	36	Antitussive
10.	Fluconazole	60	Antifungal
11.	Ofloxacin	60	Antibacterial
12.	Guaifenesin	240	Cough Expectorant
13.	Methocarbamol	120	Muscle Relaxant
14.	Tramadol Hydrochloride	240	Analgesic
15.	Dobutamine Hydrochloride	25	Adrenergic Agonist Agent
16.	Lamotrigine Hydrochloride	12	Anticonvulsant
17.	Lidocaine Hydrochloride	180	Antiarrhythmic
18.	Aceclofenac	180	Analgesic
19.	Metoprolol Tartrate	180	Antihypertensive
20.	Disulfiram	50	Anti-alcoholic
Total on various combinations (Any 2 out of 20 products at a time)		**480**	

Any 2 products out of total 20 products will be manufactured at a time with manufacturing capacity 480TPA.

Multicyclone separator along with bag filter with a stack height of 30m will be installed for controlling the Particulate emissions from the proposed Coal fired boiler of 3TPH with existing 1 TPH Coal fired boiler. Scrubber will be provided to control process emissions viz. HCl and NH_3. Total water requirement will be increased from16.4 m^3/day to 75.6 m^3/day after expansion, of which, fresh water is 45.6 m3/day and remaining 30 m3/day will be met from recycled/reused after treatment. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Power requirement from APCPDC Ltd will be 550 KVA.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TORs at Annexure-1 read with Additional TORs at Anenxure-2 read with the following additional TORs for preparation of EIA-EMP report.

(i) Zero-discharge
(ii) Develop good plantation within the project site using tree species with broad canopy

17.7.6 Bulk Drugs and Intermediates Manufacturing Unit of **M/s Almelo Chemicals Pvt. Ltd**. at Sy. No. 227, 228, 137 (136), Shabashally (V), Shivampet (M), Medak District A.P(**TOR)**

The project authorities and their consultant (M/s KKB Envirocare Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).
M/s Almelo Chemicals Pvt. Ltd. has proposed for setting up of Bulk Drugs and Intermediates Manufacturing Unit at Sy. No. 227, 228, 137 (136), Shabashally (V), Shivampet (M), Medak District A.P. Plot area is 9.33 ha. (23.06 acres). The cost of project is Rs. 31.5 crore.
The following products will be manufactured:

S.N.	Product Name	Quantity (TPA)	Therapeutic Category
Proposed Bulk Drugs on campaign basis (9 products at a time)			
1	Ximelagatran	4	Anti-coagulant
2	BifeprunoxMesylate	4	Antipsychotic agent
3	Satigrel	6	Antagonist
4	Rosuvastatin Calcium	36	Lipid lowering agent
5	Talampanel	3	Antagonist
6	Zafirlukast	8	Anti-Asthma
7	Tolterodine Tartrate	3	Antispasmodic
8	PrulifloxacinMesylate	6	Anti-bacterial
9	Dexmedetomidine	4	Analgesic
10	PramipexoleDihydrochloride	2	Anti Parkinsonian
11	Frovatriptan Hydrochloride	4	Lipid lowering agent
12	Selegiline Hydrochloride	2	Anti-Parkinson's
13	Asenapine Maleate	6	Anti-schizophrenia
14	Udenafil	2	Erectile dysfunction
15	Balofloxacin	6	antibiotic
16	Vildagliptin	6	Anti-diabetic
17	Rizatriptan Benzoate	2	Anti-Migraine
18	Pitavastatin Calcium	12	Lipid Lowering Agent
19	Sitafloxacin	6	antibiotic
20	Levomilnacipran Hydrochloride	6	Anti-depression

21	Bosentan	3	Anti-pulmonary hypertension
22	Adenosine	2	Antiarrhythmic agent
23	Regadenoson	2	Diagnostic Agent
24	Esomeprazole Magnesium Trihydrate	12	Proton Pump Inhibitor
25	Valsartan	36	Anti-hypertensive
26	Irbisartan	36	Anti-hypertensive
27	LevocetrizineDihydrochloride	12	Anti-Histaminic
28	Mesalamine	12	anti-inflammatory
29	Rabeprazole Sodium	10	Proton Pump Inhibitor
30	Alfuzosin Hydrochloride	2	Anti-hypertensive
31	Amlodipine Besylate	24	Anti-hypertensive
32	Anagliptin	8	Anti-diabetic
33	Aripiprazole	6	Anti-psychotic
34	Atorvasatin calcium	12	Lipid Lowering Agent
35	Atovaquone	6	Anti-malaria
36	Brimonidine Tartrate	2	Ophthalmic drops
37	Chlorothiazide Sodium	2	antihypertensive
38	Cinacalcet Hydrochloride	10	Calcimimetic
39	Clarithromycin	80	Macrolide Antibiotic
40	ClopdogrelBisulphate	36	Anti-Thrombotic
41	Clopidogrel Hydrochloride	6	Anti-Thrombotic
42	DabigatranEtexilateMesylate	4	Blood-thinning Agent
43	Desvenlafaxine Succinate Monohydrate	6	Anti-depressant
44	Dexlansoprazole Magnesium	6	Proton Pump Inhibitor
45	Diacerein	6	Anti-inflammatory
46	Divalproex Sodium	6	Anti-Epileptic
47	Donepezil HCl	2	Anti-Alzheimer's
48	DoxazosinMesylate	4	α1-Selective alpha blocker
49	Duloxetine Hydrochloride	10	Antidepressant
50	Epinephrine Bitartrate	1	Cardio stimulant
51	FesoterodineFumarate	4	Anti-muscarinic
52	Fexofenadine Hydrochloride Monohydrate	12	Anti-histamine
53	Lansoprazole	6	Proton Pump Inhibitor
54	Linagliptin	8	Anti-diabetic
55	Lurasidone Hydrochloride	8	Anti-psychotic
56	Nicardipine Hydrochloride	2	Anti-hypertensive
57	Oxybutynin chloride	4	Anti-spasmodic
58	PaliperidonePalmitate	6	Schizophrenia
59	Pantoprazole sodium	6	Proton Pump Inhibitor
60	Pregabalin	12	Anti-Epileptic
61	Saxagliptin Hydrochloride	6	Anti-diabetic
62	Sitagliptin Phosphate	36	Anti-diabetic

63	Solithromycin	400	Antibiotic
64	Tamsulosin Hydrochloride	8	Benign Prostatic Hyperplasia
65	Valacyclovir Hydrochloride	24	Anti-Viral
66	WCK 2349	20	Antibiotic
67	WCK 4873	4	Antibiotic
68	Ziprasidone Hydrochloride Monohydrate	20	Anti-Psychotic
69	Zoledronic acid	6	Anti-Osteoporosis
70	Zonisamide	20	Anti-Epileptic

9 out of 70 products with production capacity 708 TPA will be manufactured at a time on campaign basis.

Multicyclone separator alongwith bag filter with a stack height of 30m will be installed for controlling the Particulate emissions from the proposed Coal fired boiler of 2x 5TPH &3TPH Boiler. Scrubber will be provided to control process emissions viz. HCl, H_2S, $NH_3$and SO_2. Total fresh water requirement will be 258m^3/day.Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Power requirement from APCPDC Ltd will be 980 KVA.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TORs at Annexure-1 read with Additional TORs at Anenxure-2 along with the following additional TORs for preparation of EIA-EMP report.

(i) Zero-discharge
(ii) Develop good plantation within the project site using tree species with broad canopy.

17.7.7 Expansion of Bulk Drugs Manufacturing Unit of **M/s Maithri Drugs Pvt. Ltd** at Village Bonthapally Jinnaram Medak District A.P. (**TOR)**

The project authorities and their Consultant (M/s KKB Envirocare Consultants Pvt. Ltd) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. It was informed that the unit is a Category B project. The project is located within 10km of CPA from Pattancheru and hence a Cat. A project. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) 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 10 km distance nearest critically polluted area ie., IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Maithri Laboratories Pvt. Ltd has proposed for expansion of Bulk Drugs Manufacturing Unit at Sy. No. 14, IDA, Village Gaddapotharam, Medak Jinnaram, District Medak, A.P. Plot area is will be increased from 0.69 ha to 1.5 ha. no national parks/ wild life sanctuaries are located within 10 km.Wailal RF, Jinnaram Rf, Dundigal RF and Kazipalli RF are located within 10 km distance. The cost of expansion project is Rs. 25 crore.

The following products will be manufactured:

S.N.	**Product Name**	**Quantity (TPA)**	**Therapeutic Category**
1.	Atorvastatin Calcium	48	Anti-Hyper Lipoproteinemic
2.	Voriconazole	24	Antifungal
3.	Moxifloxacin Hydrochloride	39	Anti-Bacterial
4.	Esmolol Hydrochloride	6	Antiarrhythmic and Antihypertensive
5.	Sumatriptan Succinate	6	Antimigraine
6.	Aripiprazole	81	Antipsychotic
7.	Telmisartan	12	Anti- Hypertensives.
8.	GemifloxacinMesylate	60	Antibiotic
9.	OlmesartanMedoxomil	24	Antihypertensive
10.	Duloxetine Hydrochloride	48	Antidepressant
11.	Pregabalin	24	Analgesic & Antipyretic
12.	Nebivolol Hydrochloride	6	Anti-Hypertensive
13.	Dapoxetine Hydrochloride	6	Antidepressant
14.	Ibudilast	0.6	Anti-inflammatory
15.	AzilsartanMedoxomil Potassium	3	Antihypertensive
16.	EprosartanMesylate	48	Antihypertensive
17.	Valsartan	2.04	Angiotensin
18.	Mesalamine	2.04	Anti-inflammatory
19.	Talipexole	6	Adrenergic Agnonist
20.	Cabergoline	6	Antiparkinsonian
21.	Ecabapide	6	Antiulcer
22.	EletriptanHydrobromide	6	Antimigraine
23.	RasagilineMesylate	6	Antiparkinsonian
24.	Tiotropium Bromide Monohydride	9	Antimuscarinic
Maximum production capacity on various combinations(i.e. any 5 products at a time)		285	

Proposed products and their capacities on campaign basis – 5 out of 24products at a time (285 TPA)

Multicyclone separator alongwith bag filter with a stack height of 30m will be installed for controlling the Particulate emissions from the proposed boiler of 5TPH with existing 2x1 TPH Coal fired boilers. Scrubber will be provided to control process emissions viz. HCl, SO_2, and HBr. Total water requirement will be increased from 16.4 m^3/day to 208.9m^3/day after expansion. Out of which, fresh water is 144.9

m3/day and remaining 64 m3/day will be met from recycled/reused after treatment. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers.

After detailed deliberations, the Expert Appraisal Committee prescribed Generic TORs at Annexure-1 read with Additional TORs at Anenxure-2 read with the following adiitonal TORs for preparation of EIA-EMP report:

(i) Zero-discharge
(ii) Develop good plantaion within the project site using tree species with broad canopy

17.7.8 Expansion of Bulk Drugs Manufacturing Unit of **M/s Vijeta Life Science Pvt. Ltd.** at Village Mambapur Medak Jinnaram District A.P. (**TOR)**

The project authorities and their consultant (M/s KKB Envirocare Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s MSN (formerly Known as M/s Vijeta Life Science Pvt. Ltd.**)** has proposed for expansion of Bulk Drugs Manufacturing Unit at Sy. No. 21/A & 21AA, Village Mambapur, Mandal Jinnaram, District Medak A.P. Existing plot area is 0.7790 Ha. Additional plot area of 0.3073 Ha in possession. The project is situated 12km from Bolalram IDA and 18km from Patatncheru IDA. The cost of expansion project is Rs. Rs. 15 crores.

The following products will be manufactured:

S.N.	**Product Name**	**Quantity (TPA)**	**Therapeutic Category**
1	Voriconazole	36	Antifungal
2	Posaconazole	6	Antifungal
3	Dronedarone Hydrochloride	6	Antiarrhythmic
4	Clopidogrel Bisulfate	48	Antiplatelet drug
5	Olopatadine Hydrochloride	144	Antiallergic agent
6	Silodosin	1.08	Treatment of Benign Prostatic Hyperplasia
7	DabigatranEtexilateMesylate	3	Anticoagulant
8	Rosuvastatin Calcium	12	Antilipemic
9	Pregabalin	24	Analgesic & Antipyretic

10	Saxagliptin Monohydrate	1.08	Antidiabetic
11	Darunavir	3	Antiretroviral
12	Telaprevir	2.04	Antiviral
13	Boceprevir	3	Antiviral
14	Ranolazine	48	Antianginals
15	Satigrel	9	Antithrombotic
16	Fasudil Hydrochloride	9	Vasodilator
17	Ramatroban	9	Antiasthmatic
18	Talampanel	9	Antiepileptic
19	Ramipril	9	Antihypertensive
20	Tiagabine Hydrochloride	6	Anticonvulsant
21	BifeprunoxMesylate	9	Antipsychotic
22	Cangrelor	2.4	Antithrombotic
23	Cilomilast	2.4	Antiasthmatic
24	Argatroban	6	Antithrombotic
	Maximum Production Capacity on various combinations (i.e. any 5 Products at a point of time)	**300**	

5 out of 24 products with production capacity 300 TPA will be manufactured at a time on campaign basis.

Multicyclone separator along with bag filter with a stack height of 30m will be installed for controlling the Particulate emissions from the proposed Coal fired boiler of 3TPH & existing 1TPH Boiler. Scrubber will be provided to control process emissions viz. HCl, NH_3 and SO_2. Total fresh water requirement will be increased from 13.6 m3/day to 181.9m^3/day after expansion. Out of which, fresh water requirement is 136.9 m3/day and Balance 45 m3/day reused after treatment. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. The evaporation salts and ETP sludge will be sent to TSDF. Organic residue, spent carbon and Distillation residue will be sent to cement plant. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Power requirement from APCPDC Ltd will be 2000 HP.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TORs at Annexure-1 read with Additional TORs at Anenxure-2 along with the following additional TORs for preparation of EIA-EMP report:

(i) Zero-discharge
(ii) Develop good plantation within the project site using tree species with broad canopy

17.7.9 Expansion of Bulk Drugs Intermediates Manufacturing Unit of **M/s Vegesna Laboratories Pvt. Ltd.** at plot No.34/A, S.V.Cooperative Industrial Estate Jeedimetal, Ranga Reddy District A.P. (**TOR)**

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

17.7.10 Expansion of Bulk Drugs and Its Intermediates Manufacturing Unit of **M/s Maithri Drugs Pvt. Ltd.** at village Bonthapally, Tehsil Jinnaram, District Medak, AP (**TOR)**

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

17.7.11 Expansion of Fine Chemicals & Bulk Drugs Intermediates manufacturing Unit of **M/s Denisco Chemicals Pvt. Ltd.** at plot No. D-24,D-25 & D-32, Phase-I, IDA Jeedimetal, Ranga Reddy District A.P. **(TOR)**

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

17.7.12 Expansion of Intermediate Bulk Drug Manufacturing Unit of **M/s Emmennar Pharma Pvt.Ltd.** at Survey Nos.334 & 335, Turkhal Khanpur Village Hatnoora Mandal Medak District Andhra Pradesh (**TOR)**

The project authorities and their Consultant (Righsource Industrial Solutions Pvt. LTd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Emmennar Pharma Pvt. Ltd. (Unit – II) has proposed to change their chemical manufacturing facility to bulk drug and intermediate manufacturing facility without increasing the production capacityat Survey Nos.334 & 335, TurkhalKhanpur Village Hatnoora Mandal Medak District Andhra Pradesh. Total plot area is 61671 m^2 of which greenbelt will be developed in 20351 m^2. The cost of modernization is Rs. 911.33 crores.

The following products will be manufactured:

S.N	**Products**	**Quantity (MTPM)**
1	Meta Chloro Nitro Benzene	300
2	Meta chloro Anisole	240
3	Diethyl-D Tertarate	60
4	Triphenyl Phosphine	90
5	Metformin Hydrochloride	450
6	Butaphosphan	120
7	Ciprofloxacin Hydrochloride	90
8	By-Products	Quantity (MTPD)
9	P-Chloro Nitro Benzene	1.243

10	O-Chloro Nitro Benzene	1.243
11	Hydrochloric Acid	8.264
12	Sodium Hydroxide	4.92
13	Phosphorous Oxy Chloride	2.076

Bagfilter will be provided to coal fired (TPH) boiler. Scrubber will be provided to control process emissions. Total fresh water requirement from ground water will be 195.6 m^3/day. Total effluent generation will be 96.93 m^3/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. Existing DG sets (250 + 1000 KVA) will be continued.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TORs at Annexure-1 read with Additional TORs at Anenxure-2 read with the following additional conditions for preparation of EIA-EMP report:

(i) Zero-discharge
(ii) Develop good plantation within the project site using tree species with broad canopy

17.7.13 Expansion of Synthetic Organics Chemicals API's manufacturing of **M/s SMS Pharmaceuticals Ltd.** at Village Bachupally Quthbullapur Mandal Rangareddy district Andhra Pradesh **(TOR)**

The project authorities and their Consultant (Team Labs and Consultants) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) 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 10 km distance nearest critically polluted area ie., IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s SMS Pharmaceuticals Ltd. (Unit II) has proposed for expansion of API's Manufacturing Unit (from 13.27 MTPM to 32.2 MTPM) at Plot Nos. 24 & 24 B, SVCIE, Village BachupallyMandal Quthbullapur, District Rangareddy, Andhra Pradesh. Plot area is 2.57 acres of which greenbelt will be developed in 0.8 acres. The cost of project is Rs. 30 Crore. No national park /sanctuary is located within 10 km distance. Reserve forests (Kazipallin RF, Gajularamaram RF, Suraram RF, Wailalpur RF, Pottaguda RF, Dundigi RF and Kistaipalli RF) are located within 10 km distance. MOEF vide letter no J-11011.123/2005 IA II (I) dated 07.07.2005 has issued environmental clearance for the existing unit.

The following products will be manufactured:

S.No	Name of the Products	Capacity	
		TPM	Kg/day
Permitted			
1	Sumatriptan Succinate	0.1	3.3
2	Quinapril Hydrochloride	0.09	3.0
3	Enalapril Malaete	0.28	9.3
4	N-Ethoxy Carbonyl Phenyl Propyl Amine	0.8	26.7
5	Nicotine Polacrilex	6	200
6	Fenugreek Powder	6	200
	Total	13.27	442.3
After Expansion			
1	Sumatriptan Succinate	1	33.3
2	Eletriptan	1	16.7
3	Famotidine	3	100
4	Itraconazole	1.5	50
5	Ramiprill	0.1	3.3
6	Almotriptan Malate	0.1	3.3
7	Rizatriptan Benzoate	0.2	6.7
8	Tadalafill	0.5	16.7
9	Zolmitriptan	0.1	3.3
10	Imidapril	0.1	3.3
11	Nicotine Polacrilex	2	66.7
12	Sildenafil Citrate	2	66.7
13	Ondensetron HCI	0.1	3.3
14	Sumatriptan Intermediate II	1	33.3
15	Sumatriptan Intermediate VI	20	666.7
	Total	32.2	1073.3

Multicyclone will be provided to Coal fired boiler (2 TPH + 3 TPH). The Committee insisted for bagfilter to be provided in the proposed coal fired boiler. Process emissions will be control by putting scrubber. Total water requirement will be increased from 17.5 m3/day to 93.4 m3/day after expansion. Out of which 58.4 m3/day of fresh water will be met from APIIC water supply and 35 m3/day of water will be met from recycled/treated water. Effluent generation will be 41.03 m3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. Additional DG sets (320 KVA + 500 KVA) will be installed.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TORs given at Annexure-1 and Additional TORs at Anenxure-2 for preparation of EIA-EMP report:

(i) Recommendation of APPCB whether the IDA can take the additional pollution load.

(ii) Zero-discharge

(iii) Develop good plantaion within the project site using tree species with broad canopy

17.7.14 Expansion of Drugs Manufacturing Unit of **M/s Neuland Laboratories Ltd** (Unit-II) at Plot No.92, 93, 94, 257, 258 & 259, Phase-II, IDA Pashamylaram, Isnapur (V), Patancheru (M), Medak District, Andhra Pradesh (**TOR)**

The project authorities and their Consultant (Pridhvi Envirotech (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located 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 10 km distance nearest critically polluted area ie., IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Neuland Laboratories Ltd (Unit-II) has proposed for expansion of Drugs Manufacturing Unit (11.775 TPM to 161.2 TPM) at Plot No.92, 93, 94, 257, 258 & 259, Phase-II, IDA Pashamylaram, Isnapur (V), Patancheru (M), Medak District, Andhra Pradesh. Total plot area is 9.59 acres of which greenbelt will be developed in 4.15 acres. Environmental clearance was obtained in July, 2005 and amended in December, 2010. Following products will be manufactured:

S.No	Products	Production for TOR Tons/month
	API's	
1	Ciprofloxacin HCI	60.0
2	Ranitidine HCI	15.0
3	Levetiracetam	10.0
4	Levofloxacin hemi hydrate	5.0
5	Entacapone	2.0
6	Propofol	2.0
7	Rabeprazole Sodium	0.5
8	Ezetimibe	0.08
9	Voriconazole	0.07
10	Montelukast	0.04
11	Deferasirox	0.04
12	Bosentan	0.04
13	Linezolid	0.03
14	Sugammadex	0.01
15	Moxonidine	0.01
16	Enalapril maleate	5.0
17	Ofloxacin	3.0
18	Labetalol Hydrochloride	3.0
19	Sotalol Hydrochloride	6.0
20	R&D Activities	0.3

	Total API's	112.12
	Intermediates for APIs	
21	Salbutamol Diacetate	5.0
22	MZ Alcohol	2.5
23	Candesartan cilexetil	30.0
24	Etizolam	7.0
25	Sarpogrelate HCl	5.0
	Total Intermediates for APIs	49.5
	Total Proposed Production Capacity	161.62

Cyclone followed by bagfilter will be provided to coal fired boiler (8 TPH). Scrubbers will be provided to control process emissions viz. HCl, SO_2, H2 and NH_3. Water requirement from public suppliers and road tankers will be increased from 290 m3/day to 873 m3/day after expansion. Effluent generation will be increased from 110 m3/day to 379 m3/day after expansion. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. DG sets (2x125 + 1 x 250 + 1 x 380 + 3 x 725 KVA) will be installed.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TOR given at Annexure-1 and Additional TORs at Anenxure-2 for preparation of EIA-EMP report:

(i) Recommendation of APPCB whether the IDA can take the additional pollution load.

(ii) Zero-discharge

(iii) Develop good plantaion within the project site using tree species with broad canopy

17.7.15 Bulk Drugs unit of **M/s Nosch Labs Pvt. Ltd.** at Gaddapotharam Village Tehsil Jinnaram Mandal in Medak District in A.P **(TOR)**

The project authorities and their Consultant (Pridhvi Envirotech (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located 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 10 km distance nearest critically polluted area ie., IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Nosch Labs Pvt. Ltd. has proposed forexpansion of Bulk Drugs Manufacturing unit (from 24 TPA to 318 TPA) at Village Gaddapotharam, Mandal Jinnaram, District Medak in A.P. Plot area is 11,330 m^2 of which greenbelt will be developed in 3400 m^2. The cost of expansion project is Rs.5.1 Crore. Kistaipalli reserve forest is located at a distance of 0.2 Km. A total of 19 reserve forests are located within 10 km

distance. The unit is located 5.12 km from Bollaram IDA and located in IDA Gaddaptharam. The unit was earlier in the name of M/s Sterling Biochem Ltd.and in 1996 was purchased by M/s Nosch Labs in 2001. EC was obtained in 2005.

The following products will be manufactured :

S.No	Name of the Products	Existing Capacity Quantity in TPA	After Expansion Quantity in TPA
	Existing Products		
1	SibutramineHcl	24.0	Will be discontinued
2	Enalapril Maleate	18.0	6.0
3	Omeprazole	24.0	12.0
4	Lansoprazole	24.0	24.0
5	Itraconazole	19.8	24.0
6	Pantoprazole Sodium	24.0	30.0
7	Olanzapine	22.2	6.0
8	Rabeprazole Sodium	24.0	12.0
9	QuetiapineHemifumarate	10.2	30.0
10	Tamsulosin Hydrochloride	24.0	1.2
11	Sumatriptan Succinate	24.0	6.0
12	Esomeprazole Magnesium	24.0	36.0
	New Products		
13	AliskirenHemifumarate	--	6.0
14	Donepezil Hydrochloride	--	1.2
15	Dronedarone Hydrochloride	-	1.2
16	Dexrabeprazole Sodium	-	1.2
17	DoxazosinMesylate	-	1.2
18	Duloxetine HCl	-	24.0
19	Ezetimibe	-	1.2
20	Ketorolac tromethamine	-	12.0
21	Moxifloxacin Hydrochloride	-	6.0
22	RasagilineMesylate	-	1.2
23	Rosuvastatin calcium	-	12.0

24	Zolmitriptan	-	1.2
25	3-Methyl-4-[[((2,2,2-Trifluoroethoxy)-2-Pyridinyl)Methyl Thio]-1H-Benzimidazole	-	3.6
26	4-[4-[(4-Hydroxyphenyl)-1-Piperazinyl]Phenyl]-2,4-Dihydro-2-27(Sec.butyl)-3H-1,2,4-Triazole-3-one	-	12.0
27	Cis-2-(2,3.64-Dichlorophenyl)-2-(1H-1,2,4-Tiazol1.2e-1-Yl Methyl)-1,3-Dioxolan-4-Yl m24.0ethyl Methane Sulfonate	-	18.0
28	4-Amino-2-Methyl-10H-Thieno[2,3-B][1,5] Benzodizepine Hydrochloride	-	3.6
29	2-[[[(4-(3-Methoxypropoxy)-3-Methyl-2-Pyridinyl]Methyl]thio]-1H-Benzmidazole	-	1.2
30	Dibenzo[b,f[1,4]thiazepin-11 (10H)-One	-	24.0
	Total	**24.0** **Worst case (Any one product)**	**318.0**

Cyclone followed by bagfilter will be provided to coal fired boiler (2 TPH). Scrubbers will be provided to control process emissions viz. HCl, SO_2, H2 and NH_3. Water requirement from ground water source /public suppliers and road tankers will be increased from 20.3 m3/day to 49.1 m3/day after expansion. Effluent generation will be increased from 3.4 m3/day to 29.9 m3/day after expansion.Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers.

After detailed deliberations, the Expert Appraisal Committee prescribed the Generic TORs given at Annexure-1 and Additional TORs at Anenxure-2 read with the following addtional TORs for preparation of EIA-EMP report:

(i) Recommendation of APPCB whether the Ind. area can take the additional pollution load.
(ii) Zero-discharge
(iii) Develop good plantaion within the project site using tree species with broad canopy

17.7.16 Expansion of Bulk Drugs unit of **M/s Saraca Lab. Pvt. Ltd**. at Village Gaddapotharam in Medak District A.P **Regarding TOR.**

The project authorities and their Consultant (Pridhvi Envirotech (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) located 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 10 km distance nearest critically polluted area ie., IDA, Patancheru, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Saraca Lab. Pvt. Ltd. has proposed for expansion of Bulk Drugs Manufacturing Unit (from 54 TPM to 450 TPM) at Village Gaddapotharam, Mandal Jinnaram, District Medak, A.P. Plot area is 8.0 acres of which greenbelt will be developed in 2.72 acres. Cost of the expansion project is Rs. 22.9 Crores. Nearest reserve forest is located at a distance of 0.8 km. There are 19 reserve forests in 10 km distance. Following products will be manufactured:

S.N.	**Product**	**Quantity (TPM)**
1	Ranitidine Hydrochloride	361
2	Gabapentin	20.0
3	NMSM	15
4	Cystofur	24.0
5	Gabapentine Hydrochloride	5.0

Cyclone followed by bagfilter will be provided to additional coal fired boiler (1 x 20 TPH). Scrubbers will be provided to control process emissions viz. HCl, SO_2, H2 and NH_3. Water requirement from ground water source /public suppliers and road tankers will be increased from 129 m3/day to 321.81 m3/day after expansion. Effluent generation will be increased from 18.165 m3/day to 45.72 m3/day after expansion.Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers. Additional DG sets (2 x 750 + 1 x 1000 KVA) will be installed.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs read with Generic TOR given at Annexure-1 and Additional TORs at Anenxure-2 for preparation of EIA-EMP report:

(i) Recommendation of APPCB whether the Ind. area can take the additional pollution load.
(ii) Zero-discharge
(iii) Develop good plantaion within the project site using tree species with broad canopy

17.7.17 Expansion of Bulk Drugs Manufacturing Unit of **M/s Brundavan Lab. Pvt.** Ltd at Village Yellagiri, Choutuppal Medak Nalgonda District.(**TOR)**

The project authorities and their Consultant (KKB Envirocare Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP 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 Brundavan Lab. Pvt. Ltd has proposed for expansion of Bulk Drugs Manufacturing Unit (from 26.5 TPA to 1020 TPA) at Village Yellagiri, Mandal Choutuppal, District Nalgonda, AP. Existing unit does not have environmental clearance, since it was a Bulk Drugs intermediates manufacturing unit established in July 2013. Total plot area is 5.11 ha. of which greenbelt will be developed in 18058 m^2. Cost of expansion project is Rs. 4.0 Crore. No wildlife sanctuaries/national parks are located within 10 Km distance. Reserve forests (Meharnagar RF, Malkapuram RF, Lakkaram RF and Chotuppal RF) are located within 10 km distance. APPCB lifted the temporary moratorium on expansion of industries in Nalgonda District, June, 2011 and permanent Ban in 4 districts surrounding Hyderabad vide GO Ms. No. 64 dated 25/07/2013, originally imposed in 1997 and allowed the existing industries to apply for expansion.

Following products will be manufactured :

S. No.	Product	Quantity (TPA)	Therapeutic Category
Proposed Bulk Drugs – Campaign products			
1.	Abacavir Sulfate	60	Antiviral
2.	Aripiprazole	60	Antipsychotic
3.	Atenolol	60	Antihypertensive
4.	Carvedilol Phosphate	24	Antihypertensive
5.	Celecoxib	60	Anti-inflammatory
6.	Cetirizine Dihydrochloride	72	Antihistaminic
7.	Clopidogrel Bisulfate	36	Antithrombotic
8.	Duloxetine Hydrochloride	36	Antidepressant
9.	Ezetimibe	36	Antilipemic
10.	Fexofenadine Hydrochloride	48	Antihistaminic
11.	Irbesartan	60	Antihypertensive
12.	Lamotrigine	72	Anticonvulsant
13.	Lansoprazole	48	Antiulcerative
14.	Levetiracetam	60	Anticonvulsant
15.	Losartan Potassium	96	Antihypertensive
16.	Montelukast Sodium	36	Antiasthmatic
17.	Olanzapine	72	Antipsychotic
18.	OlmesartanMedoxomil	48	Antihypertensive
19.	Pioglitazone Hydrochloride	96	Antidiabetic
20.	Pregabalin	72	Anticonvulsant
21.	QuetiapineHemifumarate	72	Antipsychotic
22.	Risedronate Sodium Hemipentahydrate	48	Bone resorption inhibitor
23.	Sumatriptan Succinate	48	Antimigraine
24.	Telmisartan	60	Antihypertensive

25.	Valsartan	96	Antihypertensive
26.	Venlafaxine Hydrochloride	48	Antidepressant
27.	Terbutaline Sulfate	60	Antiasthmatic
Proposed Bulk Drug Intermediates – Campaign products			
S. No.	**Product**	**TPA**	**Intermediate to the product**
28.	Amino-2-methyl-10H-thiene[2,3b][1,5]benzodiazepine Hydrochloride	144	Olanzapine Intermediate
29.	(-)-O,O'-Dibenzoyl-L-tartaric acid monohydrate	120	Tapentadol Intermediate
30.	3,5-Dibenzyloxyacetophenone	180	Terbutaline Intermediate
Maximum Production Capacity on various combinations (i.e. any 10 Products at a point of time)		**1020**	

Out of 30 products, only 10 products with production capacity of 1020TPA will be manufactured at a timeon campaign basis.

Multicyclone separator followed by bagfilter will be provided to the proposed coal fired boiler 5&10TPH &existing 2 TPH Boiler.Scrubbers will be provided to control process emissions viz. HCl, SO_2, H2 and NH_3.Fresh water requirement will be increased from 43.5 m^3/day to 295 m^3/day after expansion. Out of which, 175 m^3/day will be fresh water and balance 120 m^3/day will be met from recycled/treated water. Effluent generation will be increased from 8.6 m^3/day to 122 m^3/day after expansion.Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS effluent stream will be treated in ETP followed by RO. No effluent will be discharged outside the plant premises. Process organic residue, solvent residue and spent carbon will be sent to TSDF/cement industries. Process Inorganic residue, evaporation salts and ETP sludge will be sent to TSDF. Fly ash will be sent to brick manufacturers.

The Committee agreed to the collection of baseline data during March-May end (before monsoon). After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs read with Generic TOR given at Annexure-1 and Additional TORs at Anenxure-2 for preparation of EIA-EMP report:

(i) Recommendation of APPCB whether the Ind. area can take the additional pollution load.

(ii) Zero-discharge

(iii) Develop good plantaion within the project site using tree species with broad canopy

17.7.18 Pesticide Technical Pesticide Intermediates and Specialty Chemical Manufacturing Plant of **M/s Anupam Rasayan India Ltd.** at Plot No. 905/1, Jhagadia Industrial Estate Jhagadia District Bharuch Gujarat **(TOR)**

The project authorities and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All units producing technical grade pesticides are listed at S.N. 5(b) under category 'A' and appraised at Central level.

M/s Anupam Rasayan India Ltd. has proposed for setting up of a Pesticide Technical Pesticide Intermediates and Specialty Chemical Manufacturing Plant at Plot No. 905/1, Jhagadia Industrial Estate Jhagadia, District Bharuch Gujarat. Total plot area is 81494 m^2 of which greenbelt will be developed in 24449 m^2. Cost of project is Rs. 75 Crore. No national park, wildlife sanctuary, biosphere reserves and reserve forest is located within 10 km distance. Following products will be manufactured:

Sr. No.	Name of Product	Proposed Capacity (MTPM)
Group - 1 (Insecticides) - 450 MTPM		
A - Intermediates		
1	Meta Phenoxy Benzaldehyde (MPBAD)	
2	Cypermethric Acid Chloride (CMAC)	
3	Lambda Cyhalothric Acid Chloride (TFP Acid Chloride)	
4	Meta Phenoxy Benzyl Alcohol (MPBAL)	
5	2-Chloro 5-Chloromethyl Pyridine (CCMP)	
A1. Synthetic Pyrethroid		
6	Cypermethrin (T) & Beta, Zeta, Theta etc Isomers (T)	
7	Alphacypermethrin (T)	
8	Deltamethrin (T)	
9	Permethrin (T)	
10	Lambda Cyhalothrin (T)	
11	Bifenthrin (T)	
12	Tefluthrin (T)	
13	Transfluthrin (T)	
14	Cyfluthrin & Beta Isomers (T)	
15	Cyphenothrin (T) & its [1R-Trans-isomer]	
16	Dimefluthrin (T)	
17	Fenpropathrin (T)	
18	Cycloprothrin (T)	
19	Flumethrin (T)	
20	Acrinathrin (T)	
21	Etofenprox (T)	
22	Flucythrinate (T)	
A. Neo Nicotinoid/ Thiazole / Nitro Guanidine		
23	Imidacloprid (T)	
24	Acetamiprid (T)	

B. Carbamate / Phenyl Ether /Benzoyl Phenyl Urea/Phenyl Pyrazole/ Oxadiazine		
25	Fenoxycarb (T)	
26	Pyriproxifen (T)	
Total Production of Groups - 1 (Insecticides)		**450**
Group - 2 (Herbicides) - 600 MT/Month		
C. Amide / Nitro phenyl Ether Herbicides		
27	Fomesafen (T)	
28	Halosafen (T)	
29	Napropamide (T)	
E . Anilide /Pyridine/ Aryloxyphenoxypropionic Herbicides		
30	Metamifop (T)	
31	Picolinafen (T)	
32	Chlorazifop (T) & Chlorazifop Propargyl (T)	
33	Clodinafop & Clodinafop Propargyl (T)	
34	Cyhalofop & Cyhalofop Butyl (T)	
35	Diclofop (T) & Diclofop Methyl (T)	
36	Fenoxaprop (T) & Fenoxaprop P Ethyl (T)	
37	Fluazifop (T) & Fluazifop P Butyl	
38	Haloxyfop (T) & Haloxyfop Methyl	
39	Quizalofop (T) & Quizalofop Ethyl (T)	
40	Cloquintocet Mexyl (T)	
41	Quizalofop-P-Tefuryl	
42	Haloxyfop Ethoxy Ethyl (Etotyl)	
D. Phenyl Ether /Phenoxy Carboxyllic Acid / Pyridine / Nitro Phenyl Ether		
43	Acifluorfen (T)	
44	Aclonifen (T)	
45	Chlomethoxyfen (T)	
46	Fluoroglycofen (T)	
47	Lactofen (T)	
48	Oxyfluorfen (T)	
49	Dicamba(T)	
50	Fluoroxypyr-Meptyl	
51	Picloram	
52	Triclopyr – Butotyl	
E. Triazinone Herbicides / Cyclohexene Oxime Herbicides		
53	Metamitron (T)	
54	Metribuzine (T)	
55	Clethodim (T)	
Total Production of Groups - A (Herbicides)		**600**
Group – 3 (Fungicides) - 500 MT/Month		
A. Conazole Fungicide		

56	1,2,4 Triazole	
57	3- Methyl 1,2,4 Triazole	
58	Difenoconazole (T)	
59	Azaconazole (T)	
60	Bromuconazole (T)	
61	Epoxiconazole (T)	
62	Etazonazole (T)	
63	Hexaconazole (T)	
64	Penconazole (T)	
65	Propiconazole (T)	
66	Tebuconazole (T)	
67	Fenbuconazole (T)	
68	Ipconazole (T)	
69	Metconazole (T)	
70	Tetraconazole (T)	
71	Cyproconazole (T)	
72	Prothioconazole (T)	
73	Fluquinconazole (T)	
74	Myclobutanil (T)	
75	Imazalil (T)	
76	Triadimenol (T)	
77	Triadimefon (T)	
78	Triticonazole (T)	
B. Strobilurin / Methoxyacrylate / Carbanilate / Amide/Fungicides		
79	Dimoxystrobin (T)	
80	Kresoxim Methyl (T)	
81	Trifloxystrobin (T)	
82	Flufenoxy Strobin (T)	
83	Picoxystrobin (T)	
84	Triclopyricarb (T)	
85	Azoxy Strobin (T)	
86	Metominostrobin (T)	
87	Fluoxastrobin (T)	
88	Orysastrobin (T)	
89	Pyraclostrobin (T)	
90	Fenoxanil (T)	
91	Cymoxanil (T)	
C .Acylamino / Anilide / Aromatic Fungicides/Quinoline/Dicarboxymide/Oxazole		
92	Metalaxyl (T)	
93	Benalaxyl (T)	
94	Chlorothalonil (T)	
95	Fluazinam (T)	
96	Quinoxyfen (T)	
97	Famoxadone (T)	
Total Production of Group - 3 (Fungicides)		**500**
Group – 4 AMINO DIPHENYL ETHER / PHENOXY COMPOUNDS - 300 MT/Month		

98	2-Amino-2’, 4’-Dichloro Diphenyl Ether (Y)	300
99	2-Amino - 2’- Methyl Diphenyl Ether (Red Ether)	
100	Amino Resorcine Di Ortho Cresyl Ether	
101	2- Amino Di Phenyl Ether (O- Amino Di Phenyl Ether)	
102	4- Amino Di Phenyl Ether	
103	4-Amino 4'- Methyl Di Phenyl Ether (4-PP)	
104	2- Amino 2', 4, 4’- Tri Chloro Di Phenyl Ether (Benzinamide, 5-chloro-2-2(2,4-Dichloro Phenoxy) / TADE)	
105	4- Amino 2', 4’ Di Chloro Di Phenyl Ether (OD Amino)	
106	4, 4’- Di Amino Di Phenyl Ether	
107	3, 4' - Di Amino Di Phenyl Ether	
108	2- Amino -4- Chloro Di Phenyl Ether (PHD Ether)	
109	4- Amino -2, 4’ -Di Chloro Di Phenyl Ether (GE/Aminophene)	
110	2- Amino - 4' - Chloro Di Phenyl Ether	
111	2- Amino -4'- Chloro -4 -Trifluoromethyl Di Phenyl Ether (ACTM)	
112	4- Amino - 4' - Chloro Di Phenyl Ether (PPNA)	
113	1, 2- Bis (2- Amino Phenoxy) Ethane	
114	1,2-Bis(4-Amino Phenoxy) Ethane	
115	4-Amino-4’-Nitro Diphenyl Ether	
116	2-Amino-2’,4 -Dichloro Diphenyl Ether	
117	2-Amino-4,4’-Dichloro Diphenyl Ether (PD Amino)	
118	2-(4-Nitro Phenoxy) Ethanol	
119	1,4-Bis(4-Amino Phenoxy) Benzene	
120	1,3 – Bis(4-Amino Phenoxy) Benzene	
121	1,3-Bis(3-Amino Phenoxy) Benzene	
122	1,2-Bis(2-Methyl Phenoxy) Ethane	
123	1,2-Bis(3-Methyl Phenoxy) Ethane	
124	1,2-Bis(3-Methyl Phenoxy) Ethane	
125	5-Amino-2,2’,3-Trichloro-4-Nitro-Diphenyl Ether	
126	2-Amino -4,4’-Dichloro Diphenyl Ether-2’-Sulfonic Acid/Sodium Salt	
127	4,4’-Dihydroxy Diphenyl Ether	
128	2-Hydroxy-4,4’-Dichloro Diphenyl Ether	
129	2-Hydroxy-2,4,4’-Trichloro Diphenyl Ether	
130	4-Hydroxy-2’,4’-Dichloro Diphenyl Ether	
131	2-Chloro-4-(4-Chlorophenoxy) Acetophenone/4-Acetyl-3,4’-Dichloro Diphenyl Ether	
132	2-Acetyl-2’,4,4’-Trichloro Diphenyl Ether	
133	4,4’ Dimethyl Diphenyl Ether	
134	4,4’-Dicarboxy Diphenyl Ether	
135	Diphenyl Ether	
136	4-Hydroxy Diphenyl Ether / 4-Phenoxy Phenol	
137	5 Chloro-6-(2,3 Dichloro Phenoxy)-2-methyl thio -1H Benzimidazole /Triclabendazole	
138	3,4’-Dimethyl Diphenyl Ether	

139	3-Phenoxy Toluene	
Total Production of Group - 4		**300**
Group - 5 Specialty Phenols/ Specialty Chloro Phenol - 500 MT/Month		
140	2, 3-Dichloro Phenol	500
141	2, 5-Dichloro Phenol	
142	3, 4-Dichloro Phenol	
143	3, 5-Dichloro Phenol	
144	3-Mehtyl Phenol (m-Cresol)	
145	3- Chloro Phenol	
146	3-Nitro Phenol	
147	4-(2- Methoxy Ethyl) phenol	
148	Anisole	
149	2,3 Dichloro Anisole	
150	2,5 Dichloro Anisole	
151	4-Bromo-2-Chloro Phenol	
152	4-Bromo 2,5 Dichloro Phenol	
153	4-Fluoro Phenol	
154	2-Fluoro Phenol	
155	O-Benzyl-p-Chloro Phenol	
156	O-Cyano Phenol	
157	P-Chloro-m-Cresol	
158	P-Chloro-meta Xylenol	
159	Dichloro-meta –Xylenol	
160	Dichlorophene	
161	Bromochlorophene	
162	5 - Chloro-2-Amino Phenol	
163	4-Chloro-2-Amino Phenol	
164	4,6-Dichloro-2-Amino Phenol	
165	3,4,5 Tri Methoxy Toluene	
166	4- Bromo Anisole	
Total Production of Group - 5		**500**
Group – 6 Amino Benzoic Esters - 250 MT/Month		
167	3-Amino-4-Methyl Benzoic Acid Methyl Ester	250
168	3-Amino 4-Methyl Benzoic Acid Isopropyl Ester (AMBI)	
169	3-Amino 4-Methyl Benzoic Acid(2' - Chloro Ethyl Ester) (AMBC)	
170	5-Amino-2-Methyl Benzene Sulphonic Acid Phenyl Ester	
171	Benzene Sulphonic Acid 3-Amino Phenyl Ester	
172	2-Cyano-3,4,5,6-Tetrachloro Benzoic Acid Methyl Ester	
173	Benzene Sulphonic Acid 2-Methyl-5-Nitrophenyl Ester	
174	Bisphenol - A (Amino Benzene Sulfonate)	
175	3,5 Di Amino 4- Chloro Benzoic Acid Iso Butyl Ester	
Total Production of Group - 6		**250**
Group - 7 Amino Compounds / Hydrogenation Compounds - 200 MT/Month		
176	3-Amino-4-Chloro Benzoic Acid	
177	3-Amino-4-Methyl Benzoic Acid	
178	3-Amino-4-Chloro Benzotrifluoride	

179	3-Amino Benzotrifluoride	200
180	2-Chloro-1,4 - Phenylene Diamine (2,5 DCPPD)	
181	2, 5-Dichloro-1, 4-Phenylene Diamine	
182	2-Chloro-5-Methyl-1, 4 - Phenylene Diamine	
183	2, 5-Dimethyl – 1, 4 – Phenylene Diamine	
184	3,4-Diamino Toluene	
185	2,3-Dichloro Aniline	
186	2, 5-Dichloro Aniline	
187	3, 4-Dichloro Aniline	
188	3, 5-Dichloro Aniline	
189	3-Iso Propoxy Aniline	
190	5-Amino Benzimidazole –2-One	
191	6-Methyl-5-Amino Benzimidazolone	
192	2,4,5 Tri Chloro Aniline	
193	Ortho Toluidine	
194	Meta Toluidine	
195	Para Toluidine	
196	Aniline	
Total Production of Group - 7		**200**
Group – 8 Acetylated Compounds -200 MT/Month		
197	2, 4-Dichloro Acetophenone	200
198	2, 5-Dichloro Acetophenone	
199	4 – Fluoro Acetophenone	
200	2,4-Dichloro-5-Fluoro Acetophenone	
201	4-Fluoro Phenacyl Chloride	
202	2,4-Dichloro Phenacyl Chloride	
203	2,4-Dichlorobuterophenone	
Total Production of Group - 8		**200**
Group – 9 Nitro Compounds - 200 MT/Month		
204	6 Nitro-3,4-Dichloro Aniline	200
205	4 Nitro-2,5-Dichloro Aniline	
206	2 Nitro-4-Methyl Aniline	
207	4 Nitro-2,5-Dimethyl Aniline	
208	4-Nitro-5-Chloro-2-Methyl Aniline	
209	4 -Nitro-2,5-Dichloro Phenol	
210	4 -Nitro-2,3-Dichloro Phenol	
211	6 -Nitro-2,4-Dichloro Phenol	
212	2 -Nitro-4-Chloro-Phenol	
213	5-Nitro Salicylic Acid	
214	3-Nitro - Para Toluic Acid	
215	3-Nitro-4-Chloro-Benzotrifluoride	
216	Nitro Benzene	
217	2,5 - Dichloro Nitro Benzene	
218	2,3 - Dichloro Nitro Benzene	
219	3,4 - Dichloro Nitro Benzene	
220	2- Nitro Toluene	

221	3 - Nitro Toluene	
222	4 - Nitro Toluene	
223	1,3 - Dinitro Benzene	
224	3,5 - Dinitro Benzoic Acid	
225	4- Chloro – 3,5 – Dinitro Benzoic Acid	
Total Production of Group - 9		**200**
Group - 10 TRICLOSAN / DICLOSAN /AMINO HYDROXY ETHER /HP 100 - 150 MT/Month		
226	HDC HP 100 (TINOSAN HP -100) (Formulated 2-Hydroxy-4-4 Dichloro Di phenyl Ether) (30% Solution)	150
226	Resorcinol Di (Beta - Hydroxy Ethyl) Ether	
227	Phenofen	
Total Production of Group - 10		**150**
Group – 11 Chlorinated Compounds / Carbonyl Chlorides -500 MT/Month		
228	Chloro Benzene	500
229	Ortho Dichloro Benzene & Para Dichloro Benzene	
230	1,3 Di Chloro Benzene	
231	Ortho Chloro Toluene & Para Chloro Toluene	
232	2,4 – Dichloro Toluene	
233	Ortho Chloro Phenol & Para Chloro Phenol	
234	2,4 Dichloro Phenol	
235	2,6 Di Chloro Phenol	
236	N- Valeroyl Chloride	
237	4- Nitro Benzoyl Chloride	
238	3- Nitro Benzoyl Chloride	
239	4- Chloro Benzoyl Chloride	
240	4- Methyl Benzoyl Chloride	
241	2,4 Di Chloro Benzoyl Chloride	
242	2- Methoxy -5- Bromo -6- Methyl Benzoyl Chloride	
243	Terephthaloyl Chloride	
244	4- Chloro Butyryl Chloride	
245	Pivaloyl Chloride	
246	Propargyl Chloride	
Total Production of Group - 11		**500**
Group – 12 Oxidation Compounds - 100 MT/Month		

247	Para Nitro Benzoic Acid	100
248	Ortho Chloro Benzoic Acid	
249	Para Chloro Benzoic Acid	
250	2,4 Di Chloro Benzoic Acid	
251	Para Toluic Acid	
Total Production of Group - 12		**100**
Total Production of all Groups (from 1 to 12)		**3950**
By-Product		
1.	Sodium Sulphite 20 % Solution & Salt 95 %	6000
2.	Potassium Chloride 20 % Solution & Salt 95 %	
3.	Sodium Chloride 15 % Solution & Salt 95%	
4.	Sodium Bi Sulphite 20 % Solution & Salt 95 %	
5.	Ammonium Chloride 15 % Solution & Salt 95 %	
6.	Ammonium Sulphate 25 % Solution & Salt 95 %	
7.	Sodium Sulphate 20 % solution & 95 %	
8.	Sodium Bromide 20 % Solution & Salt 95 %	
9.	Sodium Fluoride 20 % Solution & Salt	
10.	Potassium Bromide 20 % Solution & Salt 95 %	
11.	Potassium Fluoride 20 % Solution & 9& Salt 95 %	
12.	Aluminum Chloride 20 % Solution	
13.	Sulphuric Acid (70%)	
Total		**6000**

ESP will be provided to coal fired boiler (1 x 40 TPD + 1 x 18 TPD) to control particulate emissions. Adequate stack height will be provided to gas fired thermic fluid heater. DG set 2 x 500 KVA will be installed. Sc rubber will beprovided to control process emissions viz. HCl, SO2 and HBr. Fresh water requirement from GIDC water supply will be 285 m3/day. Effluent generation will be 202 m3/day. Effluent will be segregated into high COD /TDS effluent stream and low COD/TDs effluent stream. High COD effluent stream will concentrated in MEE. Condensate of MEE will be treated SBT. 180 KL/Day (90 KL/Day neutralized effluent + 90 KL/Day MEE Condensate) effluent will be treated in SBT. 170 KL/Day treated effluent will be reused for industrial purpose.

After detailed deliberations, the Expert Appraisal Committee prescribed the following TORs read with the Generic TOR at Annexure-1 read with additional TORs at Annexure-2 for preparation of EIA-EMP report:

(ii) Zero-discharge

(iii) Develop good plantaion within the project site using tree species with broad canopy

17.7.19 Expansion of Synthetic Organic Chemicals Manufacturing Unit of **M/s Jyoti Industries LT** at Shed No. C-1B-3230, New Chemical Zone, GIDC, SARIGAM Taluka Umargam District Valsad State Gujarat (**TOR)**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (Bulk Drugs & Intermediates) 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 10 km distance of interstate boundary Gujarat & Daman Diu is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Jyoti Industries Ltd. has proposed for expansion of Synthetic Organic Chemicals Manufacturing Unit at Shed No. C-1B-3230, New Chemical Zone, GIDC, SARIGAM TalukaUmargam District Valsad, Gujarat. The proposed project activity will be carried out at plot no. 3229 in addition of existing plot no. 3230. Interstate boundary is 7.7 Km from the project site. Unit has already got CC & A for existing product valid upto 21/02/2017. Cost of the expansion project is Rs. 148 Lakhs. No national park or wildlife sanctuary falls within 10 km distance from the project site. Following products will be manufactured:

S. N.	Products	Existing Quantity(TPM)	Additional Quantity (TPM)	Total Quantity after expansion (TPM)
1	Red Pigment	6.0	44.0	50.0
2	Yellow Pigment	--	50.0	50.0
3	Orange Pigment	--	25.0	25.0

Adequate stack height will be provided to additional gas fired baby boiler (3TPH). Bagfilter will be provided to puversiation section to control particulate emissions. Water requirement from GIDC water supply will be increased from 6.30 m3/day to 137.10 m3/day after expansion. Effluent will be treated in the ETP. Treated effluent will be discharged into ETP Sarigram. ETP sludge will be sent to TSDF. Used oil will be sent to authorised recyclers/re-processors.

After detailed deliberations, the Expert Appraisal Committee prescribed Generic TORs given at Annexure-1 and Additional TORs at Anenxure-2 for preparation of EIA-EMP report.

17.7.20 Drug Manufacturing Unit of **M/s Riata Organics Pvt. Ltd.** at Block No. 141/B, Village Tundav, Tundav-Anjesar Road Taluka Savli District Vadodara Gujarat **(TOR)**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP 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 Riata Organics Pvt. Ltd. has proposed for setting up of Bulk Drug and Intermediates Manufacturing Unit at Block No. 141/B, Village Tundav, Tundav-Anjesar Road, TalukaSavli, District Vadodara, Gujarat. Plot area is 7035 m^2. Cost of project is Rs. 4.0 Crore. There are no national parks, wildlife sanctuaries, biosphere reserves, heritage sites, tanks, reserve forests etc. Following products will be manufactured :

S.N.	Products	Existing capacity (MTPM)	Additional Capacity (MTPM)	Total Capacity (MTPM)
1	SEL ACT 34 (Cattle Food)- Existing	50	--	50
Proposed				
2	Losartan Potassium & Intermediates	--	15	15
3	Glibenclamide and its intermediates	--		
4	Valsartan and its intermediate	--		
5	Celecoxib and its Intermediate	--		
6	Desloratadine and its intermediate	--		
7	Lacosamide and its intermediate	--		
8	Lansoprazole and its intermediate	--		
9	Venlafaxine and its intermediate	--		
	Total	50	15	65

Cyclone separator followed by bagfilter will be provided to agro waste/coal fired boiler. Water requirement from ground water source will be increased from 0.5 m3/day to 45 m3/day after expansion. Effluent generation will be increased from 0.3 m^3/day to 29 m^3/day after expansion and treated in ETP followed by solvent stripper, MEE and ATFD. ETP sludge, inorganic salt and MEE salt will be sent to TSDF. Fly ash will be sent to brick manufacturers. Distillation residue will be sent to co-incinerator / cement plant

After detailed deliberations, the Expert Appraisal Committee prescribed Generic TOR given at Annexure-1 and Additional TORs at Anenxure-2 for preparation of EIA-EMP report.

17.7.21 Exploratory Drilling of 9 Wells in Block CB-ONN-2009/1 of **M/s Sintex Oil and Gas Pvt. Ltd.** at District Patan, Gujarat (**TOR)**

The project authorities and their Consultant (Kadam Environmental Consultants) 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 Sintex Oil and Gas Pvt. Ltd. has proposed for exploratory drilling of 9 Wells in Block CB-ONN-2009/1 at District Patan, Gujarat. The total area of this block is 113 Km^2. SOGL proposes drilling of 9 exploratory wells and depth of well will be 2000 m. Signing date of production sharing contract (PSC) of the block alongwith SOGL and Govt. of India was 30.06.2010. Petroleum exploration license (PEL) to start the exploration activities in the block was given on 04.01.2011. It is reported that no national park/wildlife sanctuary/tiger reserve / elephant reserve/ turtle nesting ground. Total water requirement is 20 m3/day/well. Wastewater generation will be 5 m^3/day and will be collected in HDPE lined collection pits and allowed to evaporate in line with MOEF Notification dated 30th August, 2005. Drill cuttings generation will be 20 MT/Well. Waste oil generation will be 2-3 MT/Well. 2 DG sets will be used for drilling operation and lighting during night. Capacity of DG set is 1000 HP each.

After detailed deliberations, the Expert Appraisal Committee recommended TORs as given at Annexure-3 for preparation of EIA-EMP Report.

17.7.22 Resin manufacturing unit of **M/s Bro Lam Déco**r at Survey No.B-4/15 & 4/16, Road No.8, Sachin Udhyog Nagar, Hojiwala Industrial Estate, Village Sachin, Taluka Choryasi, District Surat, Gujarat (**TOR)**

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 Bro Lam Décor has proposed for setting up of Resin manufacturing unit of at Survey No.B-4/15 & 4/16, Road No.8, SachinUdhyog Nagar, Hojiwala Industrial Estate, Village Sachin, TalukaChoryasi, District Surat, Gujarat. Total plot area is 7230 m^2 of which greenbelt will be developed in 2350 m^2. Cost of resin plat is Rs. 1 crore.

The following products will be manufactured:

S.N.	Products	Quantity (MTPM)
1	P. F Resin	150
2	M F Resin	200
3	U F Resin	250

Multi cyclone dust collector will be provided to steam boiler (3MT) and Thermic Fluid Heater (8 00000 Kcal/hr.). Scrubber alongwith adequate stack height will be provided to Melamine Formaldehyde/Phenol formaldehyde dryer. Total fresh water requirement will be 31.944 m^3/day. Effluent generation will be 4390 LPD and treated in ETP. DG set (125 KVA) will be installed. ETP sludge will be sent to TSDF site for disposal. Used oil will be sent to registered recycler.

After deliberations, the Committee prescribed TORs given at Annexure-7 for the preparation of EIA-EMP report.

17.7.23 Exploratory Drilling of 10 Wells in Block CB-ONN-2009/2 of **M/s Sintex Oil and Gas Pvt. Lt**d. at Districts Mehsana and Ahmedabad, Gujarat **(TOR)**

The project authorities and their Consultant (Kadam Environmental Consultants) 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 Sintex Oil and Gas Pvt. Ltd. has proposed forexploratory drilling of 10 Wells in Block CB-ONN-2009/2 at DistrictsMehsana and Ahmedabad,, Gujarat. The total area of this block is 68 Km^2. SOGL proposes drilling of 10 exploratory wells and depth of well will be 4000 m. Signing date of production sharing contract (PSC) of the block alongwith SOGL and Govt. of India was 30.06.2010. Petroleum exploration license (PEL) to start the exploration activities in the block was given on 15.10.2010. It is reported that no national park/wildlife sanctuary/tiger reserve / elephant reserve/ turtle nesting ground. Total water requirement is 20 m3/day/well. Wastewater generation will be 5 m^3/day and will be collected in HDPE lined collection pits and allowed to evaporate in line with MOEF Notification dated 30th August, 2005. Drill cuttings generation will be 30 MT/Well. Waste oil generation will be 2-3 MT/Well. 2 DG sets will be used for drilling operation and lighting during night. Capacity of DG set is 1000 HP each.

The Committee desired that P.H. shall be conducted for both districts of Mehsana and Ahmedabad as per provisions of EIA Notifictaion 2006. After detailed deliberations, the Expert Appraisal Committee prescribed TORs as given in Annexure-3 for preparation of EIA-EMP Report.

17.7.24 Grain based Distillery of **M/s MKR Distilleries Pvt. Ltd.** at P.S: Nodakhali P.O: Bawali, District 24 Parganas (South) in West Bengal **(TOR)**

The project proponents along with their consultant (M/s J M Environet Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. All the Grain based Distillery Units (30 KLPD and above) are listed at S.N. 5(g) of Schedule of EIA Notification, 2006 as Category 'A' and have to be appraised at the Central level.

M/s MKR Distilleries Pvt. Ltd. has proposed for setting up of Grain based Distillery (60KLPD) alongwith CPP (2MW) at P.S: Nodakhali P.O: Bawali, District 24 Parganas (South) in West Bengal. Total plot area is 7 acres of which greenbelt will be developed in 2.33 acres. Cost of the project is Rs. 43.3 Crore. Hoogly

river is flowing at a distance of 6 Km. It is reported that there is no national park/wildlife sanctuary/reserve forest within 10 Km distance.

Adequate stack height and appropriate air pollution control facilities will be provided to rice husk /coal fired CPP to control particulate emissions. Water requirement from ground water source will be 700 m^3/day. Spent wash from grain based distillery will be decanted and thin slop will be concentrated in the Multi-effect evaporators (MEE). Concentrated thin slop will be mixed with settleable solids to form Distiller's Wet Grains with Soluble (DWGS). DWGS will be sent to dryer to form Distiller's Dry Grains with Soluble (DDGS).DDGS will be sold as animal feed. Fly ash will be sold to brick manufacturers. ETP sludge will be used for landfilling.

After deliberations, the Committee prescribed the TORs as given at Annexure-4 for the preparation of draft EIA-EMP Report.

17.7.25 Multifeed Distillery (50 KLPD) alongwith Cogeneration Power Plant of **M/s KGS Sugar & Infra Corporation Ltd.** at Gat No. 147/4, 148/1/2A, 148/1/1B, Village Pimpalgaon, Tehsil Niphad, District Nasik, Maharashtra (**TOR)**

The project proponents along with their consultant (M/s J M Environet Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. All the Molasses/Grain based Distillery Units (30 KLPD and above) are listed at S.N. 5(g) of Schedule of EIA Notification, 2006 as Category 'A' and have to be appraised at the Central level.

M/s KGS Sugar & Infra Corporation Ltd. has proposed for setting up of Multifeed Distillery (50 KLPD) alongwith Cogeneration Power Plant (1.5 MW) at Gat No. 147/4, 148/1/2A, 148/1/1B, Village Pimpalgaon, Tehsil Niphad, District Nasik, Maharashtra. Besides, KGS is installing a sugar mill of 4000 TCD cane crushing capacity with integral cogeneration plant to produce 14 MW using available bagasse from sugar mill. They informed that the said activities are exempted from environmental clearance under notification SO 1533 dated 14th September, 2006 as this capacity is less than 500 TCD for sugar and below 15 MW for power. However, the Committee suggested that since the proposed activities are integrated in nature, EIA study should cover sugar plant and CPP (14 MW) also. Total plot area is 3,57,000 m^2. River Godavari is flowing at a distance of 5.5 Km. Cost of the project is Rs. 86.96 Crore.Molasses based distillery will be operated for 210 days during season. Grain based distillery will be operated for 150 days during offseason.

Gaseous emission from the boiler will be passed through scrubber to control the particulate emission to < 800 mg/$nm^{3.}$ However, the Committee suggested to install bagfilter to control particulate emissions from boiler. Fresh water requirement from surface water (Godavari River)/ ground water source will be 690 m3/day. Spent wash from molasses based distillery will be treated in bio-digester followed by evaporation in MEE and bio-composting to achieve zero discharge. Spent wash from grain based

distillery will be decanted and thin slop will be concentrated in the Multi-effect evaporators (MEE). Concentrated thin slop will be mixed with settleable solids to form Distiller's Wet Grains with Soluble (DWGS). DWGS will be sent to dryer to form Distiller's Dry Grains with Soluble (DDGS). DDGS will be sold as animal feed.Fly ash will be sent to cement manufacturers. Bio-compost will be sold to farmers.

After deliberations, the Committee prescribed the following TORs read with generic TOR at Annexure-1 and Additional TORs at Annexure-4 for the preparation of draft EIA-EMP:

1. Number of working days of the sugar unit, distillery and Cogen Unit.
2. Manufacturing process details of sugar plant, distillery and Cogen Unit alongwith process flow chart.
3. Details of boiler and its capacity. Details of the use of steam from the boiler.
4. Ground water quality around existing spent wash storage lagoon and the project area.
5. Details of water requirement, revised water balance chart for Sugar, distillery and Co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
6. Proposed effluent treatment system for sugar unit, distillery as well as Cogen Unit and Scheme for spentwash, bioconcentrate and pressmud for achieving 'zero' discharge and remaining grain based distillery-wet cake-DGDS for achieving zero-discharge.
7. Lagoon capacity for sugar unit and distillery as well measures to be taken to control ground water contamination.
8. 20MT boiler with ESP.
9. Details of solid waste management including management of boiler ash. Submit Ash management plan. MoU with cement plant for the use of fly ash.
10. Details of bagasse storage. Details of press mud requirement.
11. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO_2 emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted, in case coal is used.
12. Developing thick green plantation along peripehery and in vacant areas using tree species with thick broad canopy.
13. Good CSR Plan.

17.7.27 Proposed 60 KLPD Mollasses based Distillery **of M/s Dayal Beverages** at Plot No. 207/2, village Tapri, Tehsil & Dist. Saharanpur, (U.P.) (EC)

The above mentioned project proposal was considered in 3rd EAC meeting held during 3rd-5th December, 2012. Due to expiry of validity of TOR, MOEF directed project proposal to apply fresh proposal for environment clearance. The project proponent, vide letter dated 18th February, 2014 had forwarded Form-1 and prefeasibility report. The greenfield project is a distillery is based on molasses and Zero effluent discharge. Spent wash generated will be concentrated in MEE and then concentrated spent wash will be entirely used as a co-fuel in the boiler alongwith coal. Process condensate from evaporation will be cooled, neutralized & passed through a separate RO for recovery of up to 80 % water that can be utilized as cooling tower make-up water. Balance rejects will be recycled through MEE.

The Committee noted that baseline monitoring was carried out in the summer season i.e. March – May, 2012. The data was collected on standard TORs for molasses based distilleries. There is no change in the site parameter. Public Hearing has been conducted on 23rd July, 2012.

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

i. The project proponent shall follow guidelines and policies of the respective State Government w.r.t. the river regulation zone for conservation of river. State Pollution Control Board shall issue the consent to establish after complying the guidelines for the location of unit from river.

ii. Distillery unit shall be based on molasses based only and no grain based distillery unit shall be operated.

iii. As proposed, bag filter alongwith stack of adequate height should be provided to boiler to control particulate emission within 50 mg/Nm^3.

iv. Company shall follow good management practices viz. collection of waste yeast sludge from fermentation section in a closed system and proper disposal, reduced volume of effluent by adopting strategic approaches, closed drains carrying spent wash to the treatment units; minimization of fugitive emissions from anaerobic treatment; proper collection & handling of excess sludge generated from the anaerobic & aerobic treatment units; minimum retention of treated & untreated spent wash in the lagoons; effective composting of the spent wash by controlled effluent spraying through mechanical system to avoid spillages & over application, blending of sludge in correct proportion with press mud; and properly finished compost and green belt development with suitable plantation in and around the treatment units to mitigate odour from the distillery unit.

v. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.

vi. Total fresh water requirement from ground water source should not exceed 10.5 KL/KL of alcohol (i.e. 630 m^3/day) for distillery and cogeneration unit and prior permission for drawl of water should be obtained from the competent authorities.

vii. Spent wash generation from molasses based distillery should not exceed 8 Kl/Kl of alcohol. Spent wash from molasses based distillery should be concentration and incinerated in the incineration boiler to achieve zero discharge. Spentlees, effluent from utilities and cogeneration unit should be treated in effluent treatment plant (ETP) and water quality of treated effluent should meet the norms prescribed by CPCB/SPCB and recycle/ reuse.

viii. Spent wash for molasses should be stored in impervious lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 30 days.

ix. As proposed, no effluent from distillery and co-generation power plant should be discharged outside the premises and Zero discharge should be adopted.

x. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored.

xi. Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided. Bagasse ash and coal ash should be stored separately.

xii. Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.

xiii. All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 23rd July, 2012 shall be satisfactorily implemented.

xiv. 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.

xv. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

xvi. Green belt should be developed in 3.63 acres to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with the local DFO. Thick green belt with suitable plant species should be developed around the proposed distillery to mitigate the odour problem.

Reconsideration Cases

1. Drilling of Exploratory/Appraisal Wells (300) at RJ-ON-90/1 Block of **M/s Cairn India Ltd.** at District Barmer&Jalore, Rajasthan (**EC)** (**internal Discussion**)

The project proposal was considered in the 13thExpert Appraisal Committee (Industry) meeting held during 19th November, 2013 wherein the Committee had sought the following additional information:

1 Ambient air quality in respect of PM10 and non-methane hydrocarbon to be rechecked.
2 Need based enterprises social committment considering 5 % of project cost over five years to be submitted.

The project proponent vide letter dated 19thDecember, 2013 has submitted the above mentioned information. Regarding ESR, PP informed that the projected spend for FY 2013-14, based on the listed

program is approximately INR 45 Crore. Also, over the next five years, as the project expands Cairns' CSR spending will increase by a minimum of 10 % year to more than INR 250 crores. PP submitted the consolidated list of villages covered under Cairn programs till the year 2013. PP also furnished ESR plan for the year 2013-14 to 2017-18 indicating village wise identified priority areas.

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

i. This EC is only for Exploratory Drilling. In case Development drilling is to be done in future, prior clearance must be obtained from the Ministry.
ii. Ambient air quality should be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, methane & Non-methane HC etc.
iii. Mercury should also be analyzed in air, water and drill cuttings twice during drilling period.
iv. Approach road should be made pucca to minimize generation of suspended dust.

v. The company should make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.
vi. Total water requirement should not exceed 25 m^3/day and prior permission should be obtained from the concerned agency.
vii. The company should construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated. Effluent should be properly treated and treated wastewater should conform to CPCB standards.
viii. Drilling wastewater including drill cuttings wash water should be collected in disposal pit lined with HDPE lining evaporated or treated and should comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill should be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Lucknow.
ix. Good sanitation facility should be provided at the drilling site. Domestic sewage should be disposed off through septic tank/ soak pit.
x. Oil spillage prevention scheme should be prepared. In case of oil spillage/contamination, action plan should be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil should be disposed of to the authorised recyclers.
xi. The company should comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
xii. The Company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare should be explored. At the place of ground flaring, the overhead flaring stack with knockout drums should be installed to minimize gaseous emissions during operation.
xiii. The company should develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.

xiv. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

xv. Blow Out Preventer (BOP) system should be installed to prevent well blowouts during drilling operations. BOP measures during drilling should focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

xvi. Emergency Response Plan (ERP) should be based on the guidelines prepared by OISD, DGMS and Govt. of India.

xvii. The company should take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site should be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan should be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

xviii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

xix. Occupational health surveillance of the workers should be carried out as per the prevailing Acts and Rules.

xx. In case the commercial viability of the project is established, the Company should prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.

xxi. Restoration of the project site should be carried out satisfactorily and report should be sent to the Ministry's Regional Office at Lucknow.

xxii. Oil content in the drill cuttings should be monitored by some Authorised agency and report should be sent to the Ministry's Regional Office at Lucknow.

xxiii. Under Enterprise Social Commitment (ESC), sufficient budgetary provision should be made for health improvement, education, water and electricity supply etc. in and around the project.

xxiv. An audit should be done to ensure that the Environment Management Plan is implemented in totality and report should be submitted to the Ministry's Regional Office.

xxv. All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 12th November, 2013 and 13th November, 2013 and shall be satisfactorily implemented.

xxvi. All personnel including those of contractors should be trained and made fully aware of the hazards, risks and controls in place.

xxvii. Company should have own Environment Management Cell having qualified persons with proper background.

xxviii. Company should prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual should be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring should be available at the project site office.

Any Other Items

1. 40 Developmental Wells of **M/s GeoEnpro Petroleum Ltd.** in Kharsang Oilfield, Dist. Changlang, Arunachal Pradesh (**Amendment of EC dated 15.11.2007)**

MOEF vide letter no. J-11011/389/2006-IA II (I) dated 15th November 2007 garnted EC for 40 exploratory drilling wells in Kharsang oilfield. Project proponent vide letter dated 26th December, 2013 has informed

that the EC has wrongly mentioned the wells as exploratory drilling instead development wells. They have requested for corrections in the environmental clearance and submitted the following documentary proof:

a. Form1 was submitted for expansion activity of Kharsang Oilfield comprising drilling of 40 development wells.
b. EIA-EMP report was prepared for expansion activity of Kharsang Oilfield comprising drilling of 40 development wells.

The Commitete noted that the the EIA-EMP Report prepared and P.H. held were for development wells. After detailed deliberations, the committee recommended corrigendum of the EC with the aforesaid correction replacing the word 'exploratory' with 'development'.

2. Expansion of Petrochemcial Complex of **M/s GAIL (India) Ltd**. at P.O. Pata, Dist. Auriya, U.P. (**Amendment of EC dated 23.05.2012)**

M/s GAIL did not attend the meeting. The Committee decided to consider the project as and when requested by the proponent.

3. Rayon and Yarn Manufacturing unit of M**/s Subhlon Industries** at Moti Naroli, Block No. 70, Tehsil Magroal, Kim, Dist. Surat, Gujarat (**Reg. Amendment of TOR)**

MOEF vide letter no. J-11011/605/2010-IA II (I) dated 8th June 2011 has issued TOR for expansion of Rayon and Yarn Manufacturing unit. Now, they want to delete expansion and incorporate greenfield project but nothing is clear. As per application, they have applied for expansion project. However, Validity of TORhas been expired. After detailed deliberations, the committee suggested to apply afresh for EC.

4. Setting up of Multi Product Plant of **M/s BASF India Ltd.** at dist. Mangalore, Karnataka. **(Extension of validity of EC).**

MOEF vide letter no. J-11011/1314/2007-IA II (I) dated 6th November 2008 had granted an EC for Multiproduct pharma plant (2500 MTPA). Now, M/s BASF India Ltd. vide letter dated 3rd October, 2013 has applied for extension of validity of EC for another 5 years. They have howver not applied with updated form-1, which is pre-requisite under the EIA Notification 2006.

PP informed that preparatory works such as leveling the ground, obtaining additional power sanction, etc has been taken up for implementation of the said project. The execution of the project was however postponed due to adverse business conditions and economic constraints. The unit is located in an Industrial area.

After detailed deliberations, the committee recommended the following:

(i) Submit updated Form1.

(ii) Details of product mix change/project profile/project parameters.
(iii) Collect 2 months baseline data (including VOCs and NMHC) and compare with the baseline data for the project that wa granted EC.

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

5. Expansion of Distillery Unit (45 KLPD to 90 KLPD) by operating independently (Grain based, 45 KLPD) and (Molasses based, 45 KLPD) with 300 days of **M/s Oasis Alcohol Ltd.** at Adrishya Kadsidhnagar, Gat No. 240, 226, at PO Pangerkhel, Tehsil Khatav, District Satara, Maharashtra (**Extension of Validity of TOR**)

MOEF vide letter no. J-11011/336/2011-IA II (I) dated 4th November 2011 has issued TOR for Expansion of Distillery Unit (45 KLPD to 90 KLPD). Now, M/s Oasis Alcohol Ltd.vide letter dated 23rd October, 2013 has applied within the validity period for extension of validity of TOR for another 1 year. The PP explained that due to severe drought conditions & financial problems, it was not possible to conduct "Public Hearing "within the stipulated period of two years. After detailed deliberations, the committee recommended for the extension of validity of TOR for a period of one year with effect from 4.11.2013.

6. 30 KLPD Distillery Project of **M/s Hutatma Kisan Ahir Sahakari Sakhar Karkhana Ltd.** at Walwe District Sangli Maharashtra (**Extension of Validity of EC**)

MOEF vide letter no. J-11011/661/2007-IA II (I) dated 17th September 2007 has issued EC for 30 KLPD Distillery. Now, M/s HutatmaKisanAhirSahakariSakharKarkhana Ltd. vide letter dated 13th July, 2013 has applied for extension of validity of EC for another 3 years. P.H. was conducted in 2007 under the EIA Notifictaion 2006. They have also submitted a copy of letter no HKASSK/ADM/MFG/2012-13/828/2 dated **11th June, 2012** as a documentary proof regarding submission of application before the expiry period of EC. It was clarified that EC for expansion of the existing sugar unit from 2500 TCD to 3500 TCD was obtained from SEIAA.

After detailed deliberations, the committee recommended the following :
(i) Collect 2 months baseline data and compare with the existing baseline data.
(ii) Details of change in project/project profile/project parameters.

The proposal was 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.

7. Proposed Synthetic Organic Resin of **M/s Vision Laminates Pvt. Ltd.** at Village Shapar, District Rajkot Gujarat (**Revalidation of TOR)**

MOEF vide letter no. J-11011/323/2012-IA II (I) dated 18th March 2013 had granted TOR for expansion of manufacturing of electrical insulation board and switch board sheet & decorative laminate sheet from 72 MT/month to 528 MT/month and synthetic organic resin (Phenol-Formaldehyde Resin and Melamine-Formaldehyde Resin) – 425 MT/month.

Now, M/s Vision Laminates Pvt. Ltd., vide letter dated 24th October 2013 has applied for revised products list, which is as given below:

S.N.	Product	Quantity
1	Electrical Insulation Board/Switch Board Sheet	600 MTPM (1,50,000 Sheets)
2	Decorative Laminate Sheet	
3	PF (Phenol-Formaldehyde) Resin	225 MTPM
4	CPF (Cardinol Phenol Formaldehyde) Resin	
5	UF (Urea Formaldehyde) Resin	200.0 MTPM
6	MF (Melamine – Formaldehyde) Resin	

After detailed deliberations, the committee recommended the proposal for amendment in TOR for the changed product mix. All other TOR conditions including validity period would remain the same. Public Hearing shall be carried out.

8. Synthetic Resin Manufacturing Unit of **M/s Hindustan Adhesives & Chemicals** at Dag no. 324-326, 328/477, 329, 356, Village Iswaripur Tehsil Bandipur PS Khardah, District 24 Pgs. (North) West Bengal (**Revalidation of TOR)**

MOEF vide letter no. J-11011/163/2011-IA II (I) dated 26th July 2011 has issued TOR for above mentioned project. Now, PP vide letter dated 02ndDecember 2013 has informed that they have prepared EIA report but could not progressed further due to non accreditation of the consultant for 5 (f) category and continued assurance from the consultant to wait for confirmation of their accreditation for 5 (f) category. We lost substantial time in the process. Now, they have requested for extension of validity of the TOR by another a year or say upto July, 2014 as per provision.

After detailed deliberations, the Committee suggested to apply afresh for TOR through an accredted consultant along with fresh baseline da.

9. Expansion of Synthetic Organic Chemicals of **M/s Kusa Chemical Pvt. Ltd.** at Plot no. 126/1,2,3, PO Popatpura, Taluka Godhara, District Panchmahal, Gujarat (**Amendment in TOR)**

MOEF vide letter no. J-11011/83/2013-IA II (I) dated 26th June 2013 has issued TOR for above mentioned proposal with following product list:

S.N.	Product	Existing Capacity (MTPM)	Additional Capacity (MTPM)	Total Capacity (MTPM)

1	Oil Additives	300	750	1050
2	Oil Additives Mix (Blending Products)	0	300	300
3	Emulsifier	250	700	950
4	Emulsifier Mix (Blending Products)	0	500	500
5	Monomer	0	150	150
6	ZDDP	0	100	100
7	Polyamides	0	50	50
8	Acrylic Emulsions	0	50	50
9	PIBSA	0	50	50

Now, PP vide letter dated 19th December 2013 has submitted following revised products list:

S.N.	**Product**	**Existing Capacity (MTPM)**	**Additional Capacity (MTPM)**	**Proposed Change Reduction/Addition**	**Total Capacity (MTPM)**
1	Oil Additives	300	750	(-50)	1050
2	Oil Additives Mix (Blending Products)	0	300	-	300
3	Emulsifier	250	700	(-50)	950
4	Emulsifier Mix (Blending Products)	0	500	(-20)	500
5	Monomer	0	150	(-10)	150
6	ZDDP	0	100	(-10)	100
7	Polyamides	0	50	(-15)	50
8	Acrylic Emulsions	0	50	(-10)	50
9	PIBSA	0	50	(-10)	50
10	Mix of Di Octyal Mono Tri Octyl Diphenylamine	0	0	(+175)	175
	Mix of Di, Tri, Mono Octyl Phenyl-□□□aphtalamine				
	Nonylated Di, Tri Diphenyl Amin				
	Styrene Diphenyl Amine				
	Methyl Styrene Diphenyl Amine				
	Nonylated p-Cresol				
	Tri-Methyl Bisphenol-F				
	Total	**550**	**2650**	**(+-)**	**3200**

After detailed deliberations, the committee recommended the proposal for amendment in TOR for the changed product mix. All other TOR conditions including validity period would remain the same. Public Hearing shall be carried out.

ADDITIONAL AGENDA ITEMS

1. Revised proposal for environmental clearance for drilling of R & D Wells in KG & Mahanadi Offshore basins under National Gas Hydrate Programme (NGHP) of **Directorate of Hydrocarbons, Ministry of Petroleum**.

Project proposal was considered in the 16th Expert Appraisal Committee (Industry) meeting held during 30th January, 2014 and the Committee desired information specific to the proposed project. M/s Directorate General of Hydrocarbons vide letter no DGH/NGHP/Exp02/Env.Cl dated 12th March, 2014 has submitted the requisite information. The Committee exempted the preparation of EIA-EMP report and Public Hearing as proposed is located beyond 12 nautical miles and proposed activity is as R & D project of shallow seabed drilling.

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

i) The grant of environmental clearance is only for R & D programme of shallow seabed drilling. Whenever the said R & D programme goes for commercial establishment/full scale drilling, the unit shall obtain prior environmental clearance as applicable.

ii) The Company should ensure that there should be no impact on flora fauna due to drilling of wells in the offshore sea.

iii) The company should undertake conservation measures to protect the marine animals/biota in the region.

iv) The International 'Good Practices' adopted by the Petroleum Industry viz International norms to safeguard the coastal and marine biodiversity should be implemented by the company.

v) Only high efficiency DG set with adequate stack height and modern emission control equipment and low sulphur clean diesel should be used. Acoustic enclosure should be provided to the DG sets to mitigate the noise pollution.

vi) Treated wastewater (produced water or formation water) should comply with the marine disposal standards notified under the Environment (Protection) Act, 1986. Sewage treatment on board of the rig as per MARPOL regulation. Residual chlorine should not exceed 1 mg/l before disposal.

vii) All the guidelines should be followed for the disposal of solid waste, drill cutting and drilling fluids for onshore and offshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

2. Exploratory & Development Drilling of 8 wells of **M/s ONGC**, in Khubal Discovery Block AAONN-2001/1,East Tripura,a District North Agartala, Tripura (EC)

M/s ONGC vide letter dated 05.03.2012 had applied for environmental clearance for exploratory and development drilling of 10 wells in Pre-NELP block AA-ONN/2011/1 in A & AA basin.EIA-EMP report was prepared. The proposal was considered in the 7th REAC (I) meeting held during 4th-5tth April, 2013 and the Committee recommended EC for two wells. Proposal for 8 wells was dropped because it involves forest land and wildlife sanctuary. Now, M/s ONGC has submitted updated form1 alongwith prefeasibility report and EIA-EMP report for additional 8 wells.

During presentation, M/s ONGC informed that no forest land is involved in all the proposed locations. It was informed that after re-demarcation of the boundary of Rowa Sanctuary, remaining eight proposed exploratory wells including prime location KHBK in Block AA-ONN-2001/1 at Village Khubal, District North Agartala, Tripura are now falling outside the demarcated Eco-sensitive Zone around Rowa Wildlife Sanctuary. They informed that application for NBWL clearance has been submitted in the State. Block area is 960 Km^2. Depth of well varies from 3000-3200 m. Total cost of project is Rs. 400 Crore. Water requirement from tanker supply will be 25 m^3/day. Water based mud will be used. 250-300 m3 drill cuttings per well will be disposed of in accordance with GSR 546 € dated 30.08.2005 i.e to be solar dried in HDPE line pit and finally covered with top layer of soil. DG sets (3 x 1430 KVA) will be installed.

EIA-EMP preparation and Public Hearing were exempted under 7 (ii) of EIA Notification, 2006 as Public Hearing has been conducted on 26.06.2008.

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

i. Environmental clearance is subject to their obtaining prior clearance from the Standing Committee of the National Board for Wildlife as applicable regarding Rowa Wildlife sanctuary.

ii. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.

iii. Approach road shall be made pucca to mitigate generation of suspended dust.

iv. Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.

v. Mercury shall be analyzed in air, water and drill cuttings twice during drilling period.

vi. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height should be provided as per CPCB guidelines.

vii. Total water requirement shall not exceed 25 m^3/day and prior permission shall be obtained from the Competent Authority.

viii. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated. Effluent should be properly treated and treated wastewater should conform to CPCB standards.

ix. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design

approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Shillong.

x. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.

xi. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorised recyclers.

xii. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

xiii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.

xiv. The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.

xv. The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and its Regional Office at Shillong.

xvi. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

xvii. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

xviii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

xix. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.

xx. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Shillong.

xxi. Oil content in the drill cuttings shall be monitored by some Authorised agency and report shall be sent to the Ministry's Regional Office at Shillong.

xxii. Under Corporate Social Responsibility (CSR), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.

xxiii. Company shall have own Environment Management Cell having qualified persons with proper background.

3. Exploratory Drilling of additional 10 wells of **M/s ONGC**, in Onshore NELP-IV Block CYONN- 2002/2, Cauvery (**EC)**

The project authorities and their consultant (ONGC) 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 7th Meeting of the Expert Appraisal Committee (Industry) held during 4th-5th April, 2013 for preparation of EIA-EMP report.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 Limited have proposed forexploratory drilling of 10 appraisal wells in NELP-IV, Block CY-ONN-2002/2 in Cauvery Basin, Nagapattinam District, Tamil Nadu. The block was awarded to ONGC (60%) & BPCL (40%) with ONGC as operator under NELP-IV round in the year 2004. The total block area is 140 sq.km. The total exploration period consists of seven years from the effective date comprises of three exploration phases. Cost of project is Rs. 200 Crore. Target depth of well is 3000m. It is reported that no national park/ eco-sensitive area is located within 10 Km distance and no forest land is involved. Following exploratory wells will be drilled:

Name of location	Type / Cat.	TD (M)	Lat.	Long.	Objective
			WGS-94		
MDM-J	Expl. Test / 'B'	1620/ 150m in Basement	11° 18' 30.11"	79° 48' 22.87"	Bsement, Kamalapuram and Neravya Formations
MDM-K	Expl. Test / 'B'	1700/ 150m in Basement	11° 13' 54.53"	79° 47' 37.79"	Basement, Kamalapuram and Neravy Formations
MDM-L	Expl. Test / 'B'	1750/ 150m in Basement	11° 12' 36.12"	79° 45' 02.48"	Basement, Kamalapuram and Neravy Formations
MDM-M	Expl. Test / 'B'	2000 / 150m in Basement	11° 18' 48.56"	79° 46' 44.5"	Basement, Kamalapuram and Neravy Formations
MDM-N	Expl. Test / 'B'	1550 / 150m in Basement	11° 18' 35.81"	79° 48' 04.87"	Basement, Kamalapuram and Neravy Formations

MDM-O	Expl. Test / 'B'	1650 / 150m in Basement	11° 18' 0.77"	79° 48' 57.39"	Basement, Kamalapuram and Neravy Formations
MDM-P	Expl. Test / 'B'	1450 / 150m in Basement	11° 16' 13.36"	79° 48' 46.95"	Basement, Kamalapuram and Neravy Formations
MDM-Q	Expl. Test / 'B'	1650 / 150m in Basement	11° 14' 50.51"	79° 48' 27.18"	Basement, Kamalapuram and Neravy Formations
MDM-R	Expl. Test / 'B'	1760 / 150m in Basement	11° 13' 10.11"	79° 47' 22.43"	Basement, Kamalapuram and Neravy Formations
MDM-S	Expl. Test / 'B'	1800 / 200m in Basement	11° 14' 56.54"	79° 48' 02.25"	Basement, Kamalapuram and Neravy Formations

Ambient air quality monitoring was carried out at 8 locations during January-March, 2013 and submitted data indicates as PM10 (37.4–87.5 ug/m^3), PM2.5 (22–46ug/m^3), SO_2 (6.9 – 12.5 ug/m3) and NO_2 (10.1-21.3 ug/m3). The resultant concentrations are within the NAAQS.

Adequate height of stack will be provided to DG set. A flaring pit of adequate burner will be provided. Blow out preventers will be provided for controlling blow outs. Water requirement will be 25 m3/day. Drilling and wash water generation will be 6 m^3/day and treated in ETP and stored in HDPE lined pit. Domestic effluent will be treated in septic tank followed by soak pit. No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be adopted. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sold to authorised recyclers.Acoustic enclosures will be provided to D.G. sets.

The Committee also discussed the compliance status report on the conditions stipulated in the existing environmental clearance letter J-11011/13/2007 dated 16.09.2008, which were monitored by the Ministry's regional office, Bangalore. It is reported that compensation is reportedly paid as per local revenue Authority. Top soil stacked separately for reuse. However, restoration of site is yet to be done. In this regard, ONGC informed that restoration of site will be done after completion of drilling in a time bound plan.Water based drilling mud will be used. It is reported that VOC has not been monitored. In compliance ONGC informed that will be monitored. Standard well plugging measures are adopted after

decommissioning of the rig. Occupational surveillance of the workers is carried out by the company in reputed labs as per the Company's Policy. The Committee was satisfied with the response of M/s ONGC.

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

i. Gas produced during testing shall be flared with appropriate flaring booms. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.

ii. This environmental clearance is only for Exploratory Drilling. In case Development drilling is to be done in future, prior clearance must be obtained from the Ministry.

iii. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, methane & Non-methane HC etc.

iv. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.

v. Approach road shall be made pucca to minimize generation of suspended dust.

vi. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.

vii. Total water requirement shall not exceed 25 m^3/day and prior permission shall be obtained from the concerned agency.

viii. The company shall construct the garland drain all around the drilling 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. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.

ix. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bangalore.

x. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.

xi. Oil spillage prevention scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorised recyclers.

xii. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

xiii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare should be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.

xiv. The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with

personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.

xv. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

xvi. Blow Out Preventer (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling should focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

xvii. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

xviii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

xix. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.

xx. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.

xxi. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.

xxii. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bangalore.

xxiii. Oil content in the drill cuttings shall be monitored by some Authorised agency and report shall be sent to the Ministry's Regional Office at Bangalore.

xxiv. All the commitment made regarding issues raised during the Public Hearing/consultation meetings held on 5th December, 2012, 5th February, 2013 and 12th March, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xxv. Under Corporate Social Responsibility (CSR), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.

xxvi. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.

xxvii. A social audit shall be carried out for the whole operation area with the help of reputed institute like Madras Institute of Social Science etc.

xxviii. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.

xxix. Company shall have own Environment Management Cell having qualified persons with proper background.

4. Development Drilling of 4 wells of **M/s ONGC**, in Borholla; Oil and Gas Field in Jorhat District, Assam (**TOR)**

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 has proposed for Development Drilling of 4 wells in Borholla ML block, Jorhat District and development drilling of 8 wells in Nambar ML area, East Lakhibari ML area, Khoraghat ML and Khorghat extension ML area in Golaghat District, Assam. Following are the coordinates of the block:

District	ML Block	Area (Km^2)	Name of Well	Latitude	Longitude	Depth (m)
Jorhat	Borholla	32.116	BRDO	$26^O27'13.25"$	$94^O10'26.17"$	2722
			BRDN	$26^O26'01.20"$	$94^O10'9.39"$	2700
			2 wells, yet to be firmed up	-	-	-
	Nambar	26	NRDJ	$26^O2'51.233"$	$93^O53'09.576$	2009
			NRDK	$26^O03'40.051"$	$93^O54'18.433$	2129
			2 wells, yet to be firmed up	--	--	--
	East Lakhibari	8.5	ELDA	$26^O22'02.917"$	$94^O02'45.670$	1980
	Khoraghat	3	3 wells, yet to be firmed up			
	Khoraghat Extension	83				

Project description is as given below:

Particulars	Jorhat District	Golaghat District
No of wells	04	08
Area (Sq. Km)	32.116	120.5
Cost (Rs. In Crores)	80	160
Depth (m)	2700-2722	1980-2129
Water consumption (m3/day)	20-25	20-25
Fuel Consumption (KL/day)	6.0	6.0
Forest land	No	Yes
Ecological sensitive zone	No	No
Sanctuary/National park	No	No

After detailed deliberations, the Expert Appraisal Committee prescribed TOR given in Annexure-3 along with the following additional condition for preparation of EIA-EMP Report:

1. A certified report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing *I* existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.

* * * *

LIST OF PARTICIPANTS OF EAC (I) IN MEETING HELD ON 18th-19th MARCH 2014

Expert Appraisal Committee (Industry) :			
1.	Shri M. Raman	Chairman	P
2.	Shri R.K. Garg	Vice-Chairman	P
3.	Prof. R.C. Gupta	Member	A
4.	Dr. Prem Shankar Dubey	Member	A
5.	Dr. R.M. Mathur	Member	P
6.	Dr. S. K. Dave	Member	P
7.	Dr. B.Sengupta	Member	A
8.	Shri Rajat Roy Choudhary	Member	P
9.	Dr. S.D. Attri	Member	A
10.	Dr. Antony Gnanamuthu	Member	P
11.	Prof. C. S. Dubey	Member	P
12.	Shri Niranjan Raghunath Raje	Member	A
MOEF Officials :			
13.	Dr. T.Chandini	Director & Member Secretary	
14.	Shri A.N. Singh	Deputy Director (19.03.2014)	
15.	Shri Sundar Ramanathan	Deputy Director (18.02.2014)	

ANNEXURE -I

GENERIC TERMS OF REFERENCE (TOR)

1. Executive summary of the project along with justification for the project.
2. Photographs of the proposed and existing (if applicable) plant site.
3. A line diagram/flow sheet for the process and EMP.
4. In case of existing projects seeking expansion, (i) A certified copy of the Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012, on the status of compliance of the conditions stipulated in the environmental clearance and (ii) Status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
5. A toposheet of the study area and 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 of a circle of aradius of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with minimum 100/200m contours shall be included. A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
6. 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 shall be used for land used/land-cover mapping of the area. Present land use – agricultural land, forestland, wasteland, water bodies, settlements, etc shall be prepared based on satellite imagery.
7. Topography of the area shall be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. shall be given. In case the site is located on a hilly terrain, a 3-dimesional view of the location vis-à-vis major landuse features and locations such as Critically Polluted Area(s) and Eco-sensitive Area(s) found within the study area, indicating shortest distance from the site shall be provided.
8. Map showing location of Eco-sensitive Areas such as National Parks/Wildlife Sanctuary/Reserve Forests within 10 km. radius (study area) shall 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 and shortest (aerial) distance from critically/severely polluted area(s) and Eco-sensitive Areas.
9. Project site layout plan to scale using AutoCAD of the project site showing Plant details, raw materials, fly ash and other storage plans, ash pond and water harvesting structures, bore well or water storage, aquifers (within 1 km.), dumping, waste disposal, green belt (areas), water bodies, rivers/drainage passing through/near the project site shall be included.
10. Coordinates of the plant site with topo sheet co-ordinates shall also be included.
11. Details and classification of total land (identified and acquired) shall be included.
12. A copy of the mutual agreement for land acquisition signed with land oustees.
13. Proposal shall be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land shall be included.
14. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department, in case the project involves forestland.
15. If the project falls within 10km of an eco-sensitive area, present status/approval from the Standing Committee on Wildlife of the NBWL shall be furnished.
16. Rehabilitation & Resettlement (R & R) shall be as per the R&R Policy of the State Govt. and a detailed action plan shall be included.
17. A list of major industries with name and type within study area (10km radius) shall be incorporated.
18. List of raw material required, analysis of all the raw materials and source along with mode of transportation shall be included. All the trucks for raw material and finished product transportation must be “Environmentally Compliant”.
19. Action plan for excavation and muck disposal during construction phase.

20. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated from the plant operations and processes and environmental control measures. If the raw materials used have trace elements, an environment management plan shall also be included.
21. Manufacturing process details shall be included.
22. Mass balance for the raw material and products shall be included.
23. Energy balance data for all the components of steel plant including proposed power plant shall be incorporated.
24. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
25. One season data for gaseous emissions other than monsoon season is necessary.
26. Ambient air quality monitoring at 8 locations within the study area of 10 km, aerial coverage from project site with one AAQMS in downwind direction shall be carried out.
27. Suspended particulate matter present in the ambient air must be analysed for source analysis – natural dust/generated from plant operations (for eg. Cement dust)/flyash/etc. The SPM shall also be analysed for presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction, where applicable. Chemical characterization of RSPM.
28. 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. In case the project is located on a hilly terrain/elevation, the AQIP Modelling shall be done using inputs of the specific terrain characteristics of the project for determining the potential impacts of the project on the AAQ.
29. Action plan to implement National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be included.
30. Ambient air quality modelling along with cumulative impact shall 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 shall 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.
31. A plan for the utilisation of waste/flue gases (if applicable) for generating power shall be presented.
32. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. The alternate method of raw material and end product transportation shall also be studied and details included.
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. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer shall be included.
35. If the site is within 1 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.

36. Details of water requirement, water balance chart for new unit or for existing unit as well as proposed expansion (if expansion). Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
37. Source of water supply and permission of withdrawal of water from Competent Authority.
38. 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 shall be included. Zero discharge effluent concepts to be adopted.
39. 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 shall also be included. Information regarding surface hydrology and water regime shall be included.
40. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
41. 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.
42. Ground water modelling showing the pathways of the pollutants shall be included
43. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. 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.
44. A note on the impact of drawl of water on the nearby River particularly during lean season. Permission of competent authority for withdrawl of river/groundwater.
45. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations to be provided in and around the project site.
46. A note on treatment of wastewater from different plants, recycle and reuse for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards.
47. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
48. If the water is mixed with solid particulates, proposal for sediment pond before further transport shall be included. The sediment pond capacity shall be 100 times the transport capacity.
49. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source shall be included.
50. 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.
51. Action plan for solid/hazardous waste generation, storage, utilisation and disposal from all the sources and fly ash. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
52. 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. Copies of MOU regarding utilisation of ash shall also be included.
53. End use of solid waste and its composition shall be covered. Toxic metal content in the waste material and its composition shall also be incorporated.
54. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
55. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated. All rooftops/terraces shall have some green cover.

56. Detailed description on flora and fauna (terrestrial and aquatic) exists in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

57. Risk Assessment and Disaster (Emergency) Preparedness and Management Plan including damage control needs to be addressed and included.

58. 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 heath 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.

59. Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

60. 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.

61. 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.

62. 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 shall be included.

63. Plan for the implementation of the recommendations made for the Sector in the CREP guidelines must be prepared.

64. At least 5 % of the total cost of the project shall be earmarked for the initial 5 years towards the Enterprise Social Commitment and 2% of retain profit thereafter for life of the project towards CSR based on public hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

65. A note on identification and implementation of Carbon Credit project shall be included.

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 shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

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

68. The questionnaire for industry sector (available on MOEF website) shall be submitted while submitting EIA-EMP.

69. 'TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in

Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

70. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

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ANNEXURE-2

ADDITIONAL TORs FOR SYNTHETIC ORGANIC CHEMICALS INDUSTRY

1. Manufacturing process details along with the chemical reactions and process flow chart.
2. Name of all the solvents to be used in the process and details of solvent recovery system.
3. Design details of ETP, incinerator, if any along with boiler, scrubbers/bag filters etc.
4. The details of solid and hazardous wastes generation, storage, utilisation 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.
5. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
6. 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.
7. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
8. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
9. 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) Liver function tests (LFT) during pre-placement and periodical examination.
10. A Toxic management Plan shall be prepared.
11. A write up on “Safe Practice” followed for handling, storage, transportation and unloading of chemicals to be submitted.

12. What are onsite and offsite emergency plan during chemical disaster.
13. A write up on "Treatment of workers affected by accidental spillage of chemicals".

ANNEXURE-3

GENERIC TOR FOR ONSHORE OIL & GAS EXPLORATION, DEVELOPMENT & PRODUCTION

1. Executive summary of a project
2. Project description, project objectives and project benefits.
3. 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 *I* existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
4. 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.
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 shall be submitted.
8. Distance from nearby critically/severely polluted area as per Notification, 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, NOx, 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 shall 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 along with 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 utilised for well test operations.
32. Restoration and decommissioning plans which shall 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 shall 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 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) A 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 where the above issues have been incorporated.
(vii) 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.

The aforesaid TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP

report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in Public Hearing and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

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ANNEXURE-4

ADDITIONAL TORS FOR DISTILLERY WITH CO-GENERATION UNIT

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Details of proposed products along with manufacturing capacity.
3. Number of working days of the distillery unit.
4. Details of raw materials, its source with availability of all raw materials.
5. Sources and quantity of fuel (rice husk/coal etc.) for the boiler. Measures to take care of SO_2 emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
6. Storage facility for raw materials, prepared alcohol, fuel and fly ash.
7. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
8. Details of the use of steam from the boiler.
9. Ground water quality around proposed spent wash storage lagoon and the project area.
10. 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.
11. Source of water supply and permission of withdrawal of water from Competent Authority.
12. Proposed effluent treatment system for molasses based distillery (spent wash and spent lees) as well as domestic sewage and scheme for achieving zero discharge.
13. Spent wash generation should not exceed 8 KL/KL of alcohol production. Details of the spent wash treatment for molasses based distillery based distillery.
14. Capacity for spent wash holding tank and action plan to control ground water pollution.
15. Layout for storage of bagasse/biomass/coal.
16. Details of solid waste management including management of boiler ash.
17. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
18. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
19. 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.

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ANNEXURE-5

TORs FOR RESIN MANUFACTURE

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 along with total capital cost and recurring cost/annum for environmental pollution control measures.
10. Project site location along with 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 along with 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 along with the production capacities.
15. Detailed list of raw materials required and source, mode of storage and transportation.
16. Manufacturing process details along with 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, PM2.5, SO_2, NOx 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 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, utilisation 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 chemicals".
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. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and incorporated.
45. 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.
46. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
47. 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 shall be detailed in the EIA report.

48. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
49. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same shall be included in EIA-EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
50. 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 shall prepare EIA-EMP Report based on the above TORs as per the generic structure given in Appendix-III of EIA Notification, 2006 and submit the same to the State Pollution Control Board for conducting public hearing/consultation. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in Public Hearing and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. Replies on the issues raised during the Public Hearing/ Consultation shall be incorporated in the EIA-EMP Report and the final EIA-EMP report 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 (wherever stipulated).

ANNEXURE-6

TORS FOR EXPLORATION & DRILLING OF OFF-SHORE WELLS

1. Executive summary of the project.
2. No. of exploratory wells for which environmental clearance is accorded and No. of new wells proposed during expansion. Status and No. of the wells which are completed and closed.
3. Project Description and Project Benefits;
4. Distance from coast line.

5. Commitment that no drilling would be carried within 1.0 Km of the coast.
6. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
7. Details of land area, land use and status of land acquisitions fir land for on-shore facilities. Approval for the forest land from the State/Central Govt. under Forest (Conservation) Act, 1980, if applicable(for any facilities on shore).
8. CRZ clearance as per CRZ Notification dated 6th January, 2011, and/or for facilities on-shore.
9. Climatology and meteorology including wind speed, wave and currents, rainfall etc.
10. Base line data collection for surface water for one season leaving the monsoon season within 1 km for each exploratory wells, particularly in respect of oil content.
11. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, waste water generation and discharge.
12. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
13. Procedure for handling oily water discharges from deck washing, drainage systems, bilges etc.
14. Procedure for preventing spills and spill contingency plans.
15. Procedure for treatment and disposal of produced water.
16. Procedure for sewage treatment and disposal and also for kitchen waste disposal.
17. Procedure for handling solid waste and any waste segregation at source for organic, inorganic and industrial waste.
18. Storage of chemicals on site.
19. Commitment for the use of WBM and synthetic oil based mud in special case.
20. Risk assessment and mitigation measures including whether any independent reviews of well design, construction and proper cementing and casing practices have been followed.
21. Handling of spent oils.
22. Handling of oil from well test operations.
23. Mud make up and mud and cuttings disposal procedures.
24. H2S emissions control plans, if required.
25. Details of all environment and safety related documentation within the company in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.
26. Restoration plans and measures to be taken for decommissioning of the rig and restoration of on-shore support facilities on land.
27. Documentary proof for membership of common disposal facilities, if required.
28. Any litigation pending against the project or any directions/order passed by any Court of Law against the project. If so, details thereof.
29. Total capital and recurring cost for environmental pollution control measures.
30. A tabular chart with index for point-wise compliance of above TOR.

The following general points should 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 proponent should prepare an EIA-EMP Report based on the above TORs. The EIA-EMP Report should be as per the generic structure given in Appendix-III of EIA Notification, 2006. The final EIA-EMP along with 'Certificate of Accreditation' issued by the QCI should be submitted to the Ministry for obtaining environmental clearance. Public Hearing is not required as project site is located in off-shore.

The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

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ANNEXURE-7

TORS FOR OIL REFINERY PROJECT

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 separate chapter on environmental clearance accorded for all the existing plants along with point-wise compliance report.
5. Point-wise compliance report to the 'Consent to Establish' 'Consent to operate' and Authorization accorded by Punjab Pollution Control Board for all the existing units along with all the necessary annexure.
6. Existing data for the last 2 years for all the relevant parameters should be included.
7. Site details including satellite imagery for 5 km around the site.
8. A list of industries within 10 km radius of the project.
9. Details of facilities along with utilities to be provided for the proposed project.
10. Manufacturing process details along with the chemical reactions and process flow diagram.
11. List of products along with the production capacities and list of solvents and its recovery plan.
12. Detailed list of raw material required and source, mode of storage and transportation.
13. Details of the storage and technical specifications with safety aspects & standards.
14. Is there additional storage required for the proposed products mix.
15. Proposal for safety buffer zone around the proposed site with map.
16. Details indicating National Park/Wild life Sanctuary/Eco sensitive area/reserve forest within 10 Km.
17. Land use along with maps & cropping pattern, vegetation, ecology, flora & fauna
18. Demography & socio-economics of the area.
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 $PM_{2.5}$, PM_{10}, SO_2, NOx, 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. Give existing status of stack emission, raw water requirement, treated effluent quantity & quality data, noise pollution and solid waste management in the existing units.
21. Action plan to achieve smokeless flare should be included.
22. Details of Sulphur balance in the existing refinery unit. Additional SO_2 emissions due to the proposed product mix.
23. Unit-wise air pollution control devices to be installed.
24. Details of water consumption and source of water supply, waste water generation, treatment and utilisation of treated water generated from the facilities and effluent disposal and measures for release of effluent in case of fire. Water balance chart for the existing unit and proposed expansion.
25. Details of existing and proposed effluent treatment plant along with water quality of inlet and outlet of ETP.
26. Action plan to reduce wastewater discharge from the all existing units.
27. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
28. Note on compliance to the recommendations mentioned in the CREP for oil refineries and petrochemical industries.
29. A note on implementation of new refinery standards for refineries.
30. Quantification of oil sludge generation from the existing and proposed refinery including management of the oil sludge in the existing refinery. Details of temporary storage for the oil sludge.

31. Details of catalyst waste generated from the refinery along with temporary storage facility at site. Action plan for disposal of the catalyst solid waste.
32. Status of existing secured landfill sites. Design details as well as ground water monitoring around the project site.
33. Details of membership of TSDF for hazardous waste disposal.
34. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
35. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
36. Details of proposed preventive measures for leakages and accident.
37. Details of Vapour Recovery System.
38. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
39. Traffic management with adequate width of approach road to avoid congestion and to have safe exit in emergencies.
40. Type of seismic zone.
41. 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. List of last Major Refinery Incidents Globally in last 10 years
    e. Proposed measures for risk reduction.
42. 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 heath status of workers with special reference to Occupational Health and Safety.
    d) Plan and fund allocation to ensure the occupational health & safety of all contracts and sub-contract workers.
43. Details including existing green belt developed. Action plan for development of green belt in 33%.
44. Total capital cost and recurring cost/annum for environmental pollution control measures. Break up details should also be included.
45. 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.
46. 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.
47. Details of Corporate Social Responsibility (CSR) including sufficient budgetary provision for health improvement, education, water and electricity supply etc. in and around the project.
48. 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.

49. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
50. 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.
51. A tabular chart indicating point-wise compliance of the TOR.

The following general points should 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 aforesaid TORs 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 State Pollution Control Board for conducting public hearing/consultation. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The issues raised in Public Hearing and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.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.

The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

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